BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
[UNDER SECTIONS 16(C) READ WITH SECTION 18(1) OF THE NATIONAL GREEN TRIBUNAL ACT, 2010]
APPEAL NO. 81 OF 2025

IN THE MATTER OF:

SUNSHINE DYEING PVT. LTD. ... APPELLANT

VERSUS

PUNJAB POLLUTION CONTROL BOARD AND ORS.
.... RESPONDENTS

COMPILATION

SL. NO.	PARTICULARS	PAGE NO.
1.	Supreme Court Judgment, R. Nagaraj (Dead) through Lrs. and Another V. Rajmani and Others, 2025 SCC OnLine SC 762	**1-22**
2.	Supreme Court Judgment, Mary Pushpam V. Telvi Curusumary and Ors., 2024 3 SCC 224	**23-30**
3.	Supreme Court Judgment, Rohan Vijay Nahar and Others V. State of Maharashtra and Others, 2025 SCC OnLine SC 2366	**31-55**
4.	PBTI Report Sunshine dated 25/06/2025	**56-63**
5.	STP Analysis Report dated 29/05/2024	**64-75**
6.	NGT Judgment, M.C. Mehta V. Union of India, Writ Petition No. 3727/1985	**76-618**
7.	Copy of order dated.**04.07.2025** in Original Application No. 284/2025.	**619-620**
8.	Copy of order dated.**16.05.2025** in Original Application No. 225/2022.	**621-628**
9.	Proof of Service	**629**

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Page 1 Tuesday, December 23, 2025
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2025 SCC OnLine SC 762

In the Supreme Court of India

(BEFORE J.B. PARDIWALA AND R. MAHADEVAN, JJ.)

R. Nagaraj (Dead) through Lrs. and Another ... Appellants;

Versus

Rajmani and Others ... Respondents.

Civil Appeal No. 5131 of 2025 (Arising out of SLP (C) No. 36 of 2021)

Decided on April 9, 2025

Advocates who appeared in this case:

Miss Meha Ashok Aggarwal, AOR, Mr. M. Yogesh Kanna, Adv., Mr. Vasu Kalra, Adv., Mr. M.k. Elangovan, Adv., For Petitioner(s)

Mr. S. Nandakumar, Sr. Adv., Ms. Deepika Nandakumar, Adv., Mr. Viresh Kumar Bhawra, Adv., Mr. Sandhya Dutt, Adv., Ms. Aisha Bansal, Adv., Mr. Naresh Kumar, AOR, For Respondent(s)

The Judgment of the Court was delivered by

R. MAHADEVAN, J.:— Leave granted.

2. This appeal is directed against the judgment and decree dated 17.02.2020 passed by the High Court of Judicature at Madras[1] in Second Appeal No. 406 of 1998. By the impugned judgment, the High Court allowed the second appeal, thereby setting aside the judgment and decree passed by the Courts below, and remitting the matter to the trial Court for framing additional issues in respect of limitation. The trial Court was further directed to conduct the trial afresh on the aspect of whether the suit was barred by limitation, and to complete it within a period of six months.

3. The genesis of the litigation traces back to a joint Hindu family consisting of Rangappa Gowdar and his sons, Dasappa Gowdar and Samiappan. Originally, the suit bearing O.S. No. 851 of 1965[2] had been filed by the wife and daughter of the said Samiappan *viz.*, Sunderammal and Vennila, who are Respondent Nos. 6 and 7 herein, seeking maintenance against the said Samiappan and his father Rangappa Gowdar and brother Dasappa Gowdar. The suit came to be decreed on 26.08.1965 and the suit properties were attached for the maintenance amount in the execution proceedings initiated by the plaintiffs. During the pendency of the execution proceedings, the said Rangappa Gowdar and Dasappa Gowdar died and their legal heirs were brought on record. Through court auction, the suit ‘A’ schedule property

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was purchased by one Karivarada Gowdar and the sale was confirmed by issuing certificate dated 25.09.1970 in E.P. No. 424 of 1969 in O.S. No. 851 of 1965 by the Court of District Munsif, Coimbatore. Since the said Samiappan tried to encroach the suit 'A' schedule property, the said Karivarada Gowdar filed a suit *viz*., O.S. No. 1978 of 1972 for permanent injunction and the same came to be decreed on 11.06.1973. Subsequently, the suit 'A' schedule property was purchased by Respondent Nos. 8 to 10 from the said Karivarada Gowdar and they also filed a suit in O.S. No. 3390 of 1981 seeking permanent injunction, which came to be decreed on 24.07.1982. Thereafter, the suit 'A' schedule property was purchased by Respondent No. 11 and later-on, by Appellant Nos. 1 and 2.

4. In the above background, Respondent Nos. 1 to 3 who are the daughters and wife of Dasappa Gowdar, instituted a suit bearing O.S. No. 257 of 1982[3] before the II Additional District Munsif, Coimbatore[4], to set aside the decree passed by the Court of District Munsif, Coimbatore in O.S. No. 851 of 1965 and to partition the suit 'A' and 'C' schedule properties by metes and bounds in 12 equal parts and to allot the 5/12 shares to the plaintiffs and for permanent injunction restraining the subsequent purchasers from in any manner disturbing with the peaceful possession of the suit properties by the plaintiffs.

5. After trial, the suit was dismissed, by judgment dated 08.09.1994, against which, Respondent Nos. 1 to 3 filed Appeal Suit bearing No. 207 of 1994 before the Additional District Judge, Coimbatore[5]. By judgment dated 28.01.1997, the appeal suit came to be dismissed. Challenging the same, Respondent Nos. 1 to 3 went on further appeal *viz*., S.A. No. 406 of 1998, which was allowed by the High Court, by judgment dated 17.02.2020. Aggrieved by the same, the appellants, who are the subsequent purchasers of the suit 'A' schedule property, have preferred this appeal before us.

6. On 25.01.2021, when the matter was taken up for consideration, this Court passed the following order:

> *"Exemption from filing O.T. and c/c of the impugned order is granted. Issue notice.*
>
> *In the meantime, further proceedings in pursuance of the order dated 17.02.2020 passed by the High Court shall remain stayed."*

7. During the pendency of this appeal, Respondent Nos. 1 and 2 have passed away, and their legal representatives have been brought on record and accordingly, the cause title has been amended. *Vide* order dated 21.10.2022 passed in Interlocutory Application No. 101397/2022, Respondent Nos. 4, 8, 9, 11, 14 and 18 to 21 have been deleted from the array of parties, since they are proforma parties, and they do not have any surviving interest in the suit property. *Vide* order

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dated 21.10.2022 passed in Interlocutory Application No. 101402/2022, the appellants have been exempted from the requirement of substituting the legal representatives of deceased Respondent Nos. 10 and 12. Despite the service of notice, none appeared on behalf of the other proforma respondents *viz.*, Respondent Nos. 5 to 7, 13, 15, 16 and 17. Thus, Respondent Nos. 1 to 3 are the only contesting parties.

8. Heard the learned counsel for the appellants and the learned counsel for the contesting Respondent Nos. 1 to 3 and also perused the materials available on record.

9. The main contention of the learned counsel for the appellants is that Respondent Nos. 1 to 3 had been arrayed as respondents/judgment debtors in the execution proceedings initiated in O.S. No. 851 of 1965 and hence, they had the knowledge of the proceedings even prior to filing of the suit in O.S. No. 257 of 1982. Since the second suit was filed after a period of 17 years, it was hopelessly barred by limitation. In such circumstances, the High Court ought not to have allowed the second appeal and remitted the matter to the trial Court for conducting trial afresh, on the aspect of limitation.

9.1. It is further submitted that the suit 'A' schedule property could no longer remain as joint family property, when the same was brought into court auction and the sale was confirmed and possession was also handed over to the auction purchaser. However, Respondent Nos. 1 to 3 did not take any steps to set aside the said sale, but they conveniently filed the second suit bearing O.S. No. 257 of 1982 to set aside the decree dated 26.08.1965 passed in the first suit bearing O.S. No. 851 of 1965 without any subsisting legal right. Further, the documentary evidence clearly proved that Respondent Nos. 1 to 3 were aware of the execution proceedings and that, the courts below discussed the limitation point in detail before dismissing the suit/appeal suit filed by Respondent Nos. 1 to 3, and therefore, the necessity to frame an issue on limitation does not arise.

9.2. The learned counsel also pointed out that the suit was not dismissed solely on the ground of limitation, but on merits as well, observing that Respondent Nos. 1 to 3 herein are not entitled to any relief, since they had knowledge about the earlier suit.

9.3. It is further submitted that after admitting the second appeal, the High Court ought to have decided the question of law relating to limitation, instead of remitting the case to the trial Court, specially, after more than two decades from the inception of the Second Appeal. Further, according to the learned counsel, Respondent Nos. 1 to 3 herein, failed to approach the Court with clean hands and abused the process of law by filing such frivolous suit.

9.4. Thus, the learned counsel submitted that the suit was rightly

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dismissed by the trial Court as time-barred and the same was affirmed by the First Appellate Court. As such, the decision of the High Court to remand the matter for framing the issue of limitation and conducting trial afresh, is unwarranted and is liable to be set aside.

10. Per contra, the learned counsel for Respondent Nos. 1 to 3 submitted that the High Court rightly allowed the second appeal filed by Respondent Nos. 1 to 3 and remitted the matter to the trial Court for fresh trial, after framing the issue of limitation. According to the learned counsel, the said issue is a mixed question of fact and law; to decide the maintainability of the suit and without framing such question, the trial Court and the First Appellate Court ought not to have come to the conclusion that Respondent Nos. 1 to 3 are not entitled to the relief to set aside the decree passed in the first suit *viz*., O.S. No. 851 of 1965 and to partition the suit 'A' and 'C' schedule properties by metes and bounds in 12 equal parts and to allot the 5/12 shares to Respondent Nos. 1 to 3, and for a permanent injunction. In this regard, reliance was placed on the decision of this Court in *Vaish Aggarwal Panchayat* v. *Inder Kumar*[6].

10.1. The learned counsel further submitted that the trial Court as well as the First Appellate Court without framing any issue, any pleadings, and without leading any evidence, rejected the relief sought by Respondent Nos. 1 to 3 as barred by limitation. Therefore, the High Court rightly remanded the matter to the trial Court to frame a specific issue with regard to limitation and decide the matter afresh. Reliance was made to the decision of this court in *Ramesh B. Desai* v. *Bipin Vadilal Mehta*[7].

10.2. It is also submitted that the decree obtained in O.S. No. 851 of 1965 is an asseveration of fraud and collusion.

10.3. With these submissions, the learned counsel prayed for dismissal of this appeal filed by the appellants.

11. Upon considering the rival submissions, the only question that arises for our consideration is whether the High Court was justified in remanding the matter to the trial Court for a fresh trial on the issue of limitation, despite the existence of concurrent findings, when Section 100 of the Code of Civil Procedure, 1908[8] empowered the High Court to decide the matter.

12. It is a well settled legal position that Section 100 CPC confers jurisdiction on the High Court to entertain a second appeal, only when it is satisfied that the case involves a substantial question of law. For better appreciation, the said provision is extracted below:

> "[9][*100. Second appeal.—(1) Save as otherwise expressly provided in the body of this Code or by any other law for the time being in*

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force, an appeal shall lie to the High Court from every decree passed in appeal by any Court subordinate to the High Court, if the High Court is satisfied that the case involves a substantial question of law.

(2) An appeal may lie under this section from an appellate decree passed ex parte.

(3) In an appeal under this section, the memorandum of appeal shall precisely state the substantial question of law involved in the appeal.

(4) Where the High Court is satisfied that a substantial question of law is involved in any case, it shall formulate that question.

(5) The appeal shall be heard on the question so formulated and the respondent shall, at the hearing of the appeal, be allowed to argue that the case does not involve such question:

Provided that nothing in this sub-section shall be deemed to take away or abridge the power of the Court to hear, for reasons to be recorded, the appeal on any other substantial question of law, not formulated by it, if it is satisfied that the case involves such question.]"

Thus, sub-section (1) of Section 100 says that the second appeal would be entertained by the High Court only if the High Court is satisfied that the case involves a substantial question of law. Sub-section (3) makes it obligatory upon the appellant to precisely state in memo of appeal the "substantial question of law" involved in the appeal. Sub-section (4) provides that where the High Court is satisfied that any substantial question of law is involved in the case, it shall formulate that question. In other words, once the High Court is satisfied after hearing the appellant or his counsel, as the case may be, that the appeal involves a substantial question of law, it has to formulate that question and then direct issuance of notice to the respondent of the memo of appeal along with the question of law framed by the High Court. Sub-section (5) provides that the appeal shall be heard only on the question formulated by the High Court under sub-section (4). In other words, the jurisdiction of the High Court to decide the second appeal is confined only to the question framed by the High Court under sub-section (4). The respondent, however, at the time of hearing of the appeal is given a right under sub-section (5) to raise an objection that the question framed by the High Court under sub-section (4) does not involve in the appeal. The reason for giving this right to the respondent for raising such objection at the time of hearing is because the High Court frames the question at the stage of admission, which is prior to issuance of the notice of appeal to the respondent. In other words, the question is framed *ex parte* and, therefore, sub-section (5) enables him to raise such objection at the time of hearing that the question framed does not arise in the appeal.

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The proviso to sub-section (5), however, also recognizes the power of the High Court to hear the appeal on any other substantial question of law which was not initially framed by the High Court under sub-section (4). However, this power can be exercised by the High Court only after assigning the reasons for framing such additional question of law at the time of hearing of the appeal [See : *Surat Singh (Dead)* v. *Siri Bhagwan* (2018) 4 SCC 562].

12.1. Furthermore, this Court has consistently underscored that under Section 100 CPC, the High Court possesses the authority to entertain second appeals strictly on substantial questions of law. Upon admitting such an appeal, the High Court is empowered to frame substantial questions and adjudicate them directly, without the necessity of remanding the matter to the trial court. This approach ensures judicial efficiency and prevents unnecessary prolongation of litigation. A few decisions are outlined below:

(i) *Santosh Hazari* v. *Purushottam Tiwari (Deceased) by LRs*[10]

> *"16. Reverting to the facts of the case at hand, prima facie we find the first appellate Court did not discharge the duty cast on it as a Court of first appeal. The High Court having noticed failure on the part of the appellant in not discharging the statutory obligation cast on him by sub-section (3) of Section 100 of the Code, on account of the substantial question of law involved in the appeal having not been stated, much less precisely, in the memorandum of second appeal, ordinarily an opportunity to frame such question should have been afforded to the appellant unless the deficiency was brought to the notice of the appellant previously by the High Court Registry or the court and yet the appellant had persisted in his default. That was not done. In our opinion, the following substantial question of law does arise as involved in the case and worth being heard by the High Court:—*
>
> *"Whether on the pleadings and the material brought on record by the defendant, the first appellate Court was right in holding that the case of adverse possession was made out by the defendant and the suit filed by the plaintiff was liable to be dismissed as barred by time under Article 65 of the Limitation Act, 1963, more so when such finding was arrived at in reversal of the findings of the trial Court?"*
>
> *17. The appeal is allowed. The case is remitted back to the High Court for hearing and deciding the second appeal afresh.*
>
> *18. We make it clear that we have not expressed any opinion either way on any of the issues arising for decision in the case. We also make it clear that our framing the question of law involved in*

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the appeal shall not take away the jurisdiction of the High Court vesting in it under proviso to sub-section (5) of Section 100 of the CPC to formulate any other question of law involved in the case The second appeal shall be decided by the High Court uninfluenced by any of the observations made hereinabove which have been made solely to support our opinion that the appeal did not merit a summary dismissal by the High Court."

(ii) *Surat Singh* (supra)

> *"29. The scheme of Section 100 is that once the High Court is satisfied that the appeal involves a substantial question of law, such question shall have to be framed under sub-section (4) of Section 100. It is the framing of the question which empowers the High Court to finally decide the appeal in accordance with the procedure prescribed under sub-section (5). Both the requirements prescribed in sub-sections (4) and (5) are, therefore, mandatory and have to be followed in the manner prescribed therein. Indeed, as mentioned supra, the jurisdiction to decide the second appeal finally arises only after the substantial question of law is framed under sub-section (4). There may be a case and indeed there are cases where even after framing a substantial question of law, the same can be answered against the appellant. It is, however, done only after hearing the respondents under sub-section (5)."*

(iii) *Mehboob-Ur-Rehman (Dead) Through Lrs.* v. *Ahsanul Ghani*[11]

> *"21. As per Section 100 CPC, the appeal would lie to the High Court from the decree passed in appeal by any Court subordinate only if the High Court is satisfied that the case involves a substantial question of law; such question is required to be stated in the Memorandum of Appeal; the High Court is required to formulate the question on being satisfied that the same is involved in the case; the appeal is to be heard on the question so formulated; and at the time of hearing, the respondent could urge that the case does not involve such a question. The proviso to sub-section (5) of Section 100 CPC makes it clear that the Court could hear the appeal on any other substantial question of law not formulated by it, but only after recording the reasons that the case involves such a question. In* Surat Singh (Dead) *v.* Siri Bhagwan *(2018) 4 SCC 562 this Court has pointed out the contours of the powers of High Court under the proviso to sub-section (5) of Section 100 CPC as under:—*
>
> *"21..... The proviso to sub-section (5), however, also recognises the power of the High Court to hear the appeal on*

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any other substantial question of law which was not initially framed by the High Court under sub-section (4). However, this power can be exercised by the High Court only after assigning the reasons for framing such additional question of law at the time of hearing of the appeal".

22. We are clearly of the view that the proviso to sub-section (5) of Section 100 CPC is not intended to annul the other requirements of Section 100 and it cannot be laid down as a matter of rule that irrespective of the question(s) formulated, hearing of the second appeal is open for any other substantial question of law, even if not formulated earlier…"

(iv) This Court pointing out the principle laid down in *Surat Singh case*, set aside the judgment of the High Court on the ground of violation of mandatory procedure prescribed under section 100 CPC, and remanded the matter to the High Court for deciding the appeal afresh on merits in accordance with law [Refer : *Vijay Arjun Bhagat* v. *Nana Laxman Tapkire*, (2018) 6 SCC 727].

(v) This Court in *Ramakrishnan Kadinhipally* v. *P.T. Karunakaran Nambiar*[12] criticized the High Court for remanding a case to the trial court without proper justification, especially when concurrent findings of fact existed. It reiterated that in second appeals under Section 100 CPC, the High Court should not interfere with concurrent findings unless there is a substantial question of law. The relevant paragraphs read as under:

"7. By the impugned judgment and order and without answering anything on the substantial questions of law framed/formulated, absolutely in a casual manner, the High Court has allowed the Second Appeal and has set aside the concurrent findings recorded by both the courts below and thereafter has remanded the matter to the learned trial Court permitting the original plaintiff to amend the plaint and pray for fixation of the boundary.

9. Having heard learned counsel for the respective parties and having gone through the impugned judgment and order passed by the High Court, we are constrained to observe that the manner in which the High Court has dealt with the Second Appeal under Section 100 of the CPC is not appreciable at all. From the impugned judgment and order passed by the High Court, it appears that the High Court has exercised the powers as if the High Court was deciding the Writ Petition under Article 226 of the Constitution of India. The High Court has not appreciated at all that the High Court was deciding the Second Appeal under Section 100 of the CPC and that too against the

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concurrent findings of fact by both the courts below, which were, as such, on appreciation of evidence on record. Under the circumstances, the impugned judgment and order passed by the High Court is unsustainable.

11. At the cost of repetition, it is observed that the High Court was dealing with the Second Appeal under Section 100 CPC and the concurrent findings recorded by both the courts below which were on appreciation of evidence on record. Neither at the stage of deciding the suit nor even before the first Appellate Court even such a prayer was made to amend the plaint, which is now permitted by the High Court, despite the fact that earlier in the suit during the course of trial, the plaint was amended. Under the circumstances also, the impugned judgment and order passed by the High Court is unsustainable.

12. Even for remand, a specific case is to be made out as per Order 41 Rule 23, 23A and 25 of the CPC. No findings are recorded by the High Court that the case falls within Order 41 Rule 23, 23A and 25 of the CPC and the matter is required to be remanded to the learned trial Court on setting aside the concurrent findings of fact recorded by both the courts below. The High Court has mechanically remanded the suit, which is wholly impermissible.

13. Even the substantial questions of law framed by the High Court, while admitting the second appeal, which are reproduced herein above cannot be said to be as such substantial questions of law at all. The same are on questions of fact. Under the circumstances, the impugned judgment and order passed by the High Court quashing and setting aside the concurrent findings recorded by both the courts below, while exercising the powers under Section 100 CPC, is unsustainable.

14. In view of the above and for the reasons stated above, the present Appeal succeeds. The impugned judgment and order passed by the High Court is hereby quashed and set aside. The judgment and decree passed by the learned trial Court confirmed by the first Appellate Court is, hereby, ordered to be restored."

13. In the present case, evidently, the first suit *viz.*, O.S. No. 851 of 1965 seeking maintenance was decreed on 26.08.1965 in favour of the plaintiffs/Respondent Nos. 6 and 7 herein. Consequently, the suit properties were attached for realizing the maintenance amount. In the court auction, the suit 'A' schedule property was purchased by Karivarada Gowdar and the sale was confirmed *vide* certificate (Ex.B1) dated 25.09.1970 and possession was also handed over to him on

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22.12.1970. Patta book (Ex.B5) was also issued in his favour. Subsequently, the suit 'A' schedule property was purchased by Respondent Nos. 8 to 10 and thereafter, by Respondent No. 11 and thereafter, by the appellants herein. It is also to be noted here that the subsequent purchasers filed two separate suits for permanent injunction restraining the defendants therein from interfering with their possession of the suit 'A' schedule property and the same also came to be decreed, in their favour. It is significant to point out at this juncture that though the father of Respondent Nos. 1 and 2 and the husband of Respondent No. 3 *viz*., Dasappa Gowdar was party to the said suit, he did not contest the suit effectively. After his death, Respondent Nos. 1 to 3 were duly impleaded in the execution proceedings and a court guardian was also appointed for the minor daughter of the said Dasappa Gowdar. However, they did not take any immediate steps to set aside the decree passed in the first suit. It was only in 1982, approximately seventeen years after the first suit that Respondent Nos. 1 to 3 filed the second suit *viz*., O.S. No. 257 of 1982 seeking to set aside the decree in O.S. No. 851/1965, partition of the suit 'A' and 'C' schedule properties, permanent injunction, etc. As such, it cannot be contended that Respondent Nos. 1 to 3 were unaware of the first suit and upon becoming aware of it, they filed the second suit after a period of 17 years. Further, in the second suit, Respondent Nos. 1 to 3 did not specify when they became aware of the decree passed in the first suit.

14. In the second suit *viz*., O.S. No. 257 of 1982, Respondent Nos. 1 to 3 predicated their case on allegations of fraud and collusion between the defendants, claiming a lack of knowledge about the earlier proceedings. They further asserted that Respondent No. 3 was in mental distress following her husband's death and that they were in continuous possession of the suit properties.

15. The trial court, after a comprehensive examination of the evidence, both oral and documentary, concluded that Respondent Nos. 1 to 3 are not entitled to any relief in the suit. On the pivotal issue of limitation, the trial court was of the view that the action has to be taken to set aside the decree within a period of three years, as per Article 59 of the Limitation Act, whereas the suit was filed after a period of seventeen years and hence, the relief sought by Respondent Nos. 1 to 3 to set aside the decree passed in the first suit was hit by the doctrine of limitation. The relevant paragraphs of the judgment passed by the trial Court are reproduced below for ready reference:

> *"12. From the date of Ex.A1 about 17 years later, the relief which is sought for, to set aside the above said decree is hit by limitation is contended on the defendant's side. The defendants did not mention specifically in the written statement filed by them. If as per law a case is to filed within the stipulated period this court has the power*

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to dismiss the case, and even though the counter argument is not made in this regard, the court has the power to dismiss the suit, as mentioned in the proviso of Section 3 of Limitation Act was appointed out by the Learned Counsel for the defendants. Therefore, considering the proviso of Section 3 of the above said Act, it is necessary to peruse whether the relief sought for by the plaintiff to set aside the order passed in O.S. No. 851 of 1985 is made within the stipulated period, in this case.

13. As mentioned in the Article 59 of the Limitation Act, the action has to be taken to set aside the Ex.A 1 decree, within a period of three years. That is within three years from the date of Ex.A1 the plaintiffs would have taken action for setting aside the above said decree. I find that it is pertinent to mention the clause on page 634 of The Limitation Act, by B.B. Mitra. It is as follows:

> *12. Burden of proof. If a suit is prima facie within the time allowed by the Article then if the defendant takes a plea that the suit is barred by limitation then it is for the defendant to prove it. Where, however, on the averments of the plaint the suit seems to barred it is for plaintiff to make out the circumstances to prove that the suit is not barred by limitation. Mere assertion in the plaint that the plaintiff acquired knowledge on particular date does not by itself establish that fact and if on averments made in the plaint it is found that the plaintiff had acquired knowledge beyond the period prescribed by this Article then the suit will be barred. If the suit is prima facie within the time but the defendant takes plea that the plaintiff was aware of the necessary facts to file the suit prior to the date when he admits in the plaint such knowledge of facts then it is for the defendant to allege and prove that the plaintiff had such knowledge prior to the period from which the time begins to run.*
>
> *It is mentioned in the plaint that the 3rd plaintiff is not aware of the Ex.Al decree and the proceedings after this. It is not mentioned in the plaint as to when for the first time, they knew about the Ex.A1 decree and the proceedings initiated thereafter. In this connection, evidence was not let in by P.A.l in this court. As already stated by me, this suit has been filed about 17 years later from the date of the date of decree. It is the onus of the plaintiff to prove that the relief prayed for to set aside the decree was filed within the stipulated time. Only through Dasappa Gowdar, the plaintiffs claim the right over the suit A and C schedule properties. As already stated by me the above said Dasappa Gowdar is aware of the Ex.Al decree is revealed through the copy of the order Ex.A2. Even the above said Dasappa Gowdar did not take any action to set aside the decree Ex.Al. Thereafter,*

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after the demise of Dasappa Gowdar, in the execution proceedings, these plaintiffs were impleaded as legal heirs is revealed through Ex.B1. Therefore, the averment that the 3rd plaintiff is not aware of the above said Ex.Al decree and the proceedings thereafter, as mentioned in the plaint is not proved. Per contra, it is proved through the documents in this case, that the plaintiffs are aware of the above said proceedings. Therefore, I hold that the relief as prayed for by the Plaintiff to set aside the exparte Decree Ex.Al is hit by the doctrine of limitation…"

16. The First Appellate Court also, upon a thorough analysis, affirmed the judgment of the trial Court. Especially, with respect to the conclusion reached by the trial Court on the aspect of limitation, the First Appellate Court was of the opinion that the plaintiffs had slept over for 17 years and had chosen to come to the court violating the mandate under Section 59 of the Limitation Act and therefore, the suit was hopelessly barred by limitation as laid down by the trial Court. The relevant paragraphs of the First Appellate Court's judgment are extracted below for ready reference:

"15. The 4th Defendant Sundarammal and her daughter Vennila have instituted a suit against samiappan the 3rd Defendant herein in O.S.851/65 for maintenance and also for creating a charge over the suit properties. The decree obtained by them in the above suit by the 4th Defendant and 5th Defendant was marked as Ex.A1. Thereafter it is found that the Defendants 4 and 5 took the Execution Proceedings against Samiappan and in his presence the sale of the A - schedule property was ordered by the Court under Exs.A-2 and A-3. It will have to be noted that the 3rd Defendant Samiappan had contested the Execution Application filed by his wife and daughter. After the demise of Rangan Gowder, the father of Samiappan, Kempakkal the wife of Rangan Gowder and Subbammal the daughter of Rangan Gowder were impleaded as legal representatives of Rangan Gowder as found from Ex.A.4. It would be pertinent to note that the said Kempakkal is the 1st defendant and the said Subbammal is the 2nd Defendant in this suit. It is not as if the Plaintiffs were in the dark, while the proceedings for payment of maintenance were taken by Sundarammal and Vennila Madammal in the name of Thoddammal and Rajamani and Santhamani, the Plaintiffs herein have been impleaded as legal representatives of Dasappan on his demise in the Execution Proceedings as found in Ex.B-1 to B-3 would establish that the A-schedule property which was brought for sale for 4th and 5th Defendants was knocked down by one Kerivaratha Gounder.

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Page 13 Tuesday, December 23, 2025
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17. Dasappan the husband of the 3rd Plaintiff has contested the Execution Petition filed by Sundaramal and Vennila by engaging a counsel for him. It is not as if that the parties had remained ex parte throughout the proceedings as contended by the Plaintiffs. Ex.B-1 would reveal that Rajamani and Santhamani the minor children of Dasappan were represented by a Court guardian appointed by the Court, Subbammal the 2nd Defendant also has been added as a party to the Execution Proceedings on the demise of Rangae Gowder apart from his wife 1st Defendant having been impleaded as a party to the suit. The plaintiffs and Defendants 1 to 3 were aware of the proceedings taken by Sundarammal and Vennila.

19. D.W.2 in his cross-examination would state that in their families the eldest female member would be called as Thoddammal. No wonder Madammal being the oldest female member in the family of Dasappan has been so-called as Thoddammal. Further Ex.B-9 the returned cover would show that the postman has made and endorsement after enquiry that the addressee viz. Thoddammal, wife of Dasappan was out of Station. If Thoddammal was not the wife of Dasappan, the Postman would not have stated that Thoddammal wife of Dasappan has gone out. Further it is not the case of the Plaintiffs that any other wife was there for Dasappan. Therefore, accepting the explanation given by D.W.2 the Court comes to the conclusion that Madammal was called as Thoddammal also and that, therefore, it is false to say that Madammal was not aware of the proceedings taken by Sundarammal. Further when Rajamani and Santhamani were represented by Court guardian the court guardian could not have acted affectively unless Madammal gave proper instructions to contest the Execution proceeding taken by sundrammal. It is highly ridiculous to state that Madammal was totally out of picture.

21. The execution Court while executing the decree obtained in O.S. No. 851/65 has chosen to sell away the A Schedule property to satisfy the maintenance decree obtained by 4th and 5th Defendants through Court auction in the presence of all the Defendants herein. When the coparceners have not taken steps to partition the share of Samiappan at the time of the Execution proceeding taken by Defendants 4 and 5 the Execution Court did not find the other way except bringing one of the schedule of properties for sale to satisfy the maintenance decree. I do not find any lacuna in the above execution proceedings. The plaintiffs have not cared to mention when they came to know of the maintenance decree obtained by 4th and 5th Defendants and the sale of the A-schedule property in Court

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Page 14 Tuesday, December 23, 2025
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auction. Nor have they stated anything about it in their evidence. For about 17 years, the Plaintiffs have slept over and have chosen to come to the court violating the mandate found under Sec. 59 of the limitation Act. Therefore, the suit is hopelessly barred by limitation as laid down by the Trial Court…"

17. Thereafter, when the concurrent findings were sought to be challenged by way of second appeal, the High Court at the time of admission on 30.03.1998, formulated the following substantial question of law:

"Whether the Court below was right in justifying the sale of the entire A schedule properties, which were admittedly joint family properties and in which the second respondent has only 1/3rd share, which alone would be liable to satisfy the decree for maintenance obtained by his wife and daughters viz., respondents 3 and 4."

Upon hearing the arguments of the counsel for both sides, the High Court formulated the following additional substantial question of law:

"Whether the lower Court was right in its conclusion that the suit is barred under Section 59 of the Limitation Act, when the appellants had no knowledge of the sale proceedings till 1981, when they published the notice under Ex.A.6?"

Without deciding the substantial question of law involved in the second appeal, the High Court only considered the additional substantial question of law, observing that both the Courts failed to frame any issue in respect of the limitation, though held that the suit was barred by limitation. Accordingly, the High Court allowed the second appeal by setting aside the judgments passed by the Courts below and remitted the matter to the trial Court for a fresh trial with a direction to frame additional issue regarding limitation, let in evidence and decide the matter after giving due opportunity to both sides, within a period of six months. The relevant paragraphs of the High Court's judgment are extracted for ready reference:

"10. In this regard, it is relevant to extract the issues framed by the trial Court as follows:

1) Whether the Plaintiff is entitled to the relief to the Judgement in O.S.851/2005?

2) Whether the Plaintiffs are entitled to 5/12 Shares in suit 'A' and 'C' schedule properties?

3) Whether the Plaintiffs are entitled to the relied of permanent injunction as prayed in the plaint?

4) Whether the Plaintiffs have paid sufficient correct fees?

5) What other reliefs are the Plaintiffs entitled to?

Though, the trial Court discussed in respect of the above issues and also about the question of limitation, dismissed the suit as the

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Page 15 Tuesday, December 23, 2025
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suit itself barred by limitation.

11. The first appellate Court also framed the points for consideration as follows:

"1. Whether the plaintiffs are entitled to the relief of cancellation of the decree in O.S. No. 851/65 on the file of the District Munsif Court, Coimbatore?

2. Whether the plaintiffs are in possession and enjoyment of the A schedule and consequently whether they are entitled to permanent injunction as prayed for by them?"

The first appellate Court also discussed about the limitation and concluded that the suit is filed after 17 years as such, violation of provision under Section 59 of the Limitation Act and the suit is hopelessly barred by Limitation Act and dismissed.

12. Admittedly, both the Courts below did not frame any issue in respect of the limitation. As rightly pointed out by the learned Senior Counsel appearing for the plaintiffs, both the Courts failed to frame any issue in respect of limitation, though both the Court hold as the suit is barred by limitation. The first appellate Court also confirmed the judgment and decree passed by the trial Court without framing point for limitation for determination in the first appeal. Therefore this Court necessarily has to interfere with the finding of the Courts below. Accordingly, this Court answered only on the additional substantial question of law formulated by this Court in favour of the plaintiffs and against the defendants.

13. In fine, the second appeal stands allowed and the judgment and decree passed by Courts below are set aside. However considering the facts and circumstances, the suit is remitted back to the trial Court for fresh trial by framing additional issues in respect of limitation and let in evidence on those aspects and decide the matter after giving due opportunity to both sides in respect of the issue. Further the trial Court is directed to complete the trial within a period of six months from the date of receipt of the entire bundle. It is made clear that the trial court is directed to conduct the trial uninfluenced by the observation made by this Court while deciding the case. There is no order as to costs."

18. In our opinion, the judgment of the High Court is unsustainable, applying the legal principles as stated above that once the High Court is satisfied that the appeal involves a substantial question of law, such question shall have to be framed and finally decided on merits in accordance with the procedure laid down under section 100 CPC. The High Court, has failed to decide the substantial framed at the time of admission and went to decide, only the additional substantial question of law, framed at the time of hearing. The first suit was decreed on

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Page 16 Tuesday, December 23, 2025
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26.08.1965 and the auction purchaser got the suit 'A' schedule property on 22.12.1970 and thereafter, the appellants herein purchased the same from the subsequent purchaser by name R.S. Ramaswamy/Respondent No. 11; despite the fact that the decree and sale were within the knowledge of the Respondent Nos. 1 to 3, they have thwarted the right of the purchasers over the suit 'A' schedule property by filing second suit *viz*., O.S. No. 257 of 1982, that too, after a period of 17 years and the decision of the High Court remanding the matter to the trial Court for a fresh trial on the limitation aspect, without deciding the same on merits, by holding that a separate issue ought to have been framed is unsustainable and will certainly prolong the litigation without any useful purpose.

19. The object of framing an issue is to determine the material point of disputes between the parties, for the purpose of adjudication. Issues can be framed on a question of law or fact or a mixed question of law and fact. The decision on the issue settles the *lis* in favour of either of the parties. A distinct issue is to be formed when a material proposition of law or fact is affirmed by one party and denied by another. Also, there is no necessity to frame an issue, when the parties are not at dispute on a particular fact or law. At times, despite pleadings, when a specific issue is not framed, but when both the parties to the *lis* have let in evidence and rendered their arguments on a point, the decision on which is intrinsically connected to the main issue, then the Court is bound to render a finding on the point of dispute before deciding the connected issue, one way or another. In that case, it becomes the duty of the Court to analyze the evidence before it and render a decision on all disputed questions of fact or law, directly or indirectly in issue, so as to put an end to the *lis*. The Limitation Act, 1963 restricts the right of a litigant by prescribing a time limit within which action must be initiated. Its object is to provide a time or period, within which, the action has to be initiated. The object of the Act is not to destroy a vested right available in law but to prevent indefinite litigation and therefore, only prescribes a period for initiation of the litigation. This Court has described the object of the Limitation Act, 1963 in the following decisions:

(i) *Bharat Barrel & Drum Mfg. Co. Ltd.* v. *Employees State Insurance Corporation*[13]:

> *"7. ..... The object of the Statutes of Limitations is to compel a person to exercise his rights of action within a reasonable time as also to discourage and suppress stale, fake or fraudulent claims. While this is so, there are two aspects of the Statutes of Limitation the one concerns the extinguishment of the right if a claim or action is not commenced with a particular time and the other merely bar the claim without affecting the*

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Page 17 Tuesday, December 23, 2025
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right which either remains merely as a moral obligation or can be availed of to furnish the consideration for a fresh enforceable obligation. Where a statute prescribing the limitation extinguishes the right, it affects substantive right while that which purely pertains to the commencement of action without touching the right is said to be procedural".

(ii) *N. Balakrishnan* v. *M. Krishnamurthy*[14]

"that the Limitation Act is based upon public policy which is used for fixing a life span of a legal remedy for the purpose of general welfare. It has been pointed out that the Law of Limitation are not only meant to destroy the rights of the parties but are meant to look to the parties who do not resort to the tactics but in general to seek remedy. It fixes the life span for legal injury suffered by the aggrieved person which has been enshrined in the maxim 'interest reipublicae ut sit finis litium' which means the Law of Limitation is for general welfare and that the period is to be put into litigation and not meant to destroy the rights of the person or parties who are seeking remedy. The idea with regards to this is that every legal remedy must be alive for a legislatively fixed period of time".

20. Limitation, as we generally know is a mixed question of fact and law. However, there is no hard and fast rule that every question of limitation is to be treated as a mixed question of fact and law. In cases, where the action is initiated after several years after the right to sue accrued, without any pleadings to explain the reasons for delay or as to when the fraud was discovered, the question of limitation is to be treated as a question of law. A recourse may be had to Order VI Rules 4 and 10 CPC, which mandates that specific particulars would have to be given in the pleadings. Once such a plea is raised in the pleadings, then the burden lies on the person to prove that the delay was due to any plausible reason and it is always well within the knowledge of the other party to contend and prove that the opposite party had prior knowledge about the disputed fact and that his right to sue or defend had also accrued by that date. Even in the absence of specific pleadings regarding the limitation in the plaint or a plea of defense, there is a bounden duty on every civil Court to ascertain as to whether the *lis* has been initiated within the time prescribed under law, even if the parties to the *lis* had not raised any objections. This right flows from the mandate of Section 3 of the Limitation Act, 1963. A useful reference may be had to the judgment of this Court on this aspect, in *V.M. Salgaocar and Bros.* v. *Board of Trustees of Port of Mormugao*[15], wherein, it was held as follows:

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Page 18 Tuesday, December 23, 2025
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"20. The mandate of Section 3 of the Limitation Act is that it is the duty of the court to dismiss any suit instituted after the prescribed period of limitation irrespective of the fact that limitation has not been set up as a defence. If a suit is ex facie barred by the law of limitation, a court has no choice but to dismiss the same even if the defendant intentionally has not raised the plea of limitation.

21. This Court in Manindra Land & Building Corpn. Ltd. *v.* Bhutnath Banerjee *[(1964) 3 SCR 495 : AIR 1964 SC 1336] held (AIR para 9):*

"Section 3 of the Limitation Act enjoins a court to dismiss any suit instituted, appeal preferred and application made, after the period of limitation prescribed therefor by Schedule I irrespective of the fact whether the opponent had set up the plea of limitation or not. It is the duty of the court not to proceed with the application if it is made beyond the period of limitation prescribed. The Court had no choice and if in construing the necessary provision of the Limitation Act or in determining which provision of the Limitation Act applies, the subordinate court comes to an erroneous decision, it is open to the court in revision to interfere with that conclusion as that conclusion led the court to assume or not to assume the jurisdiction to proceed with the determination of that matter."

In cases, where the pleadings are silent, then it becomes the duty of the Court to ascertain from the evidence and the overall facts of the case, as pleaded by either party, and to render a finding on limitation where the question of limitation is to be treated as a question of law, since the Court cannot entertain frivolous or stale claims. It is also apropos to reiterate the settled position of law that a question of law can be raised at any stage.

21. We have in earlier paragraph discussed the object of framing the issues. We also held that there could be several points directly or indirectly connected with the main issue that has been framed. In such cases, when the larger issue that has been framed is wide enough to cover different points of disputes within it, there is no necessity to frame a specific issue on that aspect. Further, when the parties go to trial with the knowledge that a particular point is at *lis*, had full opportunity to let in evidence, they cannot later turn back to say that a specific issue was not framed. All that is required under law, is for the Court to render a finding on the particular fact or law in dispute, on the facts of the case. However, we make it clear that such evidence, in the absence of pleadings, cannot permit either of the parties to make out a new case. It is pertinent to mention here that the Courts are vested with powers to go into the question of law, touching upon either the limitation or the jurisdiction, even if no plea is raised and not in cases,

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Page 19 Tuesday, December 23, 2025
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where facts have to be pleaded and evidence has to be let in. The Civil Procedure Code and the law of limitation, being procedural laws, meant to assist the Courts in the process of rendering justice, cannot curtail the power of the Courts to render justice. Procedural laws after all are handmaid of justice. What is to be seen is whether any irregularity arising from a failure to follow procedure has caused serious prejudice to the parties. It is not to be forgotten that the process of adjudication is to discern the truth.

21.1. It will be useful to refer to certain judgments of this Court on violation of procedural law, which are as follows:

(i) *Sardar Amarjit Singh Kalra (Dead) by L.Rs.* v. *Pramod Gupta (Smt.) (Dead) by L.Rs.*[16]:

> *"26. Laws of procedure are meant to regulate effectively, assist and aid the object of doing substantial and real justice and not to foreclose even an adjudication on merits of substantial rights of citizen under personal, property and other laws. Procedure has always been viewed as the handmaid of justice and not meant to hamper the cause of justice or sanctify miscarriage of justice……."*

(ii) *Kailash* v. *Nanhku*[17]:

> *"28. All the Rules of procedure are the handmaid of justice. The language employed by the draftsman of processual law may be liberal or stringent, but the fact remains that the object of prescribing procedure is to advance the cause of justice. In an adversarial system, no party should ordinarily be denied the opportunity of participating in the process of justice dispensation. Unless compelled by express and specific language of the statute, the provisions of Code of Civil Procedure or any other procedural enactment ought not to be construed in a manner which would leave the court helpless to meet extraordinary situations in the ends of justice. The observations made by Krishna Iyer, J. in* Sushil Kumar Sen *v.* State of Bihar *(1975) 1 SCC 774] are pertinent : (SCC p. 777, paras 5-6)*
>
> *The mortality of justice at the hands of law troubles a judge's conscience and points an angry interrogation at the law reformer.*
>
> *The processual law so dominates in certain systems as to overpower substantive rights and substantial justice. The humanist Rule that procedure should be the handmaid, not the mistress, of legal justice compels consideration of vesting a residuary power in judges to act ex debito justitiae where the tragic sequel otherwise would be wholly inequitable. … Justice*

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Page 20 Tuesday, December 23, 2025
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is the goal of jurisprudence -- processual, as much as substantive.

29. In State of Punjab *v.* Shamlal Murari *(1976) 1 SCC 719 : 1976 SCC (L&S) 118] the Court approved in no unmistakable terms the approach of moderating into wholesome directions what is regarded as mandatory on the principle that : (SCC p. 720)*

"Processual law is not to be a tyrant but a servant, not an obstruction but an aid to justice. Procedural prescriptions are the handmaid and not the mistress, a lubricant, not a resistant in the administration of justice. In Ghanshyam Dass *v.* Dominion of India *(1984) 3 SCC 46] the Court reiterated the need for interpreting a part of the adjective law dealing with procedure alone in such a manner as to subserve and advance the cause of justice rather than to defeat it as all the laws of procedure are based on this principle."*

(iii) *Sugandhi (Dead) by LRs* v. *P. Rajkumar*[18]:

"9. It is often said that procedure is the handmaid of justice. Procedural and technical hurdles shall not be allowed to come in the way of the court while doing substantial justice. If the procedural violation does not seriously cause prejudice to the adversary party, courts must lean towards doing substantial justice rather than relying upon procedural and technical violation. We should not forget the fact that litigation is nothing but a journey towards truth which is the foundation of justice and the court is required to take appropriate steps to thrash out the underlying truth in every dispute. Therefore, the court should take a lenient view when an application is made for production of the documents under Sub-rule (3)."

22. In the present case, the trial Court though had not framed a specific issue on "limitation", the same could very well fall under the broader issue. The question of limitation can be encompassed within the larger question determined by the First Appellate Court for determination. The failure of the trial Court and the First Appellate Court to formulate a separate issue, in the view of this Court, is not fatal to the judgment rendered by them and has not caused any prejudice to the parties. Further, the trial Court, in the performance of its duty, mandated under Section 3 of the Limitation Act, 1963, has taken up the question of limitation and upon perusal of the overall pleadings and evidence, has rightly decided the same. Therefore, we do not agree with the decision of the High Court in remanding the matter to the trial Court, that too after this length of time, when all materials were available before it.

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Page 21 Tuesday, December 23, 2025
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23. As already indicated above, the concurrent findings of the Courts below were sought to be challenged before the High Court. It is a general rule that High Court will not interfere with the concurrent findings of the Courts below. In the present case, both the trial Court and the First Appellate Court, after detailed analysis of the oral and documentary evidence let-in by the parties, categorically held that the suit was hopelessly barred by limitation. We also find that the evidence produced would abundantly make it clear that Dasappa Gowdar and thereafter, Respondent Nos. 1 to 3 were well aware of the earlier proceedings and the decree passed in the first suit. The auction purchaser's title was confirmed by court orders, and subsequent transfers were properly registered and recorded. Therefore, Respondent Nos. 1 to 3, who have knowingly slept over their right to challenge the sale and allowed further rights to flow, cannot later question the sale of larger extent of share in an unpartitioned property. We also do not find any plausible reasons for delay. It is reiterated at this juncture that limitation is a matter of statute and must be strictly enforced, more so when the earlier transaction or sale is well within the knowledge of the parties. This principle assumes greater significance in the present case, where the delay extends to seventeen years for filing the suit, despite the fact that they were arrayed as respondents/Judgment Debtors in the execution proceedings. Furthermore, protection of *bona fide* purchasers for value is a significant consideration, and any disturbance to their rights or titles after such a long period, would create uncertainty in property transactions and undermine the sanctity of court sale. Therefore, we are of the view that the High Court was not justified in remanding the matter to the trial Court for fresh trial solely with respect to the issue of limitation; and that, the Courts below have rightly held that the suit was barred by limitation and Respondent Nos. 1 to 3 are not entitled for any relief.

24. In such view of the matter, the appeal is allowed. The impugned judgment of the High Court is set aside. The judgment and decree of the trial court dismissing the suit, as affirmed by the First Appellate Court, are restored. Parties shall bear their own costs throughout.

25. Connected Miscellaneous Application(s), if any, shall stand disposed of.

———

[1] Hereinafter referred to as “the High Court”

[2] Hereinafter referred to as “the first suit”

[3] Hereinafter referred to as “the second suit”

[4] Hereinafter referred to as “the trial Court”

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Page 22 Tuesday, December 23, 2025
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[5] Hereinafter referred to as "the First Appellate Court"

[6] (2020) 12 SCC 809

[7] (2006) 5 SCC 638

[8] For short, "CPC"

[9] Substituted by Act 104 of 1976, sec. 37, for section 100 (w.e.f. 1-2-1977)

[10] (2001) 3 SCC 179

[11] (2019) 19 SCC 415 : AIR 2019 SC 1178

[12] 2023 SCC OnLine SC 323

[13] AIR 1972 SC 1935

[14] (1998) 7 SCC 123

[15] (2005) 4 SCC 613

[16] (2003) 3 SCC 272 (Constitutional Bench)

[17] (2005) 4 SCC 480 (3 Judge Bench)

[18] (2020) 10 SCC 706

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(2024) 3 Supreme Court Cases 224

2J

(BEFORE VIKRAM NATH AND RAJESH BINDAL, JJ.)

MARY PUSHPAM . . Appellant;

Versus

TELVI CURUSUMARY AND OTHERS . . Respondents.

Civil Appeal No. 9941 of 2016†, decided on January 3, 2024

A. **Civil Procedure Code, 1908 — Ss. 11 and 100 — Res judicata — Binding effect of findings in previous round of litigation which had attained finality — Held, High Court in present case erred at second appeal stage in departing from findings in previous suit re the same subject-matter, which had attained finality — First appellate court, held, had rightly followed these final findings recorded in the previous suit to decree the present suit — Hence, judgment of first appellate court, decreeing the present suit, restored**

— Interpreting the final judgment in the earlier round, which was clear in itself, any differently, by trial court and High Court in the present round, further held, amounted to judicial indiscipline

— Furthermore, the judgments of the courts below, vide the doctrine of merger, had merged with that of the final High Court judgment in the previous round — Hence, held, High Court in present case further erred in going behind the final binding judgment of the High Court in previous round by purporting to rely on the findings of the courts below in the previous round, rather than proceeding as being bound by the clear final judgment of the High Court in the previous round

— High Court in earlier round of litigation specifically recorded that dispute was with respect to 8 cents of land and construction standing thereon — In light of above facts, contentions and findings recorded by High Court in its judgment in earlier round, apparently no defence was left for respondents to take as it was already held that appellant had perfected her rights by adverse possession over suit property which was 8 cents of land — Construction of appellant was standing over 8 cents of land may be on part of it but she was found in possession of entire 8 cents

— Respondents herein (plaintiffs in the previous round and defendants in the present suit) never sought any clarification of findings of High Court in the earlier round or observations made therein nor did they assail the same before any higher forum — Judgment of High Court in earlier round attained finality — Interpreting said judgment which was clear in itself any differently would clearly amount to judicial indiscipline — First appellate court in present round had rightly recorded finding that trial court had no business to interpret judgment of High Court in earlier round in any other way than what was recorded therein

† Arising from the Judgment and Order in *Telvi Curusumary* v. *Mary Pushpam* (Madras High Court, Madurai Bench, Second Appeal No. 451 of 2004, dt. 21-7-2009) **[Reversed]**

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— In present case High Court's judgment in earlier round, noted that disputed property included 8 cents of land, not just building structure on it — As per doctrine of merger, judgments of trial court and first appellate court from first round of litigation are absorbed into High Court's judgment in earlier round — This 1990 judgment should be regarded as conclusive and binding order from initial litigation — Following principles of judicial discipline, lower or subordinate courts do not have authority to contradict decisions of higher courts

— In present case, trial court and High Court, in second round of litigation, violated this judicial discipline by adopting a position contrary to High Court's final judgment in earlier round, from first round of litigation — Practice and Procedure — Doctrine of Merger (Paras 17 to 25)

B. **Civil Procedure Code, 1908 — S. 11 — Doctrine of merger — What is — Implication of, in application of res judicata principle — Held, doctrine of merger implies that judgments of the courts below from first round of litigation would stand absorbed into judgment of court before which proceedings attain finality in earlier round — Thereafter, it would be the final judgment of such last court that would prevail, and in later proceedings no court can go behind the final judgment of the last court, and purport to base its judgment on findings of the lower courts in the previous proceedings (*see also* Shortnote *A*)**

— Doctrine of merger is a common law doctrine that is rooted in idea of maintenance of decorum of hierarchy of courts and tribunals — Doctrine is based on simple reasoning that there cannot be, at same time, more than one operative order governing same subject-matter — Practice and Procedure — Merger — Doctrines and Maxims — Merger of Decree, Order, Judgment, Appeal, Award (Paras 17 to 25)

C. **Contract and Specific Relief — Specific Relief Act, 1963 — Ss. 5, 34 and 38 — Suit for possession — Maintainability — Requirements of — Accurate description of property in question with all details of measurement and boundaries — Necessity of — Reiterated**

— Held, suit for possession has to describe the property in question with accuracy and all details of measurement and boundaries — This was completely lacking — A suit for possession with respect to such a property would be liable to be dismissed on the ground of its identifiability — Civil Procedure Code, 1908, Or. 7 R. 7 (Paras 24 and 25)

Kunhayammed v. *State of Kerala*, (2000) 6 SCC 359; *State of Punjab* v. *Devans Modern Breweries Ltd.*, (2004) 11 SCC 26; *Central Board of Dawoodi Bohra Community* v. *State of Maharashtra*, (2005) 2 SCC 673 : 2005 SCC (Cri) 546 : 2005 SCC (L&S) 246, *followed*

Telvi Curusumary v. *Mary Pushpam*, Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad), *reversed*

Halsbury's Laws of England, (4th Edn.), Vol. 26 at pp. 297-98, para 578, *referred to*

RM-D/70750/CV

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Page 3 Tuesday, December 23, 2025
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Advocates who appeared in this case :

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Vikas Mehta (Advocate-on-Record), Advocate, for the Respondents.

Chronological list of cases cited ***on page(s)***

1. Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad), *Telvi Curusumary* v. *Mary Pushpam* **(reversed)** 226*d-e*, 227*f-g*, 228*b-c*, 231*d-e*
2. (2005) 2 SCC 673 : 2005 SCC (Cri) 546 : 2005 SCC (L&S) 246, *Central Board of Dawoodi Bohra Community* v. *State of Maharashtra* 230*b-c*
3. (2004) 11 SCC 26, *State of Punjab* v. *Devans Modern Breweries Ltd.* 229*g*
4. (2000) 6 SCC 359, *Kunhayammed* v. *State of Kerala* 229*e-f*

The Judgment of the Court was delivered by

VIKRAM NATH, J.— The rule of "Judicial Discipline and Propriety" and the doctrine of precedents has a merit of promoting certainty and consistency in judicial decisions providing assurance to individuals as to the consequences of their actions. The Constitution Benches of this Court have time and again reiterated the rules emerging from judicial discipline. Accordingly, when a decision of a coordinate Bench of the same High Court is brought to the notice of the Bench, it is to be respected and is binding subject to right of the Bench of such co-equal quorum to take a different view and refer the question to a larger Bench. It is the only course of action open to a Bench of co-equal strength, when faced with the previous decision taken by a Bench with same strength.

2. The plaintiff is in appeal assailing the correctness of the judgment and order dated 21-7-2009[1] passed by the Madurai Bench of the Madras High Court, whereby, the second appeal filed by the respondent-defendant was allowed, the judgment and decree passed by the Sub-Judge, Padmanabhapuram dated 13-10-2003 was set aside and that of the trial court dated 30-6-1997 was restored and confirmed.

3. The appellant instituted a civil suit for declaration of title, possession and permanent injunction against the respondents which was registered as OS No. 308 of 1995 in the Court of District Munsiff-cum-Judicial Magistrate at Eraniel. The basis for filing the suit was that earlier in 1976, the respondents had filed a suit for ejectment of the appellant which was registered as OS No. 70 of 1976. The said suit was dismissed, first appeal was dismissed and the second appeal was also dismissed by the High Court, vide judgment dated 30-3-1990. The same became final as it was not carried any further.

4. The appellant continued in possession of the property in suit. However, as the respondents were trying to interfere with the possession of the appellant, she filed the suit.

5. The respondents contested the suit and filed their written statements. According to them, the defence taken was that they had purchased 8 cents of land by way of registered sale deed on 13-3-1974 which was with respect to an open piece of land and did not contain any building as such. The suit of 1976

1 *Telvi Curusumary* v. *Mary Pushpam*, Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad)

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Page 4 Tuesday, December 23, 2025
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filed by them was with respect to the constructions raised by the appellant and not with respect to 8 cents of land. The appellant had no right, title or interest over the suit property. The suit was liable to be dismissed.

6. The trial court framed the following six issues:

(*i*) Whether the suit property properly absolutely belongs to the plaintiffs?

(*ii*) Whether the decision of the Hon'ble High Court of Madras in Second Appeal No. 2082 of 1990 relates to the entire 8 cents of the suit property or whether it pertains to the house in a portion of the suit property?

(*iii*) Whether the plaintiffs have been in possession and enjoyment of the entire suit property?

(*iv*) Whether the plaintiffs are entitled to the relief of permanent injunction as prayed for?

(*v*) Whether the suit property is to be demarcated and northern boundary is put up as prayed for?

(*vi*) What reliefs are the plaintiffs entitled to?

7. Issue (*ii*) related to the question whether the judgment of the High Court in Second Appeal No. 2082 of 1990 related to the entire 8 cents of the property or whether it pertained only to the house in a portion of the land in dispute.

8. The trial court, vide judgment dated 30-6-1997, decreed the suit for declaration of title, possession and permanent injunction but only with respect to the portion over which the house property was situated out of the total extent of 8 cents of the suit property. With respect to the other property, the suit was dismissed.

9. Aggrieved by the dismissal of the suit, the appellant preferred an appeal which was registered as Appeal No. 169 of 1997. The Sub-Judge vide judgment dated 13-10-2003 modified the judgment and decree of the trial court and declared that the appellants were entitled for the entire suit property for relief of declaration of title, permanent injunction and for setting up their boundary for securing the said property. The learned Sub-Judge had mainly relied upon the judgment of the High Court dated 30-3-1990 in the earlier round of litigation.

10. Aggrieved by the judgment of the Sub-Judge, the respondents preferred second appeal before the High Court registered as Second Appeal No. 451 of 2004. The High Court, by the impugned judgment dated 21-7-2009[1], allowed the appeal, set aside the judgment of the Sub-Judge and restored the decree of the trial court. Aggrieved by the same, the plaintiff has preferred the present appeal.

11. Heard the learned counsel for the parties and perused the material on record.

1 *Telvi Curusumary* v. *Mary Pushpam*, Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad)

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12. The main argument advanced on behalf of the appellant is that the High Court in the first round in its judgment dated 30-3-1990 had specifically recorded that the dispute was with respect to 8 cents of land and the construction standing thereon. The trial court or the High Court therefore in the present round of litigation could not have confined it only to the construction and not the entire portion of land measuring 8 cents. It is further submitted that under the law of merger, the judgment of the trial court and the first appeal court in the first round of litigation merged with the judgment of the High Court dated 30-3-1990 and it is that judgment alone which has to be read as final and binding between the parties. It is also submitted that the first appeal court in its judgment dated 13-10-2003 in the present round had specifically recorded that the trial court had no jurisdiction to go against the judgment of the High Court. The High Court in its impugned judgment[1] has in fact breached judicial discipline by taking a view contrary to the earlier judgment.

13. On the other hand, the learned counsel for the respondents submitted that the judgments of the trial court and the High Court in the present round is correct in law and facts. The earlier round of litigation initiated by the respondents was only with respect to the constructions raised by the appellant which of course they had lost. The respondents had throughout been in possession of the 8 cents of land. The appellants were never in possession thereof. The judgment of the trial court and that of the High Court deserves to be maintained.

14. In the judgment of the High Court in the first round dated 30-3-1990, it is not at one place, but at number of places that the High Court has recorded that the suit property comprised of 8 cents of land which was the land purchased by the respondents in 1974. It would be relevant to refer to such facts noted in the said judgment. In the opening paragraph the High Court mentioned as follows:

> "The suit property is consisting of 8 cents. The defendant was residing in this property even prior to the purchase of this property by the plaintiff."

Then again in para 2, the High Court records as follows:

> "The learned counsel appearing for the appellant contended that the suit property is comprised of 8 cents of land and the appellant purchased the same by a sale deed dated 13-3-1974, which is marked as Ext. A-1."

15. The above clearly shows that not only the High Court notes that it was 8 cents of land which was in dispute but also the counsel for the appellants therein (respondents herein) whose submissions are recorded, understood it in the same manner. Again, in para 3, the High Court records as follows:

> "In the sale deed dated 13-3-1974 (Ext. A-1) there is no mention about the superstructure in which the respondent herein is residing. The sale deed merely states about the sale of 8 cents of land. As already stated, that the

1 *Telvi Curusumary* v. *Mary Pushpam*, Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad)

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Page 6 Tuesday, December 23, 2025
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respondent was residing in the suit property even prior to the purchase by the appellant."

16. Lastly, the High Court records its finding as follows:

> "The courts below found that all the documents produced by the respondent herein are in the name of the respondent. Therefore, considering all these documents, the courts below came to the conclusion that the respondent herein is in possession of the suit property for more than the statutory period and so she had perfected her title by adverse possession."

17. In the light of the above facts, arguments and findings recorded by the High Court in its judgment dated 30-3-1990, apparently no defence was left for the respondents to take as it was already held that the appellant had perfected her rights by adverse possession over the suit property which was 8 cents of land. The construction of the appellant was standing over the 8 cents of land may be on part of it but she was found in possession of the entire 8 cents.

18. The respondents never sought any clarification of the findings of the High Court or the observations made therein nor did they assail the same before any higher forum. The judgment dated 30-3-1990 attained finality. Interpreting the said judgment which was clear in itself any differently would clearly amount to judicial indiscipline. The Sub-Judge in its judgment dated 13-10-2003 had rightly observed that the trial court had no business to interpret the judgment of the High Court dated 30-3-1990 in any other way than what was recorded therein.

19. The doctrine of merger is a common law doctrine that is rooted in the idea of maintenance of the decorum of hierarchy of courts and tribunals. The doctrine is based on the simple reasoning that there cannot be, at the same time, more than one operative order governing the same subject-matter. The same was aptly summed up by this Court when it described the said doctrine in *Kunhayammed* v. *State of Kerala*[2]: (SCC p. 383, para 44)

> "*44*. … (*i*) Where an appeal or revision is provided against an order passed by a court, tribunal or any other authority before superior forum and such superior forum modifies, reverses or affirms the decision put in issue before it, the decision by the subordinate forum merges in the decision by the superior forum and it is the latter which subsists, remains operative and is capable of enforcement in the eye of the law."

20. The legal position on coordinate Benches has further been elaborated by this Court in *State of Punjab* v. *Devans Modern Breweries Ltd.*[3]: (SCC p. 157, paras 339-340)

> "*339*. Judicial discipline envisages that a coordinate Bench follow the decision of an earlier coordinate Bench. If a coordinate Bench does not agree with the principles of law enunciated by another Bench, the matter may be referred only to a larger Bench.

2 (2000) 6 SCC 359
3 (2004) 11 SCC 26

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* * *

340. In *Halsbury's Laws of England* (4th Edn.), Vol. 26 at pp. 297-98, para 578, it is stated:

> 'A decision is given per incuriam when the court has acted in ignorance of a previous decision of its own or of a court of coordinate jurisdiction which covered the case before it, in which case it must decide which case to follow.' "

21. We have already discussed about the importance of ensuring judicial discipline and the same has also been upheld by various judgment of this Court. In *Central Board of Dawoodi Bohra Community* v. *State of Maharashtra*[4], this Court has summed up the legal position of rules of judicial discipline as follows: (SCC pp. 682-83, para 12)

> "*12*. … (1) The law laid down by this Court in a decision delivered by a Bench of larger strength is binding on any subsequent Bench of lesser or coequal strength.
>
> (2) A Bench of lesser quorum cannot disagree or dissent from the view of the law taken by a Bench of larger quorum. In case of doubt all that the Bench of lesser quorum can do is to invite the attention of the Chief Justice and request for the matter being placed for hearing before a Bench of larger quorum than the Bench whose decision has come up for consideration. It will be open only for a Bench of coequal strength to express an opinion doubting the correctness of the view taken by the earlier Bench of coequal strength, whereupon the matter may be placed for hearing before a Bench consisting of a quorum larger than the one which pronounced the decision laying down the law the correctness of which is doubted."

22. In the current case, as previously mentioned, the High Court's judgment from the initial round dated 30-3-1990, noted that the disputed property included 8 cents of land, not just the building structure on it. As per the doctrine of merger, the judgments of the trial court and the first appellate court from the first round of litigation are absorbed into the High Court's judgment dated 30-3-1990. This 1990 judgment should be regarded as the conclusive and binding order from the initial litigation. Following the principles of judicial discipline, lower or subordinate courts do not have the authority to contradict the decisions of higher courts. In the current case, the trial court and the High Court, in the second round of litigation, violated this judicial discipline by adopting a position contrary to the High Court's final judgment dated 30-3-1990, from the first round of litigation.

23. The argument of the counsel for respondents is mainly that the judgment of the trial court and first appellate court in the first round of litigation clearly stated in the case of the plaintiff that it was with respect to the constructed portion only in which the mother of the appellant was residing and not the whole area of 8 cents purchased by them. The High Court committed

4 (2005) 2 SCC 673 : 2005 SCC (Cri) 546 : 2005 SCC (L&S) 246

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a bona fide error in recording that the suit property was 8 cents along with constructions standing over it. As such the trial court and the High Court in the present round were correct in limiting the decree only to the constructions and not the entire area of 8 cents.

24. In order to test the above argument, we carefully examined the judgment of the trial court as also the first appellate court. What is discernible is that nowhere it is recorded the actual boundary or the measurements of the property in possession of the mother of the appellant (defendant therein). The respondents-plaintiff therein had based her case on the ground that they had purchased 8 cents of open piece of land and the defendant therein had raised construction over some adjoining land, and had trespassed over part of her purchased land as such decree of possession be granted.

25. We are unable to appreciate the said argument of the respondents. Suit for possession has to describe the property in question with accuracy and all details of measurement and boundaries. This was completely lacking. A suit for possession with respect to such a property would be liable to be dismissed on the ground of its identifiability. Further, it may be noted that if the construction by the defendant were not made over 8 cents of purchased land, then the plaintiff therein would not have a claim to possession of the same. The argument thus has to be rejected not only on facts but also on legal grounds as discussed above.

26. The appeal is, accordingly, allowed. The impugned judgment and order[1] of the High Court is set aside and that of the first appellate court dated 13-10-2003 passed by the Sub-Judge, Padmanabhapuram is restored and maintained.

27. There shall be no order as to costs.

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1 *Telvi Curusumary* v. *Mary Pushpam*, Second Appeal No. 451 of 2004, order dated 21-7-2009 (Mad)

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2025 SCC OnLine SC 2366

In the Supreme Court of India

(Before Vikram Nath and Prasanna B. Varale, JJ.)

Civil Appeal No(s). 5454 of 2019

Rohan Vijay Nahar and Others ... Appellant(s);

Versus

State of Maharashtra and Others ... Respondent(s).

With

Civil Appeal No. 5501 of 2019
Civil Appeal No. 5511 of 2019
Civil Appeal No. 14074 of 2024
Civil Appeal No. 14075 of 2024
Civil Appeal No. 14076 of 2024
Civil Appeal No. 14077 of 2024
Civil Appeal No. 14087 of 2024
Civil Appeal No. 14078 of 2024
Civil Appeal No. 14083 of 2024
Civil Appeal No. 14079 of 2024
Civil Appeal No. 14080 of 2024
Civil Appeal No. 14081 of 2024
Civil Appeal No. 9434 of 2019
Civil Appeal No. 5468 of 2019
Civil Appeal No. 5458 of 2019
Civil Appeal No. 5473 of 2019
Civil Appeal No. 5455 of 2019
Civil Appeal No. 5466 of 2019
Civil Appeal No. 5456 of 2019
Civil Appeal No. 5457 of 2019
Civil Appeal No. 5460 of 2019
Civil Appeal No. 5469 of 2019
Civil Appeal No. 5462 of 2019
Civil Appeal No. 5503 of 2019
Civil Appeal No. 5465 of 2019
Civil Appeal No. 5459 of 2019
Civil Appeal No. 5461 of 2019
Civil Appeal No. 5467 of 2019
Civil Appeal No. 5463 of 2019

Civil Appeal No. 5464 of 2019
Civil Appeal No. 5483 of 2019
Civil Appeal No. 5834 of 2019
Civil Appeal No. 5504 of 2019
Civil Appeal No. 5512 of 2019
Civil Appeal No. 5474 of 2019
Civil Appeal No. 5508 of 2019
Civil Appeal No. 5476 of 2019
Civil Appeal No. 5506 of 2019
Civil Appeal No. 5478 of 2019
Civil Appeal No. 5487 of 2019
Civil Appeal No. 5480 of 2019
Civil Appeal No. 5481 of 2019
Civil Appeal No. 5608 of 2019
Civil Appeal No. 14105 of 2024
Civil Appeal No. 5502 of 2019
Civil Appeal No. 5509 of 2019
Civil Appeal No. 5513 of 2019
Civil Appeal No. 1592 of 2023
Civil Appeal No. 5505 of 2019
Civil Appeal No. 5507 of 2019
Civil Appeal No. 1504 of 2020
Civil Appeal No. 574 of 2020
Civil Appeal No. 582 of 2020
Civil Appeal No. 576 of 2020
Civil Appeal No. 14086 of 2024
Civil Appeal No. 14098 of 2024
Civil Appeal No. 14088 of 2024
Civil Appeal No. 14089 of 2024
Civil Appeal No. 14106 of 2024
Civil Appeal No. 14094 of 2024
Civil Appeal No. 14097 of 2024
Civil Appeal No. 6245 of 2019
Civil Appeal No. 1538 of 2020
Civil Appeal No. 1721 of 2020
Civil Appeal No. 3433 of 2020
Civil Appeal No. 1594 of 2023
Civil Appeal No. 14082 of 2024
Civil Appeal No. 14085 of 2024
Civil Appeal No. 14073 of 2024

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Civil Appeal No. 14070 of 2024
Civil Appeal No. 14103 of 2024
Civil Appeal No. 14104 of 2024
Civil Appeal No. 5491 of 2019
Civil Appeal No. 5490 of 2019
Civil Appeal No. 5489 of 2019
Civil Appeal No. 5471 of 2019
Civil Appeal No. 5470 of 2019
Civil Appeal No. 5472 of 2019
Civil Appeal No. 5488 of 2019
Civil Appeal No. 5499 of 2019
Civil Appeal No. 5482 of 2019
Civil Appeal No. 5477 of 2019
Civil Appeal No. 5486 of 2019
Civil Appeal No. 5475 of 2019
Civil Appeal No. 5485 of 2019
Civil Appeal No. 5484 of 2019
Civil Appeal No. 5479 of 2019
Civil Appeal No. 5492 of 2019
Civil Appeal No. 5493 of 2019
Civil Appeal No. 5497 of 2019
Civil Appeal No. 5498 of 2019
Civil Appeal No. 5495 of 2019
Civil Appeal No. 5496 of 2019
Civil Appeal No. 5494 of 2019
Civil Appeal No. 5500 of 2019

Civil Appeal No(s). 5454 of 2019[§]

Decided on November 7, 2025

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Page 6 Tuesday, December 23, 2025
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The Judgment of the Court was delivered by

VIKRAM NATH, J.:— The judiciary draws its strength from discipline and not dominion. The Constitution of India creates courts of record that are independent in their spheres and yet binds them together through a coherent hierarchy. The High Courts in India possess a wide jurisdiction, but the Supreme Court of India remains the final interpreter of law. Article 141 of the Constitution of India[1] declares that the law laid down by this Court binds every court in the country. Further, Article 144 of the Constitution obliges all authorities, civil and judicial, to act in aid of this Court. These are not ceremonial recitals. They are the structural guarantees that convert dispersed adjudication into a single system that speaks with one voice and commands public confidence.

2. Appellate jurisdiction exists to correct errors and to settle the law so that like cases receive like outcomes. When a superior court reverses, modifies, or remands, the court below must give full and faithful effect to that disposition. The authority to decide on appeal carries the authority to require compliance, for without obedience, the hierarchy would become an empty form. Resistance or evasion does not merely disserve a party before the court, it erodes predictability, multiplies litigation, and weakens faith in the rule of law. The maxim "*interest reipublicae ut sit finis litium*" which literally means that it is in the public interest that litigation should come to an end, reminds us that the society has an interest in achieving finality, and finality from the apex court is the glue that holds a nationwide system of justice together.

3. Judicial discipline is the ethic that turns hierarchy into harmony. It requires courtesy, restraint, and obedience to binding precedent even where a judge is personally unpersuaded. The lawful course is to apply the precedent and, if needed, record reasons for inviting a larger Bench to reconsider it. The unlawful and unjust course is to distinguish in name while disregarding in substance or to recast issues in order to sidestep a rule that binds. "*Stare decisis et non quieta movere*" which means to stand by decisions and not to disturb settled matters, is not a slogan but a safeguard of equality before the law. Judges do not sit to settle scores. The gavel is an instrument of reason and not a weapon of reprisal. A vindictive stance is incompatible with the oath to uphold the Constitution and the law.

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Page 7 Tuesday, December 23, 2025
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4. Judges across our country must remember that collegiality is the companion virtue of independence and that a reversal on appeal is not a personal affront but the ordinary operation of a constitutional hierarchy that corrects error and settles law. Respect for the senior jurisdiction is not subservience. It is an acknowledgment that all courts pursue a common enterprise to do justice according to law. An Appellate Court reviews and, where necessary, sets right the decision of the lower court with restraint and measured language, and the courts below reciprocate through prompt, reasoned, and transparent compliance. Courts speak through reasons, and reasons that align with binding authority preserve both legality and legitimacy of the judiciary. Articles 141 and 144 of the Constitution make obedience a constitutional duty and not a matter of personal preference. A judgment that attempts to resist binding authority undermines the unity of law, burdens litigants with avoidable expense and delay, and invites the perception that outcomes depend on the identity of the judge. In a constitutional judiciary, it is the law, as declared, that brings the conversation to a close. We restate the simple duty of Courts: apply precedent as it stands and give effect to appellate directions as they are framed. In that discipline lies the confidence of litigants and the credibility of courts.

5. The present batch of 96 civil appeals arises from the judgment dated 27.09.2018 rendered by the High Court of Judicature at Bombay in a group of writ petitions preferred by the appellants. The High Court declined to interfere with the revenue mutations and annotations that described the subject lands as affected by forest proceedings and as having vested in the State. The High Court proceeded on the footing that notices said to have been issued around 1960 and published in the Official Gazette were sufficient foundation to treat the lands as private forest under the acquisition regime. On this approach the High Court dismissed the writ petitions and refused the declaratory and consequential reliefs sought by the landholders. One of those petitions is Writ Petition No. 6417 of 2015 which has given rise to the civil appeal before us titled "*Rohan Vijay Nahar* v. *The State of Maharashtra*."

6. Before proceeding to the specific facts of these appeals, it is necessary to set out the provisions central to the matters before us.

6.1. The Indian Forest Act, 1927[2], as adapted and amended in the erstwhile State of Bombay and in the State of Maharashtra, contains Chapter V which deals with control over forests and lands not being the property of Government. By the Indian Forest Act as amended by Bombay Act 62 of 1948, Section 34-A was inserted to provide an inclusive definition of "forest" for the purposes of Chapter V. By the same amending law, "wastelands" were removed from the reach of

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Page 8 Tuesday, December 23, 2025
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certain parts of Chapter V with effect from 04.12.1948. Further amendments were carried out by Bombay Act 24 of 1955 and by Maharashtra Act 6 of 1961. Section 35 of this Act empowers the State Government to regulate or prohibit specified activities in any forest for stated public purposes. The aforementioned provisions have been reproduced hereunder:

"34A. Interpretation:— For the purposes of the Chapter "forest" includes any land containing trees and shrubs, pasture, lands and any other land whatsoever which the State Government may, by notification in the Official Gazette, declare to be a forest.

35. Protection of forests for special purposes:—

(1) The State Government may, by notification in the Official Gazette-

(i) regulate or prohibit in any forest-

(a) the breaking up or clearing of the land for cultivation;

(b) the pasturing of cattle;

(c) the firing or clearing of the vegetation;

(d) the girdling, tapping or burning of any tree or the stripping off the bark or leaves from any trees;

(e) the lopping and pollarding of trees;

(f) the cutting, sawing, conversion and removal of trees and timber; or

(g) the quarring of stone or the burning of lime or charcoal or the collection or removal of any forest produce or its subjection to any manufacturing process;

(ii) regulate in any forest the regeneration of forests and their protection from fire; when such regulation or prohibition appears necessary for any of the following purposes;

(a) for the conservation of trees and forests;

(b) for the preservation and improvement of soil or the reclamation of saline or water logged land, the prevention of landslips or of the formation of ravines and torrents, or the protection of land against erosion, or the deposit thereon of sand, stones or gravel;

(c) for the improvement of grazing;

(d) for the maintenance of a water supply in spring, river and tanks;

(e) for the maintenance, increase and distribution of the supply of fodder, leaf manure, timber or fuel;

(f) for the maintenance of reservoirs or irrigation works and hydro-electric works;

(g) for protection against storms, winds, rolling stones,

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Page 9 Tuesday, December 23, 2025
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floods and drought;

(h) for the protection of roads, bridges, railways and other lines of communication; and

(i) for the preservation of the public health.

(2) The State Government may, for any such purpose, construct at its own expense in any forest such work as it thinks fit.

(3) No notification shall be made under sub section (1) nor shall any work be begun under sub section (2), until after the issue by an officer authorised by the State Government in that behalf of a notice to the owner of such forest calling on him to show cause within a reasonable period to be specified in such notice why such notification should not be made or work constructed as the case may be, and until his objection, if any, and any evidence he may produce in support of the same, have been heard by an officer duly appointed in that behalf and have been considered by the State Government.

(4) A notice to show cause why a notification under sub section (1) should not be made, may require that for any period not exceeding one year or till the date of the making of a notification, whichever is earlier the owner of such forest and all persons who are entitled or permitted to do therein any or all of the things specified in clause (i) of sub section (1), whether by reason of any right, title or interest or under any licence or contract or otherwise, shall not, after the date of the notice and for the period or until the date aforesaid, as the case may be, do any or all the things specified in clause (i) of sub section (1), to the extent specified in the notice.

(5) A notice issued under sub section (3) shall be served on the owner of such forest in the manner provided in the Code of Civil Procedure, 1908 for the service of summons and shall also be published in the manner prescribed by rules.

(5A) Where a notice issued under sub section (3) has been served on the owner of a forest in accordance with sub section (5), any person acquiring thereafter the right of a ownership of that forest shall be bound by the notice as if it had been served on him as an owner and he shall accordingly comply with the notice, requisition and notification, if any, issued under this section.

(6) Any person contravening any requisition made under sub section (4) in a notice to show cause why a notification under sub section (1) should not be made shall, on conviction, be punished with imprisonment for a term which may extend to six months or with fine, or with both.

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Page 10 Tuesday, December 23, 2025
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(7) Any person contravening any of the provision of a notification issued under sub section (1) shall, on conviction, be punished with imprisonment for a term which may extend to six months, or with fine, or with both."

6.2. The Maharashtra Private Forests Acquisition Act, 1975, came into force on 30.08.1975. Section 2(c-i) of this Act defines "forest" for the purposes of that Act.

"Section 2(c-i)- "forest" means a tract of land covered with trees (whether standing, felled, found or otherwise), shrubs, bushes, or woody vegetation, whether of natural growth or planted by human agency and existing or being maintained with or without human effort, or such tract of land on which such growth is likely to have an effect on the supply of timber, fuel, forest produce, or grazing facilities, or on climate, stream flow, protection of land from erosion, or other such matters and includes-

(i) land covered with stumps of trees of forest;

(ii) land which is part of a forest or lies within it or was part of a forest or was lying within a forest on the thirtieth day of August, nineteen seventy five;

(iii) such pasture land, water-logged or cultivable or non-cultivable land, lying within or linked to a forest, as may be declared to be forest by the State Government;

(iv) forest land held or let for purpose of agriculture or for any purposes ancillary thereto;

(v) all the forest produce therein, whether standing, felled, found or otherwise;"

Section 2(f) defines "private forest" as follows:

"Section 2(f) - "'private forest' means any forest which is not the property of Government and includes-

(i) any land declared before the appointed day to be a forest under Section 34-A of the Forest Act;

(ii) any forest in respect of which any notification issued under sub-section (1) of Section 35 of the Forest Act, is in force immediately before the appointed day;

(iii) any land in respect of which a notice has been issued under sub-section (3) of Section 35 of the Forest Act, but excluding an area not exceeding two hectares in extent as the Collector may specify in this behalf;

(iv) land in respect of which a notification has been issued under Section 35 of the Forest Act;

(v) in a case where the State Government and any other person are jointly interested in the forest, the interest of such person in such forest;

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Page 11 Tuesday, December 23, 2025
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(vi) sites of dwelling houses constructed in such forest which are considered to be necessary for the convenient enjoyment or use of the forest and lands appurtenant thereto;"

Section 3 provides that with effect from the appointed day all private forests in the State shall stand acquired and shall vest in the State Government free from all encumbrances, subject to the limited saving provided in Section 3(2).

"Section 3 - Vesting of private forests in State Government

(1) Notwithstanding anything contained in any law for the time being in force or in any settlement, grant, agreement, usage, custom or any decree or order of any court, tribunal or authority or any other document, with effect on and from the appointed day, all private forests in the State shall stand acquired and vest, free from all encumbrances, in, and shall be deemed to be, with all rights in or over the same or appertaining thereto, the property of the State Government; and all rights, title and interest of the owner or any person other than Government subsisting in any such forest on the said day shall be deemed to have been extinguished.

(2) Nothing contained in sub-section (1) shall apply to so much extent of land comprised in a private forest as is held by an occupant or tenant and is lawfully under cultivation on the appointed day and is not in excess of the ceiling area provided by Section 5 of the Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961 for the time being in force or any building or structure standing thereon or appurtenant thereto.

(3) All private forests vested in the State Government under sub-section (1) shall be deemed to be reserved forests within the meaning of the Forest Act."

Section 5 authorises State Government entry and taking over of possession of private forests which stand acquired and vested.

"Section 5 - Power to take over possession of private forests

Where any private forest stands acquired and vested in the State Government under the provisions of this Act, the person authorised by the State Government or by the Collector in this behalf, shall enter into and take over possession thereof, and if any person resists the taking over of such possession, he shall without prejudice to any other action to which he may be liable, be liable to be removed by the use of such force as may be necessary."

Section 24 repeals Sections 34-A, 35, 36, 36-A, 36-B, 36-C and 37 of the Indian Forest Act on and from the appointed day, with a later re-enactment mechanism for restored lands brought in by the

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Page 12 Tuesday, December 23, 2025
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Amending Act of 1978 operating through Section 22-A.

"Section 24 - Repeal of Sections 34-A to 37 of the Forest Act

"(1) On and from the appointed day, Sections 34-A, 35, 36, 36-A, 36-B, 36-C and 37 of the Forest Act shall stand repealed.

(2) Notwithstanding anything contained in sub-section (1), on and from the date of commencement of the Maharashtra Private Forests (Acquisition) (Amendment) Act, 1978 (14 of 1978), Sections 34-A, 35, 36, 36-A, 36-B, 36-C and 37 of the Forest Act shall, in respect of the lands restored under Section 22-A, be deemed to have been re-enacted in the same form and be deemed always to have been in force and applicable in respect of such lands, as if they had not been repealed."

6.3. The Forest (Conservation) Act, 1980, came into force on 25.10.1980. Section 2 of that Act restrains the use of forest land for non-forest purposes without the prior approval of the Central Government and also regulates de-reservation and assignment of forest land.

6.4. The Maharashtra Land Revenue Code, 1966[3], provides the framework for preparation and maintenance of the record of rights and for mutation of entries upon changes in title or enjoyment. The MLRC also provides departmental remedies by way of appeal, revision and correction of entries. These provisions form the revenue backdrop against which the impugned mutations and annotations were made and challenged.

7. The essential factual backdrop common to this batch of appeals may be summarised as under:

7.1. The appellants are landowners in the State of Maharashtra. The factual background across these appeals and cognate matters that have reached the High Court and this Court over time is broadly similar with only minor variations. The Respondent State Authorities assert that during the early 1960s notices under Section 35(3) of the IFA were issued and published in the Official Gazette. The stated purpose of these notices was to call upon owners of lands described as forest to show cause why regulatory measures under Section 35(1) of the IFA should not be made and to afford them an opportunity of objection and hearing, including interim restraint as contemplated by Section 35(4) of the IFA. Such notices were said to have been addressed to the appellants and to other similarly placed private landholders in the concerned districts. The landowners allege that such notices were not personally served as contemplated by Section 35(5) of the IFA, that no inquiry on objections was ever held, and that no proceedings culminated in a final notification under Section 35(1) of the IFA. The landowners state that the proceedings then lay dormant for extended

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Page 13 Tuesday, December 23, 2025
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periods.

7.2. The Maharashtra Private Forests Acquisition Act, 1975[4] commenced on 30.08.1975. The landowners allege that even after its commencement the State Authorities did not take possession under Section 5 of the MPFA and for decades the lands continued to be dealt with as private holdings. Transfers were effected, permissions were granted by revenue and charity authorities, planning documents described the lands as agricultural or no development zones, possession remained with private owners or transferees, and no compensation was paid. The State Authorities, on the other hand, contend that publication of the notices and the inclusive definition of private forest in Section 2(f)(iii) of the MPFA furnished the legal basis for vesting.

7.3. Beginning around 2001, the State Authorities initiated an administrative exercise to annotate village records so as to reflect affectation by forest proceedings and vesting under the MPFA. Talathis and Circle Officers made entries in village forms including the other rights column of Form VII and Form XII with references to notices under Section 35(3) of the IFA from the 1960s and in several matters the name of the State was thereafter carried into the ownership column. The landowners allege that these mutations were made without prior notice and without adherence to the MLRC. The State Authorities state that the entries were ministerial reflections of statutory consequences.

7.4. The annotations and mutations produced collateral effects. Sub-Registrars declined registration of instruments having regard to departmental instructions. Possession nonetheless remained with private parties. No award of compensation was made. Departmental remedies under the MLRC were invoked by several landholders but many such proceedings did not reach adjudication. In that situation writ petitions were filed seeking correction of records, declaratory relief regarding title and vesting, and restoration of entries consistent with private title and possession. This pattern also appears in cognate matters already decided, and it forms part of the common factual narrative that frames the present batch.

8. The nature of the challenges brought before the High Court across this subject matter, including earlier cognate petitions, was as follows:

8.1. The landholders approached the High Court by various petitions to question the legality of revenue annotations and mutation entries that described their lands as affected by forest proceedings and as having vested in the State. They sought quashing of those entries and a declaration that their lands were not private forests within the meaning of the MPFA. They also prayed for directions to restore the

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Page 14 Tuesday, December 23, 2025
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record of rights in the names of the private owners and for consequential reliefs to protect title and possession.

8.2. The principal grounds urged by the petitioners were that publication of a notice under Section 35(3) of the IFA in the Official Gazette without personal service under Section 35(5) of the IFA could not lawfully found any adverse consequence. They pleaded that no inquiry on objections was ever held and that no notification under Section 35(1) of the IFA was ever issued. They asserted that the proceedings lay dormant for decades and that a stale or inchoate notice could not trigger vesting under Section 3 of the MPFA. They further contended that possession had never been taken under Section 5 of the MPFA, that compensation had never been paid, and that the lands continued to be treated as private holdings in revenue and planning processes for long periods. Violations of the MLRC and breach of natural justice were also pleaded.

8.3. The State responded that issuance of notices referable to Section 35(3) of the IFA in the early 1960s brought the lands within the inclusive definition of private forest in Section 2(f)(iii) of the MPFA and that vesting under Section 3 of the MPFA followed as a matter of law. It was submitted that the challenged revenue entries were ministerial reflections of statutory consequences. The State also raised objections regarding delay and laches and pointed to departmental remedies available under the MLRC.

8.4. In many of these petitions the High Court heard the matters together and treated them as raising common questions. The issues framed typically included whether the fact of a notice said to have been issued under Section 35(3) of the IFA was by itself sufficient to attract Section 2(f)(iii) of the MPFA, whether service under Section 35(5) of the IFA and a final notification under Section 35(1) of the IFA were jurisdictional preconditions, whether long dormancy could defeat subsequent assertions of vesting, and whether the impugned mutations could stand in the face of the procedures mandated by the MLRC.

9. In one cognate batch of writ petitions decided by the High Court on 24.03.2008, namely "*Oberoi Constructions Private Limited* v. *State of Maharashtra*[5], which was later set aside by this Court in "*Godrej & Boyce Mfg. Co. Ltd.* v. *State of Maharashtra*[6], the High Court gave the following findings:

9.1. In that matter, the petitioners were real-estate developers who had acquired lands in Mumbai Suburban District long after Gazette publications of notices said to be under Section 35(3) of the IFA. For decades the lands had been treated as non-agricultural and placed in industrial or residential zones under successive development plans. Around 2005-2006, the State Authorities made mutation and

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Page 15 Tuesday, December 23, 2025
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annotation entries recording the lands as "private forest" and as vested in the State under the MPFA. The petitioners challenged these entries and the foundational reliance on old Section 35(3) notices, invoking absence of personal service, the lack of any final notification under Section 35(1) of the IFA, prolonged dormancy, and inconsistency with permissions under the Maharashtra Regional and Town Planning Act, 1966 and proceedings under the Urban Land Ceiling law.

9.2. Proceeding principally on two Judge Bench decision of this Court in *Chintamani Gajanan Velkar* v. *State of Maharashtra*[7], the High Court held that the expression in Section 2(f)(iii) of the MPFA, "a notice has been issued under Section 35(3) of the IFA", is satisfied by the fact of issuance, which could be evidenced by Gazette publication. Service under Section 35(5) of the IFA or culmination in a notification under Section 35(1) of the IFA was not treated as a jurisdictional precondition.

9.3. The High Court further held that Section 35(4) of the IFA does not create any lapse by efflux of time, and that the MPFA contains no requirement that a notice be "live" or "subsisting." The Court declined to read such a gloss into Section 2(f)(iii), rejecting arguments based on delay, abandonment, or desuetude.

9.4. Treating Section 34-A of the IFA as an inclusive interpretation clause, the High Court rejected the submission that a prior declaration under Section 34-A was a sine qua non for measures under Section 35 of the IFA or for invoking Section 2(f)(iii) of the MPFA.

9.5. On vesting and its incidents, the High Court concluded that Section 3 of the MPFA, with its non obstante clause, prevailed over inconsistent zoning, permissions, or exemptions under other enactments. Development plans under the Maharashtra Regional and Town Planning Act, 1966 and proceedings under the Urban Land Ceiling law could not defeat statutory vesting. The impugned revenue mutations and annotations were sustained as ministerial reflections of such vesting, and objections based on the MLRC were not accepted, particularly in light of directions issued in public-interest proceedings to update records.

9.6. Reliance was placed on the presumption of regularity of official acts; the fact that many petitioners were derivative owners without personal knowledge of the original events was noted. On this reasoning, the writ petitions were dismissed.

10. The judgement in *Oberoi Constructions Private Limited* v. *State of Maharashtra* (supra) was challenged in this Court and decided by a three Judge Bench on 30.01.2014 and has been the prevailing precedent in such matters *viz*. *Godrej & Boyce* (supra). This Court gave the following findings:

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Page 16 Tuesday, December 23, 2025
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10.1. This Court held that the mere issuance of a notice under Section 35(3) of the IFA is not, by itself, sufficient to treat land as a "private forest" within Section 2(f)(iii) of the MPFA. The answer to the principal question was returned in the negative.

10.2. Interpreting the expression "a notice has been issued" in Section 2(f)(iii) of the MPFA, when read with Section 35 of the IFA, the Court held that "issuance" cannot be divorced from service. Given the statutory scheme, a valid notice under Section 35(3) of the IFA necessarily entails service on the owner, an opportunity to file objections, to adduce evidence, and to be heard. Because interim restraints may be imposed under Section 35(4) of the IFA and penal consequences attach under Section 35(7) of the IFA, service is inherent to the process. Section 35(5) of the IFA, requiring service in the CPC manner and publication as prescribed, reinforces this conclusion.

10.3. On this basis, the view in *Chintamani Gajanan Velkar* (Supra) that a bare, unserved notice sufficed for Section 2(f)(iii) of the MPFA was found to have overlooked the Bombay/Maharashtra amendments to Section 35 of the IFA and to have proceeded on an erroneous premise regarding the two-hectare exclusion. It was overruled to that extent.

10.4. The Court further clarified that Section 2(f)(iii) of the MPFA saves only "live" or "pipeline" notices, those issued and pursued in reasonable proximity to 30.08.1975. Notices left undecided for years or decades lapse into desuetude. The State is obliged to act within a reasonable time; a notice from 1956-57, never taken to its statutory culmination, cannot be revived to effect vesting on the appointed day.

10.5. On the definitional plane, the Court reaffirmed that the "means and includes" formulation in Section 2(c-i) of the MPFA does not dilute the primary sense of "forest". Lands long designated for urban use, developed under sanctioned plans and permissions, and integrated with municipal infrastructure could not, on the admitted facts, be regarded as "forest" either in the primary or extended sense of Section 2(c-i) of the MPFA.

10.6. Recognising the expropriatory character of the MPFA, the Court applied strict construction. Fundamental norms of fairness and good governance preclude unsettling settled civilian and commercial arrangements after prolonged State inaction, particularly where the State itself facilitated and acquiesced in development over decades.

10.7. Even assuming arguendo that the lands were forest, wholesale demolition and dispossession after half a century was neither feasible nor in the public interest on the facts recorded. The equities of third-party purchasers and residents, the State's prolonged acquiescence, and the practical impossibility of "restoration" militated against such a course.

10.8. In consequence, the appeals were allowed, the High Court's

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Page 17 Tuesday, December 23, 2025
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judgement was set aside, and actions premised solely on stale notices under Section 35(3) of the IFA were quashed.

11. After the judgement of *Godrej and Boyce* (Supra), the High Court has followed it as a binding precedent and used its findings to decide similar matters, whose facts are akin to those of the appellants before us. Some of these are enlisted hereunder:

11.1. *Satellite Developers Ltd.* v. *State of Maharashtra*[8]: Here the High Court held that mere issuance of a notice under Section 35(3) of the IFA does not vest land in the State. It further observed that entries made in 2006 pursuant to directions in a public interest litigation would not, by themselves, effect vesting, particularly when no further steps under Section 35(3), Section 35(4), and Section 35(5) of the IFA were undertaken.

11.2. *Sinhagad Technical Education Society* v. *Deputy Conservator of Forests*[9]: In the case of a subsequent purchaser, the High Court reaffirmed that service of notice under Section 35(3) of the IFA is mandatory.

11.3. *Ozone Land Agro Pvt. Ltd.* v. *State of Maharashtra*[10]: Emphasising *Godrej and Boyce* (supra), the High Court reiterated that mere issuance of a notice under Section 35(3) of the IFA is not sufficient to vest land with the State and declined a remand as futile given the authorities' stated stance.

11.4. *Arjun Sitaram Nitanwar (Dr.)* v. *Tahsildar, District Thane*[11]: The High Court held that a bare Section 35(3) notice under the IFA is insufficient to effect vesting.

11.5. *Lalit A. Sangtani* v. *State of Maharashtra*[12]: The High Court underscored that due service of a notice under Section 35(3) of the IFA is mandatory.

11.6. *Bharat Chandulal Nanavati* v. *Union of India*[13] : Addressing a subsequent purchaser and proceedings under Section 22A of the MPFA, the High Court held that “issued” in Section 2(f)(iii) of the MPFA necessarily includes service. Finding no proof or contemporaneous record of service of the notice dated 17.02.1956, the High Court concluded that proceedings under Section 22A of the MPFA could not be founded merely on Section 2(f)(iii) of the MPFA.

11.7. *Global Estate Developers* v. *State of Maharashtra*[14] : The High Court confined itself to whether the land qualified as “private forest” under the MPFA and reiterated the mandate of service under Section 35 (3) of the IFA.

11.8. *Indrajeet Kashinath Kaiswal* v. *State of Maharashtra*[15]: The High Court clarified that Section 2(f)(iii) of the MPFA applies only to

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Page 18 Tuesday, December 23, 2025
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"live" or "pipeline" notices under Section 35(3) of the IFA, not stale notices left undecided.

11.9. *Nana Govind Gavate* v. *State of Maharashtra*[16]: In a matter involving acquisition and subsequent return, the High Court again insisted upon proof of service of the notice under Section 35(3) of the IFA.

11.10. *Shree Maruti Sansthan Trust* v. *State of Maharashtra*[17]: For a subsequent purchaser, the High Court noted that apart from an entry in the "Golden Register" there was no material showing issuance and/or service of a notice under Section 35(3) of the IFA.

11.11. *Vishram Vishwanath Kunte* v. *State of Maharashtra*[18]: During the pendency of an inquiry under Section 22A of the MPFA, a mutation entry branded the land as forest; the High Court deprecated recurring affidavits from State officers asserting that *Godrej and Boyce* (Supra) laid down no law, terming this "continued defiance of the law laid down by the Supreme Court in *Godrej & Boyce*...".

12. However, for the present appellants, whose facts are similar to those of the various petitioners in the different judgements of the High Court as well as those in *Godrej and Boyce* (Supra) discussed above, the High Court vide the impugned judgment and order dated 28.09.2018 dismissed all the writ petitions. It would be worthwhile to record here that one member of the Division Bench of the High Court had authored the decision in *Oberoi Constructions Private Limited* v. *State of Maharashtra* (Supra) that was later overturned in *Godrej and Boyce* (Supra). The impugned judgment proceeds on the following reasons:

12.1. The High Court framed the primary issue as whether *Godrej and Boyce* (Supra) applied, and secondly whether subsequent purchasers could rely upon it when their predecessors-in-title had not questioned the applicability of the MPFA or the steps taken thereunder.

12.2. Proceeding from Section 3 of the MPFA, the High Court held that vesting of all "private forests" was complete on the appointed day (30.08.1975) and that any post-1975 transactions were ineffectual to confer title. Mutation entries made in 2002 were treated as a ministerial reflection of an earlier vesting rather than its source.

12.3. On Section 35 process under the IFA, the High Court accepted the State's case that notices under Section 35(3) of the IFA had been issued and served, and, in several matters, that a notification under Section 35(1) of the IFA was in force before the appointed day. Reliance was placed on the "Golden Register", Gazette extracts, possession notices referable to Section 5 of the MPFA, lists circulated in 1976, and panchanamas; the contrary pleadings of the petitioners were described as guarded or vague.

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12.4. The High Court distinguished *Godrej and Boyce* (Supra), observing that the owners there had an earlier consent decree, long-standing sanctioned development, and an evidentiary vacuum on service and follow-through. On that basis, the High Court treated *Godrej and Boyce* (Supra) as fact-specific and of limited assistance to subsequent purchasers.

12.5. As to the term "issued" in Section 2(f)(iii) of the MPFA and the service requirement traced to Section 35(5) of the IFA, the High Court did not dispute the principle in *Godrej and Boyce* (Supra) but concluded that, on the records cited, the requirement stood satisfied in these matters.

12.6. On "*stale*" v. "*live*" notices, the High Court read *Godrej and Boyce* (Supra) as context-bound and, in any event, held that even if Section 2(f)(iii) of the MPFA were unavailable, the State could succeed on the primary definition of "forest" in Section 2(c-i) of the MPFA, including by reference to natural growth and contiguity with reserved forest.

12.7. The High Court emphasised that most petitioners were subsequent purchasers who came on the scene long after 30.08.1975, and stated it was "surprising" that they sought to contest service under Section 35(3) of the IFA without affidavits from original owners or contemporaneous material; burden was effectively placed on the petitioners to dislodge official records.

12.8. Entries describing lands as "Private Forest-Forest Department" were justified as having been made pursuant to directions in PIL No. 17 of 2002 and Government circulars; the High Court considered the challenge to such entries, decades after vesting, to be misconceived.

12.9. Arguments based on Section 21 of the MPFA were rejected; the High Court treated that provision as an enabling route, not a precondition to vesting already effected by Section 3 of the MPFA.

12.10. Contentions invoking the two-hectare exclusion in Section 2 (f)(iii) of the MPFA were declined, the High Court holding that later allotment of gata/survey sub-divisions could not undo vesting.

12.11. Objections raised under Section 22A of the MPFA and to certificates under Section 6 of the MPFA were addressed with reference to the Forest (Conservation) Act, 1980, the High Court reiterating that prior approval under that Act was necessary and past non-compliant issuances could not aid the petitioners.

12.12. While one exceptional matter (e.g., involving long-standing urban use or missing records) was remitted for verification by the Collector, the High Court otherwise dismissed the petitions, characterising several as commercially motivated and not bona fide, and cautioning that entertaining them would weaken forest protection.

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13. We have gone through the comprehensive material on record, the submissions of the learned counsel for the appellants and for the respondent-State, as well as the impugned order of the High Court. Having done so, we are of the considered view that the impugned judgment of the High Court cannot be sustained for the following reasons:

13.1. In our opinion, the controlling legal position is settled. For vesting to occur under Section 3(1) of the MPFA Act on the footing of Section 2(f)(iii), a notice under Section 35(3) of the IFA must not only be issued but must also be served upon the landholder. The expression "issued" in Section 2(f)(iii) of the MPFA Act comprehends due service on the owner, because service alone triggers the owner's right to object, including the jurisdictional plea that the land is not a forest within Section 2(c-i) of the MPFA Act, and obliges the State to consider such objection. We are unable to agree with the High Court that the reproduction of a draft text of Section 35(1) beneath a Section 35(3) show cause in the Gazette amounts to a concluded notification under Section 35(1) of the IFA. A notice that grants time for objections cannot coexist with a final decision under Section 35(1) without rendering the statutory hearing illusory. Mutation entries are ministerial in nature and cannot perfect an acquisition that lacks the statutory predicates. They neither create title in the State nor divest title from the private owner.

13.2. On the facts across these appeals, we find that the essential links in the statutory chain are missing. There is no proof of service of any Section 35(3) notice of the IFA on the then owners. There is no final notification under Section 35(1) of the IFA. Actual possession has at all times remained with private owners and this position is reflected in the revenue records that describe them as occupants. No possession was taken under Section 5 of the MPFA Act, no schemes were set in motion under Section 4, no compensation exercise was undertaken under Section 7, and no inquiry under Section 6 was held at a time proximate to the appointed day of 30 August 1975. The materials produced by the State include undated and unverified possession papers that do not inspire confidence when set against decades of undisturbed private possession. In one instance the State relies on a pipeline notice which was addressed to a person who was not the owner as on 29 or 30 August 1975. In another, the land forms part of an industrial estate converted to non-agricultural use long before 1975. In yet another, there was never any claim that a Section 35(3) notice was even issued. These features are wholly inconsistent with a completed vesting under Section 3(1) of the MPFA Act.

13.3. We are not persuaded by the Respondent State's reliance on post-hoc material. Satellite imagery and panchnamas drawn in 2016 do

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not establish the character of the lands on the appointed day, which is the only relevant date for Section 3(1) of the MPFA Act. A nineteenth century notification, invoked for the first time at the appellate stage to suggest linkage with a reserved forest, was not the foundation of the impugned mutations and cannot be used to improve the case now. The administrative orders must stand or fall on the reasons originally given and the High Court could not sustain vesting on grounds that were never the basis of action. The absence of any notification under Section 34A of the IFA further weakens the State's position. We also find merit in the submission that a restoration under Section 22A of the MPFA Act presupposes a lawful vesting. When the foundational vesting is unproven, any purported restoration cannot cure the defect, and in any event the limited window created by Section 22A cannot be reopened decades later. Expropriatory legislation must be construed strictly and Article 300-A of the Constitution requires that no person is deprived of property save by authority of law. When a statute prescribes a manner of doing a thing, it must be done in that manner or not at all. Here, several mandatory steps are absent. Any one missing step would defeat vesting. The High Court was therefore in error in treating the case as if only a consequential mutation remained.

13.4. We are also unable to accept the distinctions drawn by the High Court. The binding ratio on service, on the need for a live process, and on strict compliance does not turn on whether an appellant is an original owner or a subsequent purchaser. It also does not turn on whether construction has occurred on the land. The State itself has, on earlier occasions, recognised that subsequent purchasers cannot be prejudiced by undisclosed proceedings which they had no means to discover. The record here shows that the revenue entries continued to carry the names of the private owners, which indicates that even the State did not treat these lands as vested forests. To hold that a subsequent purchaser is in a worse position than one who developed land would invert the logic of the statute and would reward illegality while penalising restraint. We reject that approach.

13.5. We are further of the view that a remand for an inquiry under Section 6 of the MPFA Act is neither warranted nor efficacious. Such an inquiry is designed to be contemporaneous with the appointed day so that meaningful evidence on the character of the land can be adduced by both sides. After the passage of nearly half a century, that exercise would be largely academic and would not cure the absence of the mandatory preconditions of a served notice under Section 35(3) of the IFA and a lawful progression towards a notification under Section 35 (1). The authorities have also adopted a concluded litigating stance on the very matters they would be called upon to decide, which would not inspire confidence in the fairness of any remanded proceeding. In our

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opinion, the impugned judgment rests on a misreading of the Gazette, an impermissible dilution of mandatory statutory steps, and reliance on materials that are extraneous to the original basis of action. It therefore cannot be sustained.

14. While the High Court in the impugned judgement dismissed all the writ petitions by a common order, it did not attempt any principled differentiation among the petitions before it. Having closely examined the record, and in order to assess the distinctions the High Court is said to have perceived with the petitioners in *Godrej and Boyce* (Supra), we have undertaken our own classification for clarity. We have no hesitation in stating that had this exercise been undertaken by the High Court in the impugned judgement, considerable judicial time could have been saved and directed to the unsettled legal questions on which many litigants rest their hopes. It is with this consideration in mind that we proceeded to categorise the 96 civil appeals into 3 categories.

14.1. The first category concerns the status of ownership, that is to say whether the appellants' title was derived before or after the alleged notices under IFA were issued around 1960s by the State Government. For clarification, if a title is devolved by inheritance subsequently but if the land has been owned by the same family throughout, the ownership would be deemed to be continuing since the land came first in the family's possession. On our analysis, 77 appeals involve derivative title and 19 involve continuing or ongoing title. The second category concerns the period of ownership, namely whether ownership commenced before or after the enforcement of MPFA. In this category, 72 appellants acquired ownership after MPFA and 24 appellants owned the land before MPFA. The third category concerns the existence of construction on the subject lands. In this category, 26 appellants have raised some form of construction on the subject lands, while 70 appellants have not raised construction or the position is not clearly established on the materials placed on record.

14.2. After this categorisation, we are satisfied that there is no legally relevant distinction between the present cases and the decision in *Godrej and Boyce* (Supra). The ratio in *Godrej and Boyce* (Supra) turns on service of a notice under Section 35(3) of the IFA, the existence of a live process capable of culminating in a notification under Section 35(1) of the IFA, and strict compliance with the statutory steps that alone can support vesting under Section 3(1) of the MPFA Act on the footing of Section 2(f)(iii). The record before us discloses the same deficiencies that were fatal in *Godrej and Boyce* (Supra). There is no proof of service of any notice under Section 35(3) of the IFA on the then owners. There is no final notification under Section 35(1) of the IFA. Possession has remained with private owners throughout. No contemporaneous action was taken under Sections 4, 5, 6 or 7 of the

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MPFA Act. These features mirror the very elements that led this Court to hold that vesting had not occurred in *Godrej and Boyce* (Supra).

14.3. We do not accept the distinctions on which the High Court sought to sidestep *Godrej and Boyce* (Supra). The fact that some appellants are subsequent purchasers does not diminish the requirement of service and a live statutory process. *Godrej and Boyce* (Supra) itself concerned a batch in which many parties were not original owners, yet the controlling principles were applied uniformly. The presence or absence of construction is equally irrelevant to the legal question of vesting. What matters is compliance with the prerequisites of the MPFA Act and the IFA. The present record shows revenue entries that continued to reflect private ownership and occupation. It shows a pipeline notice addressed to a person who was not the owner on the relevant date. It shows lands long converted to non-agricultural or industrial use. None of this allows the State to dispense with service under Section 35(3) of the IFA or to conjure a final notification under Section 35(1) of the IFA from a draft placed beneath a show cause. In our opinion, the differences invoked by the High Court are insubstantial and cannot displace the binding ratio.

14.4. We find that the High Court's approach amounts to an attempt to avoid a binding precedent rather than to apply it. The impugned reasoning rests on a misreading of a Gazette publication that only reproduced a draft text and expressly invited objections. It relies on material that is subsequent to the appointed day and that was never the foundation of the impugned mutation entries. It treats mutation as if it were constitutive of title and not a ministerial reflection of underlying legal events. Each of these moves stands at odds with *Godrej and Boyce* (Supra), which requires strict adherence to the statutory sequence before vesting can be asserted.

14.5. Judicial discipline required faithful application of the law declared by this Court under Article 141 of the Constitution. Coordinate Benches of the High Court have consistently followed *Godrej and Boyce* (Supra) in closely comparable situations. The impugned judgment nonetheless revives positions that *Godrej and Boyce* (Supra) has rejected. We also note that the Bench was presided over by the same Judge who had earlier taken a contrary view that was set aside by this Court. We do not attribute motive. However, when a judgment minimizes a binding ratio, ignores missing statutory steps, and seeks to distinguish on immaterial facts, it creates an appearance of a reluctance to accept precedent. Such an approach conveys a measure of pettiness that is inconsistent with the detachment that judicial reasoning demands. In our view, this is an unfortunate departure from the discipline of stare decisis.

14.6. We accordingly hold that the present appeals are

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indistinguishable in principle from *Godrej and Boyce* (Supra). The record discloses the same jurisdictional defect of non-service of a notice under Section 35(3) of the IFA, the same absence of a final notification under Section 35(1) of the IFA, and the same want of contemporaneous steps under Sections 4, 5, 6 and 7 of the MPFA Act. In such circumstances the High Court could not, consistently with Article 141 of the Constitution, avoid the binding ratio by treating immaterial differences as determinative. In our opinion, fidelity to binding precedent and to the statutory scheme admits of no other conclusion than that the impugned order must be set aside.

15. In view of the foregoing analysis, the appeals are allowed.

16. The impugned judgment and order dated 27.09.2018 of the High Court of Judicature at Bombay in Writ Petition No. 6417 of 2015, amongst others, is set aside. The writ petitions before the High Court in the aforementioned matter are allowed. All mutation orders and any declarations treating the subject lands as private forests are quashed and set aside. Consequential corrections be made in the revenue records.

17. Liberty is reserved to the State to initiate such proceedings, in accordance with law, as per the relevant Statutes and to bring them to a logical conclusion after following due process of law.

18. All pending application(s), if any, stand disposed of.

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[1] Hereinafter referred to as, “the Constitution”

[2] Hereinafter referred to as, “IFA”

[3] Hereinafter referred to as, “MLRC”

[4] Hereinafter referred to as, “MPFA”

[5] 2008 SCC OnLine Bom 311

[6] (2014) 3 SCC 430

[7] (2000) 3 SCC 143

[8] 2014 SCC OnLine Bom 66

[9] 2015 SCC OnLine Bom 293

[10] 2015 SCC OnLine Bom 5832

[11] 2015 SCC OnLine Bom 295

[12] 2016 SCC OnLine Bom 248

[13] 2015 SCC OnLine Bom 3862

[14] 2017 SCC OnLine Bom 8345

[15] 2015 SCC OnLine Bom 6743

[16] 2016 SCC OnLine Bom 340

[17] 2015 SCC OnLine Bom 7074

[18] WP No. 594 of 2022, decided on 16.09.2022

[§] 2025 INSC 1296

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Department of Science, Technology & Environment,
Govt. of Punjab
Notified State Analytical Agency

TC-12762

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No.PBTI/ENV/050625/000478 Dated : 25/6/2025

TEST REPORT

ULR : TC127622500001553F

Sample Registration No. : **PBTI/ENV/050625/000478**

Sample code given by customer : **Site- ETP Final Outlet Area**

Issued to:

Sunshine Dyeing Private Limited.261,
Industrial Area-A,

Ludhiana.
Punjab

SAMPLE PARTICULARS

Your Ref. No.	:	Email dt. 27/05/2025
Date & Time of Sample Collection	:	05/06/2025 at 12:35pm
Date & Time of Sample Receipt in Lab	:	05/06/2025 at 9:30pm
Sample Identification No.	:	PBTI/050625/07, dt. 05/06/2025
Site of Sample Collection	:	Sunshine Dyeing Private Limited.261, Indl Area-A, Ludhiana
Name/Nature of sample	:	**Treated Effluent**
Type of Sample	:	Grab
Point of Sample Collection	:	Outlet
Condition of the sample on Receipt	:	Intact coded sample under refrigerated & preserved condition
Qty/Pkg.	:	5L 50ml approx in plastic cans & glass bottles
Sampling Method	:	Sample drawn by PBTI (Mr.Deerghayu) as per APHA guidelines
Test Start Date	:	05/06/2025
Test Completion Date	:	25/06/2025

Report for Self Monitoring of the Industry on Request basis
PBTI, Mohali

25/6/2025
Authorized Signatory
Punjab Biotechnology Incubator Lab
Employee Code : Employee Code: 16

Note:
1. The above results pertain only to the sample tested.
2. There is no addition, deviation or exclusion from the method mentioned.
3. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
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TC-12762

Dated :

ULR : TC127622500001553F

Sample Registration No. : **PBTI/ENV/050625/000478**

Sample code given by customer : **Site- ETP Final Outlet Area**

Test Results

S.No.	Parameter	Results	Units	Test Method
1	.pH	7.83		IS 3025 (Part 11) 2022
2	Total Suspended Solids (TSS)	20	mg/l	IS 3025 (Part 17) 2022
3	Total Dissolved Solids (TDS)	1840	mg/l	IS 3025 (Part 16) :2023
4	Biochemical Oxygen Demand (BOD3 at 27oC)	19	mg/l	IS 3025 (Part 44) : 2023
5	Chemical Oxygen Demand (COD) Total	120	mg/l	IS 3025 (Part 58) 2023
6	Oil & Grease	BDL (MDL:1)	mg/l	IS 3025 (Part 39) (A) 2021
7	Ammonical Nitrogen	BDL (MDL:1)	mg/l	IS 3025 (Part 34): 2023
8	Chromium - Hexavalent (as Cr+6)	BDL (MDL:0.05)	mg/l	IS 3025 (Part 52)
9	Nickel (as Ni)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
10	Zinc (as Zn)	0.04	mg/l	APHA 3125 B By ICP-MS
11	Copper (as Cu)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
12	Lead (as Pb)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
13	Chromium (as Cr)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
14	Cadmium (as Cd)	BDL(MDL 0.01)	mg/l	APHA- 3125 B By ICP-MS
15	Sulphide	BDL (MDL:1)	mg/l	IS 3025 (Part 29) : 2022
16	Phenolic compounds (as C6H5OH)	BDL (MDL:0.5)	mg/l	IS 3025 (Part 43) Sec I : 2022
17	Manganese (as Mn)	0.06	mg/l	APHA- 3125 B By ICP-MS
18	Sodium Adsorption Ratio	2.4		IS 11624: 2019

BDL:Below Detection Limit MDL:Method Detection Limit

25/6/2025

Authorized Signatory

Punjab Biotechnology Incubator Lab

Employee Code : Employee Code: 16

Report for Self Monitoring of the Industry on Request basis

PBTI, Mohali

Punjab Biotechnology Incubator

Department of Science, Technology & Environment,
Govt. of Punjab

Notified State Analytical Agency

TC-12762

FSSAI Empanelled | EIC Approved | APEDA Approved | Notified State Water Lab - GoP | Notified Under EPA - GoI

No.PBTI/ENV/050625/000479 Dated : 25/6/2025

TEST REPORT

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Sample Registration No. : **PBTI/ENV/050625/000479**

Sample code given by customer : **Site- ETP Inlet Tank Area**

Issued to:

Sunshine Dyeing Private Limited.261,
Industrial Area-A,

Ludhiana.
Punjab

SAMPLE PARTICULARS

Your Ref. No.	:	Email dt. 27/05/2025
Date & Time of Sample Collection	:	05/06/2025 at 1:10pm
Date & Time of Sample Receipt in Lab	:	05/06/2025 at 9:30pm
Sample Identification No.	:	PBTI/050625/08, dt. 05/06/2025
Site of Sample Collection	:	Sunshine Dyeing Private Limited.261, Indl Area-A, Ludhiana
Name/Nature of sample	:	**Untreated Effluent**
Type of Sample	:	Grab
Point of Sample Collection	:	Inlet
Condition of the sample on Receipt	:	Intact coded sample under refrigerated & preserved condition
Qty/Pkg.	:	5L 50ml approx in plastic cans & glass bottles
Sampling Method	:	Sample drawn by PBTI (Mr.Deerghayu) as per APHA guidelines
Test Start Date	:	05/06/2025
Test Completion Date	:	25/06/2025

Report for Self Monitoring of the Industry on Request basis
PBTI, Mohali

25/6/2025

Authorized Signatory
Punjab Biotechnology Incubator Lab
Employee Code : Employee Code: 16

Note:
1. The above results pertain only to the sample tested.
2. There is no addition, deviation or exclusion from the method mentioned.
3. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
4. This report cannot be re-produced, except when in full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
5. Perishable samples will be destroyed after testing, others after one month from the date of issue of the report, unless otherwise agreed with the customer or as required by the applicable regulations.

Format No : PBTI/F/7.8/04
Issue No & Date : 02 & 03.10.23

TC-12762

Dated :

ULR : TC127622500001554F

Sample Registration No. : **PBTI/ENV/050625/000479**

Sample code given by customer : **Site- ETP Inlet Tank Area**

Test Results

S.No.	Parameter	Results	Units	Test Method
1	.pH	9.02		IS 3025 (Part 11) 2022
2	Total Suspended Solids (TSS)	32	mg/l	IS 3025 (Part 17) 2022
3	Total Dissolved Solids (TDS)	3463	mg/l	IS 3025 (Part 16) :2023
4	Biochemical Oxygen Demand (BOD3 at 27oC)	352	mg/l	IS 3025 (Part 44) : 2023
5	Chemical Oxygen Demand (COD) Total	495	mg/l	IS 3025 (Part 58) 2023
6	Oil & Grease	1.7	mg/l	IS 3025 (Part 39) (A) 2021
7	Ammonical Nitrogen	BDL (MDL:1)	mg/l	IS 3025 (Part 34): 2023
8	Chromium - Hexavalent (as Cr+6)	BDL (MDL:0.05)	mg/l	IS 3025 (Part 52)
9	Nickel (as Ni)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
10	Zinc (as Zn)	0.03	mg/l	APHA 3125 B By ICP-MS
11	Copper (as Cu)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
12	Lead (as Pb)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
13	Chromium (as Cr)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
14	Cadmium (as Cd)	BDL(MDL 0.01)	mg/l	APHA- 3125 B By ICP-MS
15	Sulphide	BDL (MDL:1)	mg/l	IS 3025 (Part 29) : 2022
16	Phenolic compounds (as C6H5OH)	BDL (MDL:0.5)	mg/l	IS 3025 (Part 43) Sec I : 2022
17	Manganese (as Mn)	0.18	mg/l	APHA- 3125 B By ICP-MS
18	Sodium Adsorption Ratio	2.9		IS 11624: 2019

BDL:Below Detection Limit MDL:Method Detection Limit

25/6/2025

Authorized Signatory

Punjab Biotechnology Incubator Lab

Employee Code : Employee Code: 16

Punjab Biotechnology Incubator

Department of Science, Technology & Environment,
Govt. of Punjab
Notified State Analytical Agency

TC-12762

FSSAI Empanelled | EIC Approved | APEDA Approved | Notified State Water Lab - GoP | Notified Under EPA - GoI

No.PBTI/ENV/050625/000480

Dated : 25/6/2025

TEST REPORT

ULR : TC127622500001555F

Sample Registration No. : **PBTI/ENV/050625/000480**

Sample code given by customer : **Site- Outside the Industry Main Gate**

Issued to:

Sunshine Dyeing Private Limited.261,
Industrial Area-A,

Ludhiana.
Punjab

SAMPLE PARTICULARS

Your Ref. No.	:	Email dt. 27/05/2025
Date & Time of Sample Collection	:	05/06/2025 at 1:35pm
Date & Time of Sample Receipt in Lab	:	05/06/2025 at 9:30pm
Sample Identification No.	:	PBTI/050625/09, dt. 05/06/2025
Site of Sample Collection	:	Sunshine Dyeing Private Limited.261, Indl Area-A, Ludhiana
Name/Nature of sample	:	**Waste Water**
Type of Sample	:	Grab
Point of Sample Collection	:	Taken from Sewar Pit
Condition of the sample on Receipt	:	Intact coded sample under refrigerated & preserved condition
Qty/Pkg.	:	5L 50ml approx in plastic cans & glass bottles
Sampling Method	:	Sample drawn by PBTI (Mr.Deerghayu) as per APHA guidelines
Test Start Date	:	05/06/2025
Test Completion Date	:	25/06/2025

Report for Self Monitoring of the Industry on Request basis
PBTI, Mohali

25/6/2025

Authorized Signatory
Punjab Biotechnology Incubator Lab
Employee Code : Employee Code: 16

Note:
1. The above results pertain only to the sample tested.
2. There is no addition, deviation or exclusion from the method mentioned.
3. The report shall not be used for advertising or any legal purpose without written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
4. This report cannot be re-produced, except when in full, without the written permission from the Chief Executive Officer, Punjab Biotechnology Incubator.
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Format No : PBTI/F/7.8/04
Issue No & Date : 02 & 03.10.23

Knowledge City, Sector-81, SAS Nagar (Mohali) Punjab - 140 306, India
Phone : +91-172-2998601, 2998602, 2998603 Website : www.pbtilabs.com /pbti_dst

TC-12762

Dated :

ULR : TC127622500001555F

Sample Registration No. : **PBTI/ENV/050625/000480**

Sample code given by customer : **Site- Outside the Industry Main Gate**

Test Results

S.No.	Parameter	Results	Units	Test Method
1	.pH	7.91		IS 3025 (Part 11) 2022
2	Total Suspended Solids (TSS)	102	mg/l	IS 3025 (Part 17) 2022
3	Total Dissolved Solids (TDS)	2761	mg/l	IS 3025 (Part 16) :2023
4	Biochemical Oxygen Demand (BOD3 at 27oC)	70	mg/l	IS 3025 (Part 44) : 2023
5	Chemical Oxygen Demand (COD) Total	195	mg/l	IS 3025 (Part 58) 2023
6	Oil & Grease	1.5	mg/l	IS 3025 (Part 39) (A) 2021
7	Ammonical Nitrogen	BDL(MDL 1)	mg/l	IS 3025 (Part 34): 2023
8	Chromium - Hexavalent (as Cr+6)	BDL(MDL 0.05)	mg/l	IS 3025 (Part 52)
9	Nickel (as Ni)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
10	Zinc (as Zn)	0.02	mg/l	APHA 3125 B By ICP-MS
11	Copper (as Cu)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
12	Lead (as Pb)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
13	Chromium (as Cr)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
14	Cadmium (as Cd)	BDL(MDL 0.01)	mg/l	APHA- 3125 B By ICP-MS
15	Sulphide	BDL(MDL 1)	mg/l	IS 3025 (Part 29) : 2022
16	Phenolic compounds (as C6H5OH)	BDL(MDL 0.5)	mg/l	IS 3025 (Part 43) Sec I : 2022
17	Manganese (as Mn)	0.12	mg/l	APHA- 3125 B By ICP-MS
18	Sodium Adsorption Ratio	2.5		IS 11624: 2019

BDL:Below Detection Limit MDL:Method Detection Limit

25/6/2025

Authorized Signatory

Punjab Biotechnology Incubator Lab

Employee Code : Employee Code: 16

onitoring of the
not basis

PBTI, Mohali

Punjab Biotechnology Incubator

Department of Science, Technology & Environment,
Govt. of Punjab
Notified State Analytical Agency

TC-12762

FSSAI Empanelled | EIC Approved | APEDA Approved | Notified State Water Lab - GoP | Notified Under EPA - GoI

No.PBTI/ENV/050625/000481 Dated : 25/6/2025

TEST REPORT

ULR : TC127622500001556F

Sample Registration No. : PBTI/ENV/050625/000481

Sample code given by customer : Site- Near Lucky Computer Dharamkanda at Road Crossing

Issued to:

Sunshine Dyeing Private Limited.261,
Industrial Area-A,

Ludhiana.
Punjab

SAMPLE PARTICULARS

Your Ref. No.	:	Email dt. 27/05/2025
Date & Time of Sample Collection	:	05/06/2025 at 2:00pm
Date & Time of Sample Receipt in Lab	:	05/06/2025 at 9:30pm
Sample Identification No.	:	PBTI/050625/10, dt. 05/06/2025
Site of Sample Collection	:	Sunshine Dyeing Private Limited.261, Indl Area-A, Ludhiana
Name/Nature of sample	:	**Waste Water**
Type of Sample	:	Grab
Point of Sample Collection	:	Taken from Sewar Line Pit
Condition of the sample on Receipt	:	Intact coded sample under refrigerated & preserved condition
Qty/Pkg.	:	5L 50ml approx in plastic cans & glass bottles
Sampling Method	:	Sample drawn by PBTI (Mr.Deerghayu) as per APHA guidelines
Test Start Date	:	05/06/2025
Test Completion Date	:	25/06/2025

Report for Self Monitoring of the Industry on Request basis
PBTI, Mohali

25/6/2025
Authorized Signatory
Punjab Biotechnology Incubator Lab
Employee Code : Employee Code: 16

Note:
1. The above results pertain only to the sample tested.
2. There is no addition, deviation or exclusion from the method mentioned.
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5. Perishable samples will be destroyed after testing, others after one month from the date of issue of the report, unless otherwise agreed with the customer or as required by the applicable regulations.

Format No : PBTI/F/7.8/04
Issue No & Date : 02 & 03.10.23

National Referral Lab for LMO/GMO Detection under Seeds Act | Approved NRL by FSSAI | Referral Lab under FSSA 2006

Knowledge City, Sector-81, SAS Nagar (Mohali) Punjab - 140 306, India
Phone : +91-172-2998601, 2998602, 2998603 Website : www.pbtilabs.com /pbti_dst

TC-12762

Dated :

ULR : TC127622500001556F

Sample Registration No. : **PBTI/ENV/050625/000481**

Sample code given by customer : **Site- Near Lucky Computer Dharamkanda at Road Crossing**

Test Results

S.No.	Parameter	Results	Units	Test Method
1	.pH	7.90		IS 3025 (Part 11) 2022
2	Total Suspended Solids (TSS)	79	mg/l	IS 3025 (Part 17) 2022
3	Total Dissolved Solids (TDS)	1154	mg/l	IS 3025 (Part 16) :2023
4	Biochemical Oxygen Demand (BOD3 at 27oC)	49	mg/l	IS 3025 (Part 44) : 2023
5	Chemical Oxygen Demand (COD) Total	190	mg/l	IS 3025 (Part 58) 2023
6	Oil & Grease	1.1	mg/l	IS 3025 (Part 39) (A) 2021
7	Ammonical Nitrogen	BDL (MDL:1)	mg/l	IS 3025 (Part 34): 2023
8	Chromium - Hexavalent (as Cr+6)	BDL (MDL:0.05)	mg/l	IS 3025 (Part 52)
9	Nickel (as Ni)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
10	Zinc (as Zn)	0.02	mg/l	APHA 3125 B By ICP-MS
11	Copper (as Cu)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
12	Lead (as Pb)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
13	Chromium (as Cr)	BDL(MDL 0.01)	mg/l	APHA 3125 B By ICP-MS
14	Cadmium (as Cd)	BDL(MDL 0.01)	mg/l	APHA- 3125 B By ICP-MS
15	Sulphide	BDL (MDL:1)	mg/l	IS 3025 (Part 29) : 2022
16	Phenolic compounds (as C6H5OH)	BDL (MDL:0.5)	mg/l	IS 3025 (Part 43) Sec I : 2022
17	Manganese (as Mn)	0.09	mg/l	APHA- 3125 B By ICP-MS
18	Sodium Adsorption Ratio	1.1		IS 11624: 2019

BDL:Below Detection Limit MDL:Method Detection Limit

25/6/2025

Authorized Signatory

Punjab Biotechnology Incubator Lab

Employee Code : Employee Code: 16

monitoring of the
basis
PBTI, Mohali

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail: ddppcbldh@gmail.com

ਨਵੀਂ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ

ਵਾਤਾ ਇੰਜੀ

ਡਾਇਰੀ ਨ. 1279 ਮਿਤੀ 29.5.24

STP's Analysis Report

1.	Laboratory Sample no.:	STP/ 19 – 20 /Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Ikmandeep Singh, Junior Environmental Engineer,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	29.04.2024
7.	Date & Time of Sample receipt in lab	30.04.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	7.2	7.4	-	6.5-8.5
2	Total Suspended Solids	520	9	mg/l	<100
3	Total Dissolved Solids	864	910	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	160	6	mg/l	30
5	Fe	36.8	1.4	mg/l	-
6	Zn	7.5	0.2	mg/l	-
7	Ni	0.6	0.3	mg/l	-
8	Cr	0.8	BDL	mg/l	-
9	Color	-	-	mg/l	-
10	F.Coli	94,00,000	BDL	MPN/100ml	<1000

Remarks- The sample of outlet was almost clear.
The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

-----End of Report------

Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 1344-46 Dated 28/05/24

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

PUNJAB POLLUTION CONTROL BOARD ★ R.O.-III, LUDHIANA ★

Scientific Officer,
Zonal Lab, Ludhiana
28/5/24

File it by P.K

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

ਨਵੀ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ
ਵਾਤਾ ਇੰਜੀ
ਡਾਇਰੀ ਨੰ ..1359 ਮਿਤੀ ..5/6/24
05/06/24

STP's Analysis Report

1.	Laboratory Sample no.:	STP/ 45 – 46 /Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, AEE ,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	29.05.2024
7.	Date & Time of Sample receipt in lab	29.05.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
	Inlet Of STP	Outlet Of STP	Units	
pH	7.0	7.3	-	6.5-8.5
Total Suspended Solids	610	BDL	mg/l	<100
Total Dissolved Solids	1220	1140	mg/l	-
Biochemical Oxygen Demand (BOD_5) at 27 °C	110	BDL	mg/l	30
F.Coli	54,00,000	26	MPN/100ml	<1000

Remarks:- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail

-----End of Report------

4/6
Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 1403-05 Dated 04-06-2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

PUNJAB POLLUTION CONTROL BOARD ENTERED IN R.O.-III, LUDHIANA

Scientific Officer,
Zonal Lab, Ludhiana
4/6/24

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail: ilabppcbldh@gmail.com

ਸਾਨਿਅਰ ਸਹਾ/ਸਸ ਕਲਰਕ/ਡੀ.ਈ.ਓ/ਸਹਾ ਵਾਤਾ ਇੰਜੀ
ਨਵੀ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ
ਵਾਤਾ ਇੰਜੀ
ਵਾਲਿਰੀ ਨ 1689 ਮਿਤੀ 10/07/24

STP's Analysis Report

1. Laboratory Sample no.: STP/ 65 - 66 /Zonal Lab. Monitoring/2024
2. Name & address of Industry/organization: M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3. Name of Sample Collecting Officer : Er. Mohit Kumar, JEE ,
4. Designation of the officer authorizing test Environmental Engineer, Regional office-3, Ludhiana
5. Type of Sample : Grab
6. Date & Time of Sample Collection : 29.06.2024
7. Date & Time of Sample receipt in lab 01.07.2024
8. Test Methods As per relevant parts of IS:3025/ Methods of APHA

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM LUDHIANA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1.	pH	7.2	7.3	-	6.5-8.5
2.	Total Suspended Solids	760	14	mg/l	<100
3.	Total Dissolved Solids	950	862	mg/l	-
4.	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	90	BDL	mg/l	30
5.	F.Coli	1,10,00,000	540	MPN/100ml	<1000

Remarks-

1. The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.
2. Samples for metals are under analysis and results will be released shortly.

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM LUDHIANA

-----End of Report------

Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 1682-84 **Dated** 10/07/2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana
9/7/24

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail: dalppcbldh@gmail.com

ਸੀਨੀਅਰ ਸਹਾ/ਸਸ ਕਲਰਕ/ਡੀ.ਟੀ.ਓ/ਸਹਾ ਵਾਤਾ ਇੰਜੀ
ਨਵੀ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ
ਵਾਤਾ ਇੰਜੀ

STP's Analysis Report

ਡਾਇਰੀ ਨ 1819.. ਮਿਤੀ 26/07/24

1.	Laboratory Sample no.:	STP/ 74-75 /Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, AEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	17.07.2024
7.	Date & Time of Sample receipt in lab	17.07.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	7.3	7.2	-	6.5-8.5
2	Total Suspended Solids	490	BDL	mg/l	<100
3	Total Dissolved Solids	1080	970	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	160	6.0	mg/l	30
5	F.Coli	-	210	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

------End of Report------

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM R.O. Hill, LUDHIANA

25/7/24
Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 1765-67 **Dated** 25/07/24

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana
25/7/24

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

STP's Analysis Report

1.	Laboratory Sample no.:	STP/111 - 112/Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, JEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	21.08.2024
7.	Date & Time of Sample receipt in lab	21.08.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM LUDHIANA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	7.2	8.2	-	6.5-8.5
2	Total Suspended Solids	476	BDL	mg/l	<100
3	Total Dissolved Solids	1038	1404	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	135	BDL	mg/l	30
5	F.Coli	-	45	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

-----End of Report------

30/9/24

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 1993-95 **Dated** 03/09/2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

STP's Analysis Report

1.	Laboratory Sample no.:	STP/122 - 123/Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, JEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	11.09.2024
7.	Date & Time of Sample receipt in lab	11.09.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	6.9	7.1	-	6.5-8.5
2	Total Suspended Solids	392	<10	mg/l	<100
3	Total Dissolved Solids	1062	1218	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	180	4.0	mg/l	30
5	F.Coli	-	BDL	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

-----End of Report------

17/9/24

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 2091-93 **Dated** 17/09/2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM R.O.-III, LUDHIANA

Scientific Officer,
Zonal Lab, Ludhiana
17/9/24.

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail: ilabppcbldh@gmail.com

ਜਾਨਿਅਰ ਸਹਾ/ਸਸ ਕਲਰਕ/ਡੀ.ਈ.ਓ/ਸਟਾ ਵਾਤਾ ਇੰਜ
ਨਵੀ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ
ਵਾਤਾ ਇੰਜੀ
ਰਾਇੰਸੀ ਨੰ 2645 ਮਿਤੀ 7/11/24

STP's Analysis Report

1. Laboratory Sample no.: STP/158-159/Zonal Lab. Monitoring/2024
2. Name & address of Industry/organization: M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3. Name of Sample Collecting Officer : Er. Deepak Kumar Salaria, JEE,
4. Designation of the officer authorizing test Environmental Engineer, Regional office-3, Ludhiana
5. Type of Sample : Grab
6. Date & Time of Sample Collection : 29.10.2024
7. Date & Time of Sample receipt in lab 30.10.2024
8. Test Methods As per relevant parts of IS:3025/ Methods of APHA

ENTERED IN SYSTEM
P.O.-III, LUDHIANA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	7.4	8.5	-	6.5-8.5
2	Total Suspended Solids	732	11	mg/l	<100
3	Total Dissolved Solids	898	764	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	360	BDL	mg/l	30
5	F.Coli	-	BDL	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

-----End of Report------

4/11/24

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No 2414-16 **Dated** 05/11/2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

ਸੀਨੀਅਰ ਸਹਾਇਕ/ਜੂ. ਵਾਤਾ ਇੰਜੀ ਨਵੀਂ ਡਾਕ ਜੂ. ਵਾਤਾ ਇੰਜੀ ਵਾਤਾ ਇੰਜੀ

E-mail: dabppcbldh@gmail.com

04/12/24

371

STP's Analysis Report

ਰਜਿਸਟਰੀ ਨੰ. 2882 ਮਿਤੀ 4/12/24

1.	Laboratory Sample no.:	STP/172-173/Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Mohit Kumar, JEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	29.11.2024
7.	Date & Time of Sample receipt in lab	29.11.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	7.2	7.5	-	6.5-8.5
2	Total Suspended Solids	548	56	mg/l	<100
3	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	270	38	mg/l	30
4	F.Coli	-	24,000	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

------End of Report------

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM R.O.-III, LUDHIANA

3/12/24

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 2566-68 **Dated** 03/12/2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana
3/12

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

E-mail: zlabppcbldh@gmail.com

STP's Analysis Report

1.	Laboratory Sample no.:	STP/188 - 189/Zonal Lab. Monitoring/2024
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, JEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	18.12.2024
7.	Date & Time of Sample receipt in lab	18.12.2024
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1	pH	6.9	6.5	-	6.5-8.5
2	Total Suspended Solids	312	24	mg/l	<100
3	Total Dissolved Solids (TDS)	984	860	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	163	17	mg/l	30
5	F.Coli	-	3500	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

------End of Report------

ENTERED IN SYSTEM
PUNJAB POLLUTION CONTROL BOARD ★ R.O.-III, LUDHIANA ★

31/12/24

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 2799-2801 Dated 31.12.2024

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana
31/12/24

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.

STP's Analysis Report

1.	Laboratory Sample no.:	STP/222 - 223/Zonal Lab. Monitoring/2025
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er.Mohit Kumar, JEE,
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	28.01.2025
7.	Date & Time of Sample receipt in lab	29.01.2025
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results		Units	Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP		
1	pH	7.4	7.5	-	6.5-8.5
2	Total Suspended Solids	224	BDL	mg/l	<100
3	Total Dissolved Solids (TDS)	1240	1624	mg/l	-
4	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	170	12	mg/l	30
5	F.Coli	-	320	MPN/100ml	<1000

Remarks- The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019.
However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

----End of Report----

ENTERED IN SYSTEM

Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 296-98 Dated 05-02-2025

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail: tlabppcbldh@gmail.com

STP's Analysis Report

1.	Laboratory Sample no.:	STP/ 231 - 232/Zonal Lab. Monitoring/2025
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Deepak Kumar Salaria, JEE
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	20.02.2025
7.	Date & Time of Sample receipt in lab	21.02.2025
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1.	pH	6.8	7.2	-	6.5-8.5
2.	Total Suspended Solids	450	19	mg/l	<100
3.	Total Dissolved Solids	846	1154	mg/l	-
4.	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	145	8	mg/l	30
5.	F.Coli	-	210	MPN/100ml	<1000

Remarks-

1. The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

PUNJAB POLLUTION CONTROL BOARD ENTERED IN SYSTEM LUDHIANA

-----End of Report------

Assistant Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 498-500 **Dated** 03/03/2025

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Officer,
Zonal Lab, Ludhiana

Punjab Pollution Control Board

Zonal Laboratory, E-648-B, 2nd Floor,
Phase-5, Focal Point, Ludhiana.
E-mail :labppcbldh@gmail.com

STP's Analysis Report

1.	Laboratory Sample no.:	STP/ 252 - 253/Zonal Lab. Monitoring/2025
2.	Name & address of Industry/organization:	M/s STP 225 MLD, Jamalpur, Tajpur Road, Ludhiana.
3.	Name of Sample Collecting Officer :	Er. Sahibjeet Singh, Asstt. Environmental Engineer Er. Mohit Kumar, Junior Environmental Engineer Sh. Sonu Kumar, Junior Scientific Officer
4.	Designation of the officer authorizing test	Environmental Engineer, Regional office-3, Ludhiana
5.	Type of Sample :	Grab
6.	Date & Time of Sample Collection :	12.03.2025
7.	Date & Time of Sample receipt in lab	12.03.2025
8.	Test Methods	As per relevant parts of IS:3025/ Methods of APHA

Test Results:

Sr. No	Parameters	Results			Prescribed Standards as per notification no 188 dt 28.3.2019
		Inlet Of STP	Outlet Of STP	Units	
1.	pH	7.2	8.0	-	6.5-8.5
2.	Total Suspended Solids	144	12	mg/l	<100
3.	Total Dissolved Solids	880	941	mg/l	-
4.	Bio-chemical Oxygen Demand (BOD_3) at 27 °C	130	6	mg/l	30
5.	F.Coli	-	92	MPN/100ml	<1000

Remarks-

1. TSS (MDL <10 mg/l), BOD (MDL <5 mg/l)
2. BDL means Below Method Detection Limit.
3. The prescribed standards are as per PPCB notification no. 188 dated 28.3.2019. However, if any stringent/other standards have been imposed by the Board, the same shall prevail.

ENTERED IN SYSTEM

----End of Report------

Asstt/ Junior Scientific Officer,
Zonal Lab, Ludhiana

Ends. No. 651-53 **Dated** 19/03/2025

A copy of the above is forwarded to the following for information and necessary action please along with data sheet:-

1. The Chief Environmental Engineer, Punjab Pollution Control Board, Ludhiana.
2. The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office-2, Ludhiana.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana.

Scientific Office..
Zonal Lab, Ludhiana

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH
NEW DELHI
.....

ORIGINAL APPLICATION NO. 200 OF 2014

(C.WRIT PETITION No. 3727/1985)

(M.A. No. 594/2017 & 598/2017)

IN THE MATTER OF:

M.C. Mehta
.....Applicant

Versus

Union of India
.....Respondents

AND

ORIGINAL APPLICATION NO. 501 OF 2014
(M.A. No. 404 of 2015)

Anil Kumar Singhal
.....Applicant

Versus

Union of India & Ors.
.....Respondents

AND

ORIGINAL APPLICATION NO. 146 OF 2015

Society for Protection of Environment &
Biodiversity & Anr. .....Applicant

Versus

Union of India & Ors. .....Respondents

AND

APPEAL NO. 63 OF 2015

Confederation of Delhi Industries & CEPT Societies
(An Organisation of CETP Societies) .....Applicant

Versus

D.P.C.C. & Ors. .....Respondents

AND

ORIGINAL APPLICATION NO. 127 OF 2017

J.K. Srivastava .....Applicant

Versus

Central Pollution Control Board & Ors. .....Respondents

AND

ORIGINAL APPLICATION NO. 133/2017

(WRIT PETITION (C) No. 200/2013)

Swami Gyan Swarop Sanand .....Applicant

Versus

Ministry of Home Affairs & Ors. .....Respondents

COUNSEL FOR APPLICANT:
Mr. M.C. Mehta, Advocate in person
Ms. Katyani and Ms. Mehak Rastogi, Advocates
Mr. Gaurav K. Bansal, Advocate
Mr. Ritwick Dutta & Mr. Rahul Chaudhary, Advocates
Mr. S.K. Bhattacharya and Mr. N.B. Paonam, Advocates

COUNSEL FOR RESPONDENTS:

Ms. P.B. Singh, Advocate
Mr. Rahul Verma, AAG with Dr. Bharti Reddy
Mr. Raj Kumar, Advocate
Mr. Abhishek Attrey, Advocate
Mr. Abhishek Yadav, Advocate
Mr. Pradeep Mishra, Advocate
Mr. Raj Panjwani, Senior Advocate
Mr. Mukesh Verma, Advocate
Mr. Kabir S. Bose, Advocate
Mr. Vijay Bahadur Singh, Senior Advocate along with Mr. Ranjit Rao, AAG for State of U.P
Ms. Antima Bazaz, Advocate for AIDA UPSMA
Mr. Sanjeev Ralli, Advocate for GNCTD/DPCC
Mr. A.R. Takkar, Advocate
Mr. Parag Tripathi, Senior Advocate

Mr. Sanjay Upadhyay, Advocate
Mr. B. V. Niren, Advocate for CGWA
Mr. I. K. Kapila, Advocate
Mr. Devashish Bharuka, Advocate
Ms. Yogmaya Agnihotri, Advocate for CECB
Mr. Raman Yadav, Advocate for UP Jal Nigam
Mr. Jayesh Gaurav, Advocate for JSPCB
Mr. Anil Grover, AAG with Mr. Rahul Khurana, Advocate for State of Haryana
Mr. A. K. Prasad, Advocate
Mr. Rajul Shrivastav, Advocate for MPPCB
Mr. Rajiv Nanda, Advocate
Mr. Vibhav Misra, Advocate
Ms. Shagun, Advocate for WBPCB
Ms. Priyanka Sinha Advocate for Jharkhand
Mr. Rudreshwar Singh, Advocate for BSPCB
Ms. Alpana Poddar, Advocate for CPCB
Mr. U. K. Uniyal, AG for Uttarakhand
Mr. Asheesh Jain, Mr. Ritwick Dutta & Mr. Rahul Chaudhary, Advocates
Mr. Suraj Prakash Singh, Advocate for UPSMA
Mr. Atul Batra, Advocate
Ms. Neelam Rathore, Advocate
Mr. Ajay Kumar Mishra, Senior Advocate with Mr. Kumar Anurag Singh, Advocates
Mr. Motish K. Singh, Advocate
Mr. M. Z. Choudhary, Advocate
Ms. Asha Nayyar Basu, Advocate
Mr. S. Wasim A. Qadri, Advocate
Mr.Amit Anand Tiwari, Advocate for State of UK
Mr. Rashid Saeed, Advocate for CETP
Ms. Diya Kapoor, Advocate
Anunaya Mehta, Advocate
Mr. S.A. Zaidi, Advocate
Mrs. Rachna Gupta, Advocate
Mr. Abhishek Paruthi, Advocate
Mr. Narender Pal Singh, Advocate
Mr. D. Rajeshwar Rao, Advocate for R-4
Mr. Krishna Kumar Singh, Advocate for MoEF
Mr. Moni Cinmoy, Advocate for DSIIDC

JUDGEMENT

PRESENT:
HON'BLE MR. JUSTICE SWATANTER KUMAR (CHAIRPERSON)
HON'BLE DR. JUSTICE JAWAD RAHIM (JUDICIAL MEMBER)
HON'BLE MR. JUSTICE R. S. RATHORE (JUDICIAL MEMBER)
HON'BLE MR. BIKRAM SINGH SAJWAN (EXPERT MEMBER)
HON'BLE DR. AJAY A DESHPANDE (EXPERT MEMBER)
HON'BLE DR. NAGIN NANDA (EXPERT MEMBER)

Reserved on: 31st May, 2017
Pronounced on: 13th July, 2017

1. Whether the judgement is allowed to be published on the net?
2. Whether the judgement is allowed to be published in the NGT Reporter?

JUSTICE SWATANTER KUMAR (CHAIRPERSON)

तवजलममलंयेननिपीतंपरमपदंखलुतेनगृहीतम्।
मातर्गङ्गेत्वयियोभक्तः कलतंद्रष्टुंनयमःशक्तः

Ganga is Holy, thus, as stated above, "he who has drunk your pure water, indeed he will obtain the highest abode". This depicts the extent to which millions of Indians and people from abroad have put their faith in Ganga. It is pristine, it is perennial and probably one of the most celebrated river of all times. Ganga is considered sacred by people for providing life-giving and life-sustaining succour for the environment and ecology. Ganga is not an ordinary river. It is a life-line, a symbol of purity and of virtue, for countless people of India. Millions of Ganga devotees and lovers still throng the river just to have a holy dip, Aachman (Mouthful with holy water), and absolve themselves of their sins. We Indians are raised to consider Ganga as a goddess, as sacred. We tell our children and

grandchildren the stories of how she came down to Earth through a lock of Shiva's hair. The Ganga temples, countless rituals associated with Ganga and our belief that Ganga is a cleanser par excellence prove that Ganga has a status of a deity. Hundreds of verses have been used to extol her glory and greatness.

Swami Vivekananda expressing himself on the phenomenal resource and the contribution of river Ganga said "Fool indeed is he, who, living on the banks of the Ganga, digs a little well for water. Fool indeed is the man who, coming to a mine of diamonds, begins to search for glass beads".

The ice-cave of Gaumukh at the snout of the Gangotri glacier, 4100 meters above sea level, is recognized as the traditional source of river Ganga. The river cuts its meandering path through the Himalayas and flows for a distance of about 205 kilometers from Gaumukh and traverses through two districts of State of Uttarakhand, i.e., Uttarkashi and Tehri to reach Devprayg where another head stream of Ganga, the Alaknanda, joins it to form the Holy Ganga. The river Alaknanda is a major tributary of the river Ganga in Uttarakhand that begins at the confluence of the Satopanth and Bhagirath Kharak glaciers in Uttarakhand and it travels approximately 190 kilometers. before meeting Bhagirathi.

After flowing through the northern most part of Uttarakhand, the river flows through Uttar Pradesh, Bihar,

Jharkhand and West Bengal, and finally drains into the Bay of Bengal. The river traverses a length of 1450 kilometres in Uttarakhand and Uttar Pradesh while touching of Uttar Pradesh and Bihar for a stretch of 110 kilometres. It then flows through Bihar, more or less covering a distance of 445 kilometres. The length of the river measured along the Bhagirathi and Hugli rivers during its course in West Bengal is about 520 kilometres. The river Ganga has a large number of tributaries, namely, Kali, Ramganga, Yamuna, Gomti, Ghaghara, Gandak, and Kosi. The river Yamuna, although a tributary of Ganga, is a river basin in itself. Its major tributaries are Chambal, Sind, Betwa, and Ken. The main plateau tributaries of the river Ganga are Tons, Son, Damodar, and Kangsabati-Haldi.

Charakasamhita, the ancient medical treatise, characterizes Ganga's water as pure and sacred. It is a major source of drinking water, as no germ, bacteria or fungi can thrive in it. This is now a scientifically proven fact. With some concerns, we must notice here, various studies carried out have demonstrated that Ganga is able to reduce its biochemical oxygen demand level much faster than other rivers (Refer: *D.S. Bhargava, Purification Power of the Ganges unmatched. L.S.T. Bull.* 34, pp. 52, 1982). Organic materials usually exhaust a river's available oxygen and start decomposing. But in the Ganges, it is

interesting to know how an unknown substance acts on organic materials and bacteria and kills them. Ganga's self-purifying quality leads to oxygen levels 25 times higher than in any other river in the world. In the study conducted by the Malaria Research Centre in New Delhi, it was observed that the water from upper ambits of Ganga did not host mosquito breeding, and also prevented mosquito breeding in any water it was added to. The self-purifying capacity of the Ganga is derived from its unusually high ability to retain dissolved oxygen (DO) inherited from this environment. Hence, Ganga water is revered as holy. The properties of the river regime primarily depend on the geology, wind, sun rays, climate and rainfall, trees and vegetation in the drainage basin.

The Ganga basin is one of the most populous regions on Earth, home to 450 million people at an average density of over 550 individuals per square kilometre. In the delta zone this rises to over 900 per square kilometre. As a result, there is heavy demand and competition for natural resources, especially water for domestic use and irrigation and most of the basin tributaries are regulated by barrages. Fisheries along the river are of considerable economic value and their output makes a major contribution to regional nutritional and economic needs.

Ganga is the largest and the most important river of India. The 2525 kilometre long river carries off the drainage of

large number of sub-basins bounded by the snow peaks of the Himalayas on the North, and the peninsular uplands and the Vindhya range on the South. The Ganga basin accounts for a little more than one-fourth (26.3%) of the country's total geographical area and is the biggest river basin in India, covering the States of Uttarakhand, Uttar Pradesh (UP), Bihar, Delhi, and parts of Punjab, Haryana, Himachal Pradesh, Rajasthan, Madhya Pradesh, and West Bengal. The Ganga basin encompasses an area of 1,060,000 (one million sixty thousand) square kilometres spread over four countries: India, Nepal, Bangladesh and China. The catchment area of river Ganga in India is 861,404 square kilometres covering 26.3% area of India's total geographical area.

Out of India's total renewable water availability of 1,869 Km^3/yr, the national river Ganga Basin's share is 525 Km^3/yr. It is the largest river water basin that supports 43% of India's population.

Ganga supports a rich fauna and flora, including the endangered Ganga river dolphin (*Platanista gangetica)* and at least nine other species of aquatic mammals. Reptiles include three species of crocodiles, along with one species of monitor lizard and eleven different freshwater turtles. The Ganga also has the richest freshwater fish fauna anywhere in India.

The above narration demonstrates that river Ganga is the

epitome of religious belief and a revered natural resource. It is said to be the cradle of Indian civilization and has been given the status of "first living entity of India" by the Uttarakhand High Court in the case of *Lalit Miglani v/s State Of Uttarakhand And Others* (Writ Petition (PIL) No. 140 of 2015). Operation of the judgement has been stayed by the Hon'ble Supreme Court of India. The judgement of the High Court provided new dimensions to the expression legal person acceptable as an entity in law. Amongst others, the fundamental reason for such legal status was to protect the river from continuous abuse.

POLLUTION LOAD OF RIVER GANGA

2. We have already noticed that river Ganga flows for a distance of 2525 km through five different States of the country. The two main sources of pollution of this river are industrial pollution and sewage (domestic) discharge. On the one hand, it receives high pollutants from the above mentioned two sources, while on the other, diversion of water and extraction of groundwater is so heavy that it considerably reduces the flow of the river. For instance, in Haridwar, Uttarakhand the natural flow of river Ganga is 31,000 cusecs, after which gets is reduced to 4000 cusecs when it reaches Kanpur. As of present river Ganga is one of the most polluted rivers of the country. It receives very heavy quantity of pollutants through industrial as well as

sewage discharge into the river, directly or indirectly. Diverse pollutants enter into river Ganga and its tributaries not only through the natural drains but even from the drains coming from the Sewage Treatment Plant (for short, 'STPs')/Common Effluent Treatment Plant (for short, 'CETPs'). From certain STPs/CETPs, even the effluents directly enter river Ganga and its tributaries either because of overflow or the bypass created by such plants due to of low capacity of the plant.

During the course of hearing, we had directed all the stakeholders to provide to the Tribunal the extent of pollution load on river Ganga, presently as well as in the past. The purpose was to bring on record a comparative data to show rapid increase in pollution of river Ganga. The data furnished jointly by the stakeholders demonstrate that with the passage of time, the pollution of river Ganga has increased manifolds both in regard to quantity and quantum for the entire stretch of river Ganga. The same reads as under:

A. Total Pollution Load disposed/being disposed into river Ganga

2008-09		2011-12/13		2016-17	
Industrial Effluent General (MLD)	Domestic Sewage Disposed (MLD)	Industrial Effluent General (MLD)	Domestic Sewage Disposed (MLD)	Industrial Effluent General (MLD)	Domestic Sewage Disposed (MLD)
285.9	2683.6	501 (764 Grossly Polluting Industries)	6966.3	669 (1035 Grossly Polluting Industries)	10705.28

Since in the present case, we are concerned with Segment-B of Phase-I of river Ganga, i.e., the stretch from Haridwar

to Unnao, Kanpur, it will be useful to refer also to the pollution load on river Ganga and its tributaries in that stretch.

A. Total Pollution Load disposed/being disposed in Segment-B, Phase-I

2011-12/13		2016-17	
Industrial Effluent General (MLD)	Domestic Sewage Disposed (MLD)	Industrial Effluent General (MLD)	Domestic Sewage Disposed (MLD)
366.5 (692 GPI)	1958.19	319 (789 GPI)	2456.19

The BOD load on river Ganga, Ramganga and Kali-East is stated to be 318.22 TPD in 2011-2012. There were 43 drains in 2011-2012 while in 2016-2017 there are 86 drains in Segment-B. The flow has increased from 2324.7 MLD to 2775.19 MLD. However, the BOD load became 229.42 TPD in 2016-2017.

The above data was acceptable to all the stakeholders. However, on behalf of the MoWR [National Mission for Clean Ganga (for short, 'NMCG')] it was pointed out that from Gangotri to Ganga Sagar, the discharge flow was 3520 MLD and from Haridwar to Unnao was 549 MLD. It was stated that this data is based only with reference to 106 towns located on the bank of river Ganga for entire stretch and 12 towns falling in Segment-B. This does not take into account all the cities and towns falling in the catchment area of the river Ganga and its tributaries either for entire stretch or for Segment-B of Phase-1. Furthermore, the discharge from the drains had not been

taken into consideration. While providing this clarification, Mr. Sundeep, Director (T-II) of NMCG pointed out that if all relevant points of discharge from cities and drains are taken into consideration, the entire discharge flow of river Ganga would be much in excess of 11374.28 MLD (industrial 669 MLD plus sewage 10705.28 MLD), as provided by all other stakeholders. The data provided has been signed by all the stakeholders. This would show that the pollution load of river Ganga has increased nearly four times from the year 2008-2009. These are the dimensions of the problem of pollution of river Ganga that we are expected to find a solution in the present case.

The quality of the effluents that join the river Ganga or its tributaries directly violate the prescribed parameters to a large extent. Particularly, Faecal Coliform, which is one of the main pollutants, carries at times the value in crores as against the prescribed value of 230 MPN/100ml. The effluents also contain high BOD, COD, TSS and even heavy metals like iron, copper, manganese, zinc, etc.

Most of the STPs that have been installed are not at the 'end of the pipe' where the drain on which it is located joins the river, but inside the cities within municipal limits. Most of these are non-performing or are incapable of handling the load and contents of the effluents. Majority of the STPs installed are incapable of treating Faecal Coliform as this parameter was not considered relevant in the past

when these STPs were planned and/or constructed. These high pollutants coupled with indiscriminate dumping of waste and misuse of floodplains has resulted in causing serious pollution of river Ganga in this Segment. Seriously/grossly polluting industries like sugar, distilleries, textile, paper, electroplating, slaughterhouses, and more importantly leather tanning industries are major sources of pollution. Majority of the industries are non-compliant to the prescribed norms and conditions of consent granted by the State Pollution Control Boards (for short, 'SPCB'). Even the industries, which have installed anti-pollution devices, like Effluent Treatment Plant (for short, "ETP"), river Osmosis (for short, "ROs") and Multiple Effect Evaporator (for short, "MEE") do not operate regularly, to reduce their expenditure and to maximize their profits. The cumulative effect of the above narrated facts and data is that river Ganga in its entire stretch is polluted but it is most polluted in Segment-B of Phase-I, the stretch that we are presently dealing with in this judgement.

BACKGROUND AND SCOPE OF THE CASE

3. The pollution of river Ganga is not a recent phenomenon. It had been a matter of serious concern for different stakeholders including the Government, Local authorities and the public at large. Public awareness about pollution of river Ganga is demonstrated from the fact that as far

back as on 11th September, 1994 the media had started publishing articles with regard to heavy pollution of river Ganga by different industries near Haridwar and other places. The environmentalist Mr. M.C. Mehta had filed a petition in the year 1985 titled *M.C. Mehta vs. Union of India & Ors,* Writ Petition No. 3727 of 1985. By this petition, the petitioner brought into sharp focus the problems arising from the unabated pollution of the holiest river in the subcontinent. This Writ Petition was primarily directed against four industries which were located in Rishikesh, Haridwar and Dehradun, praying that the private respondent industries should be restrained from letting out their untreated/partially treated effluents from entering the water bodies. It was prayed that they should be directed to fix necessary equipments to contain and arrest the pollution and/or they be directed to be shifted. The relief was primarily directed towards prevention of pollution of river Ganga. It was prayed that the municipal sewage should be treated before it enters river Ganga. The other reliefs generic in nature in relation to pollution of river Ganga and requiring the official respondents to take preventive measures were also made. The Supreme Court *vide* its order dated 9th September, 1985 in the case of *'M.C. Mehta vs. Union of India & Ors." 1986 4 SCC 463* had issued notice to all the industries and even ordered them to stop discharging effluents without treating them in

accordance with the standards prescribed by the Central Pollution Control Board (for short, "CPCB"). The scope of this petition appears to have been extended while the matter was pending before the Supreme Court, which did not confine itself to four or five industries, which had been impleaded as party respondents to this petition. The Supreme Court also dealt with the matter of tanneries located in the Kanpur area and even directed closure of nearly 29 tanneries while issuing various directions for prevention and control of pollution of river Ganga from the tannery cluster located therein. In this judgement, Supreme Court applied the Principle of Strict Liability and noticed that the tanneries cannot be allowed to continue their industrial activity unless they take steps to establish primary treatment plant. The financial capacity of the tanneries should be considered as irrelevant while requiring them to establish primary treatment plant. The Supreme Court also noticed that this public nuisance or other wrongful act affecting or likely to affect public is being committed and the statutory authorities which are charged with the duties to prevent the same are not taking adequate steps to rectify the wrongful acts. Noticing the significance of the problem, the Supreme Court also observed that the pollution of river Ganga is affecting life, health and ecology of the Gangetic plain. The Government as well as the Parliament both have taken a number of

steps to control the water pollution but nothing substantial till date has been achieved. Although, closure of tanneries may bring unemployment and loss of revenue but life, health and ecology have greater importance. We may usefully reproduce relevant part of the order besides above observation:

> "Moreover, the tanneries involved in these cases are not taken by surprise. For several years they are being asked to take necessary steps to prevent the flow of untreated wastewater from their factories into the River. Some of them have already complied with the demand. It should be remembered that the effluent discharged from a tannery is ten times noxious when compared with the domestic sewage water which flows into the River from any urban area on its banks. We feel that the tanneries at Jajmau, Kanpur cannot be allowed to continue to carry on the industrial activity unless they take steps to establish primary treatment plants. In cases of this nature this court may issue appropriate directions if it finds that the public nuisance or other wrongful act affecting or likely to affect the public is being committed and the statutory authorities who are charged with the duty to prevent it are not taking adequate steps to rectify the grievance. For every breach of a right there should be a remedy. It is unfortunate that a number of tanneries at Jajmau even though they are aware of these proceedings have not cared even to enter appearance in this Court to express their willingness to take appropriate steps to establish the pre-treatment plants. So far as they are concerned an order directing them to stop working their tanneries should be passed. We accordingly direct M/s. Delight Tannery (respondent 14), M/s Hindustan Tannery (respondent 15), M/s Primer Allarmin Tannery

(respondent 33), M/s Mahaboob Tannery (respondent 37), M/s Popular Tannery (respondent 38), M/s Standard Tannery (respondent 39), M/s Vikash Tannery (respondent 40), M/s New Golden Tannery (respondent 41), M/s D.D. Tannery (respondent 42), m/S Himalaya Tannery (respondent 44), M/s Commercial Industry (respondent 45), M/s Madina Tannery (respondent 46), M/s Kanpur Tannery (respondent 48), M/s New Jab Tannery (respondent 49), M/s Famous Tannery (respondent 50), M/s Glaxy Tannery (respondent 53), M/s Bengal Tannery (respondent 56), M/s Chhangal Tannery (respondent 59), M/s Nadari Tannery (respondent 63), M/s Jajmau Tanners (respondent 65), M/s International Tanning Industry (respondent 66), M/s Poorwanchal Tanning Industry (respondent 70), M/s Navratan Tanning (respondent 71), M/s Haroou Tannery (respondent 73), M/s Himalayan Tanners (respondent 76), M/s R.A. Traders (respondent 79), M/s Alam Tannery (respondent 83), M/s G.T. Tannery (respondent 84), M/s Awadh Tannery (respondent 86) to stop the running of their tanneries and also not to let out trade effluents from their tanneries either directly or indirectly into the River Ganga without subjecting the trade effluents to a pre-treatment process by setting up primary treatment plants as approved by the State Board (respondent 8) with effect from October 1, 1987.

15. M/s Indian Tanning Industry (respondent 30), the U.P. Tannery (respondent 19), M/s Zaz Tannery (respondent 28), M/s Super Tannery India Ltd. (respondent 21), M/s Shewan Tannery (respondent 20), M/s Pioneer Tannery (respondent 23) and M/s M.K.J. Corporation (respondent 89) who have already put up the primary treatment plants may continue to carry on production in their factories subject to the condition that they should continue to keep the primary treatment plants established by them in sound working order.

> 16. Shri S.K. Dholakia, learned counsel for the other tanneries who are members of the Hindustan Chambers of Commerce and the other tanneries who have entered appearance through Shri Mukul Mudgal submits that they will establish primary treatment plants within six months and he further submits that in the event of their not completing the construction of the primary treatment plants as approved by the State Board (respondent 8) and bringing them into operation within the period of six months the said tanneries will stop carrying on their business. We record the statement made by the learned counsel and grant them time till March 31, 1988 to set up the primary treatment plants. If any of these tanneries does not set up a primary treatment plant within March 31, 1988 it is directed to stop its business with effect from April 1, 1988."

4. *Vide* its order dated 12th January, 1988, in *M.C Mehta v. Union of India and Ors., (1988 1 SCC 471)* the Supreme Court reiterated the earlier directions and recorded its dissatisfaction in relation to the steps that were being taken for controlling the pollution of river Ganga. It stated that the sewage system had to be improved and the steps in that direction were being taken at a snail's pace. *Vide* its order dated 4th August, 1992, the three States, i.e., State of Uttar Pradesh, Bihar and West Bengal, were directed to identify industries discharging effluents into river Ganga and submit a report before the Supreme Court. As the progress was not evident, the Supreme Court again *vide* its order dated 17th September, 1993 directed the Central Government to file an affidavit to show the

details of work done under the river Ganga project. An affidavit was filed on behalf of the Government wherein it was stated that there were as many as 68 grossly polluting industrial units in the State of Uttar Pradesh, Bihar and West Bengal. These grossly polluting industries were classified under three different heads (i) those directly discharging more than 1 million litre per day effluents into river Ganga (ii) those having toxic substance in their effluents (iii) those having BOD concentration of more than 100 mg/L. The non-compliance of the directions, slow progress of the project for cleaning of river Ganga and non-cooperative attitude adopted by the industries compelled the Supreme Court to pass an order in relation to the tannery complex in Jajmau. This order primarily related to non-installation and non-performance of ETPs by these tanneries to the specific condition of primary treatment plant.

5. In the year 1994–1996, the Supreme Court passed various orders relating to sewage, interception and diversion of sewage in relation to States of UP, Bihar and West Bengal. Total schemes were stated to be 123. The schemes were being executed in State of UP by the UP Jal Nigam (for short, 'UPJN'). Even the Director of Ganga Project appeared in the Court on 19th January, 1995 and fairly admitted that there were variations in the affidavit filed on behalf of the Directorate and the National Environmental

Engineering Research Institute (for short, "NEERI"). Various financial aspects were also deliberated upon before the Supreme Court with regard to the projects. It was again emphasised in these orders that the work under either of the projects including Ganga Action Plan Phase-I & II was not progressing effectively. The Court further observed that the only way to save Ganga from pollution is to entrust the responsibility solely to the National River Conservation Directorate. Municipal Committees/Corporations and State Governments can be asked to contribute their share of costs to the Directorate and form an appropriate committee.

6. During the course of hearing of the Writ Petition No. 3727 of 1985, the Supreme Court viewed the pollution of river Ganga in its entirety and did not centralise itself to a particular entity, State or segment. In the very opening paragraph of the order dated 19th December, 1996 (1997 2 SCC 411), the Supreme Court noticed that the petition in public interest under Article 32 of the Constitution of India was initially directed against the tanneries located in the city of Kanpur and its order dated 22nd September, 1987, issued directions in relation to the same cluster of tanneries but while monitoring the said directions, the scope of the petition was enlarged and the industries located in various cities on the bank of river Ganga were called upon to stop discharging untreated effluents into

river Ganga. Under this order, the Supreme Court expressed its concern with regard to the tanneries located at Tangra, Tiljola, Topsia and Pagla Danga, the four adjoining areas in the eastern fringe of the city of Calcutta. Noticing that although land had been acquired for the tanneries complex, the industries had been causing pollution. Keeping in view the fact that it was not possible to install a CETP at the existing location in Calcutta, the Court decided to relocate the tanneries. The Supreme Court while issuing wide ranging directions in relation to various facets of relocation, prohibited these industries from functioning which were not inclined to shift. Some of the directions can usefully be reproduced hereunder:

1. "The Calcutta tanneries operating in Tangra, Tiljola, Topsia and Pagla Danga areas in the eastern fringe city of the Calcutta (about 550 in number) shall relocate themselves from their present location and shift to the new leather complex set up by the West Bengal Government. The tanneries which decline to relocate shall not be permitted to function at the present sites.
2. The Calcutta tanneries shall deposit 25% of the price of the land before February 28, 1997 with the concerned authority. The subsequent instalments shall be paid in accordance with the terms of the allotment letters issued by the State Government.
3. All the Calcutta tanneries who deposit the 25% of the land-price shall be permitted to function at the present sites provided they keep on depositing the subsequent instalments in accordance with the terms of the allotment letter.

4. The State Government shall render all assistance to the tanneries in the process of relocation. The construction of the tannery buildings, issuance of any licenses/permission etc. shall be expedited and granted on priority basis.
5. The tanneries which are not closed on April 15, 1997 must relocate and shift to the new leather complex on or before September 30, 1997.
6. The amount of compensation shall be deposited with the Collector/District Magistrate of the area concerned. In the event of non-deposit the Collector/District Magistrate shall recover the amount from the polluter-tanneries, if necessary, as arrears of land revenue. A tannery may have set up the necessary pollution control device at present, but it shall be liable to pay for the past pollution generated by the said tannery which has resulted in the environment degradation and suffering to the residents of the area.
7. We impose pollution fine of Rs. 10,000/- each on all the tanneries in the four areas of Tangra, Tiljola, Topsia and Pagla Danga. The fine shall be paid before February 28, 1997 in the office of the Collector/District Magistrate concerned.
8. The compensation amount recovered from the polluting tanneries and the amount of fine recovered from the tanneries shall be deposited, under a separate head called "Environment Protection Fund" and shall be utilised for restoring the damaged environment and ecology. The pollution fine is also liable to be recovered as arrears of land revenue. The tanneries which failed to deposit the amount of Rs. 10,000/- by March 15, 1997 shall be closed forthwith and shall also be liable under the Contempt of Courts Act."

7. Various orders have been passed by the Supreme Court in

relation to implementation of its directions for protecting river Ganga. *Vide* its order dated 4th January, 1999, the Ministry of Environment Forest and Climate Change (for short, "MoEF&CC") was required to submit a detailed report in terms of the order dated 29th October, 1996. The CPCB was also directed to inspect the industries. A committee headed by Dr. G.D. Aggarwal was constituted and MoEF&CC was required to place its report before the Supreme Court. In the order dated 31st August, 1999, the Supreme Court noticed that the pollution of river Ganga and the action plan for rectifying the same has engaged the attention of this Court for more than a decade and several orders have been passed by this Court calling upon several authorities to act in accordance with the directions issued in the matter of construction of STP and the discharge from several cities located on the banks of river Ganga. The Court directed that the status report should be placed on record and directed the three States to constitute cells to prepare the status report. The CPCB was also directed to give its response in the matter. The affidavits filed by the State Governments were found to be deficient as recorded in the order dated 26th October, 1999. The non-compliance of the directions resulted in the Supreme Court issuing the notice of contempt to the Chief Secretary of the State of Bihar as well as Secretary of the Irrigation Department of State of Bihar *vide* order dated 14th December, 1999. In

the order dated 28th March, 2001, the Supreme Court observed that though the concerned State Governments and the concerned municipalities have taken some action but it cannot be disputed that they are not taking up the project in the right earnest. The matter was being approached in a cavalier attitude even though all the municipalities through which the Ganga flows, have filed their affidavits indicating what action they have taken. CPCB was, therefore, directed to examine the same in relation to different States and municipalities, co-jointly with the respective SPCBs.

7. The proceedings before the Supreme Court on the one hand demonstrated lack of proper execution and willingness to execute the projects and on the other hand, it was improper financial management that compelled the Hon'ble Supreme Court of India to pass an order of stay in relation to spending of money on Ganga Action Plan. An application had been moved for vacation of such order of stay. However, the Supreme Court *vide* its order dated 7th September, 2001 declined to vacate the stay and passed specific directions which reads as follows:

> "**SLP (C) 16935/1998**
>
> We are not inclined to interfere with the order of stay that has been passed by this Court. However, we further direct that the Jal Nigam will not carry out any of its plans in respect of Ganga Action Plan, without leave of this Court. Liberty to file additional documents."

8. Further, directions were passed requiring participating States to place on record the amount received from the Central Government and the expenditure incurred by the State Governments in relation to the Ganga Action Plan.

The Hon'ble Supreme Court of India, specifically noted that the project was approved by the Technical Committee and permitted carrying on of work at Varanasi in relation to GAP-II.

9. The Supreme Court while expressing its displeasure to the manner in which the Ganga Action Plan project had proceeded, made serious observations while referring to the report of the CAG of India in its order dated 10th October, 2006. The said order reads as under:

> "This matter relates to the implementation of Ganga Action Plan, the object whereof was to improve the water quality of River Ganga. The States concerned are Uttar Pradesh, Bihar and West Bengal. Noting the statement of Mr. Vijay Panjwani, learned counsel, that he had no instructions in this matter on behalf of the Ministry of Environment and Forests, on 31st March, 2006, an order was made directing the parties to file within four weeks affidavits placing on record up-do-date position but no affidavit has been filed. Mr. Panjwani states that he had orally informed the Ministry that it is not possible for him to represent it in view of conflict of interest with the stand of the Central Pollution Control Board, as contained in I.A. No. 106. Despite that, again, there is no representation on behalf of the said Ministry, Mr. Vijay Panjwani, learned counsel, states that despite his informing the Ministry, again yesterday evening, he was sent docket to appear

for the Ministry of Environment and Forests without any instructions in the matter. It is difficult to comprehend the approach of the Ministry. We also fail to understand the reason for non-filing of the affidavit placing on record the status position. The order on 31st March, 2006, was passed, inter alia, considering the observations made in the Report of the Comptroller and Auditor General of India for Ganga Action Plan for the year ending March, 2000. The Report is required to be submitted to the President of India in terms of Article 151 of the Constitution of India for being laid before each House of the Parliament. The Comptroller and Auditor General has reported in the highlights that the Ministry has discontinued the water quality monitoring, a key component for technical assessment of the success of the plan since September, 1999, reportedly due to funds constraints. It further states that collateral findings reveal further deterioration of water quality in all its parameters. This finding becomes important in view of the object, above-noted, for setting up of the Ganga Action Plan. It also notes that the Ministry did not take action on the recommendation of the Expert Committee for control of bacterial load. Regarding the industrial pollution, the Comptroller and Auditor General reports that only forty five per cent of the grossly polluting industrial units have installed Effluent Treatment Plant. Over eighteen per cent of those plants did not function properly and did not meet the technical standards. Those units discharged industrial effluent of 2667.16 MLD into the Rivers. It also notes that N.R.C.D. has no mechanism to see that the installed plants functioned satisfactorily.

Further, State of West Bengal was yet to submit a satisfactory detailed project report and obtain the Ministry's sanction for setting up a Common Treatment Plant of effluents of relocated tanneries in Calcutta, which this Court

has ordered in April, 1995.

Regarding the financial aspects, it is noted that the States reported expenditure of Rs. 587.63 crores out of Government funds of Rs. 655.23 crores released to the implementing agencies. Audit test check in the States found many instances of financial mismanagement, such as funds diversion to unauthorized activities (Rs. 36.07 crores), incorrect reporting (Rs. 6.75 crore), and parking of funds by B.R.J.P. in its own personal account (Rs. 1.17 crores) and unutilised funds with the implementing agencies (Rs. 72.62 crores), etc.

The Comptroller and Auditor General further notes that both at the Central and State levels, monitoring of the plan was inadequate. This becomes important in view of the various bodies that have been set up for policy implementation and monitoring of the Ganga Action Plan which have been out-lined in the summary note given by Mr. Krishan Mahajan, learned amicus curiae. At the Central level, there is Central Ganga Authority known as 'National River Conservation Authority' headed by the Prime Minister to lay down the policy and to approve the programme, and review the progress of implementation and give necessary directions to the Steering Committee. Then, there is Steering Committee headed by the Secretary, Ministry of Environment and Forests. There is Ganga Project Directorate, now known as N.R.C.D. The Planning Commission releases the funds for the implementation of the Ganga Action Plan with the approval and concurrence of the Planning Commission and Union Finance Ministry. Then, there is Monitoring Committee, the Chairman whereof is a Member of the Planning Commission. The Monitoring Committee is to receive reports from the Project Director, N.R.C.D. (who is also the Secretary of the Steering Committee). The Committee is required to meet once in every quarter for the

purpose of assessing shortfalls and gaps in the implementations aspects and advise the Steering Committee.

In view of the total non-representation on behalf of the Ministry of Environment and Forests, we are at a loss to know as to what effective steps were taken after the report of the Comptroller and Auditor General since status report in terms of the order of this Court dated 31st March, 2006, has not been filed despite lapse of nearly seven months. In the plan where hundreds and crores of rupees have been spent with a view to improve the water quality, the result is, going by the report of the Comptroller and Auditor General, that water quality has instead deteriorated and pollution level increased instead of it being controlled.

Under the aforesaid circumstances, we direct the Secretary, Ministry of Environment and Forests, to file on affidavit the status report as on 31st October, 2006, taking into account all relevant factors, including what we have noted above. The affidavit shall be filed by 15th November, 2006. If necessary, the Secretary, Ministry of Environment and Forests, can discuss the matter with the learned amicus curiae. The Ministry shall also ensure that a Law Officer represents it on the next date of hearing and has proper instructions on all factual aspects of the matter.

The notices shall also be sent to the Chief Secretaries of the aforesaid three States concerned, besides Jharkhand and Uttaranchal, in view of the reorganisation of the State of Bihar and Uttar Pradesh. The State Governments shall also file status reports as on 31st October, 2006, in the form of affidavits to be filed by 15th November, 2006. Copies of the affidavits shall be exchanged between the Ministry of Environment and Forests, State Governments, learned amicus curiae, the petitioner and the learned counsel for the Central Pollution Control Board.

List the matter in the end of November,

2006."

Again in its order dated 20th February, 2007, the Supreme Court noticed that the plan had not progressed well. Reference was again made to the various deficiencies pointed out by the CAG of India.

In the order dated 5th December, 2007, the Supreme Court noticed that the scheme for cleaning river Ganga had started in the year 1985 and the Government had allocated ₹ 949 crores for Ganga Action Plan-I and ₹ 451 crores was released by the Government to the States of UP, Bihar and West Bengal. Ganga Action Plan-II was allocated ₹ 279 crores that has been released to the States of UP, Bihar, Uttarakhand, Jharkhand and West Bengal, but the results had been far from satisfactory. The Court then asked the CPCB, Union of India and Amicus Curiae to suggest steps that are required to be taken for effective implementation and progress.

10. Finally, the Hon'ble Supreme Court *vide* its order dated 29th October, 2014 while making reference to some of the orders that we have referred to above, expressed anguish towards the non-performance on the part of the stakeholders, particularly the States. The Supreme Court noticed that the concerned Ministry did not take action on the recommendations of the Expert Committee for control of bacterial load. In relation to industrial pollution, it was pointed out in the report that only 45% of the grossly

polluting industrial units had ETPs and 18% of these did not function properly or meet the technical standards. Such units discharge industrial effluent to the extent of 2667.16 MLD into the river Ganga.

11. Seventeen different categories of industrial units were described as highly polluting industries and were duly stated in the affidavit filed on behalf of the CPCB. The industries were directed to submit an action plan by 30th April, 2014 and all anti-pollution measures were required to be taken by 31st March, 2015 in terms of the directions passed by the CPCB. The Supreme Court while observing that in the past 30 years no fruitful results had been achieved despite Court's efforts, directed that issues relating to enforcement of provisions of the statues concerning environment and its preservation arising out of discharge of industrial effluents into river Ganga to be transferred to the National Green Tribunal and passed a detailed order. The relevant part thereof reads as follows:

> "We regret to say that the intervention and sustained efforts made by us over the past 30 years notwithstanding no fruitful result has been achieved so far except the shutting down of some of the polluting units. This is largely because while orders have been passed by us their implementation remains in the hands of statutory authorities including the CPCB and the State PCBs which have done practically nothing to effectuate those orders or to take independent steps that would prevent pollution in the River. A total lack of monitoring by the statutory bodies has also contributed to the current state of

affairs. The report of the Comptroller and Auditor General to the effect is a clear indictment of the statutory authorities and those at the helm of their affairs.

There is no gainsaying that River Ganga has for the people of this country great significance not only in the spiritual or mythological sense but also in material terms for it sustains millions who are settled on its bank or eke out their living by tilling lands that are fertilized by its water. Despite the experience of the past we have not lost hope, for the Central Government appears to be resolute in its efforts to ensure that the Mission of cleaning the holy River is carried forward and accomplished. How far will the Government's renewed zeal make any difference on the ground is for anyone to guess. What is, however, clear is that if the mission has to succeed, all those concerned will have to rededicate themselves to the accomplishment of the cause that will not only cleanse the holy River but comfort millions of souls that are distressed by the fetid in what is believed to be so holy and pure that a dip in its water cleanses all sins. Statutory Authorities that are charged with the duty to prevent pollution need to monitor and take action where they find any breach of the law. Failure of the authority to do so may also have to be noted for such action as may be required under law. This may call for a closer monitoring of the performance of all concerned. Time constrains unfortunately do not allow us to do that on a continuing basis no matter we have over the past thirty years devoted enough time and energy in that direction. We are comforted by the thought that the National Green Tribunal has been established under the National Green Tribunal Act, 2010. The Tribunal, it is evident from the provisions of the Act, has the power to take stock of the situation and pass necessary orders on the subject. It has the legislative mandate to undertake

> effective and speedy adjudication and disposal of issues touching preservation of environment by prevention of pollution. It is in the above backdrop that we consider it more appropriate to refer the issue relating to enforcement of the provisions of the statutes touching environment and its preservation arising out of discharge of industrial effluents into River Ganga to the National Green Tribunal. We are confident that the Tribunal which has several experts as its members and the advantage of assistance from agencies from outside will spare no efforts to effectively address all the questions arising out of industrial effluents being discharged into the River. This will include discharge not only from the grossly polluting industries referred to in the earlier part of this order but also discharge from"highly polluting units" also. As regards the remainder of the matter concerning discharge of domestic sewage and other sources of pollution we will for the present retain the same with us.
>
> We accordingly request the Tribunal to look into all relevant aspects and to pass appropriate directions against all those found to be violating the law. We will highly appreciate if the Tribunal submits an interim report to us every six months only to give us an idea as to the progress made and the difficulties, if any, besetting the exercise to enable us to remove such of the difficulties as can be removed within judicially manageable dimensions. The Registry shall forward a copy of the order to the National Green Tribunal along with a copy of the writ petition and the affidavits filed in reply from time to time".

As is evident from the above order, it is only the matters/cases in relation to industrial pollution of river Ganga alone that had been transferred to this Tribunal.

The matters in relation to pollution of river Ganga by sewage continued to be dealt with by the Supreme Court itself. An Affidavit dated 22nd September, 2014 had been filed before the Supreme Court giving details of 70 projects spread over 5 Ganga Basin States and it was pointed out that the Government has also referred the matter to a consortium of IIT's to formulate a basic management plan for cleaning the river and for its rejuvenation. Notification dated 18.12.2012 was issued with regard to Ecologically Sensitive Zone areas stretching from Gaumukh to Uttarkashi. The Supreme Court observed that formulation of an appropriate plan for management of such an ecologically sensitive area zone ought to be a high priority matter for the concerned Governments. The matter in relation to Municipal and domestic wastes also came to be transferred to this Tribunal *vide* order of the Supreme Court dated 24th January, 2017 that reads as follows:-

> "Learned counsel for the rival parties are agreed that the issue relating to River development and Ganga rejuvenation including municipal waste, domestic waste as also industrial waste is being heard on day to day basis by the National Green Tribunal (for short "the NGT") and as such the proceedings in these matters be transferred to the NGT for a joint consideration.
> In view of the above, the proceedings in the instant writ petitions are directed to be transferred and be placed before the NGT along with Original Application No.200 of 2014 pending before it. It will be open to the NGT to take into consideration the allied matters connected with cleaning of River Ganga

> that it may encounter during the course of hearing.
> Disposed of in the above terms.
> Needless to mention that the instant order is being passed in the same terms as the earlier order passed by this Court on 29th October, 2014.
> Consequent upon the disposal of the writ petitions, pending applications filed in these matters are also disposed of."

12. Resultantly, the entire Writ Petition (C) No. 3727 of 1985 along with the applications stood transferred to this Tribunal. The Supreme Court while passing this order also relied upon order dated 29th October, 2014 that we have already reproduced above. Thus, the entire matter in relation to Industrial waste, Municipal Solid Wastes, Sewage and Domestic wastes, polluting the river Ganga in its entirety became the subject matter subjudice before the Tribunal. It is necessary to notice here that in the case of *Paryavaran Suraksha Samiti and Another v. Union of India and Others*, Writ Petition(C) No. 375 of 2012, the petitioners before the Supreme Court had prayed that all State Governments should ensure that no industry which requires 'Consent to Operate' from the concerned Pollution Control Board, is permitted to function, unless it has an effluent treatment plant, which is capable of meeting the prescribed norms for removing the pollutants from the effluent before it is discharged into the river. The Supreme Court *vide* its order dated 22nd February, 2017 directed certain actions to be taken by the respective

Boards. It observed that mere directions are inconsequential unless a rigid implementation mechanism is laid down. It required the industry to set up primary effluent treatment plants as well as setting up of functional Common Effluent Treatment Plant within the time limits provided in that order. The complaint about non-implementation of the directions could be made to any of the concerned Benches of the National Green Tribunal having jurisdiction over the unit and the Tribunal was required to deal with the complaints in accordance with law expeditiously. In the year 1994, the Supreme Court had taken *suo moto* notice of the news items published in Hindustan Times, '*And Quiet Flows the Maily Yamuna*' which was registered as Writ Petition (C) No. 725 of 1994 along with many other Writ Petition, wherein the Government of Delhi, Union of India and National Ganga River Basin Authority all were respondents including another Writ Petition titled *M.C. Mehta Vs. Union of India* Writ Petition (C) No. 4677 of 1985.

13. In Writ Petition (C) No. 725 of 1994, the Supreme Court observed that it was not appropriate to have two parallel jurisdictions to deal with the same controversy and therefore, decided to transfer the Writ Petition relating to Yamuna also to this Tribunal *vide* order dated 24.04.2017. Along with Writ Petition (C) No. 725 of 1994, all other Writ Petitions and the Contempt Petition no. (C) No. 64/2013

in Writ Petition (C) No. 914/1996 and Interlocutory Application Nos. 20 and 21 in Writ Petition (C) No. 4677/1985 were also transferred to the Tribunal. The order dated 24th April, 2017 reads as follows:-

> "An Affidavit dated 9.3.2017 has been filed in this Court for and on behalf of Delhi Jal Board, in furtherance of the motion Bench order dated 20.2.2017. Having heard learned counsel for the rival parties and having perused various orders passed by this Court from time to time, we are of the view, that it is not appropriate to have two parallel jurisdictions to deal with the same controversy. We are satisfied, that the National Green Tribunal is examining the issue in hand effectively, and is passing appropriate orders from time to time. In the instant view of the matter, we consider it just and appropriate to transfer these proceedings and the writ petition to the National Green Tribunal.
> Ordered accordingly.
> We are also satisfied, that liberty should be granted to the National Green Tribunal to pass appropriate orders, requiring the amicus curiae in this case, namely, Mr. Ranjit Kumar, learned senior counsel, to move an appropriate interlocutory application before this Court, in case there is any constitutional or other legal hurdle, which is beyond the adjudicatory capacity of the National Green Tribunal, but needs to be redressed.
> In case the amicus curiae Mr. Ranjit Kumar files any such application before this Court, it shall be processed by the Registry of this Court, and shall be placed before this Court for consideration, without any delay.
> The writ petition is disposed of in the above terms".

As a result of passing of the above order, the matters in

relation to control of pollution and rejuvenation of river Ganga and river Yamuna pending before the Supreme Court stood transferred to the Tribunal. River Yamuna is the biggest tributary of river Ganga which meets river Ganga at Allahabad (Sangam). All the tributaries of river Ganga are consequently subject matter of adjudication before the Tribunal as a result of the above orders. Also there are certain matters pending before the National Green Tribunal itself in relation to Ganga and some of its tributaries which we shall shortly discuss. It is important to note here that the matter in relation to cleaning and rejuvenating of river Yamuna was also pending before this Tribunal in the case of *Manoj Misra v. Union of India* (O.A no. 06 of 2012).

14. This matter finally stood concluded by a detailed judgement of the Tribunal dated 13th January, 2015. In fact, before the Supreme Court transferred the Writ Petition (C) No. 725 of 1994 and other matters related thereto, the National Green Tribunal had already pronounced this judgement. The Judgement not only decided the legal issue but even provided a complete project titled as *'Maily Se Nirmal Yamuna'* Revitalization Plan, 2017. The Judgement provided for all the aspects comprehensively in regard to all the facets, that are, technical, execution of the requisite work of STP, laying down of pipelines, treatment capacity of the STP's,

discharge of treated water and the financial contribution to be made by different stakeholders. In fact, this was divided into two facets, Phase I related to Najafgarh drain and Delhi Gate drain which cause 64% of the total pollution load of river Yamuna in the stretch of 27 kilometres of the NCT Delhi. Phase II related to two other drains resulting in 36 % of the pollution load.

We also record with some satisfaction here that the work of Phase I has already been awarded to various concerns and they have started their ground work and it is likely to be completed by 2019. Thus, matters in relation to pollution of river Yamuna in NCT Delhi were taken care of by the judgement of the Tribunal. The remnant parts of it flowing through other States remains which now would be dealt by the Tribunal in furtherance to the judgement of the Supreme Court.

THE CASES RELATING TO POLLUTION OF RIVER GANGA BEFORE NGT

15. The Applicant Mr. Krishan Kant Singh filed the first case being Original Application no. 299 of 2013 before the Tribunal in relation to the industries which were causing pollution in river Ganga by discharging their trade effluents into the drains which ultimately join river Ganga. In this case, National Ganga River Basin Authority, the concerned states and the polluting industries, which included a Sugar Mill, Gopalji Milk Food Pvt. Ltd., were

impleaded as Respondents. It was stated in the application that the industries were seriously polluting industries and were discharging their trade effluents even by bypassing the Phuldera Drain and Sambhaoli Drain. The Applicant had got the effluent of the drain analyzed and it was found that the values were much beyond the prescribed limits. The Total Suspended Solids were 1448 milligram/L as against the prescribed value of 100 and 150 milligram/L. The Biochemical Oxygen Demand was found to be 2209 milligram/L as against the value of 100 milligram/L for dairy and 30 milligram/L for sugar and distillery units, Oil and Grease was 262 milligram/L against the value of 10 milligram/L. Not only was a Committee constituted by the Tribunal in this case to inspect the premises of the industries and analyse the effluent but even the learned Expert Members of the Tribunal visited the industries and they found that the industry particularly, the Sambhaoli sugar and distillery mill had deficiencies with regard to anti-pollution devices and were causing pollution by violating the prescribed parameters. They were also operating without consent of the SPCB. For these reasons, the Tribunal *vide* its Judgement dated 16th October, 2014 finally disposed of this matter by imposing environmental compensation of ₹ 5 crores upon the industry as well as issued directions for ensuring that there was proper prevention and control of

pollution from the activity that the industry was carrying on. During the course of hearing in the Original Application No. 299/2013, on 22nd April 2014, the Tribunal directed the Uttar Pradesh Pollution Control Board, (for short, 'UPPCB') to serve notices to all the industries whose names had been pointed out by the CPCB in their Report dated 7th February, 2014. All these industries were discharging their untreated/partially treated effluents into river Ganga or its tributaries. When the matter came up on 6th May, 2014, it came to light that the UPPCB had issued notices to nearly 956 industries which are polluting industries and were discharging their effluents into river Ganga and its tributaries and out of them the most polluting industries were Chemical, Distillery, Dyeing, Fertilizer, Pesticide, Pulp, Paper and Tannery units. The Officers of UPPCB and CPCB were required to examine cases of all these 956 identified industrial units which had not installed anti-pollution devices and those which had installed such devices but the devices have not been functioning properly and their parameters were in violation of the prescribed limits. The issuance of the notices, submission of Report by the constituted teams and the responses filed by the industry came to be dealt with separately by the Tribunal and it was registered as Original Application No. 196/2014 and 200 of 2014 (*M.C. Mehta V.s Union of India in C.W.P 3727/1985*

transferred by Hon'ble Supreme Court of India). [The M.C. Mehta case was transferred to the Tribunal has as already been noticed on 29th October, 2014 and all these matters then came to be dealt with together and common orders were passed in these cases.] Original Application No. 196/2014 was *Krishan Kant Singh v. National Ganga River Basin Authority & Ors.* while Original Application No. 200/2014 was *M.C. Mehta v. Union of India*.

16. On 29th October, 2014, the National Green Tribunal (NGT) directed the CPCB to place on its website the criteria for terming the industries as Seriously Polluting Industries (SPI), Grossly Polluting Industries (GPI) and industries not seriously polluting and categorise them into Red, Orange and Green. Both the above cases were taken up together on 13th October, 2014 and on that day the Tribunal directed that the Special Committee constituted by the Tribunal and the State Boards of the concerned States shall take immediate steps to ensure that no industry which has not obtained or is operating without consent of the State Board and is polluting directly or indirectly river Ganga or its tributary should be permitted to operate by this very order invoking 'Stakeholder Consultative Process in Adjudication', the Tribunal directed a Chamber meeting to be held on 11th November, 2014 of the Secretary (MoEF&CC), Secretary (Ministry of Water Resources, River Development & Ganga Rejuvenation) and Chief Secretaries

of all the above States for working out a comprehensive action Plan to clean river Ganga in terms of the orders of the Hon'ble Supreme Court of India. In the order dated 17th November, 2014, the Tribunal referred to the various orders of the Hon'ble Supreme Court of India as well as the fact that river Ganga is mainly polluted by two sources, one is industrial waste effluent and the other is domestic waste and sewage. Having heard all the stakeholders and in view of the Chamber meeting dated 11th November, 2014, the Tribunal constituted 3 different Committees, that is, the Principal Committee consisting of senior most officer from the respective Ministries and the State Governments including Financial Advisor of the Ministry, Implementation Committee consisting of the Chief Secretary of concerned States and the Principal Secretaries of Department of Environment and the Boards and, lastly, the State Level Committee consisting of the Officers/Secretaries of the concerned Departments, Member Secretary of the concerned State Boards, representatives and Scientists including eminent Professors from reputed educational institutions in the field of environmental engineering and representative from NEERI were part of this Committee. The Committee was required to examine the scope of Zero Liquid Discharge (ZLD) units and online monitoring system installations. The Committees were required to deal with all aspects of

installation of ETPs, drainage systems, finances and execution of the work. On 12th December, 2014, another Chamber meeting was held and views of all the concerned stakeholders were taken into consideration. In the meeting, very senior officers from both the Ministries, that is, MoEF&CC and Ministry of Water Resources, River Development & Ganga Rejuvenation, Chief Secretary of the States, environmentalists and Expert Members were present. Even the CGWA was impleaded as a party and the various issues in relation to preservation and control of pollution in river Ganga were considered.

The UPPCB had given details of the industries which were operating without any effluent treatment plant. Show cause notices were issued to 134 industries and out of which 19 only had applied for obtaining the consent of the Board. 109 industries out of 134 were ordered to be closed down under the orders of the Board. It was pointed out that nearly 400 tannery industries in Kanpur are located on the banks of river Ganga and are one of the biggest sources of pollution. One of the major issues raised was that the CETP which has been constructed in Jajmau was practically non functional and could not deal with the pollutants that are generated by the tannery sector. In this order, the Tribunal made it clear that the tannery industry would be liable to contribute for establishment of the CETP and its maintenance based on the 'Polluter Pays

Principle'. In the order dated 4th February, 2015, it was noticed that the attitude of the State of Uttar Pradesh was non-cooperative. In various other orders, it has been noticed that the officers of the Pollution Control Board and the UPJN or Nagar Nigam were not discharging their functions satisfactorily. The data produced before the Tribunal was not accurate and it had in built deficiencies. In this order, directions had also been passed for the State of Uttarakhand, which were required to be complied with, particularly, in relation to pollution of river Ganga in Haridwar, Roorkee and Kashipur etc. The Report in relation to existing STPs was also asked for as well as the referred CETPs operating in that area. *Vide* this very order, a Special Technical Expert Committee was constituted comprising of Scientist from MoEF&CC, Scientist from CPCB, UPJN, Commissioner of Corporation, Secretary Environment of State of UP and Senior Chief Engineer of UP. They were directed to inspect the CETP at Jajmau, Kanpur and submit a Report to the Tribunal upon Joint Inspection.

17. During the hearing on 13th April, 2015, the UPJN informed the Tribunal that it was not possible to discharge pollution free effluent into river Ganga. It remains undisputed that from the concerned CETP at Jajmau, 60 % of the effluent is being discharged directly into river Ganga without any treatment. In fact, the said CETP was found deficient in

terms of capacity as well as quality of effluent discharged after treatment. Some of the industries could be ordered to be shutdown forthwith but on a suggestion made and in economic interest, it was considered appropriate to provide certain time limits to the industry to install anti-pollution devices.

18. The Advocate General appearing for the State of Uttar Pradesh on 26th May, 2015 touched upon the issues that were discussed in the Chamber Meeting on 1st May, 2015 and stated that a holistic approach is required to be taken in relation to the entire industrial activity in question. The concerned regulatory bodies were required to exercise more control and persuade the industries to install anti-pollution devices. Directions were also issued for conducting a Joint Inspection of the polluting industries. The Tribunal, from time to time, took up the cases of the industries which were seriously polluting industries and passed appropriate directions. However, compliance of these directions remains a matter of concern. Some of the industries were even required to be closed down but it was found in some of the cases that even such directions were not complied with in its true letter and spirit.

19. When the matter came up for hearing on 12th October, 2015, it was noticed that the Counsel and officers appearing for different stakeholders were not able to provide complete answers to the issues raised by the

Tribunal. The direction was issued to the State of Uttarakhand to organise an appropriate meeting of the senior officers and submit a complete plan in relation to completion of Segment-A of Phase-I (Gaumukh to Haridwar) of cleaning of river Ganga. In the order of the 2nd November, 2015, a Joint Inspection Team was constituted comprising of the nominees of the Principal Committee, Member Secretary of the Pollution Control Board, Member Secretary of UPPCB and the Professors of IIT, Delhi, Kanpur and Roorkee. The CETPs in the industrial cluster were required to be inspected and it was also to be examined whether the tanneries and other industries were discharging their effluent into the conveyor drain and the possibility of the CETP being ZLD based. The samples were to be collected at the point where the tributaries were joining river Ganga and the drains were joining the tributaries.

20. Importantly, in the order of 2nd November, 2015, the Tribunal reserved its judgement in Original Application No. 196 of 2014 and the connected matters thereto. It also directed a Chamber meeting to be held on 6th November, 2015. The purpose obviously was to get the final input from the members of the Principal Committee and other Committees appointed by the Tribunal under its various orders.

21. On 4th November 2015, the Tribunal passed an order

asking if any particular study had been carried out to understand the deficiencies in Ganga Action Plan I (GAP I) and Ganga Action Plan II (GAP II). The purpose of passing of this order was to bring to surface, the drawbacks in the execution of the two plans so that in the orders passed by the Tribunal such deficiencies or drawbacks could be avoided. It may also be noticed that in the chamber meeting held on 6th November, 2015 where all senior officers were present including executing agencies, it was undisputed that GAP I and II could not bring the desired results and the pollution of river Ganga had not been reduced or controlled. On the contrary, with the passage of time, due to setting up of more industries and unplanned developments in the cities and towns on the bank of river Ganga and its tributaries has resulted in increase in pollution in river Ganga.

> "During the course of the hearing various question have arisen with regard to implementation of Ganga Action Plan– I and Ganga Action Plan–II. It is necessary for the Tribunal to know that whether the Ministries have conducted any studies on the deficiencies with which they suffered. This would be absolutely necessary to know while passing its final judgement in relation to Phase – I of Ganga Project, in terms of the orders passed by the Hon'ble Supreme Court of India. If there are any documents which are not in the public domain liberty is granted to the Ministry to file them in a sealed cover and deliver the same to the Deputy Registrar (Judicial) of the Tribunal."

Despite the above order, none of the parties filed any specific response. However, the report of the Consortium of 7 IITs had been placed on record which provided some insight into the reasons for failure of Ganga Action Plan-1 and 2, respectively.

22. *Vide* order dated 5th November, 2015, the judgement in the case of *Indian Council for Enviro-legal Action vs. National Ganga River Basin Authority* & Ors. and *M.C. Mehta vs. Union of India & Ors.* was reserved. The judgement in Original Application No. 340 of 2014 and the connected matters was pronounced by the Bench of the Tribunal on 10th December, 2015. By this judgement, 130 applications were disposed of which were filed by various industries in response to the notices issued by the UPPCB in terms of the earlier orders of the Tribunal. The UPPCB had issued notice to 956 polluting industries, out of which, 269 were stated to be seriously polluting industries and 687 were the industries pointed out by the CPCB making a total of 956 industries. Under this judgement, the industries were classified under different heads. 93 industries were operating with the consent of the Board and in consonance with the prescribed procedure and parameters. These industries were permitted to operate. There were nearly 65 industries which were non-compliant and have been shown at serial number 66 to 99 except at serial number 83 to 84 which were permitted to carry on their operations

but were directed to be subjected to a joint inspection by a team consisting of CPCB and UPPCB to ensure that they operate strictly in accordance with the prescribed norms. The industries which were lying closed under the orders of the Board, were ordered to remain closed as they did not comply with the law by obtaining consent of the Board and were not discharging their trade effluents within the prescribed norms and their ETPs were either not installed or were found to be non-functional. The Tribunal observed that the right to carry on business was subject to the reasonable restriction imposed by law i.e. the Water Act, the Air Act and the Environment Protection Act, 1986. These industries were not permitted to commence their operations. Lastly, specific directions in relation to a group of industries were issued in the order which need not be reproduced here. One fact which we have to notice here is that the CETP installed at Jajmau was receiving effluents in excess of its capacity. Large quantity of sewage and effluents were being directly diverted to conveyer belt leading to river Ganga and the remaining part was being processed through CETP. The CETP did not have any adequate technology or Chromium Recovery Plant to recover chromium in the effluent and the parameters were found to be much in excess to prescribed standards. Thus, a direction was issued in O.A. No. 428 of 2014 that management of CETP should ensure proper operations and

management of the plant, in any case, till disposal of *M.C. Mehta Vs. Union of India* case. An environmental compensation of ₹ 1 Lakh was imposed upon the CETP which was to be paid to the UPPCB.

23. The cases of *Indian Council for Enviro-legal Action vs. National Ganga River Basin Authority* & Ors." and *M.C. Mehta vs. Union of India & Ors.* were disposed of by an exhaustive judgement passed by the Tribunal dated 10th December, 2015. Based upon the lengthy arguments addressed, spread over a number of hearings, the view of the Principal Committee and other Committees and also that of the Expert Members including Professors from IITs, it was considered most appropriate that the Tribunal should deal with the river Ganga by dividing it into different segments. This was also recorded in different orders, some of which we have already referred. In paragraph 58 of the said judgement, the Tribunal held as follows:

> "58. After serious deliberations, keeping in view the extent of pollution, particularly, industrial pollution of River Ganga and the length of the River (2525 km) it was considered absolutely essential to divide the project of cleaning of River Ganga into different segments. One factor, which was commonly admitted and was quite evident from the records before Tribunal is that discharge into River Ganga is not exclusive in its nature and content. In some places the discharge is from sewage and at other places discharge is from industrial clusters but mostly the discharge consists both

> of sewage and industrial effluent together. In light of this, it was unanimously resolved that the River Ganga should be divided into different segments for its restoration and thus, the Tribunal directed as under:
>
> Ganga Phase-I-Segment-A: Gomukh to Haridwar
> Ganga Phase-I-Segment-B: Haridwar to Kanpur
> Ganga Phase-II : Kanpur Border to Uttar Pradesh Border
> Ganga Phase-III: Uttar Pradesh Border to till Jharkhand Border
> Ganga Phase-IV: Jharkhand Border to Bay of Bengal (West Bengal)
>
> The solutions for prevention and control of pollution as well as restoration of River Ganga to its pristine form quality have to be multi-fold i.e. have treatment of sewage as well as industrial effluent. If only one was concentrated, the pollution shall still persist and cost of the project would be very high if at all places different STPs and/or CETPs are required to be installed and made operative. We have discussed other economic factors in this judgement separately."

24. Another important feature that was noticed in this judgement was that even in Segment A of Phase-I, there was dumping of municipal solid waste and other wastes into river Ganga. Upon adding the above deficiencies, sewage and industrial effluents were the common sources of pollution in this segment and therefore, it was necessary to provide multi-faceted solutions to prevent and control the pollution of river Ganga. Besides this, there were CETP and STPs operating at Haridwar and Jagjeetpur. It was noticed that till the river reaches Haridwar, the presence of Faecal/Total Coliform was much in excess and its value

were found to be 4000 to 1,60,000 MPN/100 ml. The other parameters like BOD, COD, TSS were not a matter of issue. The technology of Root Zone treatment or the Reed Bed technology was not found suitable for the hilly areas but could be tried in the foothills.

It was also noticed that even where the sewage was being treated through the STPs, the STPs did not have mechanism for treating coliform and the industrial effluent was being directly discharged into the river, either untreated or partially treated. The scheme of Uttarakhand authorities, which established STPs in every city or town falling under Segment-A of Phase-I even after laying down the sewer pipeline, is not only impractical but also un-economical and would cause more damage to the eco-sensitive area of the State. Large scale digging, blasting for the purpose of laying down pipelines would expose the entire ecology to disaster, making it prone to landslides. Thus, disturbing not only the environment but also the day-to-day living of the people in the State as well. The State of Uttarakhand and its various organizations were not even able to confirm as to how many drains already exist and how many of them have already been intercepted and how many directly join river Ganga. Thus, it was considered appropriate to provide collective septic tanks or bio-digesters with a proper system for extraction of the sewage and taking it to the STPs located in the cities and

towns on the foothills.

25. The State of Uttarakhand enacted the Uttarakhand Flood Plain Zoning Act, 2012 to provide for zoning of the floodplains of the river in the State. Under Section 25, any person who prevents the Flood Plain Zoning Authority in discharging its functions or any act imposed on such authority under this Act, would be deemed to have committed an offence under Section 86 of Indian Penal Code, 1860. Despite lapse of three years, no action had been taken in furtherance to the said Act. The Central and the State Governments were fully cautious of the eco-sensitive area. The Tribunal noticed that the Ganga Action Plan did not succeed primarily because of non implementation of the decisions and the directions issued by the authorities and courts. Lack of accountability, responsibility and vacuum in implementation and execution were the paramount causes for non-achievement of the goal of cleaning river Ganga or any part thereof. The Applicant had raised a specific contention that the various projects taken up, whether at the State or at the National level, have proved to be ineffective. Huge sum of money have been spent on cleaning of Ganga but no part of Ganga has got rid of either sewage, industrial effluents or dumping of other wastes. It was noticed that the authorities have chosen not to raise any contentions with respect to the specific data or material. Mr. Bhajan Singh,

MD of Peyjal Nigam has informed that there are 143 drains/Nallahs in the entire Segment – A of Phase–1 falling into all three rivers, i.e., Bhagirathi, Alaknanda and Ganga. Out of them, 8 are the drains/Nallahs, which are carrying natural water and are absolutely non-polluting. 48 drains out of them have already been trapped and were being treated at different STPs. However, these STPs were stated to be incapable of maintaining the current standards for treated sewage discharge, and in any case could not treat Faecal Coliform bacteria. It was stated that there are 77 drains which were to be trapped and the sewage thereof is to be treated. The total sewage generated was measured at 149.31 MLD, out of which nearly 77.5 MLD was being treated partially as indicated. Besides the existing STPs, there are two STPs at Jagjeetpur, Haridwar, third one is at Sarai, Haridwar, one at Rishikesh, one STP at Swarg Ashram, one STP at Uttarkashi and one STP at Srinagar. But all these STPs were suffering from deficiencies afore-indicated. Physical inspections of the cities like Uttarkashi, Rishikesh, Haridwar, etc. were conducted and detailed data thereof was placed before the Tribunal. The hotels, ashrams and guest houses were a serious source of pollution as most of them were indiscriminately putting their entire waste into the river Ganga, directly or through the sewage pipelines which itself was not treating the entire sewage satisfactorily. The

Tribunal considered, with the help of the Expert Committees, all the aspects of the pollution of river Ganga and addressed the possible solutions. The status of the existing STPs, CETPs, drains and dumping of waste and other contributory factors of pollution were considered along with various reports that were filed on record and the Tribunal issued the following detailed directions with regard to execution of various works that should be performed without any delay, to check, control and prevent the pollution and ensure that Segment-A of Phase-I of river Ganga is entirely pollution free. It provides a time bound programme in relation to compliance of the directions. The directions are contained in paragraph 98 of the judgement which reads as under:

> "I. The directions in this Judgement would strictly relate to all contributories to pollution of River Ganga in Segment 'A' of Phase I, i.e., Gaumukh to Border of District Haridwar downstream in the State of Uttarakhand.
>
> II. DIRECTIONS IN REGARD TO COLLECTION AND DISPOSAL OF SEWAGE:
>
> A. The Executing Committee as stated **in para 95** shall be directly and personally responsible for execution of works specifically stated and compliance of the directions enunciated in this judgement.
>
> B. No work in relation to sewer line network shall be carried out by the State of Uttarakhand and/or any public authority/ body except at Gangori where the sewer line network has been completed and at Gopeshwar where 96% work has already been completed and both are to be connected to the STP. If

any work of this nature is to be carried on by the State of Uttarakhand or any of its Instrumentalities or Public Authorities or Bodies, it shall submit the proposal to the Principal Committee. The comments of the Principal Committee would be placed before the Tribunal for final orders. We also direct that no fresh works will be undertaken by the State or Public Authorities without approval of the Tribunal in relation to collection, treatment and disposal of the sewage except the works specifically provided in this judgement.

C. Every effort would be made to provide a common Bio-Digester for hamlets.

D. Establishment of 40 MLD Sewage Treatment Plant at Jagjeetpur, Haridwar shall be completed within 6 months from today.

E. All the concerned public authorities and the district administration would be responsible for proper operation and maintenance of this new Plant as well as both the existing STPs having a capacity of 45 MLD (18+27). The new STP being constructed now shall ensure that they are capable of treating Faecal Coliform Bacteria.

F. All the established and to be established STPs, shall ensure that the treated sewage released from these STPs is adhering to the prescribed parameters, i.e., BOD and TSS amongst others, should be below 10 mg per litre which is the current standard declared by the CPCB.

G. The Tribunal is not passing any direction in relation to 9 Hydro-projects which are operational and 11 which are stated to be under construction, as we are informed that the matter is pending before the Hon'ble Supreme Court. However, we would specify here that all hydro-projects which are in

operation or under construction would be directed to provide their own STP's and make them operational within 3 months from the date of pronouncement of this judgement, upon which, the Joint Inspection Team shall inspect such STPs, analyse their discharge and if found to be beyond the prescribed parameters, the UKPCB shall take punitive action against the head of the department of such projects and persons responsible for operation and maintenance of such plants. This would be in addition to the action that the Tribunal may direct for violation of its directions. Even this direction is subject to the orders that may be passed by the Hon'ble Supreme Court of India in the matter relating to Hydro projects. The Project Proponents would not be entitled to claim any advantage of this order.

H. No drain carrying sewage in any of the cities/towns forming part of Segment A of Phase-I would be permitted to join River Ganga or its tributaries. All the drains shall be tapped and the sewage from these drains would be brought to the common bio-digesters/STPs as the case may be. We prohibit discharge of any sewage or any untreated effluent through drains or otherwise into the River Ganga or its tributaries in the entire Segment-A of Phase-I.

I. Wherever there is a town which is closer to the industrial clusters, it will be ensured that the treated sewage water from the town is recycled for industrial purposes or other permissible purposes. However on other places it should be used for agriculture and horticulture purposes and other permissible purposes. Every effort should be made not to discharge more than 25 per cent of the total release from all the STPs into River Ganga.

J. Proper management scheme or protocol shall be prepared and notified by the State and all its agencies to ensure that the sewerage or sewage effluent collected in common septic tanks or bio-digesters, is emptied regularly and taken to the STP for appropriate treatment and its consequential release. The manure collected in the bio-digester shall be distributed free of cost to the farmers around the area and for this purpose the State administration shall ensure effective participation of the respective gram panchyats.

K. There shall be a team constituted of senior officers from Uttarakhand Pey Jal Nigam, UKPCB and representatives of the Government from Department of Urban Development. They shall submit quarterly reports to the Tribunal in regard to operation and management of the STPs and bio-digesters and in regard to the implementation of the action plan.

L. Every officer and head of the department of the public authority or body responsible for maintaining and operating the STPs/Bio digesters would be personally responsible for default, if the released sewage/effluent is found to be excessive to the prescribed parameters.

M. The Executing Committee appointed under this judgement shall be responsible for completion of up gradation of the six existing STPs and would ensure that the projects are completed and operationalised within the time noticed in the Judgement. Further, this Committee would be responsible for construction and establishment of another 15 STPs and 24 Bio-digesters of requisite capacity at the locations and within the time specified in **para 86** of the judgement. This Committee shall

work under the supervision and control of the Principal Committee. The total project is valued at Rs. 502 crores, funds for which would be provided through the Principal Committee in the proportion so determined. The State of Uttarakhand, its instrumentalities, public bodies, Uttarakhand Pey Jal Nigam, Uttarakhand Jal Sansthan and all other local bodies shall fully co-operate and extend full support to the Executing Committee to ensure that the works are executed expeditiously and within the time specified. The complete Action Plan along with the copies of the DPRs already submitted to NMGC/Ministry of Water Resources would be present before the principal committee and then for approval before the NMGC for sanction of fund within 1 month from today.

N. The Executing Committee with the help of the Uttarakhand Pey Jal Nigam, Uttarakhand Jal Sansthan and all other public authorities would submit a comprehensive report in relation to up-gradation of technology or otherwise of the existing 7 STPs which are not performing to the prescribed standards. It will be ensured that the technology of filtration and ozonisation is used to ensure that Faecal Coliform Bacteria does not enter into water bodies in excess of the prescribed parameters. The project so submitted shall be dealt with by the Principal Committee with utmost expeditiousness and shall be executed through the proper agencies.

DIRECTIONS IN RELATION TO INDUSTRIES

A. All the Seriously Polluting Industries which are operating without consent of the UKPCB and/or who have failed to comply with the directions issued by the UKPCB shall be closed down

forthwith.

B. There are 4 seriously polluting industries located at Sitarganj which are persistent defaulters as stated **in para 89 of** this judgement. We direct that such industries shall be closed forthwith. After remedial and rectification steps are taken by these industries and they install anti-pollution devices, they would be at liberty to approach UKPCB for grant of 'consent to operate'. If they approach UKPCB for obtaining 'consent to operate', such applications would be decided by the Board expeditiously. The consent granted would become operative subject to the orders of the Tribunal.

C. The State Government and District Administration shall ensure that all the Seriously Polluting Industries in relation to which UKPCB has already passed orders of closure shall also be closed forthwith.

D. In the event, any of the industries are found to be defaulting, their premises shall be sealed and electricity and water connection shall be disconnected forthwith.

E. The industries which are in the process of complying with the directions issued by UKPCB and/or are installing anti-pollution devices like ETPs or other mechanism to ensure that the trade effluent discharged by them on land, drains, water bodies or any other places is strictly complying with the prescribed parameters, would not be closed and would be permitted to do the needful at the earliest and in any case within three months.

F. Some of the Grossly Polluting Industries (15 in number) have applied for obtaining 'consent to operate' from UKPCB. The applications which are pending with UKPCB shall be disposed of in accordance with law not later than six weeks from passing of this

judgement. Names of these industries have been given **in para 89 of** this judgement.

F.1. The Grossly Polluting Industries (10 in number) which have not obtained/or applied for obtaining the consent of the UKPCB shall be ordered to be closed forthwith. They would also be permitted to carryout remedial measures and install anti pollution devices, whereupon they could apply to UKPCB for obtaining 'consent to operate'. If upon Joint Inspection, consent is granted, the industry would be permitted to operate subject to orders of the Tribunal (**recorded in para 89**).

G. The Industries which are operating without consent of UKPCB and are not seriously or grossly polluting as stated in the Judgement would be at liberty to apply for obtaining 'consent to operate' from UKPCB. If such applications are filed within one month from today, then UKPCB will deal with such applications with utmost expeditiousness. However, none of these industries would carry out their operations without specific orders of the Tribunal.

H. All industries located anywhere in any part of Segment-A of Part-I would obtain consent of the Board irrespective of nature of their business and quantity and quality of discharge of their trade effluent.

I. In the case of grossly and seriously polluting industries, UKPCB shall grant consent only after the industries have been subjected to a joint inspection by the Joint Inspection Team consisting of representatives of CPCB, UKPCB, Directorate of Industries, State of Uttarakhand and nominated a lecturer from IIT Roorkee.

J. The four industries to whom 'consent to operate' has been declined by UKPCB as stated at serial no. 1 to 4 under **para 89 of** this judgement shall be closed

forthwith and would not be permitted to operate till further orders of the Tribunal. These industries shall be inspected and report should be submitted to the Tribunal by UKPCB on the aspect that they are actually lying closed. They would be at liberty to take remedial measures and approach UKPCB for obtaining 'consent to operate' afresh.

K. The 10 industries whose names have been given **in para 89 of** the judgement and which have not even applied for obtaining 'consent to operate' from UKPCB shall be liable to be shutdown forthwith.

L. The Joint Inspection Team shall collect effluent samples and analyse them and recommend grant of consent, only if their parameters are found to be within the prescribed limit. They would be permitted to operate subject to the orders of the Tribunal. All industries which are not seriously polluting but are operating without the consent of UKPCB or have violated the conditions imposed by UKPCB in the order granting them 'consent to operate' shall be served with a Notice/Show Cause Notice requiring them to comply with the requirements of environmental protection and obtain the consent of UKPCB. If such industries become compliant and non-polluting, they would be permitted to operate. In the event they fail to comply with the same within 2 months of the issuance of the Show Cause Notice, which should be issued within 15 days from the date of passing of this judgement, such industries would also be liable to be closed and UKPCB would take appropriate action in accordance with law against such units.

M. The two existing CETPs, one at Sitarganj and other at SIDCUL, Haridwar are a matter of serious concern. While the first is not

operational, the second does not discharge effluents as per prescribed norms. The CETP at SIDCUL, Haridwar was directed to become zero liquid discharge unit which it has failed despite directions.

Thus, we direct that the Uttarakhand Industrial Development Corporation should ensure that the CETP at Sitarganj is serviced and made operational within one month from today. It should be ensured that the effluent that it discharges meets the current prescribed standards. The said Corporation can do the work itself or operate it through some agency but it shall be the exclusive responsibility of the Corporation to ensure proper operationalisation and management of the CETP. The CETP at SIDCUL, Haridwar should become a zero liquid discharge unit. As this process is likely to take some time, we direct the government and operating agencies to ensure that the effluent discharge from this CETP is definitely of tertiary levels and should be recycled for the benefit of the industries which are discharging their trade effluent to this very CETP.

We further direct that in the event the CETP is unable to attain zero liquid discharge, the authorities and the Society shall install an independent ETP of 4 MLD at SIDCUL, Haridwar to ensure that no pollutants enter River Ganga from that CETP.

N. The Joint Inspection Team shall also conduct a survey and submit a report to the Tribunal stating whether the established CETPs are capable of treating the effluent discharged in terms of quantum and quality from the respective industrial cluster to which they are catering.

O. The State Government and all

concerned authorities and public bodies would ensure that the industries located under any industrial cluster, particularly at SIDCUL and Sitarganj, should be connected to the CETP through the existing common conveyor belt. If any industry does not comply with this direction, the UKPCB and the concerned maintaining/operating authority should serve notice of show cause upon that industry as to why it should not be directed to be closed in case of the default, where-after, it shall pass appropriate order which shall be submitted before the Tribunal and the same would be subject to the orders of the Tribunal.

O. (1). The Supervisory Committee, therefore, should submit a report within one month from the date of pronouncement of this judgement to the Principal Committee in regard to basic need and possibility of operationalisation of this CETP. It must be ensured that industrial untreated effluents from the SIDCUL, Pant Nagar does not enter River Ganga or its Tributaries at all.

O. (2). The 19 Seriously Polluting Industries (SPIs) and 4 Grossly Polluting Industries (GPIs) industries whose application for obtaining consent of UKPCB have been rejected and they are still operating, as stated **in para 89** of the judgement are directed to be closed forthwith. Upon taking remedial measures and installing anti-pollution devices, they would be entitled to apply for obtaining consent of UKPCB afresh. However, they would be permitted to operate only after orders of the Tribunal.

P. The effluents discharged from the CETP are presently stored in the lagoon from where it is being discharged into River Sukhi. Steps will be taken by the agency operating CETP as well as all concerned authorities to channelize

effluents into lagoon through the reverse osmosis system and recycle the same so that least effluent is discharged into River Sukhi. The Executing Committee shall examine whether it is possible to utilize In-Situ Bioremediation for treatment of sewage technology in place of installing STP/Bio-digesters. This technology is stated to be economically more viable and practically efficient for smaller plants. They would make their recommendations to the Principal Committee within the time directed.

Q. BHEL is hereby directed to install its own STP of 11 MLD capacity by January 2016 as it is stated to be under finalisation. The STP so installed, should preferably achieve zero liquid discharge. The treated sewage water should be used and recycled for agriculture, horticulture or its own industrial purpose. If it discharges any treated sewage water, it should be strictly of the current prescribed values, i.e., 10 mg per litre BOD and 10 mg per litre TSS and should be capable of fully treating Coliform, Faecal or otherwise, as per prescribed norms.

R. As noticed in the Judgement, there are 226 kinds of industries (total being more than 4000) which are operating without the consent of UKPCB. They claim to have exemption granted to them by the Industries Department of the State. The Department of Industries has no jurisdiction to exempt the industries from operation of the Water Act and Air Act. (refer *Gurdev Singh v. Punjab Pollution Control Board, Punjab Pollution Control Board Zonal Office, Sohan Singh and The Punjab State Electricity Board* 2013 ALL (I) NGT REPORTER (2) (DELHI) 1)

All these industries except the ones which have a dry process and which do not discharge any trade effluent either directly or indirectly

into River, water bodies or drains would be required to move an application, complete in all respects, to take consent of UKPCB within one month from the date of pronouncement of this Judgement. Such application, if filed would be dealt with by the Board and consent granted or refused to the units within 3 months thereafter. The units which are refused consent shall be closed and would not be permitted to carry on their industrial operations.

Keeping in view that there is a likelihood of substantial increase in the work load of UKPCB, we would require the State Government to consider providing more posts in the hierarchy of UKPCB to ensure proper implementation of the Environmental Laws, particularly the Acts specified in Schedule 1 of the NGT Act.

III. <u>DIRECTIONS IN RELATION TO HOTELS/ DHARAMSHALAS / ASHRAMS</u>

A. All the Hotels which have failed to establish their own STPs, and have failed to obtain the consent of UKPCB despite persuasion and public notice dated 15th September 2015 and are releasing their domestic waste and sewage into River Ganga or its tributaries and/or the drains whether or not leading to the STPs in Rishikesh or Haridwar, shall be directed to be shut down forthwith.

B. The hotels which have applied for obtaining the consent of UKPCB in response to the above mentioned public notice shall be granted and/or refused consent within 1 month from the date of pronouncement of this Judgement without default.

C. Similarly, ashrams and Dhramshalas which are discharging their sewage or domestic effluent directly into the River Ganga or its tributaries, whether or not they

have their STP, would be directed to stop such discharge within 1 month from the date of issuance of the notice in this regard. Drains which directly bring sewage to the STP already established or to be established as afore-directed shall be connected to the common conveyor belt.

D. The ashrams/dharamshalas which do not have their own STP would be required to establish such STP within 3 months from the date of pronouncement of this Judgement. They will not, in any event, be permitted to release their discharged sewage or domestic waste into River Ganga directly. They must discharge such effluent into drains alone that bring such effluent to the STP.

E. If any hotel, dharamshala or ashram violates these directions it shall be liable to pay environmental compensation for causing pollution of River Ganga at the rate of Rs. 5000 per day. The Joint Inspection Team referred above shall conduct inspection of the hotel, ashram and dharamshala and if any of them is found to be violating these directions and/or whose STPs/ETPs are either not functioning effectively or not releasing effluent within the prescribed limits then the inspection team shall submit the report to the Tribunal quarterly.

IV. <u>DIRECTIONS IN RELATION TO MUNICIPAL SOLID WASTE</u>

A. There shall be complete prohibition on use of plastic, i.e., plastic carry bags/plastic plates, glasses, spoons, packages and allied items in all the cities/towns falling on the River Ganga and/or its tributaries in Segment 'A' of Phase-1. Under no circumstances, plastic carry bags of any thickness whatsoever would be permitted. The procurement, storing and sale of such plastic bags, plates, glasses, spoons, etc.

are hereby prohibited.

B. These restrictions would become operative w.e.f. 1st February, 2016. We further make it clear that the State of Uttarakhand in co-ordination with Ministry of Textile and other agencies would provide bio-degradable materials including jute bags, paper glasses, tumbler and such other items, use of which would be permitted from the specified date in the entire Segment 'A' of Phase-1.

   We direct the Ministry of Textile within 15 days from today to provide the complete alternative or possible alternatives to the State of Uttarakhand in this regard.

C. All the directions contained in relation to MSW in our order dated 2nd July, 2015 in Original Application No. 10 of 2015 shall remain in force. The said order which we have reproduced **in para 49 of the Judgement** shall be read as an integral part of this judgement.

D. The MSW dumping site at Chandi ghat which is located on the flood plain shall not be used any longer for dumping MSW. We hereby prohibit the State Government and all the Local Authorities at Haridwar from dumping any waste henceforth at the Chandi ghat site.

   We direct the State Government to develop and construct MSW dumping site at Sarai Village, Haridwar in terms of the stand taken by the State before the Tribunal in the case of *Gram Sarai Samiti v. MoEF&CC & Ors.*, Appeal no. 106 of 2015. From the records submitted before us in that case, it is clear that the Environmental Clearance for the site has already been granted. Once this site is ready, the entire MSW deposit at Chandi ghat site shall be segregated, removed and deposited at the new site. Transportation and segregation of the MSW at this site

shall be strictly in accordance with the conditions of the Environmental Clearance and the Municipal Solid Wastes (Handling & Management) Rules, 2000. The authorities concerned shall formulate a scheme and methodology for door to door collection from the bins in the respective colonies, segregation at the collection point, its transportation in covered vehicles and its disposal at the site and the Plant in accordance with the MSW Rules.

E. We hereby direct the Supervisory Committee constituted under this judgement to submit a report to the Tribunal for construction of MSW dumping sites and plants which would ensure that the generated waste from the entire State can be effectively collected and disposed of in accordance with MSW Rules. The report should be submitted within one month from today. Preferably the scheme should be District based and with the adequate mechanism for transportation of MSW.

F. There shall be prohibition on throwing of any municipal waste, construction and demolition and other wastes into River Ganga and its tributaries and even on banks thereof. Any person/body, if found violating this condition, shall be liable to pay environmental compensation at the rate of Rs. 5000 per event. The authorities concerned shall bring it to the notice of all concerned, widely publicise the same and place sign boards at the relevant sites.

G. We further direct the State Government, and its instrumentalities and all public authorities to ensure that public facilities like toilets are provided on the appropriate places in colonies abutting River Ganga all along Segment-A of Phase-I. The toilets should be connected and linked to

bio-digesters or STPs constructed for that purpose alone. The State Government, public authorities, Nigam and Municipalities shall prepare an action plan in relation to providing bio-toilets in such number which is commensurate to the floating population coming to Haridwar and different parts of Uttarakhand as pilgrims or in the festive season. The bio-toilets so provided will be cleaned and the sewerage so collected shall be transported to the STPs establish for this purpose alone for treatment and removal of coliform as per prescribed standards.

H. During the interregnum, the local authorities shall ensure proper system in place for cleaning of these toilets and bringing the sewage and other waste from these toilets to the existing STPs for treatment. This direction is necessitated to ensure that there is no human defecation on the flood plain or areas nearby.

I. Uttarkashi is also to have its own site for STP. However all these steps are long term measures. For the present, the authorities should identify atleast temporary dumping sites in all the districts and major towns forming part of the Segment-A where the MSW should be dumped after segregation. The State Government, all public authorities, Nigams and Municipalities, etc. would ensure that even such temporary sites should not be within 500 meters distance from the end of the flood plain of the River Ganga or its Tributaries. The plastic or such other waste which can be used as a fuel should be sent to the proper plants.

V. <u>DIRECTIONS IN RELATION TO FLOOD PLAINS</u>

A. The State of Uttarakhand shall prepare and submit to the MoEF&CC, Tourism-cum-Plain

map, Flood Plain map and zoning of flood plain shall be in accordance with the Notification dated 18th December, 2012 issued by the Ministry and the Act of 2012 afore-referred positively within 3 months from the date of pronouncement of this judgement. Upon submission, MoEF&CC shall approve such plans with amendments or otherwise within 1 month thereafter and then it shall be notified and brought in the public domain.

B. Keeping in view the Notification of the MoEF&CC, intent of the Act of 2012, orders passed by the Tribunal in other matters, High Courts and the Hon'ble Supreme Court in various cases, we would order and direct that as an interim measure at least 100m from middle of the River would be treated and dealt with as 'Eco sensitive and prohibited zone'. No activity whether permanent or temporary in nature will be permitted to be carried on in this zone including camping. The only exception would be the points for picking up and dropping the guests who are doing rafting in River Ganga.

The area beyond 100 meters and less than 300 meters would be treated as regulatory zone in the hilly terrain, for which the State will comply with the above directions.

The area upto 200 meters shall be the prohibited area in the plain terrain and more than 200 meters and less than 500 meters would be treated as regulatory zone.

Area/River bank/flood plain 2 kilometres. upstream to Rishikesh and till Border of the State of Uttarakhand towards Uttar Pradesh in River Gangaes would be treated as plain terrain while upstream the above hilly terrain.

The State Government while complying with its obligations under the Act of 2012 and this judgement in this regard would

keep in mind 1 in 25 years flood to be the criteria for declaring flood plain and the regulated activities which would be permitted in that area. This is the guiding factor which has complete scientific and documented studies to impose such limitations.

C. Strict supervision in that regard shall be enforced by the State agencies responsible for that purpose, primarily by the Secretary of Irrigation Department, State of Uttarakhand and the Chief Conservator of Forests, Uttarakhand. The policy so framed, with the restrictions as contemplated in the Notification of the MoEF&CC and the Act of 2012 formulated by Government of Uttarakhand shall be placed before the Tribunal after expiry of the above stated period.

D. Any activity or construction in the regulated area afore-referred where the gradient is beyond 35^0 should be further checked and preferably no activity should be permitted, to prevent ecological damage and land sliding in that area. All precautionary steps should be taken in that behalf.

E. In this prohibited area, no public authority or State department, including the panchayat would grant permission for any activity whatsoever, including eco-tourism except to the extent of points for pick up and dropping for River rafting.

VI. <u>DIRECTIONS IN RELATION TO MINING ON THE RIVER BED</u>.

A. The Riverbed mining shall be carried on in a highly regulated manner and under strict supervision of the authorities concerned.

B. No mechanised Riverbed mining would be permitted. No JCBs would be permitted to operate in the Riverbed.

C. No suction of the minerals from the

River and the Riverbed would be permitted by the mechanical process like suction pumps etc.

D. The regulated mining would include the seasons during which such mining is permitted and which shall be strictly adhered to.

VII. <u>DIRECTIONS IN RELATION TO BIO MEDICAL WASTE</u>

A. In absolute terms there should be no throwing of any medical, bio medical or any other waste, into the River, on the River banks and anywhere in the areas forming part of Segment-A of Phase-I. If any present hospital is found throwing such waste anywhere on land, water bodies or other places, UKPCB and the Municipal Authorities would re-cover Rs. 20,000 per violation from that person, Hospital or authorities on account of Environmental Compensation in terms of Section 15 of the NGT Act and on the basis of Polluter Pays Principle. These amounts would be deposited with the State Government and should be utilised for the project under this judgement.

B. The two entrepreneurs specified **in para 93** of this judgement which are dealing with collection, treatment and disposal of bio medical and hazardous medical waste will obtain Environmental Clearance within 3 months from the date of pronouncement of this judgement. Such application should be filed within 2 weeks from today and dealt with by the concerned authorities expeditiously. We direct the State Government to construct and establish by itself through annuity/PP mode or any other method that is suitable in the opinion of the Central Government at least two more bio-medical waste and hazardous waste plants of such capacity that would meet the requirement of 708 hospitals in the

State of Uttarakhand. These plants would be established at safe sites and away from beyond 1000 meters from the River/flood plain of the River Ganga. These plants would be established and made operative in accordance with law.

C. All the 708 Hospitals would be served with a notice by UKPCB and the department of health of the State requiring them to ensure proper collection, segregation and disposal of such waste in accordance with the Bio Medical Waste (Management and Handling) Rules, 1998. In the event the hospitals fail to comply with the directions so issued by the authorities, UKPCB should take action against such hospitals in accordance with law.

IX. GENERAL DIRECTIONS

A. For completion of the project and compliance of these directions, the State Government, its instrumentalities, public authorities and bodies would be entitled to invoke the Principal of 'Polluter Pays' and require the industries, hotels and Dharamshalas and even households to pay environmental compensation, and/or sewage charges in all events the State and its instrumentalities would ensure efficient, and effective operation, maintenance and management of the various STPs/CETPs, and Bio-digesters, etc.

B. The Environmental Compensation payable under these directions would be directly proportionate to the discharge of the effluent from such premises. This should primarily be imposed upon industries, hotels, ashrams and dharamshalas, for instance, hotel having 10 rooms should be directed to pay a particular amount, while a hotel of 50 rooms or above should be directed to pay much higher amount on this account. We leave,

fixation of this amount, in discretion of the State Government.

C. We also direct that the State of Uttarakhand and its various departments and public authorities to divert the balance funds provided for that purpose towards this project. Rs. 258 crores was provided out of which Rs. 78 crore has been spent thus, a balance of Rs. 180 crores is left. These funds would be utilised for carrying out the directions under this judgement. For the balance requisite amount, State Government will approach the NMCG and the Ministry of Water Resources to provide the funds from the already earmarked budget for cleaning of River Ganga.

D. If the Government proposes imposition of such environmental compensation or environmental cess then that cess shall be used only for implementation of the projects covered under this judgement till completion. Thereafter, the State could use these amounts as it considers appropriate.

E. In regard to granting sanction and release of funds for establishment of the 40 MLD plant at Jagjeetpur, Haridwar the NMCG shall release the same expeditiously and in any case not later than 1 month from today. The project, as noticed above, has already been approved. Plant should become operational in six months from today.

F. All other projects covered under this judgement shall be considered by the Ministry of Water Resources and NMCG on priority basis. It will be for them to decide as to which category of funding is to be adopted (i.e. 100 per cent funding by the Centre or Centre and State sharing basis and/or projects funded by the other sources) and which all projects are to be controlled by the Central Government. Such projects

shall be considered and approved with amendments or otherwise by these authorities expeditiously and with top priority. The projects so sanctioned shall be executed by the nominated State agency without any further delay and in accordance with the prescribed procedure.

G. All the works would be initiated, sanctioned, executed and maintained under the direct supervision of NMCG. The Executing Committee will directly supervise and be responsible for completion of the projects and report the matter to Principal Committee, which in turn, will submit its final report to the Tribunal.

H. We have already held that the State Governments are not only expected but it is their obligation to contribute and ensure effective implementation and operationalization of these projects."

26. After pronouncement of the above judgement on 4th January, 2016, the Tribunal decided to continue with the consultative process of the stakeholders in relation to Segment B of Phase-I. The meeting of the Chief Secretaries of the concerned States, Senior Officers from different stakeholders including the executing authorities and the CPCB and UPPCB was earlier held on earlier 23rd December, 2015. During the meeting, serious issues were raised with regard to Zero Liquid Discharge and installation of online monitoring system to be adopted by the industries across the board and the stakeholders were required to make their submissions. On 5th January, 2016,

learned Advocate General appearing for the State of Uttarakhand had made a statement that the Government and all other stakeholders had decided to implement the judgement dated 10th December, 2015 and would file compliance affidavit in a short time. The execution of the judgement dated 10th December, 2015 and compliance of the various directions issued by the Tribunal as afore-stated has been a matter of direct supervision by the Tribunal. Various compliance reports have been filed and according to Uttarakhand Peyjal Nigam, some projects had not been cleared by Central Government while some had been cleared. However, according to them, the compliance of the directions were in progress. The leaned Counsel appearing for the UKPCB, the Counsel for Uttarakhand Peyjal Nigam and State of Uttarakhand have stated that the authorities are ensuring their best to comply with the directions afore-stated. The execution of the order for the compliance of the directions continues to be *sub-judice* before the Tribunal. It is not necessary to discuss further details thereof.

The stakeholders including the applicant were directed to file their suggestions with regard to cleaning of river Ganga in Segment-B of Phase-I, i.e., Haridwar to Unnao, Kanpur. In the subsequent orders, the stakeholders including MoEF&CC, Ministry of Water Resources, CPCB and UPPCB were required to take clear instructions on various issues

that were discussed in the chamber meeting. *Vide* order dated 8th February, 2016, a Special Expert Team was constituted and was required to report to the Tribunal on various issues including, STPs, CETPs and more particularly the load in terms of quantum as well as qualitative analysis of the drains which were directly joining river Ganga. Order dated 8th February, 2016 reads as under:

> "We constitute a team of experts consisting of Member Secretary of the CPCB, Member Secretary, Uttar Pradesh Pollution Control Board, Member Secretary of State of Uttarakhand Pollution Control Board, General Manager of Jal Nigam, Director of specialised section from MoEF&CC and Professor Kazmi from IIT Roorkee and submit a report within three weeks from today.
>
> The Member Secretary of the CPCB will be the Nodal Officer and in-charge of holding the meeting proceedings of the Committee. This team of experts shall submit its report to the Tribunal on the following:
>
> 1. actual discharge from each major drain that joins River Ganga in the section from Haridwar to Kanpur.
> 2. it shall also measure the load of sewage at the point of STPs and the point where STPs are sought to be constructed.
> 3. it shall be stated, in the case of existing STP's whether they receive the entire discharged from the drain and part of the effluent directly is discharged or untreated sewage is discharged in the River Yamuna.
> 4. The Committee shall collect or cause to be collected under its supervision, the Samples from the drains and the inlet points of STPs (existing/proposed). These will be

analysed for all parameters and compared with the bathing quality water standards which will not be restricted to BOD, COD, pH etc. Analysis should also be done with regard to metals, insecticide, pesticide, Colifrom, and other phenolic compounds. This we have indicated to give a wider scope but list is not exhaustive. It will be in the discretion of the committee to have some other tests conducted as per their instructions.

5. Samples would be collected and analysed at the laboratory of CPCB and IIT, Roorkee. The Committee may adopt at least two methods for measuring the discharge.

Besides the above, the Committee shall also report as to what is actual contribution of Grossly Polluting Industries and other industries to sewage. Comments also be given as to what is the extent of water extraction from River Ganga for various usage particularly by industries.

All the learned Counsel appearing for the respective parties are directed to comply with the directions contained in the order dated 27th January, 2016 and submit a compliance report within two weeks from today. We make it clear that if directions are not complied with, we will be compelled to impose very heavy cost recoverable from the erring parties. The learned Counsel appearing for the Tannery Association prays for time to make written submissions. Let the written submissions. Let the written submissions be filed within two weeks from today with advance copies be given to the Learned Counsel appearing in this case. The Uttar Pradesh Pollution Control Board shall serve Notice upon President Secretary of textile, sugar and pulp & paper industries located in that area of segment-B of Phase-I of River Ganga. A representative of Textile industry is also present. He has been informed.

> The Committee would also offer its suggestions in regard to issues involved in Original Application No. 501 of 2014."

27. *Vide* order dated 17th February, 2016, the industries as well as all the stakeholders including Government Departments and Pollution Control Boards were required to file their written submissions on the issue of attainment of Zero Liquid Discharge, installation of online monitoring system and steps required to be taken for eradicating industrial pollution. At that time, it was stated that in this segment there were nearly 1070 seriously polluting industries which include 746 grossly polluting industries and the State Boards were required to issue appropriate directions in that behalf. *Vide* its order dated 13th May, 2016, the Tribunal directed the matter to be listed for final arguments on 20th May, 2016. However, such arguments were heard and it was felt necessary that a final meeting of the stakeholders in relation to Segment-B of Phase-I should be held. Therefore, the Chief Secretaries of the States, concerned secretaries of the State of UP, Managing Director of U.P. Jal Nigam, CEO of UP Jal Sansthan, all other senior most officers of the concerned public authorities or Government, Chairman and Member Secretaries of UPPCB and CPCB, Joint Secretaries of MoEF&CC and Ministry of Water Resources were required to attend the said meeting. This meeting was held and final

stand of the respective stakeholders was taken into consideration by the Tribunal. The purpose again was to take the final view of the respective stakeholders before the final arguments could be addressed and the Tribunal could proceed to this judgement.

28. After holding various meetings of stakeholders and hearing their arguments, certain questions of fundamental significance rose for consideration. Besides this, it was also noticed that the Tribunal has to take a clear approach on whether preference should be to clean the cities or to clean the rivers at the first instance. A detailed order was passed on 18th October, 2016, which reads as follows:

> "The Uttar Pradesh State Government, Uttar Pradesh Jal Nigam, Uttar Pradesh Pollution Control Board and Central Pollution Control Board are directed to file a comprehensive map sketch giving the following:-
>
> 1. All the drains and the Rivers joining the River Ganga or its main tributaries in Segment – B which now will be from Haridwar City Border to Unnao in District Kanpur.
> 2. The points where industrial effluents and sewage is release into the respective Rivers.
> 3. The quantum (load of BOD) of industrial waste effluent and sewage that is being discharged into the River/ drains.
> 4. The existing STPs/CETPs and whether they are functional or not and if they are functional whether they are capable of treating the various pollutants of industrial effluent, sewage and coliform.
> 5. The projected STPs/CETPs by the State itself or in collaboration with Ministry of Water Resources.
> 6. Industrial clusters falling on the

bank or near the River Ganga or its tributaries.

All these would be shown in different colours with a complete legend and shall be signed by all the concerned Authorities.

We may also notice that during course of hearing it has been brought to our notice that as per list of industries released by Government of India, there are nearly 1 Lakh industries minor and major falling in Segment 'B' of Phase–I. However, according to the Uttar Pradesh Pollution Control Board and the Central Pollution Control Board there are nearly 1070 Seriously Polluting Industries (SPIs) and Grossly Polluting Industries (GPIs). However, it is not clear as to whether there are other industries and if so what manufacturing or other activity they are carrying on and what kind of trade effluent do they discharge. Let Uttar Pradesh Pollution Control Board in consultation with other Authorities including Government of Uttar Pradesh and Central Pollution Control Board file a correct statement giving number of industries falling in Segment - 'B' of Phase–I. It should also be stated if the industries are registered with Directorate of Industries or not or whether they have been granted consent by the Uttar Pradesh Pollution Control Board to operate or not.

We are in the process of hearing arguments on Segment 'B' which has been expanded a little to the extent that it would start from the boundary of Haridwar to Unnao instead of limit of Kanpur. This is for the reason that tannery industries, which is one of the main cause of releasing pollutants into the River Ganga in this Segment, are located at Unnao and will have to dealt with at parity with the tannery industries at Jajmau, Kanpur. The working of the Authorities is pathetic with the passage of time huge amount of public money has been spent by these public authorities, but while they are only and only adding to the greater

> and severe load of pollution to River Ganga and its tributaries. Even today it cannot be informed to us as to how many drains carry industrial effluents, sewage and other discharge to the River Ganga or its tributaries. There are other factors which create a serious doubts about the very intent of the State of U.P. or its public authorities in an effort to clean River Ganga in a systematic and proper way.
>
> Since we are hearing the matter and the basic question that the Tribunal would have to answer amongst other is whether the approach of cleaning of city or cleaning of River at the first instance is the approach to be adopted. Ill-planning, unscientific approach and no future estimation has lead to chaos in which the River Ganga today is.
>
> We therefore direct that during the course of hearing the State of Uttar Pradesh and its Public Authorities and Nigam will not carry out any major project of sewage, establishment of STPs/CEPTs except day-to-day maintenance work of the pipelines and the plant in Segment 'B' without the specific directions of the Tribunal.
>
> We grant liberty to the concerned authorities to move the Tribunal if any specific work they are desirous of executing during the pendency of this application."

In furtherance to the above order, by a subsequent order, the specially constituted committee comprising of Member Secretary, CPCB, Chief Engineer of UPJN, Sr. Most Chief Environmental Officer of UPPCB and representative of Ministry of Water Resources were directed to pay a personal visit and provide complete details in relation to quality, quantum of flow in the drains which were joining river Ganga and its tributaries. Some details had been

provided but were required to be confirmed and further details were required to be provided in relation to Segment-B of Phase-I.

29. During the course of hearing, it came to light that even the data collection had not been done appropriately and there were major discrepancies between the data of UPJN and Joint Inspection Team. To resolve this issue, further inspections were directed. *Vide* order dated 25th October, 2016, it was noticed that a joint affidavit should be filed by the Ministry and other stakeholders in relation to the drains falling between Haridwar to Unnao, Kanpur in relation to Ganga and its tributaries giving their complete details so as to enable the Tribunal to arrive at a fair conclusion and to provide proper remedial steps that are required to be taken. *Vide* order dated 17th November, 2016, the Ministry was directed to file the report of IIT Consortium and the Secretaries of Government of India on Phase-I and II. On 18th November, 2016, the Tribunal was informed that in Jajmau there are nearly 400 tannery industries and in Unnao there are 42 tannery industries. It was also conceded before the Tribunal that there was no Chromium Recovery Plant and the CETPs provided at this site were violating all prescribed parameters and were ineffective. On 2nd December, 2016, professors from different IITs had appeared before the Tribunal and made submissions at length with regard to the work done by the

Consortium of 7 IITs. It will be useful to reproduce the order dated 2nd December, 2016 to put the matters with complete clarity on record and to devise proper mechanism free of earlier deficiencies and to ensure effective steps to be taken with regard to rejuvenation of river Ganga.

> "In furtherance to our order dated 22nd November, 2016, Professor Vinod Tare, Professor Gusain, Professor S.P. Singh, IIT Roorkee and Professor Indrajit Dubey, IIT, Kharagpur were present yesterday and had made submissions at length before the Tribunal with regard to the work done by the consortium of seven I.I.T.s and the report submitted by them and the recommendation made. The Tribunal had heard the group of these professors at length and the matter continued for today when Professor Vinod Tare and Professor Gussain are present. We consider it appropriate to record the gist of what had been submitted by them and deliberated upon at length with assistance of all the Learned Counsel appearing in this case.
>
> We may notice that Government of India and Ministry of Environment, Forest and Climate Change on its own had constituted the consortium of the seven IITs. The Memorandum of agreement was executed between the I.I.T.s and the Government of India to prepare Ganga River Basin Management Plan. They had submitted various reports commencing from 2010 and the consolidated final report was submitted in the year 2015. It is obvious that these reports were hardly acted upon and they remained part of Govt. archive. It appears that there has been hardly any implementation on this report, the Learned Counsel appearing for Central Pollution Control Board and Uttar Pradesh Pollution Control Board submits that the report was never shared with them and the report did not form the basis for preparation of

Joint Action Plan.

Be as that it may, we would like to record the gist of what has been stated by the experts of IIT consortium in response to the specific questions that had been framed by the Tribunal.

1. To the query made regarding data collection and confirmation of data placed before the consortium, it was stated before us that no primary data had been collected by the consortium of IITs. In fact, it did not even form the part of the assigned job. They also did not verify the collected data which had been submitted to them by various agencies during the implementation of their project in the year 2010. However, in relation to Water Resources, some verification was done. It is further stated that IITC (IIT Consortium) did not collect primary data on industrial/domestic sewage discharges (or other need based data) which were to be provided to us by the government. However, IITC did conduct a very limited number of field measurements of River flows and cross-section, aquatic biodiversity, wastewater discharges, etc., primarily to get a rudimentary idea about such aspects, whenever secondary data was completely absent or was judged to be of poor quality. The first of its report was submitted to the Government in 2010 it recommended that it was necessary to have detailed investigation in each field as it was a pre-requisite for the purpose of proper result oriented reports. However, till 2015, the submission of the final report, no primary and customised data or details were either collected or provided to the Indian Institute of Technology consortium.
2. One of the main reasons for high pollution of River Ganga was excessive extraction of water at Haridwar downstream. This was on

two counts, one diversion of major part of the River flow to the canals, secondly indiscriminate, unregulated extraction of groundwater for agricultural, domestic and industrial purposes in the entire basin particularly in the section from Haridwar to Kanpur. Nearly 80% of the water was being extracted in different forms. Besides this, heavy industrial and domestic effluent was being discharged into the River thus bringing its pollution to a very high scale and little flow was left in the River of her natural water or her tributaries.

3. In the opinion of the consortium and even today, the expert advice is that there should be complete projects prepared for smaller sections rather than planning the cleaning of River Ganga from one stretch to another at one stroke. In other words, complete urban plan should be prepared for a town to ensure that pollutant do not enter the River rather than cleaning the River without paying any attention to the drains and small Rivers flowing through urban areas which carry high polluting effluents to the River. To be more clear, it would be appropriate to clean the city drain as well as the River and not only clean River and leave the city drain. All drains particularly the drains flowing in Segment-B of Phase-I are drains carrying mixed waste that is the drain which in fact are storm-water drains carry sewage, industrial, domestic effluent as well. There is inaccuracy in the data relied upon in as much as to give example of River Assi in Varanasi. It is stated that 50 MLD of different effluent are carried by this River while actually, it is approximately 90 MLD.
4. The multiplicity of Authorities was one of the causes for non-effective implementation of Ganga Project-I

and Ganga Project-II plan. It was for the reason that there were number of Authorities stated to prepare, implement and supervise various projects with regard to cleaning of River Ganga but there was lack of coordination, lack of proper monitoring system and also lack of administrative intent to execute the project effectively amongst them.

5. The plan and the projects under the plan should be knowledge driven and not perception driven. Appropriate technology should be adopted upon proper study keeping in view the Indian situation and ground realities in mind rather than adopting foreign or other technologies which may not be beneficial to the Indian system, on long term basis.
6. Use and recycling of the treated sewage or effluents is of paramount consideration as it would result in definite double benefit;
   a. It would reduce the load on the River and;
   b. It would provide usable waste atleast for industrial and agricultural purposes to the needy sectors. If the recycling of treated effluents is effectively implemented, it would considerably reduce extraction of fresh water from the River or from the ground.
7. Environmental flow of the River should be maintained, if necessary, by reasonable reduction in release of water to the canals and some element of regulation or even prohibition for extraction of groundwater in the entire segment.
8. Effective and definite steps for prevention and control of pollution of River Ganga should be taken. For instance while dealing with tannery industries in Jajmau, it will be appropriate to install three dedicated pipelines, one for Chromium waste, second for tannery effluent and third

for domestic sewage. All these three pipelines should be brought to the Chromium Recovery Plant, CETP and STP respectively. Chromium should be recycled as it is a valuable raw material. The industrial effluent upon treatment through CETP and STP should be recycled and not more than 25% of it should be discharged into the River if the need so arises. As a result to these processes large quantity of salt will be recovered which should be stored on a properly prepared land site upon proper segregation of salt, to recover pure salts. The remnant quantity of salt could be put into the River in the rainy season when there is high flow in the River but with complete care and caution. This will help in reducing quantum of salt at the sites and thus the sites would become manageable.

9. In the functional hierarchy and operating agency there is capacity deficiency. As a result there of any system intended to control and prevent pollution does not become effective. There is need to augment the capacity of all agencies involved so that all the data and information available can be transformed into 'technical or implementable knowledge' which can ensure successful implementation of such complex action plan.

10. Another source of high pollution of River Ganga is over utilisation of pesticides and chemical fertilisers, which meet the River through run off from catchment area.

11. The concerted efforts should not be only on the main stretch of the stream but the entire catchment and basin of the River should be equally attended to, if not on priority. There has to be a definite attempt to revive and restore the health of the River.

12. Proper data should be collected before implementation of any project or segment in that behalf.

13. It will be in the larger interest

> that the data related quality and quantity of water resources including sectoral water utilisation should be in public domain and the suggestions from the public including experts from different fields should be received and properly dealt with. It will be beneficial to involve local academic institutions in conducting all research and implementation of such large projects.
>
> 14. The water extraction is presently in very high proportion in relation to recharge of groundwater. It is therefore necessary to consider various measures for ground water recharge into consideration and implement them accordingly after collection of appropriate data.
>
> Inter-alia for above reasons, Ganga Plan-I and Ganga Plan-II were futile."

It may be noticed that the data furnished by the different authorities was at substantial variance in relation to the number of drains, load of the drains and the quantum of flow and qualitative value of the drains. Thus, the authorities and stakeholders were directed to hold a common meeting and reconcile the variations in the data furnished. The final report jointly prepared by the stakeholders was submitted before the Tribunal including the details with regard to industrial clusters. When the case was taken up on 13th January, 2017, all the stakeholders including the NMCG, CPCB, UPPCB, UPJN and UPSIDC had stated that they all are in agreement with the Joint Inspection Report filed on record and they accept the contents thereof. It was also stated before the Tribunal that there are nearly 1200 industries located on the banks

of river Ganga in this segment, out of which 700 to 800 industries were seriously polluting and fall under red or orange category of the industry. It was also stated in the Joint Inspection Report that there are nearly 86 major drains which are joining river Ganga and its tributaries i.e. Ramganga, Kali-East and Pandu. The discharge into the river was stated to be approximately 2774 MLD of mixed effluent. Certain minor drains carrying effluents of even less than 1 MLD or which were majorly dry were also pointed out. The Tribunal *vide* its order dated 16th January, 2017 directed that the six drains which are not carrying any effluents should be plugged and stopped forthwith. The Tribunal *vide* its order dated 19th January, 2017 raised the following questions to be answered by stakeholders:

> "1. There are 30 drains meeting River Ganga in Segment-B. Out of which 27 drains directly flow into River Ganga while the remaining three drains have been tapped and through pumping station are being taken to STP(s) at Kanpur.
> 2. Besides this, there are one drain Bagad even called River Bagad, which is stagnant and it only flows when the flow of effluent is high or in the rainy season, then it meets River Ganga. At the time of inspection the Joint Inspection Team found it to be stagnated, however, it is having effluent.
> 3. The 3 drains which have been tapped and taken to a STP, what is the load of these three drains individually and at the point of intake of STP, what is the quantum of discharge at the outlet of STP and what effluent besides sewage

or drain water, it contain and values thereof.
4. The capacity of the STP and composition that is capable of treating within the prescribed value as of now.
5. In relation to remaining 27 drains, the load of each drain that is quantum as well as quality of the effluent in that drain.
6. Which of these drains depending on the quality of the effluent are capable of being intercepted and joined together to be taken to nearby STP/CETP, keeping the distance and costing in mind.
7. Same question will be answered in relation to East Kali and Ram Ganga as well.
8. The Uttar Pradesh Jal Nigam shall put before the Tribunal complete data and answer forthwith in relation to STPs' functioning and three drains aforereferred, as well as 27 drains which it require to treat. It will state the technical as well as nontechnical aspects in relation thereto."

30. In the order dated 25th January, 2017, it was noticed that the CPCB had provided in the proposed draft Notification, stringent values w.r.t. BOD, TSS and FC for STPs for preventing and controlling the pollution, for example, instead of the existing values of 30 mg/L of BOD, the value of 10 mg/L was provided. Faecal coliform was required to be less than 230 MPN/100ml. It was also stated that the Chhoiya drain was carrying industrial effluents, particularly from the petrochemical industries and distilleries. Notice was directed to be issued to all such industries located in the catchment area of the drain and the Pollution Control Board was asked to take appropriate action. These industries were required to file replies,

subsequent to which they were provided with an opportunity of being heard. An environmental compensation was imposed upon them subject to compliance of the conditions/ recommendations suggested by the Joint Inspection Team within the specified timeframe. They were permitted to operate. On 10th February, 2017, since basic questions/ doubts were raised in relation to data collected by the UPJN, the contractor and the officers who had prepared the Detailed Project Report (for short, 'DPR') for establishment of 3 MLD and 6 MLD STPs at Garh drain were directed to be present before the Tribunal with complete records. On 14th February, 2017, these officers and the contractor had appeared and it was pointed out that nearly ₹ 31 crores have already been spent on laying of sewer lines and for construction/installation of STPs in the area of Brijghat and Garhmukteshwar. According to the joint inspection, a single drain was joining river Ganga and carrying the discharge load of 13 MLD. The officers had stated before the Tribunal that they had never carried out any survey before or after preparation of DPR for the project in question. They have never verified the quantum in any case and quality of discharge in the drain. The Tribunal noticed that public funds were being squandered by the officers who did not even consider it necessary to perform their basic function of field inspection, analysis of the

effluents, sewage in the drains and quantum thereof before preparing the DPRs and forwarding the same to the authorities. The STPs installed were non-functional because according to the executive officer of the Parishad, sewer connections had not been provided to the households and the connectivity of the sewer line was incomplete. The Joint Inspection Team was also required to sit down together and finalize the matter in relation to the detailed answer to the questions raised by the Tribunal in its order dated 28th February, 2017.

31. On 7th March, 2017, when the matter was taken up for hearing, the learned Counsel appearing for the Ministry of Water Resources in response to query raised by the Tribunal made the following statement:

> "It is stated upon instruction from the Secretary of the Ministry that the primary object of the Ministry is to clean and rejuvenate River Ganga, however, it is further added that wherever certain areas are required to be cleaned to ensure prevention and control of pollution of River Ganga, the Ministry even would do the same."

Thus, it became indubitable that cleaning of river Ganga was the paramount duty of the Ministry of Water Resources. Another factor that came to the notice of the Tribunal, which is not only appropriate, but probably the only solution for cleaning of river Ganga is that the approach of cleaning of the river as opposed to the cleaning of city should to be adopted. There are a large

number of unauthorised colonies which do not have sewer network system and there are also planned colonies where there is no sewer network and it will be a futile to imagine that drainage system will be provided for bringing the sewage and the effluents to the STP or CETP if it is constructed within the city. It is also to be noticed that there are industries in the same pocket where these unplanned colonies as well as the planned colonies exist. The Commissioner of Nagar Nigam Kanpur on 8th March, 2017 has stated before the Tribunal that there are 110 wards and 1669 colonies in the city of Kanpur. Out of them, unplanned colonies are 152, while 397 are slum colonies and remaining are planned/authorised colonies. The slums and illegal colonies have not been provided with any sewer line. Another notable disclosure that was made by the said officer before the Tribunal was that the sewer lines were 70% blocked and consequently only 30% of the sewer line was functional as shown by the Joint Inspection Team. It is stated that as and when the open drains were supposed to be cleaned, the Solid Waste Management Rules, 2016 was not adhered to. The drains are being cleaned, if at all, during 2nd March to 15 June every year but still 70% of the sewer line was blocked. On 11th April, 2017, in the chamber meeting held in furtherance to the order dated 30th March, 2017, the Senior Officers of the Ministries, State of UP and other stakeholders were

present and stand of each one of them was recorded in that order which reads as follows:

> "In furtherance to our order dated 30th March, 2017, senior officers from the Ministries, State of Uttar Pradesh and other stakeholders including Central Pollution Control Board are present.
> The stand of each of the stakeholder has been considered in the meeting and recorded upon their confirmation, which are as follows:-
>
> 1. The Additional Chief Secretary, (Environment & Forest) has stated that Uttar Pradesh Government has taken a policy decision for making all possible efforts to clean and rejuvenate River Ganga.
> 2. As far as Segment-B is concerned, the Government is quite clear that all the sources which pollute River Ganga should be treated on the basis of definite data and information.
> 3. The Government of Uttar Pradesh has, in principle, taken up decision to shift the tannery industries from Jajmau and the place to which they are to be shifted is under effective consideration. It would be identified shortly. However, the Government is also open to the idea that appropriate anti-pollution devices including Chromium Recovery Plant and Common Effluent Treatment Plant may be provided at the existing site and if the outlet provides the effluent as per the declared parameters then the water could be recycled.
> 4. The Executing Agency would be the Uttar Pradesh Jal Nigam, except for the projects which are taken on Hybrid Annuity Mode.
> 5. The State of Uttar Pradesh would have no objection in providing the Sanitary Landfill Site beyond 500 meters from the flood plain of the River. There should be complete restriction on any kind of waste being dumped into the River.
> 6. The State of Uttar Pradesh will provide complete and correct with

regard to the following, on the next date of hearing i.e. 17th April, 2017:-

i. What should be the minimum environmental flow of River Ganga in Segment-B.
ii. Whether there is excessive extraction of groundwater in this section and/or whether the water being diverted into the various Ganga Canals should be regulated so as to help maintenance of minimum flow of the River.

7. It is undisputable that two major problems are causing pollution, excessive extraction of water on the one hand while on the other high pollutants are being put into the River. Unless both are controlled, it will be difficult to restore the River to its original pristine.

8. The State of Uttar Pradesh has preference for cleaning River Ganga.

9. The Special Secretary on behalf of MoEF&CC stated that the Ministry would give all help and assistance to the State Government for the purposes of ensuring the treatment of the effluent, being discharged by Tannery industries into River Ganga.

10. The Solid Waste Management Rule, 2016 make it clear, and in fact it is a clear stand of MoEF&CC that the waste, in any form, cannot be permitted to be dumped in any form in River Ganga and there will not be any Sanitary Landfill site within the flood plain.

11. As far as the minimum environmental flow of the River as well as the excessive extraction of water intake, the Ministry would submit its comments by the next date of hearing. It can be better answered along with the Ministry of Water Resources.

12. The online monitoring system should be enforced.

13. Both the conditions i.e. ZLD as well as online monitoring system are pending consideration before NGT and MoEF&CC will comply with its

order.

14. The Chairman, CPCB stated that it will be beneficial to stop/prohibit any kind of waste being dumped into the River and Sanitary Landfill site to be located beyond the 500 meters from flood plain.

15. Jajmau poses a serious pollution issue and the present CETP is as good as non-exiting, keeping in view the load of more than 25-30 MLD of trade effluent, whereas it is for treating 9 MLD of trade effluent mixed with 27 MLD of domestic sewage. It also does not have the capacity to treat other pollutants, except BOD and COD. It needs to be replaced by new CETP which is of the requisite capacity and capable of treating all effluents, besides sewage.

6 Item No. 23 to 28 April 11, 2017 ss

16. Dilution based treatment is the possible solution, though CPCB seeks to enforce standards and standards are technology neutral.

17. The Central Pollution Control Board would implement the parameters at the end of the pipe, which should be meeting the prescribed standards. However, establishment of individual ETP and proper enforcement could be a good solution, but implementation thereof would be a serious question. Separate Common Chromium Recovery Plant would be necessary.

18. 86 drains have been identified and most of them carry not only sewage, but even trade effluent. It is a mixed discharge which contains variety of elements including heavy metal and therefore, end of the pipeline would be proper treatment. But site selection of STP would require proper study of the longitudinal profile of drains.

19. The Executive Director (NMCG), on behalf of the Ministry of Water Resources, stated that the Ministry would be willing to render all help and assistance, but the object of cleaning of River Ganga rather than

concentrating on cleaning of cities is the first & preferred option.

20. The Ministry will finance, in terms of its scheme, for domestic sewage and industrial effluent treatment separately.

21. As per the scheme of NMCG, the first priority is cleaning River Ganga, but it would also spend through other major schemes relatable to cleaning of cities etc.

22. In terms of the Notification and as per the stand of the Ministry, Uttar Pradesh Jal Nigam is the Executing Authority for the work falling in Segment-B.

23. As far as Jajmau Tannery Cluster is concerned, if the State chooses to shift the industries to a different site, it will be its choice. However, the existing industrial clusters at Jajmau and Unnao requires establishment of an entirely new CETP with a separate Chromium Recovery Plant and separate pipelines.

24. The Technology of the CETP would be ZLD based which would only generate salt and sludge.

25. After being cleaned, part of salt will be usable and hence saleable and rest will have to be dumped.

26. The sludge deposit site has to be created which must meet scientific standards.

27. In relation to e-flow of the River, the Ministry of Water Resources had taken holistic study of various reports submitted by the expert agencies, the final view is still required to be taken. The recommendations vary from 20% to 30% depending upon the geographical location of the River and particularly it should be site specific. However, we direct the Ministry to take a stand which may be a tentative view and inform the Tribunal on the next date of hearing. There should be complete prohibition of any kind of waste being dumped in the River and on flood plain. There should be prohibition also on construction of Sanitary Landfill Site on 500 meter or

any other reasonable distance of the high flood line, with reference to once in 25 years flood cycle.

28. All of them agree to 'Polluter Pays Principle' application for control of industrial pollution.

The concerned stakeholders shall positively provide the information required as above, to the Tribunal by 17th April, 2017, during the hearing of the case on a day-to-day basis. The State of Uttar Pradesh is at liberty to file before the Tribunal, list of its priority project(s), if any, but no expenditure would be incurred on any project without leave of the Tribunal."

32. After holding the chamber meeting dated 11th April, 2017, the matter was put up for hearing on 17th April, 2017 where the learned Counsels appearing for the respective stakeholders were required to make their submissions, if any. After hearing them, the Tribunal passed the following order:

"The special Bench has been constituted to hear the Ganga Matter on day-to-day basis. The scope of the entire Project in relation to the Segment `A' and Segment `B' of Phase-I has been discussed with the stakeholders in the Court as well as in the Chamber meeting of high officials from all the stakeholders in the Chamber meeting held on 11th April, 2017.

At the threshold we have asked the Learned counsel appearing for any of the stakeholders i.e. MoEF&CC, Ministry of Water Resources, National Mission for Clean Ganga, Central Pollution Control Board, Uttar Pradesh Pollution Control Board, Uttar Pradesh Jal Nigam, Kanpur Nagar Nigam and State of Uttar Pradesh to raise any contention with regard to scope of project that was discussed in relation of all facets of prevention and control of pollution and rejuvenation of River

Ganga particularly in Segment `B' of Phase-I.

The Learned counsel appearing for Uttar Pradesh Pollution Control Board submits that there should be issue specific directions by the Tribunal in relation to the Societies, Builders, Developers and even the State Colonies which are being developed in different areas, particularly near and closer to Rivers, should have their own STP which will treat the sewage and other waste to the prescribed standards. There should be complete mechanism for dealing with the municipal solid waste, recycling of treated water and strict adherence to pollution control norms wherever applicable.

Secondly, he contends that the industries particularly tannery industries located at Jajmau should either be shifted, if not shifted then, the same should be under strict vigilance and supervision. The industries which have their own Chromium Recovery Plant and if they do not operate it, then they should be directed to be closed for a short period and subsequently, for a longer period. Similarly all other defaulting industries should also be penalized from time to time. Effective systems should be provided to treat effluents by establishment of new CETP, Chromium Recovery Plant, carriage and management of sludge generated.

It is stated on behalf of Uttar Pradesh Pollution Control Board that the new CETP i.e. ZLD, is not a desired solution as it would generate salt of the capacity which will be very difficult to store and handle and even failed to create a market for reuse, even if the 70% of the generated salt can be converted to sodium salts which is saleable by itself. It is further submitted that ZLD based CETP will not be economically viable as well.

According to Central Pollution Control Board they are technology neutral, however according to them new CETP to be established i.e. ZLD will be

technically acceptable and can operate efficiently as well as practically to prevent pollution. Technological – in terms of workability and practicability, the Board supports CETP with ZLD, however economically it will have to be examined.

According to the MoWR and National Mission for Clean Ganga the new CEPT should be with the improved technology and should be ZLD. According to them, ZLD is practical, technologically sound and a reasonably good solution for prevention and control of pollution. It is also stated that the Chennai, ZLD experience of Tannery industries is not proved very successful as far as disposal of salt is concerned and quantum of salt that it will generate is a very serious problem as of today. However to the large extent, this could be addressed by improvement of the technology. The technology that should be adopted can be that of the ultra-filtration and nano-filtration.

After certain arguments, the Central Pollution Control Board wishes to take stand that keeping in view of the proposed three pipeline system, Chromium Recovery Plant and establishment of new CETP and dealing with the sludge separately, it will be more advisable and **scientifically workable as** opposed to ZLD, if the treated CETP effluent is further diluted with treated sewage and used for irrigation purposes. However, according to the MoWR and National Mission for Clean Ganga, ZLD still would be a better option.

According to the MoWR and National Mission for Clean Ganga, it should be seriously pondered over the 10 mg/l, 10 mg/l and 230 MPN standards for BOD, Suspended Solid and Faecal Coliform respectively. The proposed standards need to be considered before they are notified, keeping in view the necessity of imposing of such stringent standards and economic viability.

The Central Pollution Control Board is of the opinion that these standards

should be enforced in the interest of prevention and control of pollution.

According to the Uttar Pradesh Jal Nigam and Kanpur Nagar Nigam, the dilution system as above should be preferred to ZLD in relation to the new CETP in view of economic principles, practical and land availability.

None of the stakeholders wish to say anything more in any aspect of the case being heard by the Tribunal. Therefore, we will proceed to examine the integrities of the projects. We pass the following directions for immediate compliance and without default:-

1. The MoEF&CC, the MoWR and the Central Pollution Control Board will take a clear stand which they were expected to inform the Tribunal today in relation to minimum environmental flow of River Ganga in Segment `B'.
2. Extraction of groundwater in this sector.
3. We direct the CEO, TWIC – Tamil Nadu Water Investment Company; Director, Central Leather Research Institute (CLRI); Member Secretary, Tamil Nadu Pollution Control Board and Professor T. Ramaswamy, Former Secretary, Government of India, Science and Technology to be present for a Chamber meeting with the Tribunal on 21st April, 2017 at 02:30 P.M.

The Registry will communicate the order of the Tribunal to all the concerned immediately. The Chamber meeting would be held on 21st April, 2017.

The MoWR and Namami Gange has not filed any document as were prayed for, they must do the needful, if they so desire, positively by 21st April, 2017."

In furtherance to the previous order, the learned Counsel appearing for the Ministry of Water Resources upon instructions from the competent authorities and Mr. N.N.

Rai, Director of Central Water Commission stated that the minimum environmental flow of river Ganga should be 20% in lean season, i.e., November to March. It should be 25% in October and April and 30% from May to September on a monthly average flow basis. The percentage should be on the flow of river Ganga's pre-diversion or extractions at Haridwar and downwards. The diversion again should not be excessive. At the maximum, it could be 75% of the flow of the river prior to the extraction on a monthly average during the lean period. The Member Secretary of the CPCB stated that a minimum environmental flow of the river in Segment-B should be 600 cusec at least. Keeping in view the statement made on the earlier occasion by the officers of the department, it was directed that the drains particularly the sewer line leading from various sections to Jajmau should be cleaned and there should not remain any sludge, silt and other waste. Bhagwat Das Ghat Drain, Sattichaura and Dabka Nallah-3 were directed to be blocked at their end and nothing should be permitted to flow from these drains to the river. The documents were placed on record before the Tribunal showing that nearly 70% of the sewer lines leading to Jajmau were non-functional and whichever drain, out of the 30 specified, the sewer lines leading therefrom, should be absolutely cleaned. Unless the pipeline is cleaned and is capable of handling the quantum of sewage and other waste that is to

be carried to the Jajmau STP, the entire exercise would be inefficacious and the project would be rendered non-functional. The learned Counsel appearing for the MoEF&CC upon instructions from Mr. R.N. Jindal, Scientist 'F' had stated that the minimum flow of Himalayan rivers should be 2.5% of the 75% dependable on annual flow expressed in cumec. During the course of the hearing of the case on 21st April, 2017, Mr. Sundeep, Director (T-II) NMCG submitted that the information provided by the Central Water Commission in relation to E-flows of river Ganga in Segment-B is acceptable to the Ministry.

As the case substantially proceeded, the approach adopted by the Tribunal was acceptable to all the stakeholders to prevent and control pollution of river Ganga. It was decided to consider the views of all the stakeholders. Thus, *vide* order dated 17th April, 2017, a meeting of all the stakeholders was ordered to be held. All the matters in issue were discussed. It was at the request of senior officers of the Ministry of Water Resources that Mr. I. Sajid Hussain, COO of Tamil Nadu Water Investments Company Limited and Dr. T. Ramasami, Former Secretary Science and Technology to the Government of India were requested to attend the meeting. Mr. I. Sajid Hussain, COO of Tamil Nadu Water Investments Company Limited after explaining the Tamil Nadu project on tanneries, suggested that the

CETP proposed to be set up at Jajmau should be Zero Liquid Discharge as opposed to dilution. He further suggested that the segment approach, as decided by the Tribunal on the common agreement of the stakeholders and experts, was better as opposed to the approach on treatment at hot spots without treating up and downstream. Dr. T. Ramasami had suggested that dilution would be a temporary and a short-term measure while ZLD would be a more permanent solution in the long run. According to them, unit specific treatment should be provided depending on the characteristics of each unit, based on which, the units should install a Primary Treatment Plant and a Chromium Management Plant of its own so that they could reutilise the chromium recovered and/or sell it in the market. The units should be asked to reduce usage of water and encourage water saving. It is also suggested that water less chromium technology would help in greater absorption of salt as well as 20% reduction in use of salt. According to him, this technology has been tried by some of the units in Jajmau. Dr. T. Ramasami also endorsed the segmental approach as opposed to the 'hot spots' approach for cleaning and rejuvenation of river Ganga, particularly in the Segment-B of Phase-I. The Member Secretary of the Tamil Nadu Pollution Control Board (for short, "TNPCB") submitted that only 10% of the tannery industries in Chennai, Tamil Nadu are non-

compliant. The industries are covered by the primary treatment plant. 10% industries have individual ZLD and the remaining 90% are connected to the CETP. 100% industries have their own Chrome Management Plant. The salt to the quantum of approximately 45000 tonnes and sludge of 3.4 Lakh tonnes (340000 tonnes) generated by these units, which are ZLD, is kept at their premises.

In the order dated 24th April, 2017, it was noticed that the officers, of the rank of Executive Engineer and Project Engineer, who were present, depicted a very sorry state-of-affairs and they had no knowledge about the design of the STP and they had not carried out any study before preparing the DPR for construction of the STP. They were unaware of the quantum and contents of the effluents put into the drain. The 12 industries which were discharging their effluents into the drains/tributaries of River Ganga were subjected to stringent inspection by the Joint Inspection Team consisting of very senior officers from the Boards and the Ministries. In the report, they pointed out the status of the various drains. All the 13 industries were ordered to be shut down vide order dated 26th April, 2017 passed by the Tribunal and were subjected to the inspection by the above referred team. The industries were given liberty to file response to the report and thereafter these cases were considered based on their own report.

33. The Member Secretary of the TNPCB also appeared before

the Tribunal on 28th April, 2017. On that date, he explained the experience particularly with regard to ZLD as opposed to the dilution system. With reference to the functioning of tannery industries in the industrial clusters of State of the Tamil Nadu, he mentioned that "Water Less Chrome Management Technology" which had been adopted in principle by 28 units in Tamil Nadu and these units had purchased the rights of the new technology. While 3 are on the trial stage, there is no definite evidence to show that it is a successful technology. According to him, the use of salt is stated to be reduced by 2% (from 8% to 6%), if the new technology for tanning is adopted. The units are essentially trying to adopt a new technology as of now. The salt so generated from ZLD-MEE is being stored as there is hardly any disposal or sale of the salt generated. Approximately 45,000 tonnes of total salt has been generated so far which has been stored and no part thereof has been disposed in relation to Vellore Cluster. This relates to the figures for the last 5 years. Out of 45,000 tonnes of salt generated, not even 1 kg. has been sold or reutilised. This salt even has chrome content. Vellore Clusters have nearly 436 tannery units while in the entire Tamil Nadu, there are 776 tannery units. This technology has been introduced on 5th June, 2016 and therefore, it is at a very nascent stage and no scientific data and analysis is available to support the technology as an absolute

proposition.

The cumulative effect of the information provided by the Member Secretary of TNPCB is that the new technology is untested and has not proved to be very successful even in that area and a huge quantity of salt generated is being stored which remains unutilised, unsold and has never been recycled.

Dumping of E-waste is another very pertinent issue particularly, at the Moradabad site, where the agencies, which are handling the E-waste, are dumping it on the riverbank, which finally flows into the river stream. Being a hazardous waste, it is an incessant source of serious pollution that should be handled in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 (hereinafter, "Hazardous Waste Management Rules"). Certain directions on that behalf were passed *vide* order dated 3rd May, 2017. The Tribunal having adopted, in principle, the methodology for treating of drains which are causing pollution of the tributaries falling in Segment-B of Phase-I, dealt with each of the drains separately. Various stakeholders i.e. MoEF&CC, Ministry of Water Resources, CPCB, UPPCB, UPJN and other concerned stakeholders and local authorities were directed to express their views on each of the drains falling under the project in relation to management, treatment, setting up of an STP or other

incidental works that would help in preventing and controlling of pollution of river Ganga and its rejuvenation. In the later part of the judgement, we would deal with all individual drains.

At this stage, it suffices to note that various stakeholders had submitted a common list giving details of the drains, pollution load and contents thereof along with the manner in which they should be treated. The orders dated from 10th February, 2017 to 31st May, 2017 deal with 86 drains of river Ganga and its main tributaries, i.e., Ramganga, Kali-East & Pandu and on 31st May, 2017, itself, the case was reserved for judgement.

SEGMENTAL WATERSHED BASED APPROACH, CLEANING OF RIVER – PRIMARY DUTY OF NMCG AND TREATMENT – AT THE END OF THE PIPELINE OF EACH DRAIN-ONLY SOLUTION: REASON THEREOF

34. We have referred above in detail the extent of pollution to which river Ganga is being exposed to with no signs of improvement. Day by day, pollution of river Ganga has amplified in all respects i.e. pollution by industrial waste, sewage, domestic discharge, indiscriminate dumping of different wastes on the banks of river Ganga including municipal solid waste, E-waste and even sludge. Where the total discharge flow of river Ganga was 285.9 MLD from industrial effluents and 2683.6 MLD from sewage and other sources in the year 2008-09, it is 669 MLD from industrial effluents and 10705.28 from sewage in the year

2016-17.

Lack of efforts for abatement of pollution of river Ganga and simultaneous increase in extraction of groundwater from the riverbank and diversion of Ganga water has led to tremendous pressure on the health of the river in terms of its biodiversity, aquatic life, flow of the river and groundwater. Given the length of river Ganga is 2525 kilometres, it is neither humanly possible nor scientifically acceptable that the entire river could be treated at one go. This, in fact, would not even be economically viable. Arguments raised before the Tribunal is that the approach adopted by the Department for treatment with reference to pollution should be 'Hot Spots' rather than segmental approach, as adopted by the Tribunal. This argument, to say the least, is fallacious. If you start treating the river with reference to the 'Hot Spots approach', where the focus is on some identified areas which are highly polluting without following the basic approach of treating the pollutants of the river, both upstream and downstream of the hotspot, the purpose of cleaning the river would *ipso facto* stand frustrated.

The pollutants from upstream and/or downstream will keep flowing into the drain and the treated effluents from STP/CETP, which are located in the heart of the city, would again get mixed with such untreated effluents resulting in persistent pollution. By the time, it reaches

the river through different drains in the city, the discharge would not be able to rid itself of the pollutants and would ultimately again pollute the river. Furthermore, the hot spots approach is impracticable in existing conditions in our country. There is not only unplanned, haphazard development in the catchment areas of the river basins but even in the catchment areas of the drains/tributaries, which ultimately lead to the river Ganga. We have noticed above, in the statement of one of the officers of UPJN that there are 1669 colonies, out of which 152 are unauthorised colonies and 397 are slums. They are not provided with any planned sewer line and/or sewage system. Furthermore, even some of the developed colonies in Kanpur itself have not been provided with sewer line and connections. In such a situation, it is not possible to clean the cities atleast in the near future. The only possibility is to clean the drains, particularly, at the end of the pipe where they meet the river. This could be possible only when each of the drain is intercepted and through the sewer line taken to the established or proposed STP or CETP, as the case may be. The other is to put up an STP or CETP, as per the requirement keeping in view the flow of the drain, its quantum and contents, after due study and analysis.

The segment approach makes it possible that atleast one component of the river could be cleaned and to that extent

the river is rejuvenated at one time under one project. This is scientifically feasible, economically viable and leads to better utilisation of resources, ensuring cleaning of the river in that particular section. No river travels against the gravity and therefore, the question of that particular segment or section getting polluted because of some pollution downstream does not arise.

35. In the present case, the Tribunal is adjudicating the issue of abatement of pollution of river Ganga. Obviously, the Tribunal is required to deal with various issues related to identification of the source of pollutant, its quantum and quality while ensuring that under no circumstance the untreated waste from either domestic or industrial sources is added to river Ganga, which will further deteriorate its water quality. Over last several years, the Government of India has undertaken several projects of sewage and industrial waste treatment under Ganga Action Plan (GAP I and GAP II) which are reported to have been completed and commissioned. However, it is regretfully noted that even after spending huge amount of money and providing for installation of several STP's and ETP's, the river is still polluted. Undeniably, there are certain factors including that of strategy, planning, designing and implementation phases of the GAP I and GAP II, which lead to the present scenario. It would be, therefore, prudent for this Tribunal to take a holistic approach by considering the experiences

from the failures of GAP I and GAP II, while keeping in mind the ultimate aim of preserving the water quality of river Ganga, while adjudicating the present matter.

36. One of the views expressed by the IIT in its report to the MoEF&CC and Ministry of Water Resources (for short, 'MoWR') is to adopt river basin approach to deal with the problem of river pollution. In fact, IIT Professors have submitted before the Tribunal that one of the major reasons why GAP I and GAP II were not successful is that they did not adopt a comprehensive River Basin Management Approach while planning, designing and executing the pollution prevention works that were undertaken. They submitted that GAP I and GAP II identified certain pollution hotspots and accordingly, pollution abatement and mitigation measures were initiated for the limited area rather than adopting a river basin approach. They, therefore, had submitted that as a result of such a scattered approach, pollution of river Ganga is still continuing and unrelentingly.

37. It would be pertinent to note that National Ganga River Basin Authority (NGRBA) has been established through the Gazette notification of the Government of India (Extraordinary) No. 328 dated February 20, 2009 with the objectives of (a) ensuring effective abatement of pollution and conservation of river Ganga by adopting a river basin approach to promote inter-sectoral co-ordination for

comprehensive planning and management; and (b) maintaining environmental flow in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.

38. NGRBA had considered starting the Mission Clean Ganga with a changed and comprehensive approach to champion the challenges posed to Ganga through four different sectors, namely, of wastewater management, solid waste management, industrial pollution and river front development. Government of India, through NMCG, not only aims to control the pollution of river Ganga but also to rejuvenate the pristine river and give pre-eminence to the health of river Ganga, in terms of its physio-chemical and biological characteristics, including the biodiversity. This would also ensure that the wholesomeness of the river which is normally understood in terms of its continuous flow, unpolluted flow, geological and ecological diversity, is rejuvenated.

39. Typically, the river basin is the portion of the land area drained by a river and its tributaries. The river basin for a major river can encompass smaller sub-basins that ultimately combine to form a river basin. River Basin Management is an integrated approach of managing water resources for quantity and quality within a river basin. River Basin Management is also a useful and proactive approach in areas without immediate problems. The

nature and quality of river basin reflects the sources of pollution that may be affecting the water quality and quantity. The river basin approach is an ongoing cycle of tasks: setting standards for surface water quality; taking measurements of the conditions; assessing the data and identifying the impairments including establishing priorities; verifying the pollution sources and developing plans for restoring water quality; and implementing pollution source controls. Pollution source controls can be things such as permits, rules, and non-point source management practices. Specific steps to this river basin approach include:

a) Planning: Determine the river basin planning unit and identify the stakeholders and resource personnel.
b) Data Collection: Collect routine water quality and quantity data at specific locations.
c) Assessment and Targeting: Compare current water quality to State and federal standards.
d) Strategy Development: Develop goals and strategies to maintain or achieve water quality standards and meet future demands.
e) Implementation: Implement goals and strategies through permits, best management practices (BMPs) and education. One would also measure progress.

During the data collection phase, routine water quality and quantity data is collected at specific locations.

Deteriorative and diminishing water quality or limited water supply is usually the reason a river basin management plan is developed. Sources that contribute to water quality include two main categories: point and nonpoint pollution sources. In fact, the total pollutant load of a lake or stream is generally expressed in the following form:

Total Pollutant Load = Total Point Source Load + Total Nonpoint Source Load

40. Point Source Pollution: Point source pollution comes from the collection of pollutants and the discharge of those pollutants at a defined point. Examples of point sources include:

a) Wastewater treatment discharges

b) Industrial waste discharges

c) Storm water collection systems

Point sources are typically monitored and regulated for quality and quantity standards by a State or a Central environmental agency or a regulatory body like SPCB. Although costly at times, implementing tougher standards at point sources is typically easier because the pollution load is restricted to limited areas.

41. Nonpoint Source Pollution: Nonpoint source pollution comes from diffused sources that are not easy to collect or treat. The most common nonpoint source pollutants are sediment and nutrients. Examples of nonpoint sources

include:

a) Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas
b) Oil, grease, and toxic chemicals from urban runoff and energy production
c) Sediment from improperly managed construction sites, crop and forest lands and eroding stream banks
d) Salt from irrigation practices
e) Acid drainage from abandoned mines
f) Bacteria and nutrients from livestock, pet wastes and faulty septic systems
g) Atmospheric deposition
h) Hydro modification (e.g. channel modification, dams, etc.)

Depending on the specific problems, nonpoint source pollution is generally controlled through the proper design, construction of appropriate anti-pollution mechanisms and maintenance of best management practices. Nonpoint source pollution is usually more difficult to control because it is not centrally collected and can be a result of numerous factors. These factors are not always specific to land areas adjacent to streams and could be a result of secondary impacts.

As mentioned above, identification of the polluting sources and their characteristics is one of the important stages of baseline data collection. Once such data is available, it

would be necessary to consider various options to control and mitigate pollution resulting from its sources. As far as the point sources, in terms of industries or specific activities, it would be obvious that the pollution needs to be controlled and mitigated at the source. This is necessary to ensure that the industrial waste which may contain various toxics as well as hazardous chemicals is properly and adequately taken care of with the full responsibility of the industry to control such pollution.

42. With industrialization and growing awareness about environment, the Industry/Corporate environmental awareness can generally be phased into three eras namely; the ignorance era, the compliance era and the strategic compliance era. The organized industries have been changing their environmental responsive mode from end-of-pipe approach to a preventive one since the early 2000, after several judicial interventions. At the industry level, the preventive approach results in better environmental performance than an end-of-pipe approach for the pollution control system operation and performance. Effective enforcement of regulations, local community pressure and updated knowledge and information are the basis of environmental management and main forces for preventing industrial pollution.

43. Waste volume reduction is the first step in industrial waste treatment plant design and planning. This can be

accomplished by a) Classification of waste, b) Conservation of wastewater, c) Changing production to decrease wastes, d) Reusing both industrial and municipal effluents for raw water supplies. Waste Strength Reduction is another important aspect of the waste treatment design and planning. Reduction in strength will achieve better efficiency of waste treatment and save treatment cost. The strength of waste may be reduced by a) Process changes/ modification (including the raw material substitution and also process stage alterations) b) Equipment modification c) Segregation of wastes d) Equalization of wastes e) By-product recovery.

44. As far as the area, sources of pollution like the municipal areas or large villages are concerned, generally the domestic waste is required to be treated in terms of its BOD and coliform. It is an admitted fact that most of the urban and rural areas do not have adequate sewerage network which would facilitate collection of sewage at a particular location so as to deal with this wastewater problem as a point source. Generally, the sewage is being diverted to the natural drains/Nallahs polluting these Nallahs and subsequently flowing and meeting the rivers. In the absence of the sewers, the design of pollution control system i.e. STP for such cities and urban areas is a complicated task as the flow in the drains vary significantly on a seasonal basis, particularly, in rainy

season and therefore, even though interception and diversion is practiced at some of the locations, the efficiency and adequacy of the STPs at such locations will be an issue in the long term.

45. Based on the efficacy, economy and consistency of waste management options, the waste management hierarchy can be placed in the following preferential order; a) Source reduction — the reactor is modified so that waste is generated or so that the waste is less hazardous. b) In — process recycles — unreacted feed is separated and recycled back to the reactor. c) On-site recycle — waste from the reactor is converted to a commercial product by a second reactor within the facility. d) Off-site recycle — waste from the reactor is separated and then transferred off-site where it is converted to a commercial product within another facility. e) Waste treatment — waste from the reactor is separated and then treated to render it less hazardous. f) Secure disposal — waste from the reactor is separated and sent to a secure disposal facility. g) Direct release into the environment — waste is separated from the product and released in to the environment.

The Tribunal does not have any hesitation in noting that it will be necessary not only to control the pollution of river but to take measures to rejuvenate its holistic existence. Internationally also, river basin approach has been adopted by several countries including China, Philippines

and Indonesia to deal with the problems of river pollution.

46. Considering the above facts, as related to the strategy and planning of the waste management practices, it is evident that the river basin approach needs to be adopted to ensure the quality of the river by taking appropriate control and mitigation measures in respect of the identified sources of pollution. Clearly, it is necessary to ensure that no pollutants are released or added in the river beyond the prescribed limits. This effectively will mean that by adopting the river basin approach, the entire planning and design of the pollution control measures within the river basin needs to be undertaken to ensure that there is an end of pipe treatment, i.e., no pollutant beyond the prescribed limits is discharged into the river. This would also mean that the identified sources of pollutants are adequately treated at the appropriate sites and cumulative impact of all the treated effluents and untreated effluents leading to a particular drain that is meeting river Ganga are considered, to ensure that there is a safeguard, at the end of the drains, to protect the river from addition of any excessive pollutants.

47. The Tribunal has been mandated by the orders of the Apex Court to deal with the issue of abatement of pollution of river Ganga. In other words, the primary aim of the present litigation is to ensure that there is no ingress of polluted water or pollutants over the prescribed standards

into the river. In this context, the Tribunal is under an obligation to adopt the end of the drain approach while dealing with individual drains/Nallahs that meet river Ganga or its main tributaries. In order to ensure this primary objective, as mentioned above, it would be prudent and necessary to adopt the basin approach for these the individual drains and simultaneously follow the principles of rivers' sub-basin management as referred above. It would be necessary to consider the topography of individual drains, the drainage patterns, hydraulic aspects including the peak and lean flows, besides identification of pollution sources for its quality and quantity. In case of industrial sources, which are generally dealt as a point source, necessary pollution control arrangements have to be provided by the industry itself and the same needs to be operated continuously and effectively by the industry. In case of cities and urban areas, the sewage is collected through sewerage network and the same is required to be treated by an STP, which will be designed at an appropriate location, considering availability of the land, infrastructure, reuse potential, and technology involved.

This approach does not contemplate that the entire waste released by the drain is treated at the end of the drain just before it meets river Ganga. The authorities are required to take a pragmatic view based on site specific conditions and techno economic feasibility to adopt suitable pollution

control system for particular identified sources. This could be either in the form of an STP for the urban areas, ETP for individual units or CETP for the industrial clusters both organised and unorganised.

The approach of the Tribunal in ensuring end of the drain treatment of pollutants, which are meeting river Ganga and its tributaries, is besides the pollution control systems that are provided and proposed to be provided in the sub-basin of the particular drains, by stakeholders concerned.

Treatment of each drain that pollutes river Ganga or its tributaries has to be individually provided for. Specific methodology will have to be adopted to ensure that the effluents from the drain which are normally mixed effluents containing sewage and industrial effluents should not be discharged into the river. The primary purpose is to protect the river from direct pollution. There are a number of drains that are not accounted for, flowing in the cities. It is beyond comprehension and any reasonable analysis that all the drains in every city are located on the bank of river Ganga which has slums, unauthorised colonies, developed colonies, without sewer line connection having a mixed discharge of sewage and industrial effluents into the drains. With installation of an STP/CETP, the local drains carrying mixed waste could be free from any pollution and be healthy storm water drains. The feasibility of end of the pipeline treatment is the goal which has to be achieved to

ensure that river Ganga and its tributaries are permitted to flow without pollutants and to make it possible for them to be rejuvenated to their original pristine state. Firstly, the segmental approach has already been adopted by the Tribunal in its judgement in the case of *Manoj Misra vs. Union of India & Ors.* (supra) in relation to river Yamuna, one of the major tributaries of river Ganga. The work of Phase-I of that project as noticed above has already started. Secondly, in relation to river Ganga itself, the judgement of the Tribunal in the case of *Indian Council for Enviro-legal Action (supra)* and *M.C. Mehta* (supra), river Ganga has already been divided into four phases. The said judgement relates to Segment-A of Phase-I from to Gaumukh to Haridwar. The judgement has been accepted by all the stakeholders i.e. MoEF&CC, Ministry of Water Resources, State of UP, CPCB and UPPCB, UPJN and all other concerned stakeholders and local authorities and the said judgement is under implementation.

48. The Consortium of 7 IITs had submitted its report and same had also been placed before the Tribunal. *Vide* order dated 22nd September, 2016, the Tribunal had requested the eminent Professors of IITs to be present before the Tribunal. They appeared before the Tribunal for explaining their report. They expounded the report and all matters in relation to cleaning of river Ganga were deliberated at length. The gist and conclusion of the said discussion was

recorded in the order dated 2nd December, 2016. In relation to segment approach, they opined as follows:

> "3. In the opinion of the consortium and even today, the expert advice is that there should be complete projects prepared for smaller sections rather than planning the cleaning of River Ganga from one stretch to another at one stroke. In other words, complete urban plan should be prepared for a town to ensure that pollutant do not enter the River rather than cleaning the River without paying any attention to the drains and small Rivers flowing through urban areas which carry high polluting effluents to the River. To be more clear, it would be appropriate to clean the city drain as well as the River and not only clean River and leave the city drain. All drains particularly the drains flowing in Segment-B of Phase-I are drains carrying mixed waste that is the drain which in fact are storm-water drains carry sewage, industrial, domestic effluent as well. There is inaccuracy in the data relied upon in as much as to give example of River Assi in Varanasi. It is stated that 50 MLD of different effluent are carried by this River while actually, it is approximately 90 MLD."

49. The consultative process meeting of the stakeholders had also decided that segmental approach is far superior to the hot spot approach or intermittent piecemeal cleaning of the cities or river Ganga. Finally, even the experts i.e. Mr. I. Sajid Hussain, COO of Tamil Nadu Water Investments Company Limited and Dr. T. Ramasami, Former Secretary to the Government of India were invited at the behest of

the Ministry of Water Resources, also stated before the Tribunal on 21stApril, 2017 that the segmental approach of the river would be a better approach as opposed to hot spot treatment. Dr. T. Ramasami specifically approved segmental approach for cleaning and rejuvenation of river Ganga, particularly, in Segment-B of Phase-I. Thus, we have no hesitation in holding that the hot spot approach should not be adopted by any of the stakeholders including the Central and the State Government and the concerned public and local authorities. The treatment on segment basis has not only stood the test of time but has actually proved beneficial, as seen from the implementation of the two different cases mentioned with satisfactory results.

Keeping in view the acceptance of segmental approach, the Tribunal has divided the entire length of river Ganga into four phases as noticed above and the present judgement deals with Segment-B of Phase-I.

The approach of the Tribunal was to give preference to cleaning of the river rather than cleaning of the city. This is so, for the reasons that we have afore-stated as it would be scientifically possible, economically viable and in terms of pollution, result oriented.

50. In terms of the Notification dated 7th October, 2016, authorities at the Centre, State and District level have been constituted to take necessary measures to prevent, control and cause abatement of pollution in river Ganga and to

ensure continuous and adequate flow of water so as to rejuvenate the river to its natural condition. NMCG will be the Executive body at the National level and is empowered with the planning, financing and executing the project pertaining to river Ganga. It has been empowered to consider and approve projects upto ₹ 1000 crores. Due diligence to the related projects would be done by evaluating and operating these projects through third party appraisal with assistance of the technical experts and the consortium of 7 IITs. The notification provides the title 'the Order may be called (River Ganga Rejuvenation, Protection and Management) Regime Authority Order, 2016'. It applies to all the States which fall in the Ganga River Basin. The entire segment of the notification directs only towards one object that is cleaning and rejuvenation of river Ganga and its tributaries. The power and functions of the respective Committees constituted also refer to cleaning of river Ganga.

The said Notification even states the principles are required to be followed and are only for protection and management of river Ganga. Under this Notification, by way of incident, the authorities can deal with cleaning and construction of the sewage system in a city but this aspect is incidental and not primary. The principal object of the authorities under the Notification is to clean river Ganga. This notification is in consonance with the Constitutional

scheme of our country. We have a federal structure which places rights and responsibilities both on the State and the Centre. In terms of the Directive Principles of the State Policy, under Article 48A of the Constitution of India, 'the State shall endeavour to protect and improve the environment and to safeguard the forest and wildlife of the country'.

51. The Fundamental Duties stated under Part-IV A of the Constitution, Article 51(A)(g) places a 'duty upon citizen to protect and improve the natural environment including forest, lakes, rivers and wildlife and to have compassion for living creatures'. Besides this, the Supreme Court has enlarged the purview of Article 21 of the Constitution of India to include Right to decent and clean environment as a fundamental right within the ambit of Right to Life. Right to protection of life includes the Right to live with dignity and was treated to be inclusive of the Right to clean environment. This is the framework of environmental triangle under the Indian Constitution. Thus, to clean river Ganga is a solemn duty of both the State/Centre and duty of the citizens as well. This comprehensive obligation under the Constitution is aimed at protecting the environment which in this context obviously would mean cleaning and rejuvenation of river Ganga. Further, the federal structure from the environmental point of view dissects the performance of functions as well as legislative

competence between the State and the Union under different heads. Article 246 provides the contours of the subject matter of law that would be enacted by the Parliament or by Legislature of the State.

52. The List-III under 7th Schedule provides the fields on which Parliament or the State legislature can enact laws. In the instant case, we will be concerned with the Entries of public health and environment. Entry 6 of the List-II entitled the State Legislature to make laws with regard to public health, sanitation, hotels, dispensaries, etc. while Entry 17 under the same list empowers the State Legislature to make laws with regard to water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry 56 of List I. Entry 56 of List I empowers the Parliament to frame laws for regulation and development of interstate rivers and river valleys to the extent of which regulation and development under the control of unit is declared by the Parliament by law to be expedient in the public interest. Environment does not find a specific mention in any of the three lists.

Thus, with the aid of Article 248, the Parliament would be competent to enact laws in relation to environment and in fact, that is how the various environmental acts have been enacted by the Parliament. It requires a specific mention at this stage that *vide* Notification dated 7th October, 2016 for

issue by MoWR with the object of prevention, control and abatement of pollution in river Ganga. It was to ensure continuous and adequate flow of water in river Ganga. In terms of this Notification, NMCG is the authority to achieve that object. River Ganga would include all its tributaries and even tributaries of those tributaries which are specified. Under clause-4 of this notification, various functions are to be performed by the specified authorities and all of them relates to the three above stated objects.

53. The NGRBA including the Mission Directorate and other related matters of Ganga Rejuvenation were transferred and allotted to the Ministry of Water Resources, River Development & Gang Rejuvenation *vide* 306th amendment in the Government of India (Allocation of Business) Rules, 1961 with effect from 1st August, 2014. Further, NGRBA has been reconstituted in September, 2014 with inclusion of additional four Central Ministries i.e. Union Ministry of Rural Development, Union Ministry for Drinking Water and Sanitation, Union Ministry for Shipping and Union Ministry of State, Tourism for better coordination to ensure effective abatement of pollution and rejuvenation of the river Ganga.

54. The learned Counsels appearing for the different stakeholders with reference to the provisions of the Constitution of India, the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act,

1974 and the Notification of MoWR dated 7th October, 2016 submitted that the responsibility for cleaning of the rivers and the cities are to be shared effectively both by the Central and the State Governments. The learned Counsel appearing for UPPCB contended that cleaning of rivers is primarily the responsibility of the Central Government, particularly, under the scheme like NMCG, the city drains should be cleaned and public health taken care of by the State Government and the Public Authorities in the State. The purpose is to protect the environment including cleaning and rejuvenation of the rivers. According to the applicant, river Ganga having being declared as 'National River' gets the legal right to protect itself against industrial or sewage pollution and enshrines a duty on all stakeholders to maintain the health of the river.

According to him, the obligation primarily is of the Central Government with regard to rivers in terms of the above Notification and cleaning of cities is the responsibility of the State, alongwith the sewage system. The learned Counsel appearing for MoWR, CPCB and State of UP also support this view. However, the learned Counsel appearing for UPJN contended that the primary responsibility to clean cities as well as the rivers lies upon the Central Government. The Central Government can supervise the execution of projects in that behalf.

It cannot be disputed that under the provisions of the Act

of 1974, the statutory obligations to prevent and control pollution of water bodies including the river lies upon the State and the SPCBs. To ensure effective regulatory and supervisory regime, providing of standards and discharge of trade effluent strictly in consonance with the prescribed standards, are the basic functions which the Pollution Control Boards, including the CPCB is expected to perform. The State Boards can issue appropriate directions even to the Public Authorities that they do not cause any pollution of the environment, particularly the water.

55. From the above, it is evident that the State Governments are required to enact laws and enforce those laws for ensuring cleanliness and pollution free drainage system, canals, water storage and to provide public at large with good public health services and clean environment. All works that are incidental for performance of the above stated functions, would necessarily be the obligation of the State. The State cannot pass on that burden to another agency of the government. To look after the health of the river and maintain its cleanliness and wherever needed rejuvenate the river, is the prime obligation of the Central Government and the Central Government must aid and execute the projects which are primarily and substantially aimed at cleaning of the river. The only plausible conclusion that follows is that the Central Government and all agencies/authorities in terms of the Notification dated

7th October, 2016, must do all that is necessary for cleaning and rejuvenation of river Ganga.

56. This Tribunal in its judgement in the cases of *Indian Council for Enviro-legal Action* (supra) and *M.C. Mehta (supra)* has held as follows:

> "4. With some emphasis we must notice that River Ganga is not only a sacred River for the people of India, but it also provides life line to large number of cities which are located on its bank. On the one hand, there is tremendous decrease in natural flow of the River while on the other it is a source of irrigation and drinking water for larger section of population in cities and villages along River Ganga. The Prime Minister of the country, considering cleaning of River Ganga as a paramount national project, provided Rs. 20,000/- Crores for the coming 5 years. This being the object and aim of the Government, we see no reason why there is delay in its execution. There should not be any deficiencies or impediments resulting from any source whatsoever. India is a country of federal structure with greater role of the Central Government. The Constitution of India mandates, the Central and the State Governments, to provide both, clean and decent environment and clean drinking water for the people of India. The Hon'ble Supreme Court of India has extended the dimension of Article 21 of the Constitution of India by declaring the right to a decent and clean environment as a Fundamental Right. The framers of the Constitution even prescribed duty upon the citizens to make every effort to keep the environment clean and to protect its forests, Rivers, water-bodies and to have compassion for the living creatures.

> That is the constitutional scheme in relation to protection of environment with particular reference to Rivers and water streams."

On the analysis of the above, it is clear that the paramount duty of NMCG is to clean river Ganga and not the cities falling exclusively under the jurisdiction of the respective State Governments. The State Governments are expected to make their contribution and incur expenditure for complying with their constitutional duty as aforestated.

We have to keep in our mind that this judgement should primarily deal with cleaning of river Ganga which is the soul of the subject matter pending adjudication before the Tribunal.

57. The next question that follows is the approach that the Tribunal should adopt in dealing with this issue. There is complete unanimity between all the stakeholders i.e. MoEF&CC, Ministry of Water Resources, CPCB, UPPCB, UPJN, and all other local authorities that the project should provide drain-wise treatment and tackle major industrial pollution separately. Most of these drains carry mixed effluents and need to be treated appropriately. There are drains, which carry metals but within the permissible limits. There are drains which carry very heavy industrial pollutants so they need to be treated at the CETP which should have the requisite capacity as well as technology to deal with the contents of the industrial

effluents. The STPs should be provided either at the end of the pipe or the drain should be intercepted and taken to a nearby STP, keeping all relevant factors in mind including technical and economic viability. Once the industrial effluents and sewage are treated, it should be principally recycled, reused for industrial clusters, cooling of power plant, cleaning purposes, etc. While determining the path of this project, the Tribunal has kept in mind the opinion of all the stakeholders, Principal Committee, Experts and Professors from the IIT Consortium and all the stakeholders including executing agencies. The ongoing projects in the area which could be covered under the scope of this project have also been dealt with, to prevent any wastage of resources and public funds. In this judgement, we will deal with each and every drain that meets river Ganga or any of its tributaries and would provide a complete and comprehensive solution which is scientifically executable, economically viable and would attain the fundamental objective of cleaning river Ganga.

DRAWBACKS, WEAKNESSES OF GANGA ACTION PLAN-I AND II AND THE WAY AHEAD

58. Ganga Action Plan-I was introduced in the year 1986. It was launched in 25 selected towns located alongside the river in Uttar Pradesh, Bihar and West Bengal. GAP-II was launched in the year 1993, while continuing with the programme it included work of tributaries of river Ganga

like, Yamuna, Damodar and Mahanadi. The Supreme Court of India started issuing directions in relation to cleaning and rejuvenation of river Ganga in *M.C. Mehta's* case in the year 1985. After lapse of 32 years, it is observed that there has not been any significant change in the water quality of river Ganga. On the contrary, there has been increase in pollution load on river Ganga, both in terms of quantum and in terms of quality. Lack of co-ordination and implementation of the schemes under these two projects and non-compliance of the directive and orders issued by the Supreme Court, has led to the present degenerated status of river Ganga and its tributaries.

As we have already stated in GAP-I, the Government of India allocated about ₹ 949 crores out of which ₹ 451 crores was released by the Government to the States of UP, Bihar and West Bengal and for GAP-II, ₹ 279 crores was released to the five States i.e. UP, Bihar, Uttarakhand, West Bengal and Jharkhand prior to year 2007. The Supreme Court in its order dated 10th October, 2006 while referring to the report of CAG of India in relation to GAP for the year ending March 2000 had recorded that, collateral finding reveal further deterioration of water quality of Ganga in all its parameters. The Ministry did not take action on recommendations of the Expert Committee for control of bacterial load. There was unchecked increase in the industrial pollution, over 18% of the industries, which

had installed ETPs, did not function properly, and did not meet the prescribed standards, and they were discharging industrial effluents to the quantum of 2667.16 MLD into the rivers. This was despite the fact that the State had spent a major part of the allocated fund. In fact, in GAP-I nearly ₹ 587.63 crores had been spent by the States, as in 2006 itself.

To put it succinctly, GAP-I and GAP-II did not produce the desired results. On the contrary, pollutant levels in river Ganga touched new heights. The Ganga Jal, which had the capacity even to purify the added water from other sources, has become water full of faecal material, metals and other pollutants. These new dimensions of pollution of river Ganga became a matter of serious concern not only for the concerned stakeholders but for the public at large resulting in multi-faceted litigation and social resentment at different levels. The matter was treated as non-adversarial litigation and as a matter of general environmental concerns in the larger public interest. The Government declared it as a national project and allocated specific funds for ensuring cleaning and rejuvenation of the holy river Ganga.

The projects of this dimension to be successful, would need to have the following essential factors:

A. Vision

B. Capacity to plan

C. Capacity to perform

Once these features are effectively executed with exactitude, the results are bound to be favourable. As far as vision of cleaning of river Ganga and its rejuvenation is concerned, it is amply clear and in fact is a national vision. The capacity to plan is exhibited by virtue of the fact that various agencies and authorities like NRGBA, NMCG and other Central and State level authorities in terms of the Notification of 7th October, 2016 were created. All these authorities had designated functions to perform and complete planning in regard to GAP and its implementation at the Central and in the five concerned States.

The most crucial part is capacity to perform. Capacity to perform is not merely a relative term, but it must adhere to the basic standards of performance, be it at the Central level or it at the State level. Planning and implementation thereof is like a chain reaction. Each segment must perform to ensure that the mechanism provided works in result oriented manner. It is only when the entire set up functions in co-ordination and harmony that favourable results can be achieved. It is to ensure proper assimilation of data, proper preparation of project reports, due co-ordination between different authorities and responsible execution of the work. Capacity to perform is directly linked with these factors and include elements of proper

supervisory control and verification of such assimilated data. In GAP-I and GAP-II where the vision was clear, capacity to plan had inbuilt infirmity, while capacity to perform had multi-faceted deficiencies and drawbacks.

59. Now, let us examine some of the reports which have been placed on record of the Tribunal by different stakeholders in relation to weaknesses and drawbacks of GAP-I and GAP-II. The MoEF&CC had signed a Memorandum of Understanding dated 6th July, 2010 with a consortium of 7 IITs (IITs of Bombay, Delhi, Gauhati, Kanpur, Kharagpur, Madras, Roorkee). A detailed study by the Consortium noticed the strength and weaknesses of GAP. After detailed analysis, they prepared SWOT analysis of GAP. This identified the Strength, Weaknesses, Opportunities and Threats of the Plan. Rather than referring the report in any greater detail, we consider it appropriate to refer to the conclusive part of the report which deals with aspects of strength and weaknesses as well as opportunities and threats in a tabular form.

Table: Strengths, Achievements and Weaknesses of the GAP

Aspects	Strengths	Weakness
Design of the GAP	• Initial Vision • The Strategy of Interception and Diversion of Nallahs	• Limited scope of issues addressed • Inadequacy of standards of assessing water-quality • Influence of aid on planning in general, and prioritization of programmes and selection of technologies in

		particular • Inappropriate choices of treatment technologies • Inappropriate policy of discharging treated effluent and sewage into the River • Lack of a clear policy legal and institutional frame work
Implementa-tion of the GAP	• Creation of the institutional infrastructu re	• Political motivations behind GAP • Inordinate delays in creating assets • Partial coverage in collection, coverage and treatment of sewage across cities in Gang Basin • Overdesigned STPs
Operation and Maintenance of the GAP	• Forcing ULBs and State-governments to pay for he O&M	• Irregular Maintenance • Sub-optimal functioning of assets • Unclear, unviable finance models
Monitoring, Evaluations and Regulation of the GAP	• Peer review and monitoring by various stakeholders • Appointment of independent agencies for water quality monitoring	• Neglect of monitoring of other aspects other than River quality • Failure to utilize available monitoring data • Failure in monitoring and regulating, thereby controlling industrial pollution • Weak monitoring by central institutions • Failure in establishing Citizen's Monitoring Committees • Flaws in design of Citizen's

		Monitoring Committees
Other aspects Strengths/Achievements		
• Creation of knowledge base • Awareness building among government agencies • Awareness building among civil society actors		

Table: Opportunities and Threats before River Restoration Programmes

Opportunities	Threats
• Opportunity to learn from experiences of technologies such as UASB • Adoption of River basin approach • GOIs commitment to raise adequate funds • Awareness and inclination of civil society to contribute	• Divergence of River action plans with broader development policies • Challenges in experimenting with newer institutional models such as regulatory authorities • Influence of Bilateral and Multilateral financers on program and policy-design • Capacity issues and lack of incentive structures for ULBs • Wastage of Funds • The complexity in monitoring of technical parameters • Inadequate analytical foundation for future plans • Evolving a robust regulatory framework and institutional model

60. Inordinate delay in creating assets was stated to be one of the main causes for lack of success of these action plans. Under that the following details were provided :

> "1. Confusions and tensions among the central and state governments over the issue of funding for assets to be created under GAP. For GAP-II, initially, the arrangements were

50:50 cost-sharing basis, then it was changed to 70:30 pattern and, finally the central government provided 100% funding (except the land costs). Even after these changes, the funding pattern was again changed many times under the 10th Five Year Plan.

2. The selection of towns under GAP II was completely left to the state-level decision making, which resulted in non-uniformity in the selection as well as delayed the process of preparation of project-proposals.
3. Majority states could not acquire or provide land for constructing the sewage treatment plants and pumping infrastructure within the prescribed time which delayed the implementation of the program.
4. The state governments could not prepare the Detailed Project Reports (DPRs) in time, and according to the guidelines issued by the NRCD, MoEF&CC. The quality of the DPRs was poor, and due to the discrepancies in them, the sanctioning process could not be conducted in the stipulated time.
5. Problems created by court-cases, contractual issues, and inadequate capacities in the local bodies/implementing agencies came in the way of speedy implementation.
6. Cost-overruns and re-sanctioning of the schemes also led to time-wastage and further delayed the process."

61. Partial coverage for collection, transportation and treatment of sewage across the cities in the river basin, inadequate maintenance, unviable financial models, sub-optimal functioning of the assets, failure to utilise available monitoring data, non-utilisation of central institutions and

flaws in the design of citizen's monitoring committees were amongst other primary causes stated by the Consortium of IITs. During the course of hearing, the Consortium of IITs was also requested to address the Tribunal. This direction had a dual object. Firstly, the weaknesses should be made absolutely clear, technically as well as in terms of the implementation. Secondly, identifying the best way forward by providing due caution against the errors of the past. The Professors of IIT Consortium appeared before the Tribunal and submitted a synopsis. Following are some relevant extracts of that report :

> Throughout the period of project executive, IITC held regular internal discussions as well as wide-ranging consultations with stakeholders, A primary consequence of these efforts was the envisioning the River Ganga's "wholesomeness" in terms of four key features: Aviral Dhara ("Continuous Flow"), Nirmal Dhara ("Unpolluted Flow"), Ecological Entity, and Geologic Entity. IITC identified several local/ regional anthropogenic causes to have deeply impacted the Ganga basin's natural resource dynamics in modern times, namely (i) *over-use of natural resources (especially water);* (ii) *discharge of pollutants into terrestrial and aquatic ecosystems;* (iii) *reduction in water-holding capacities and replenishment rates of water bodies;* (iv) *mutilation of Rivers by piecemeal engineering operations; and* (v) *threats to geological integrity of the basin. The major types of human activity causing the above damages were identified as:* (i) *industrialization,* (ii) *urbanization,* (iii) *lifestyle changes,* (iv) *agriculture & other rural activities, and* (v) *deforestation/denudation.*
>
> On the basis of extensive thematic

studies of the Ganga basin's hydrological, ecological, fluvial and geological characteristics as well as the multi-pronged impacts of anthropogenic activities as assessable from available data, practicable measures to counter or compensate the negative impacts were finally worked out and grouped under eight GRBMP Missions (or main thrust areas for action): (1) *Aviral Dhara,* (2) *Nirmal Dhara,* (3) *Ecological Restoration,* (4) *Sustainable Agriculture,* (5) *Geological Safeguarding,* (6) *Basin Protection Against Disasters,* (7) *River Hazards Management, and* (8) *Environmental Knowledge-Building and Sensitization.* GRBMP also recommended appropriate legal and instrumental mechanisms for executing a long-term revival plans.

Multiplicity of Authorities in the implementation of GAP:

Lack of coordination amongst many central, state and local institutions and authorities that are responsible for policy and planning, execution, and regulation and/or monitoring is the main cause for ineffectiveness of GAP.

The multiplicity of institutions, especially at the local level and their conflicting/overlapping roles, have been discussed in the GRBMP Thematic Report titled "Strength, Weakness, Opportunity and Threat (SWOT) Analysis of Ganga Action Plan (GAP)" [Report Code: 006_GBP_IIT_GEN_ANL_01_Ver 1_Dec 2011]. Following are some of the major specific weaknesses/deficiencies of GAP that have been attributed to the multiplicity of institutions.

- Non-performing assets (STPs) and under utilization of assets created.
- Lack of adequate monitoring and accountability.
- Project formulation without collation of necessary data/information

Whether data was collected directly by the IITC on industrial/ domestic sewerage discharge?

> IITC (IIT Consortium) did not collect primary data on industrial/domestic sewage discharges (or other needed basin data) which were to be provided to us by the government. However, IITC did conduct a very limited number of field measurements of River flows and cross-sections, aquatic biodiversity, wastewater discharges, etc., primarily to get a rudimentary idea about such aspects when secondary data were completely absent or were judged to be of poor quality.

While making its recommendations and precautions that should be taken while preparing an executable project for cleaning and rejuvenation of river Ganga, it was recommended that there should be sustainable agricultural, geological safeguarding, basin protection, river hazards management, environmental knowledge building and sensitization.

62. On 2nd December, 2016, Professor Vinod Tare, Professor A.K. Gusain, Professor S.P. Singh, IIT Roorkee and Professor Indrajit Dubey, IIT, Kharagpur had appeared before the Tribunal. The Tribunal had advantage of knowing the expert views on all facets of the project. Even the proposed project was deliberated upon. However, greater emphasis was placed upon the non-achievement of GAP-I and GAP-II. The primary data had not been collected by the Consortium of IITs. In fact, the job was not within the scope of their work. The data collected was not subject to any verification. The Consortium of IITs had conducted a very limited number of field measurements of river flows

and cross-section, aquatic biodiversity, wastewater discharges, etc., primarily to get a rudimentary idea about such aspects, whenever secondary data was completely absent or was judged to be of poor quality. One of the main reasons for high pollution of river Ganga was excess extraction of water at Haridwar and downstream. It was pointed out that nearly 80% water was extracted in one form or the other. The Consortium of IITs and the Professors present, advised that there should be complete project prepared for entire river basin, rather than planning of cleaning of river Ganga from one stretch to another at one stroke. It was suggested that it would be appropriate to deal with the drains in Segment-B of Phase-I which are carrying sewage, industrial and domestic effluents. The inaccuracy of data should be avoided. Multiplicity of authorities was stated to be one of the main causes for non-effective implementation of GAP-I and GAP-II. Lack of proper supervision in implementation, lack of co-ordination, lack of administrative identity to execute the project were the other reasons given for such failure. Appropriate technology should be adopted to deal with the pollution, use and recycling of treated sewage effluents was stated to be of paramount consideration. Great emphasis was laid on environmental flow of the river that should be maintained all through the year. Reasonable reduction in release of water to the canals and some element of

regulation or even prohibition for extraction of groundwater in the entire segment should be considered. Effective and definite steps for prevention and control of pollution of river Ganga should be taken, for instance, dealing with tannery industries in Jajmau, three pipeline system, one for chromium waste and other for trade effluents and third for domestic effluents. Proper data should be collected before implementation of any project or segment. In the functional hierarchy and operating agency, there is capacity deficiency. As a result thereof, any system intended to control and prevent pollution does not become effective. Over utilisation of pesticides and chemical fertilisers and extraction of groundwater should be prevented.

63. The Government of India had set up a Group of Secretaries (for short, "GoS") on 6th June, 2014 who examined the Action Plan for Ganga Rejuvenation. It referred to noticing the significance of river Ganga and while terming it as Mother Ganga and talking about the pollution of different kinds inflicted upon it, the GoS observed as under:

> 3.1 One of our eighth century documents, the Brahmanda Purana, has laid down clearly man's actions on the Riverbanks. Even at that time our ancestors knew the importance of the River and laid down guidelines to protect it and it prohibited 13 types of activities on the sacred banks of the Ganga, which included ablutions, defecation, discharge of water, throwing of used floral offerings, rubbing filth, etc. Despite this, the present-day rituals

are by and large, exact opposite of what has been prohibited in our scriptures.

3.2 Rivers have a self-cleansing ability, which allows for assimilation and treatment of biological waste. But in the current context, where withdrawal from the River is for drinking, irrigation, industrial and power generation purposes is high inevitably the quality of water in the River goes down. The diversion of water has led to severe depletion of its flow, particularly, during lean season.

3.3 The CPCB report (2012) states that in the upper reaches of the River, where the oxygenating abilities of the River are the highest, there are growing signs of contamination, which suggests that even here, water withdrawal for hydroelectricity is endangering the health of the Ganga. As the River reaches the plains, the water withdrawal peaks for irrigation and drinking water. In the stretch of the River-from Rishikesh to Allahabad, during winter and summer months, there is almost no water. In other words, the River stops flowing. But wastewater flow does not ebb.

3.4 The pollution is being caused by several factors ranging from untreated and inadequately treated/untreated municipal sewage, flow of untreated industrial waste including chemicals, inappropriate solid waste management, pollution on account of non-point source like use of chemical pesticides and fertilizers from agriculture fields, open area defecation along the River banks/along Nallah-tributaries as also drains, dumping of burnt and unburnt human dead bodies, immersion of idols, etc.

64. The GoS also noticed that GAP-I was launched in the year 1985 and declared closed on 31st March, 2000. Expenditure incurred by the States was stated to be ₹ 433.30 crores as against revised sanction of ₹ 462.04

crores. 260 projects were stated to be completed. Under GAP-II, the launch was in the same year 1993. Revised sanction was for ₹ 462.04 and amount spent and utilised was ₹ 392.26 crores and 264 schemes were stated to be completed.

Despite such heavy expenditure and such large number of projects having been completed, it remains beyond comprehension, as to why the water quality of river Ganga has not improved, much less, it has not been cleaned or rejuvenated to its original pristine form. The annexures to this report can be usefully reproduced at this stage:

ANNEXURE I			
GANGA ACTION PLAN PHASE-I			
.	YEAR OF LAUNCH	:	JUNE1985
.	SCHEDULED COMPLETION DATE	:	Declared closed on 31.03.2000
.	ORIGINAL SANCTIONED COST	:	Rs. 256.26 crores
.	REVISED SANCTIONED COST	:	Rs. 462.04 crores
.	EXPENDITURE INCURRED BY STATES	:	Rs. 433.30 crores
.	DATE OF REVISED APPROVAL	:	August, 1994
.	TOWNS COVERED	:	25 class I towns . 6 in U.P. . 4 in Bihar . 15 in West Bengal
.	**Physical Progress** No. of Schemes Sanctioned Completed	 : :	 Total 261 260
Capacity Commissioned for			

Interception, diversion & Treatment		
.	Total wastewater estimated from class-I towns (1985 basis)	1340 MLD
.	Quantity to be Intercepted, Diverted and Treated (1985 basis):	873 MLD
.	Total sanctioned capacity of STP's (Revised):	882 MLD
.	Capacity commissioned for treatment:	869 MLD

ANNEXURE II		
GANGA ACTION PLAN PHASE-II		
		(Rupees in Crores)
Year of Launch	:	June 1985
Original Sanctioned Cost	:	Rs. 256.26
Revised Sanctioned Cost	:	Rs. 462.04
Fund Released (till3/13)	:	Rs. 522.11 (inclusive of areas ordered by Apex Court)
Fund Utilized (till3/13)	:	Rs. 392.26
No. of Schemes Sanctioned	:	314
No. of Schemes Completed	:	264
States Covered	:	5
Towns Covered	:	59
Rivers Covered	:	2
STP Capacity Sanctioned	:	308.41 MLD
STP Capacity Created	:	229.31 MLD

ANNEXURE III	
National Ganga River Basin Management Authority (NGRBA)	
Formulated in	2009 for Ganga Basin
River covered	Main stem of Ganga so far
States	All 5 Main stem States (Uttarakhand, Uttar Pradesh, Bihar, West Bengal and Jharkhand)
Towns covered	48 so far

Sanctioned Schemes	76 (including 6 institutional development schemes) NON EAP-49 World Bank-26 JICA-1 (Varanasi)
STP Capacity Sanctioned	659.23 MLD
Sewer Network Sanctioned	2469.53 KM
No of Projects Completed	16
STP Capacity Created	110.50 MLD
Sanctioned Amount	Rs. 4974.79 Crores
Expenditure till June, 2014	Rs. 910.57 Crores

65. We have discussed in great detail the deficiencies in execution of GAP-I and GAP-II, by referring to supporting Reports and data. Thus, we have to find a way ahead which is devoid of such deficiencies and is capable of attaining the object of cleaning and rejuvenating River Ganga. The IIT Consortium, other technical experts, the stakeholders' consultative process, the Principal Committee constituted by the Tribunal and finally the Tribunal itself find that adhocism was one of the principal factors for rendering GAP I and GAP II ineffective and unsuccessful. There is no use of treating only the hot spots or treating one or two segments in a city located at the riverbank and leaving all the drains, which are carrying mixed waste to join the river. Even the point where STP/CETP is constructed to treat the effluents or sewage, it joins other bigger drains downstream and thus, even the

treated water again gets highly polluted. There has to be a systematic approach, which will help in cleaning the entire segment on a watershed basis rather than the particular spot, which may be a highly polluting spot, but treating it by itself without taking other required steps for prevention and control of pollution would be of no consequence and without effective results. The Tribunal has to take a holistic view and not a view, which will not stand the test of scrutiny, technically, scientifically and in terms of implementation. The experience in the past must educate all stakeholders not to repeat the mistakes and spend public funds in an indiscriminate manner and thus avoid improper utilization of public funds on the one hand and increase of pollution on the other. The growing population, unplanned and even planned development with industrialisation enhancement itself will in a big way cause the pollution levels to go up, unless appropriate steps are taken without delay and default and in a planned manner. We have dealt with the end of the pipe treatment in great detail, the need of the hour is to clean the river as a priority and for that, treatment of the drains which are meeting the river and are carrying mixed effluents should be of antecedence. This also fits in with the river basin approach where entire river basin alongwith the tributaries and storm drain joining the river, being treated as one organic entity. The Tribunal had discussed in great detail

with all the stakeholders and the only rational conclusion that emerges and is most appropriate is that the drain-wise treatment should be adopted in preference to cleaning of cities, particularly when the cities consists of all kind of planned, unplanned, haphazard development and slum areas. Even the drains of a particular city can hardly be counted with certainty. Thus, we would deal with all the drains which are joining the river Ganga and its tributaries in Segment B of Phase-I.

DIMENSIONS OF THE PROJECT FOR CLEANING AND REJUVENATION OF RIVER GANGA IN SEGMENT-B OF PHASE-I

66. Though Segment-B of Phase-I primarily falls in the geographical limits of State of UP but it was considered appropriate to involve all the stakeholders in finalizing the scope of the project and facets of its implementation in relation to Segment-B. The primary stakeholders are MoWR, NMCG, MoEF&CC, CPCB, UPPCB, State of UP and UPJN. The Principal Committee had been constituted by the Tribunal *vide* its order dated 14th November, 2014 consisting of Senior Most officers of above stakeholders i.e. MoWR, NMCG, MoEF&CC, CPCB, UPPCB, State of UP and UPJN and most importantly the experts from IITs particularly IIT Delhi and IIT Roorkee. The purpose was to receive input of the highest echelons in the field of technology for treatment and consequential use of treated water, while ensuring cleaning of river Ganga in preference

to cleaning of cities. There was complete unanimity of all these stakeholders and the committees including the Principal committee constituted under the judgement that there should be treatment of the segment of the river Ganga (Segment-B), each drain falling into river Ganga should be treated and there should be end of the pipeline treatment in so far as it is technically feasible and economically viable dealing with preferential concerns for environmental issues.

The different stakeholders had filed affidavits providing their own data in relation to the number of drains, quantum of discharge and the quality of effluents. The one aspect which was undisputed between the stakeholders was that the majority of the drains carry mixed effluents. In the data provided by the various stakeholders these factors were at considerable variance. For instance, in Chhoiya drain which is nearly 60 km long and meets river Ganga, according to the Joint Inspection Team the quantum of discharge was 138 MLD while according to the UPJN it was 4.65 MLD. City Jail Drain, after travelling for 30 kilometres terminates into the water of river Ganga directly. The Joint Inspection Team found discharge flow in the City Jail drain to be 86 MLD at the time of inspection while according to the UPJN it was 9.33 MLD. Similarly, the drain joining river Ramganga i.e. Devarnia Nallah had a discharge load of 287.44 MLD according to

the Joint Inspection Team while according to the UPJN it was 15.678 MLD. Another drain, i.e., Manan Road Nallah in Bulandshehar which travels for 3 kilometres before it meets river Kali-East, according to Joint Inspection Team the discharge flow was stated to be 147 MLD as opposed to 5.98 MLD according to the UPJN. Besides this, substantial variance came to the surface after the stakeholders filed their documents in furtherance to the order of the Tribunal dated 18th October, 2016, wherein they were to provide specific details in relation to the pollution in Segment-B. The data collected by UPJN is relatable to the year 2011 which is certainly not a recent data. Secondly, the analysis of data as discussed by us above, certainly suffers from infirmities and deficiencies. It has never been cross-checked either by the officers of UPJN or by any other agency in normal course of its business. The emphasis was laid on tannery industries at Jajmau, Unnao, and other industries discharging their effluents into river Ganga and its tributaries.

67. The Tribunal in its order dated 19th October, 2016 with disappointment noticed that during the course of hearing, the parties were not even able to state with certainty as to the number of drains that were joining river Ganga and its tributaries. According to the Member Secretary, CPCB, there were 30 drains joining river Ganga directly while according to the Counsel appearing for the UPPCB there

were 172 drains out of which 150 drains directly join river Ganga or its tributaries. Still according to the Learned Counsel appearing for the UPJN, there were 151 drains out of which 83 drains directly submerges into river Ganga.

However, it was commonly conceded that it could not specifically state as to the kind of effluents each drain was carrying. During the course of hearing, it was revealed that the methodology adopted for collection of data was deficient in many ways and there was no check and balance system found on physical verification which could verify the data collected either on physical inspections or through supervisory mechanism as noticed in the IIT Consortium report as well as by the Committee constituted by the Tribunal from time to time including the Principal Committee. The variance in number of drains, quantum and quality of discharge, besides lack of functional co-ordination between the various stakeholders specified in the Notification in terms of hierarchy or otherwise, were the principal causes for unsuccessful attempts at cleaning and rejuvenating river Ganga. These deficiencies and variations were also brought to the fore in the chamber meetings of the concerned stakeholders held by the Tribunal. The Consultative Process of the stakeholders provided pretext for finalization of a project that should be free of errors committed in the past.

In light of the peculiar circumstances emerging in the case,

the Tribunal decided to put at rest the controversies arising from different stands taken by the respective stakeholders in relation to the same subject matter which could hardly have such substantial variations.

68. *Vide* order dated 19th October, 2016, therefore, the Tribunal constituted a Special Committee consisting of Member Secretary, CPCB, Chief Engineer of UPJN, senior most Environmental Engineer of UPPCB and senior representative of MoWR. This Committee was directed to personally visit the area falling in Segment-B of Phase-I, i.e., from Hardiwar to Unnao, Kanpur. They were directed to identify as to how many drains joined river Ganga or its tributaries and make observations in relation to the quantum and quality of effluents that are going into the river Ganga or its tributaries through those drains directly. Despite being a member of the Joint Inspection Team, UPJN had still pointed out certain discrepancies in the report and informed that certain drains which were joining river Ganga had not been taken note of, by the Joint Inspection Team. They referred to the drains at Moradabad and Bulandshahar particularly. The Tribunal, therefore, directed the Joint Inspection Team to sit with the senior most members of the respective organizations and reconcile the difference and take a common stand before the Tribunal. It will be useful to refer to the order dated 8th December, 2016 at this stage which reads as follows:

"It is unfortunate but true that the various authorities concerned have not till today been able to provide to the Tribunal the information/data regarding number of drains, load on drains and quality of the effluents discharged in exact terms by each drain. Under the order of the Tribunal the team lead by Central Pollution Control Board had provided some data in regard to the above. However, the Uttar Pradesh Jal Nigam then pointed out that the Joint Inspection Team to which they were a party had omitted to take note of nearly 42 drains which were falling in Segment-B, Phase-I of River Ganga in terms of the order of the Tribunal. Out of this at Bulandshahar 9 drains had not been taken note of by the Joint Inspection Team where the discharge is supposed to be nearly 22.5 MLD. However, according to the Central Pollution Control Board the total discharge even of the 3 drains that have been taken into consideration is nearly 511 MLD. Similarly at Moradabad there are 23 drains of which the Joint Inspection Team did not take note of and even 4 drains are meeting some other water body but not in River Ganga or any of its tributary particularly Ramganga, Ganga and Kali-East. However, 19 drains have been ignored and their load is not on record. At Bithoor 7 drains have not been taken note of by the Joint Inspection Team and the pollution load is nearly 2.97 MLD.

Number of times these cases have been on board for reconciliation of the differences in their version and now we are finding that data produced by each of the authorities is not based on physical verification. The Joint Inspection Team however has conducted physical inspection and collected the data in regard to number of drains' load and quality of the effluent. This again is variable to some extent as submitted by the other authority. It is necessary for the Tribunal to have correct and physically

> verified data so that it can proceed to direct the methods to be adopted for treatment of the effluents from polluted drains meeting Ganga.
> Therefore, we direct that the Joint Inspection Team shall sit with the senior officers of all the organisation including Central Pollution Control Board, Uttar Pradesh Pollution Control Board, Uttar Pradesh Jal Nigam and Ministry of Water Resources reconcile the differences interse arrive at a common version in regards to number of drains, load of drains and quality of effluent, reason for differentiation in the figure arrived at, and place the same before the Tribunal. This statement/version would be signed by the Managing Director, CEO, Member Secretaries, Executive Officers or the Joint Secretary of the concerned Ministries. The Central Pollution Control Board shall be the Nodal Officer for this purpose. This report should be prepared within one week from today. We make it clear that if this order is not complied with all these officers will be present before the Tribunal on the next date of hearing."

69. On 21st December, 2016, the Member Secretary, CPCB informed the Tribunal that the final report would be ready within a week and all other stakeholders were directed to provide full co-operation and should furnish complete details that are required in relation to the industrial clusters located on the banks of river Ganga and its tributaries in Segment-B of Phase-I.

70. Ultimately, a final assessment report dated 3rd January, 2017 jointly prepared by the above mentioned Committee consisting of all the relevant stakeholders, i.e., right from the planning to execution authorities, was submitted

before the Tribunal on 6th January, 2017. This report provided the requisite data and gave complete information with regard to each of the drains that were joining river Ganga and its main tributaries, river Ramganga, river Kali-East and river Pandu, between Haridwar to Unnao (Kanpur). The report provided description of the drains, name of the region, sources of pollution, pollutant load, catchment area, points from where the samples were collected, its location, flow of the drain, analysis report with regard to general parameters like Colour, pH, BOD (mg/l), COD (mg/l), TSS (mg/l), TDS (mg/l), Cl- (mg/l), NH_3-N (mg/l), NO_3 - (mg/l), DO (mg/l), TC (MPN/ 100 ml) and FC (MPN/ 100 ml) as well as heavy metals like Arsenic (As) mg/l, Cadmium (Cd) mg/l, Total Chromium (Cr) mg/l, Copper (Cu) mg/l, Iron (Fe) mg/l, Lead (Pb) mg/l, Manganese (Mn) mg/l, Nickel (Ni) mg/l, Mercury (Hg) mg/l, Zinc (Zn) mg/l, Antimony (Sb) mg/l, Cobalt (Co) mg/l, Selenium (Se) mg/l and Vanadium (V) mg/l.

The drain effluents were also tested for pesticides analysis report OPPs and OCPs. In other words, this was a complete, comprehensive and scientifically prepared report by a Special Expert Committee constituted by the Tribunal. It became the principal guiding factor for the Tribunal to arrive at a final conclusion.

71. When the matter came up for hearing on 13th January, 2017, the Tribunal directed each party in addition to the

above stakeholders, to make their submissions in relation to the content of the report or any other suggestions that they would like to make. The Tribunal specifically noticed in this order without any exception, that all the respondents, applicants and the concerned stakeholders admitted to the correctness of this report and did not wish to file any objection in that behalf. Therefore, the Tribunal directed that the said report be treated as the very foundation for moving further with the case and the suggestions in regard to drain-wise treatment would be considered with reference to the cleaning and rejuvenation of river Ganga on the basis of day to day hearing. With reference to the Joint Inspection Report, it was stated that there are nearly 86 drains which are joining river Ganga and its tributaries and they carry sewage, industrial and domestic mixed effluents and excess water during rainy season. These drains discharge into the river 2775.19 MLD of mixed effluents. The Committee had expressed an apprehension that there might be some other very small drains and the authorities or private persons may create new drains to discharge sewage effluents into river Ganga or its tributaries. Finding merit in the submissions, the Tribunal *vide* its order dated 16th January, 2017 passed a prohibitory order directing the State of UP, UPJN, UPPCB, all concerned authorities including the private persons to ensure that the 6 drains which are not carrying any

effluents should be plugged and stopped forthwith. They should not be permitted to carry any effluents and further prohibitory direction/order was passed that no new drains shall be created or permitted to be created for carrying sewage and any other effluents directly into river Ganga or its tributaries. Purpose of the order was to ensure that no further outlets are created for direct discharge of effluents or sewage directly into river Ganga. They could be constructed for meeting existing drains which had enough scope even for carrying increased effluents.

72. When the matter was taken up for hearing on 19th January, 2017, all the stakeholders were required to provide further clarification with specific answer in relation to the different drains in question. The directions were to cover all the three rivers that is Ganga, its tributaries Kali-East and Ramganga. The order of 19th January, 2017 reads as under:

> "It is again commonly conceded and in fact admitted by all the Learned counsel appearing before us that the report submitted by the Joint Inspection Team is the correct report in relation to number of drains, quantum of discharge and quality of discharge.
>
> We direct State of Uttar Pradesh, Central Pollution Control Board, Uttar Pradesh Pollution Control Board representative of Namami Gange, Ministry of Water Resources and the Uttar Pradesh Jal Nigam to have a meeting today afternoon itself and provide answer to us tomorrow on the following:-
>
> 1. There are 30 drains meeting River

Ganga in Segment-B. Out of which 27 drains directly flow into River Ganga while the remaining three drains have been tapped and through pumping station are being taken to STP(s) at Kanpur.

2. Besides this, there are one drain Bagad even called River Bagad, which is stagnant and it only flows when the flow of effluent is high or in the rainy season, then it meets River Ganga. At the time of inspection the Joint Inspection Team found it to be stagnated, however, it is having effluent.

3. The 3 drains which have been tapped and taken to a STP, what is the load of these three drains individually and at the point of intake of STP, what is the quantum of discharge at the outlet of STP and what effluent besides sewage or drain water, it contain and values thereof.

4. The capacity of the STP and composition that is capable of treating within the prescribed value as of now.

5. In relation to remaining 27 drains, the load of each drain that is quantum as well as quality of the effluent in that drain.

6. Which of these drains depending on the quality of the effluent are capable of being intercepted and joined together to be taken to nearby STP/CETP, keeping the distance and costing in mind.

7. Same question will be answered in relation to East Kali and Ram Ganga as well.

8. The Uttar Pradesh Jal Nigam shall put before the Tribunal complete data and answer forthwith in relation to STPs' functioning and three drains afore-referred, as well as 27 drains which it require to treat. It will state the technical as well as nontechnical aspects in relation thereto.

We have already directed the Namami Gange, Ministry of Water Resources will not take any project in Segment-B, Phase-I till we pass further orders."

73. The matter was taken up for hearing on 25th January, 2017. By that date, the Hon'ble Supreme Court had transferred the entire matter regarding cleaning of river Ganga *vide* its order dated 24th January, 2017. Keeping in view the orders of the Hon'ble Supreme Court while observing that the assistance being rendered to the Tribunal was not upto the expected standards, the Tribunal passed further directions raising queries on the analysis, to the members of the Joint Inspection Team. This was with the aim of getting further specific information required for passing of the final order. The Tribunal also issued notice to the pharmaceutical and distillery industries which were causing serious pollution of river Ganga and its tributaries through Chhoiya drain. The relevant part of the order dated 25th January, 2017 reads as under:

> "It is also informed to us that Chhoiya drain is being highly polluted because of industrial discharge from petrochemical industries and distilleries.
> Issue Notice to all the industries particularly the petrochemical, distilleries and other major industries which are polluting this drain which ultimately joins River Ganga. The Pollution Control Board shall issue Notice to them to be present before the Tribunal on 6th February, 2017 and it shall be the responsibility of the PCB to ensure their presence before the Tribunal.
> Bhagad River which because of heavy industrial pollutants has become practically a drain also needs the directions by the Tribunal in relation to

> taking up antipollution measures to ensure that there is no pollution in River Ganga. However, this River does not join River Ganga as it is stagnant. This observation is not disputed by any of the stakeholders before us, but it is pointed out that it was not meeting River Ganga at the time of inspection, however, whenever there is heavy flow, the effluent would meet River Ganga. There is no CETP fixed at this River and that it is receiving industrial pollutants from Gajraula and Bhagrala Industrial Clusters.
>
> Let Notice be issued to the industries association of both these places and all the big industries which are discharging their effluent into this River. The UPPCB shall ensure service upon them before the next date of hearing.
>
> Notice made returnable on 6th February, 2017."

We must notice at this stage that the sole purpose of passing of these specific directions which were query oriented was to bring within the scope of the project the existing infrastructure and infrastructure under construction, i.e., the STP/CETP or the sewer pipeline which were being laid by the executing authorities under different schemes of NMCG or the State schemes or the schemes funded by external agencies to be included into the project. Thus, the project was contemplated to be inclusive for achievement of the ultimate goal of cleaning and rejuvenating river Ganga and its tributaries. It was ensured that the existing treatment mechanism as well as proposed mechanism would become part of the present project except to the extent where there was proposal

which had been found to be either effectively preventive in controlling pollution or serve the goal of cleaning or rejuvenation of river Ganga.

74. Upon appropriate analysis of the data submitted before the Tribunal and the fundamental principles relating to drain treatment, providing 'end of the pipeline treatment' and ensuring recycling, utilisation of treated effluents for agriculture, horticulture, industrial, cooling and other relevant purposes to which all the stakeholders were *ad-idem,* the Tribunal took the decision of dealing with each of the 86 drains joining river Ganga and/or its tributaries. It further decided to deal with industrial pollution separately as well as to issue directions in relation to various other connected issues that were responsible for causing pollution of river Ganga. Each drain was subject matter of serious deliberations in respect to quantum, quality, effluents of drain, installation of anti-pollution devices (STPs/CETPs), its capacity and the possibilities of recycling and reutilising water upto 75% of its discharge. The Tribunal also considered the aspects of the environmental flow of river Ganga and restriction on unsustainable extraction of groundwater, permitting not more than 25% of the treated effluents to join river Ganga.

Views of all the stakeholders, invited Expert members and the report of the Joint Inspection Team were taken into consideration. Finally, the views expressed and arguments

advanced were independently examined by the Tribunal which has the benefit of both the Judicial and the Expert Members sitting together. We must notice that a special bench of six members was constituted to hear the Ganga matter to get the benefit of expertise of the maximum number of Expert members to finalise the scope, ambit and proper implementation of the project in hand.

75. In light of the above discussion, the dimension of this project in dealing with each of the 86 drains which join river Ganga and its tributaries shall be discussed at length. Once, these 86 drains are treated at the end of the pipe or are intercepted and taken to the existing and/or proposed STP/CETP, there shall be no pollutants entering river Ganga or any of its tributaries beyond the prescribed standards/parameters. Thus, we will now proceed to deal each of these 86 drains.

DRAINS WHICH ARE DIRECTLY JOINING RIVER GANGA IN SEGMENT-B OF PHASE-I (HARIDWAR TO UNNAO, KANPUR):

76. **GARH DRAIN**: This drain meets river Ganga on its right bank at Garh. It is 20 km long and falls under the regional office of UPPCB at Ghaziabad. It mainly carries domestic discharge and sewage. Its flow load is 13.30 MLD as per the Joint Inspection Report. The samples had been collected from near Brijghat in Garh Mukteshwar. The effluents were analysed and the analysis report showed the results for general parameters and heavy metals. Pesticides

and metals were found to be below detectable levels or within the prescribed limits. However, certain general parameters were found to be in violation of the prescribed norms. The Joint Inspection Team made the following observations :

> "1. Turbid.
> 2. Ichornia (sic.) growth found.
> 3. Solid wastes were found floating with the drain."

The analysis report of the drain is as follows:

(EFFLUENTS OF GARH DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.58
3.	BOD (mg/l)	:	4
4.	COD (mg/l)	:	25
5.	TSS (mg/l)	:	31
6.	TDS (mg/l)	:	376
7.	Cl^- (mg/l)	:	28
8.	NH_3-N (mg/l)	:	4
9.	NO_3^-(mg/l)	:	0.89
10.	DO (mg/l)	:	3.80
11.	TC (MPN/100 ml)#	:	$92x10^3$
12.	FC (MPN/100 ml)#	:	$35x10^3$

* For Fresh water carrying drains/rivers
\# For sewage, mixed Drains & River

(EFFLUENTS OF GARH DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	01
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	BDL
5.	Iron (Fe) mg/l	:	1.15
6.	Lead (Pb) mg/l	:	BDL
7.	Manganese (Mn) mg/l	:	0.15
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	NA
10.	Zinc (Zn) mg/l	:	BDL

11.	Antimony (Sb) mg/l	:	NA
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

It is commonly stated and is accepted by the Tribunal with reference to the records before it that there is a 3 MLD STP constructed at Brijghat to treat the sewage from Brijghat town. Presently, the discharge from Brijghat town is going to a water body, Balwapur Jhorh. Another STP of 6 MLD is under construction and 60% work is reported to have been completed. This STP will treat the sewage generated from Garh Mukteshwar town, which is presently untreated and meeting Garh drain.

With regard to this drain and particularly in relation to area of Garhmukteshwar, we must place on record a patent deficiency in performance of functions by the local authorities. When the matter came up for hearing before the Tribunal on 14th February, 2017, the officers present on behalf of the UPJN were not able to provide satisfactory answers to the queries raised by the Tribunal. However, Mr. Keshav Gupta, General Manager informed the Tribunal that nearly ₹ 31 crores have already been spent on laying of sewage line and for construction/ installation of STPs in the areas of Brijghat and Garhmukteshwar. He confirmed for both the STPs of 6 MLD and 3 MLD, respectively. He stated that the STP of 3 MLD had not even been made operational and it had not been connected to the sewer line

and therefore, no effluent was reaching the plant. According to him, he never verified the quantum and in any case the quality of the discharge into the drain. He was incognizant whether any industrial activity is being carried on in the catchment areas of the drain. The proposed STP is supposed to treat coliform to bring its value to 230 MPN/100 ml units. According to him, the discharge in Garh drain where it meets river Ganga would be 5 to 6 MLD. In the summers, the discharge is less. The officers who had participated in the joint inspection did not raise any issue with regard to measurement being incorrect and imprecise. The Tribunal was astounding to know that none of the officers concerned, did any field inspection, analyse the quantum and quality of the effluents or take any other measurements before preparing the DPR for construction of STP or other anti-pollution devices.

Reliance was placed on the manual, which is supposed to be a guide for preparation and execution of projects. It did not provide for a field data, which has to be prepared, based on the actual ground realities. The manual even does not state whether such formula could be applied unanimously and without assimilation of proper data. The Tribunal called for the concessionaire who is supposed to have prepared the data.

Having heard the stakeholders and the Counsel appearing for all the parties, we pass the following directions:

1. The 3 MLD STP Plant at Brijghat should be made operative without any further delay.
2. The 6 MLD STP Plant that is under construction at Garh drain to treat the sewage from Garhmukteshwar should be completed without any further delay. Though, we have provided the load discharge under this drain as well as quality analysed but we direct the concerned executing agencies to ensure that the capacity and design of the plant is duly confirmed before any further construction of the plant and it should be ensured that the plant brings proposed standards of Faecal Coliform of 230 MPN/100ml.
3. No discharge shall be permitted in the Jhorh at Brijghat, henceforth. The remaining work of sewer line should be completed and each household should be connected to the sewer line without any further delay. This should be taken up by the executing agency as a project of top priority and all the concerned authorities and respondents are directed to deal with the matter accordingly.
4. The treated discharge from STP water even if chlorinated should be used for agriculture and horticulture, as far as possible. The sewer line is to be connected to the STP through the pumping station, which are still to be constructed. However, the sewer drain should be connected even during the interim

period by providing adhoc pumping arrangements or any other appropriate measures.

We would prefer to apply the end of the pipeline treatment where it is most beneficial and has a direct relation between the point of discharge and point of establishment of the STP. It should be on the basis of availability of space, convenience, accessibility and more importantly feasibility, practicability and required capacity of the plant to treat the effluents. The normal distance between the end point of discharge and establishment of STP should be between 500 to 1000 meters away from the river depending on the facts and circumstances.

All the stakeholders including MoWR, MoEF&CC, CPCB, State of UP, UPPCB, UPJN concede with these directions.

A committee appointed by the Tribunal including the Local Commissioner had also submitted a report with regard to this site and the sewer line and sewer connections. It was reported that both the sewer lines have been laid in Garh and Brijghat. It is yet to become functional as actual critical links were missing. It is reported that the sewer lines were not connected with each other and there are no connections with the new households. There exists no roadmap with respect to the sewer line connections. In absence of this, entire scheme of pollution abatement will not fulfil any purpose. It was also noticed that there was complete lack of co-ordination and the present situation

needs exigent corrective measures.

The report stated that the main causes attributable to the pollution of river Ganga are due to disposal of industrial effluents and domestic wastes. The storm water drains designated to flood out the storm water during the rainy season are now being used for disposal of sewage and trade effluents which clearly join river Ganga. It was specifically noticed that the subject matter of the report has been prepared and reviewed by the parties jointly. The drains were segregated into three categories, namely, drain carrying only storm water, drains carrying sewage, industrial effluents or mixed effluents and the drains, which are tapped and dry. While stating the procedure and method for flow measurement, sampling and analyses of the samples, it was stated that findings were based on reassessment of drains to make it absolutely clear. Stating that besides the 30 drains joining river Ganga, Bagad river like Banganga, Malan, Sot and Ishan were not considered due to their flow and characteristics. Similarly, drains having less than 1.0 MLD flow, measured by both Joint Inspection Team and UPJN at different occasions were also not considered. Out of 30 drains, 3 drains were found to be tapped and the report of each of the drain was thus separately prepared.

ANUPSHAHR STP DRAIN I & II

77. Anupshahr STP drain I discharges on the wet land near

river Ganga while Anupshahr STP drain II joins the right bank of river Ganga and both the drains are in Bulandshahar. Both these drains carry domestic waste and sewage. The catchment area of both of them is city of Anupshahr. The Joint Inspection Team collected effluents at the STP complex near Chamunda and the STP complex near Sohan Tau Ka Matth. The analysis report of these drains were analysed for general parameters, heavy metals, and pesticides. The observations of the Committee for drain I was that the treated water was discharged into a wetland situated about a kilometre away from river Ganga. While for drain II, it was stated that the treated water was discharged directly into river Ganga. However, there is a forest land situated about 250 meter away from the STP, which may be irrigated by the treated water. The metals and pesticides in both the drains were found to be either below detectable limit or within permissible limit. The general parameters were noticed as follows:

(EFFLUENTS OF ANUPSHAHR STP DRAIN-1 - GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	8.84
3.	BOD (mg/l)	:	26
4.	COD (mg/l)	:	114
5.	TSS (mg/l)	:	54
6.	TDS (mg/l)	:	704
7.	Cl^- (mg/l)	:	80
8.	NH_3-N (mg/l)	:	16
9.	NO_3^-(mg/l)	:	2.35
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	3400
12.	FC (MPN/100 ml)#	:	2200

* For Fresh water carrying drains/rivers

For sewage, mixed Drains & River

(EFFLUENTS OF ANUPSHAHR STP DRAIN-2 - GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	8.94
3.	BOD (mg/l)	:	19
4.	COD (mg/l)	:	72
5.	TSS (mg/l)	:	36
6.	TDS (mg/l)	:	536
7.	Cl^- (mg/l)	:	68
8.	NH_3-N (mg/l)	:	14
9.	NO_3^-(mg/l)	:	2.34
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	1100
12.	FC (MPN/100 ml)#	:	450

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

These drains were found to be having a flow of 1.18 MLD and 1.08 MLD, respectively. According to Uttar Pradesh Jal Nigam (for short, 'UPJN') there are two oxidation ponds already in existence of 0.81 MLD and 1.75 MLD. It is proposed by them that there were STP of 1.5 MLD and 1 MLD capacity, respectively. Oxidation ponds are performing well. The Member Secretary, CPCB submitted that the oxidation ponds should never be located near the habitation. He also stated that the oxidation ponds are incapable of meeting the current prescribed and proposed standards in relation to Coliform. It is not easy to maintain the oxidation pond and it requires a very severe regulatory and supervisory regime. It was pointed out that only four per cent of work of the proposed STP of 1.5 MLD at drain I has been done so far. While the work for the other STP has not even been started. Suggestion was that

the capacity of the STP and its technology should be so provided that the treatment of Coliform to the proposed standard of less than 230 MPN/100 ml and BOD 10mg/L should be attained. The counsel appearing for MoWR upon instructions from the Director who was present in the Court submitted that the oxidation ponds cannot attain the prescribed norms. It was stated that there should be regular power, proper sewage line leading to the STP and the discharge from the STP should be preferably used for agricultural purposes and only residuum should be permitted to enter the river through the drains.

In view of the above submissions, having analyzed the report and the views of the experts, we pass the following directions with respect to these two drains:

a) We direct that two different STPs shall be constructed, one of 1.5 MLD while other of 2 MLD capacity.

b) The work of 1.5 MLD STP has already been started for drain I, completion thereof should be expedited. The STP should be so constructed that it should satisfy, preferably, the proposed standards of Faecal Coliform of 230 MPN/100 ml and BOD 10mg/l, but in any case should conform to the existing standards.

c) The executing agency shall duly conform before the commencement of the work, the discharge in the

respective drains and quality thereof. These drains need not be intercepted and independent STPs should be constructed to provide regular source of power. Also, solar energy should be utilized.

d) The STPs should not be constructed close to the riverbed. Ideally there should be a distance of more than 500 meter from the edge of the river.

HATHIKHANA NALLAH, BARGADIYAGHAT NALLAH AND CANTT. NALLAH

78. It would be convenient to deal these three drains together. It is commonly stated that these drains have pollution load mainly from domestic discharge. The load of discharge of the first two drains according to Joint Inspection Team is 18 MLD and 3.8 MLD, respectively. According to Jal Nigam, the flow of Cantt. Nallah is 6.88 MLD. These drains join river Ganga on its right bank. They primarily carry domestic and sewage discharge.

The drains carry sewage pollutants and have high discharge flow. The report of the Joint Inspection Team has submitted the following analysis report:

(EFFLUENTS OF HATHIKHANA NALLAH-GENERAL PARAMETERS)

Sl.No.	Parameters		Results
1.	Colour	:	-
2.	Ph	:	7.76
3.	BOD (mg/l)	:	23.0
4.	COD (mg/l)	:	98.5
5.	TSS (mg/l)	:	43.7
6.	TDS (mg/l)	:	704
7.	Cl^- (mg/l)	:	94.5
8.	NH_3-N (mg/l)	:	30.7
9.	NO_3^-(mg/l)	:	1.89
10.	DO (mg/l)*	:	-

11.	TC (MPN/100 ml)#	:	2400000
12.	FC (MPN/100 ml)#	:	2400000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF BARGADIYAGHAT DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.41
3.	BOD (mg/l)	:	34.5
4.	COD (mg/l)	:	106
5.	TSS (mg/l)	:	35.2
6.	TDS (mg/l)	:	711
7.	Cl^- (mg/l)	:	86.5
8.	NH_3-N (mg/l)	:	34.5
9.	NO_3^-(mg/l)	:	2.23
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	2200000
12.	FC (MPN/100 ml)#	:	470000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

On Hathikhana Nallah, there is an STP of 2.7 MLD which is an oxidation pond. Cantt. Nallah is intercepted and diverted to Hathikhana Nallah and flow of both the drains goes to the oxidation pond. The proposal on behalf of the UPJN is that all the 3 drains are to be intercepted and Intermediate Pumping Stations (IPS) would be constructed for taking the effluent to Hathikhana Nallah where a Main Pumping Station (for short, 'MPS') will be constructed and then a pipeline would be laid down for carrying out effluent to the proposed STP of 17 MLD. For this project, even DPR has not been prepared as of now.

UPPCB, CPCB and MoWR have submitted that the effluent of the Cantt. Nallah has already been sent to Hathikhana Nallah and effluent of Bargadiyaghat Nallah is also sent to

Hathikhana Nallah. The STP should be proposed from the turning point of Hathikhana Nallah to the proposed MPS site. There would be no need to install MPS because the gradient of the drain is towards the river. The STP may be established at least 1 kilometre to 1.5 kilometres away from the river. There are no industrial clusters in the catchment area of the drain. Furthermore, there are no colonies or any habitation from the proposed MPS to river Ganga and in fact, any of the drains from the proposed Intermediate Pumping Station (IPS). It is suggested that there should be no development permitted from the point of STP till it meets river Ganga. The proposed development area should be in accordance with the laws in force and should have their own STPs/CETPs to ensure that in the remaining part of the drain, no effluent or sewage is introduced so that it meets river Ganga. The 17 MLD STP plant would take care of it in future.

In view of the information and data placed before the Tribunal, we are of the considered view that proposal of UPJN suffers from patent infirmities. Firstly, it would have to install IPS and MPS just to take effluent against the gradient of the drain which would incur heavy expenditure on establishment of STP at a much longer distance from Hathikhana Nallah. This would not be practicable, scientifically and economically prudent. The proposed STP is very close to the river which may even pollute the river

in the given situation.

Having examined the respective contentions raised on behalf of the parties as well as the applicant, we pass the following directions in relation to these three drains:

1. That the effluents from Cantt. Nallah and Bargadiyaghat Nallah shall be brought to Hathikhana Nallah at the point where presently MPS is proposed and the STP of 17 MLD capacity will be constructed.
2. This STP should have the capacity to treat and bring the values of the general parameters to the prescribed norms.
3. If any development is sanctioned by the Government or any local authority between the point of establishment of STP and the riverbank, in that event that development agency shall ensure that the STP/CETP is required to be constructed by them. In the event, if there is a colony being built by the Government or any of its agencies, then it shall not do so without construction of an STP/CETP and only the discharge from that STP/CETP would be permitted to join the Hathikhana Nallah. The 17 MLD STP shall take due care of the future demands and therefore, constructed with utmost expeditiousness and with proper technology.

PERMIYA NALLAH, RANIGHAT DRAIN, SISAMAU, TEFCO NALLAH, PARMAT GHAT, MUIR DRAIN, POLICE LINE DRAIN, JAIL DRAIN, GOLAGHAT NALLAH, BHAGWATDAS/GUPTARGHAT NALLAH, SATTI CHAURAHA, DABKA NALLAH-3 AND AIR FORCE DRAIN

79. All these drains can be conveniently dealt with together, as all of them fall within the sewage network of the city of Kanpur. Some of them are very major drains while others are minor drains. The major drains are carrying high pollutants in contrast to minor drains which are more specific in terms of their content. Majority of these drains have been partially intercepted and have been taken to other major drains. From the major drains, the effluent is being carried or is being proposed to be carried to the complex of STPs at Jajmau. Since they are interconnected, providing for a resolution thereof, they would have to form part of the same discussion. In fact, various stakeholders have also addressed their submissions on the same line.

First of all, we may examine the drain in this group which do not call for issuance of any directions. The Air Force drain is nearly a kilometre in length. It does not carry any effluent regularly. It is a storm water drain and remains dry except during the rainy season. It is the common stand of all the stakeholders that this drain does not require treatment and therefore, any directions. We accept the stand of the parties and direct that this drain does not call for any treatment or specific directions.

POLICE LINE DRAIN AND JAIL DRAIN

80. These drains have a length of 0.12 kilometres. and is 0.8 km respectively. These drains carry domestic sewage discharge only. The Police Drain has been tapped and its discharge is taken to Parmar Pumping Station. From that pumping station, the effluents of both these drains join sewer line which finally travels to the Jajmau STP. The Joint Inspection Team had inspected both these drains and did not find any sewage and therefore, it was not subjected to any analysis. The Committee even took analysis at the confluence point of Police Drain and river Ganga. At that point, the drain was dry but large quantity of Municipal Solid Waste (for short, 'MSW') was found to be thrown or dumped at that site. Similar analysis was also taken for the Jail Drain at the confluence point with river Ganga. According to the stakeholders, steps are required to be taken in relation to these two drains and consequently, no direction needs to be passed. Having heard the stakeholders and in view of the above narrated facts, we are of the considered view, that no further direction in relation to treatment of effluents be issued in view of the fact that both these drains are tapped and the effluents join the sewer line leading to Jajmau STP. What further should be ensured is that at the tapping point there is no overflow of the sewage or effluents of any kind except the

storm/rainy water and nothing should be permitted to go beyond the tapping point. Further, we issue directions to the concerned authorities that is UPJN, State of UP and Nigam Parishad and local authorities to ensure that all these drains upto and particularly beyond the point of tapping should be kept clean and no MSW should be dumped in any of the drains.

PERMIYA DRAIN

81. This drain is one of the major drains in city of Kanpur. There are 5 other drains which are enroute/join this drain. They are Kesa Colony Drain, Khewra Drain, Roadways Colony Drain, Jogeshwar Drain and Jewra Drain Tapping including Nawabganj drain. This drain originates from Kanpur barrage canal and meets river Ganga on its right bank. All these drains primarily carry sewage from the catchment areas of Vishnupur, Mandana, HBTI, Makdikheda, Kalyanpur, Indria Nagar, Khewra village, Jageswar village, Jevra village, Ranighat village The length of this drain is stated to be 2 kilometres. According to Joint Inspection Team with 0.65 factors for averaging surface velocity and drain cross section profile, the flow comes to 98.28 MLD. However, this flow has been stated to be 4.07 MLD by UPJN. The data provided by UPJN does not appear to be correct considering that it is an old data which confines itself to be within municipal limits, with no definite documentation being placed on record to show

that the discharge of such a drain which has densely inhabited areas in its catchment area. It was stated by the Joint Inspection Team that the sewage from the Nawabganj area is directly meeting Permiya drain which ultimately goes to river Ganga. The effluents collected from the drain were subjected to analysis by the Joint Inspection Team. It was found that the parameters in relation to heavy metals and pesticides were found to be below detectable levels or were within the prescribed limits. However, the general parameters which were found to be excessive are as follows:

(EFFLUENTS OF PERMIYA DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.16
3	BOD (mg/l)	:	138
4	COD (mg/l)	:	308
5	TSS (mg/l)	:	196
6	TDS (mg/l)	:	590
7	Cl^- (mg/l)	:	82.7
8	NH_3-N (mg/l)	:	52.2
9	NO_3^-(mg/l)	:	2.73
10	DO (mg/l)*	:	-
11	TC (MPN/100 ml)#	:	16,00,00,000
12	FC (MPN/100 ml)#	:	9,20,00,000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

It is pointed out that two STPs of 130 MLD and 5 MLD and one CEPT of 36 MLD are in existence at Jajmau. 1 STP of 43 MLD is under construction at Jajmau. It is stated to be covered under the sewage project in Kanpur, District-1 which has been approved by the NMCG in October 2016.

At this stage, we may also notice that the Project Manager of UPJN had appeared before the Tribunal and informed that there were 110 wards in the city of Kanpur. Each ward had 50 to 200 colonies with a population of approximately 30,000. However, even 40% of the area has not been provided with the sewer line and entire households are not connected. 38 wards did not have sewer line at all. The officer never conducted inspection in the city or any part thereof to verify the situation. He also informed that if the projects in regard to sewer line intersection and construction of 43 MLD STP are executed, even then only 5% of additional sewer line would be covered in the city of Kanpur. He also stated that there are a number of unauthorised colonies and when planning for laying down of sewer line is undertaken, unauthorised colonies are not taken into consideration. It is only the planned colonies that are taken into consideration for that purpose. However, the Commissioner of the Nagar Nigam Kanpur appeared before the Tribunal on 8th March, 2017 and informed that there were 110 wards in city of Kanpur and there were 1669 colonies. Out of them, unplanned colonies are 152, while 397 are slums. The slums and illegal colonies have not been provided with sewer line. Even the remaining 1120 unauthorised colonies do not have sewer line and sewer connections. There are commercial and industrial activities being carried on in

some of the 1120 colonies.

The five drains afore-stated come under the control of Nigam and they were stated to have been cleaned pre-monsoon 2016, but the Nigam failed to provide any answer as to why the sewer line was blocked to the extent of 70%.

Mr. Sundeep Kumar, Director (T-II), MoWR stated that in order to provide proper treatment to Permiya Drain, it will be appropriate that the gate of Ganga canal should be strengthened to ensure that there is no leakage. All the five drains carry pollutants out of which four are already intercepted and the fifth drain Nawabganj drain, should be intercepted and the effluents taken to the Jajmau STP which is presently blocked and requires major O.M. improvements. There should be no overflow from any of the intersection points. No other pollutant should be permitted to enter Permiya Drain. The drain joining Permiya Drain between Nawabganj drain and river Ganga should also be intercepted and brought to Nawabganj drain and in turn to Jajmau. Drain should be a natural drain which will carry released water of Ganga canal, nature surcharge and the rain water.

On the contrary, the Member Secretary, CPCB as well as MoEF&CC took the stand that this may not be correct treatment method of the pollution being caused by these drains. According to them, end of the pipeline treatment should be maintained. The sewer line was working only to

the extent of 30% and 70% was not functional. Thus, it will not be possible for the sewer line to carry such heavy effluents. It was also not known clearly, as to how many other drains join Permiya Drain as the Pollution Control Board inspected only the drain joining towards the end of the drain near river Ganga. The installation of STP at the end of the pipeline nearly 1 km from the river would serve the purpose of cleaning river Ganga and there should not be any unchecked development in the area or untreated effluents being added to other drain within that area of 1 km. The Tribunal was also informed that the Chairman of CPCB in the meeting held by the Secretary, MoEF&CC had taken a final decision to approve the end of the pipeline treatment as a first option. It was commonly agreed that the drains are in a very bad predicament in terms of environment and public health both.

When the matter was taken up before the Tribunal on 28th February, 2017, it was informed that out of 5 drains which join Permiya Drain, 4 have already been intercepted with the intersection of 1 more drain, these can handle even the increased capacity after strengthening the intersection point and then the discharge could be sent to sewer line leading to Jajmau STP. The flow or discharge by leakage from escape channel in other drains should be prevented by strengthening of Ganga canal. In furtherance to that order, a special meeting of the stakeholders was held on

28th February, 2017. In that meeting, both the right and left banks of Permiya Nallah were discussed and the following observations were submitted to the Tribunal :

> **"Right Bank in District-I**
>
> i. Based on the information of UP Jal Nigam and UPPCB joint inspection, 5 drains meets Permiya Nallah (Kesa Colony, Roadways, Jageshwari, Jewra and Nawabgunj). All drains except Jewra has provision for tapping and the overflow (more than the tapping capacity) finds its way to Permiya Nallah.
>
> ii. A new 3.5 MLD interception and diversion d/s-Nawabgunj drain with intercept sewer along Permiya drain is approved by NMCG, which will ensure no discharge in to Permiya drain from the right bank of Permiya Nallah.
>
> iii. The pumping station on Nawabganj drains requires upgradation, cleaning and capacity enhancement so that entire effluent could reach Jajmau STP. Proposed renovation of Nawabganj tapping facility along with rehabilitation of discharge sewer as approved by NMCG will ensure utilization of STP capacity at Jajmau to full capacity.
>
> iv. Collectively it was expressed that proper O&M of existing tapping facility along with execution of approved I&D of Permiya drain will collect discharge from all drain joining Permiya drain from right bank. The collected wastewater will be sent to STP cluster at Jajmau through Nawabganj pumping station.
>
> v. The water from escape channel is primarily of good quality and leakages are not normal conditions. Therefore, concerned authority shall be directed to ensure necessary measures are put in place to stop leakage/unintended discharge.
>
> **B. Left Bank of Permiya Nallah:**
>
> i. Presently, there is no major identifiable discharge from left bank side to Permiya Nallah. However, UPPCB clarified that consent for

operation of STP have been issued to NRI colony for 2.21 MLD, with condition to use treated water for gardening and other agricultural uses.

ii. The under construction STP of 15 MLD under JNURM AT Baniyapurwa, is primarily to cater the sewage generation from Ward No. 20 and part of Ward no 16 which is reaching River Ganga through Laakhanpur Kesa Colony—drain (already covered in tapping proposal) associated sewage network in these wards is under progress AMRUT program."

Various suggestions advanced on behalf of different stakeholders were critically examined by the Tribunal. Keeping in view the fact that 3 STPs/CETPs are already functional, though, not satisfactorily and another STP of 43 MLD is under construction. The sewer line has already been laid. The interception projects have been approved by NMCG in October 2016 and the project of sewer is in progress. We consider it appropriate that the approved project may be implemented rather than adopting a fresh course of end of the pipeline treatment in relation to the Permiya drain. However, this has to be subject to the directions which we state hereinafter:

1. The 5th drain, i.e., Nawabganj drain should be intercepted and its effluents taken to the main sewer line which goes to Jajmau STP.
2. The STP of 43 MLD at Jajmau under construction should be completed with utmost expeditiousness. All these STPs should be upgraded and should be

of an appropriate capacity so that they can treat the entire effluents left from these 5 drains and Permiya Nallah and sent to appropriate STP at Jajmau.

3. It is informed that there is sufficient land available at Jajmau for construction of STP and since the existing STPs are already there, it will be more convenient to install another STP at the same site.
4. The Local authorities, Nigam and State of UP are hereby directed to ensure that the 70% non-functional factor of the sewer line taking the sewage effluents of Jajmau should be cleaned forthwith and the flow of the drain should be 100% as opposed to 30%. This direction is necessary because if there is no proper conveyance capacity of the sewer line, the entire sewage and effluent collected would overflow or leak from the point of interception or tapping, defeating the entire project which had already been sanctioned by NMCG in 2016.
5. The STP at Jajmau should be able to treat all the effluents including BOD, COD, TSS, Coliform and the CETP should be able to treat the industrial pollutants so as to achieve the prescribed norms.
6. The treated water from the STP shall be recycled for use in industrial and agriculture purposes and

it is only the remnant that would be subjected to discharge in river Ganga. The escape channel of Ganga canal should be strengthened and it should be ensured that there is no leakage to the Permiya drain and no unintended discharge.

7. A new STP of 3.5 MLD by interception and diversion of Nawabganj drain with sewer line along Permiya drain which has already been approved by NMCG is permitted to be executed.

8. The pumping station of Nawabganj drain should be upgraded, cleaning and capacity enhancement to be carried out so that the entire effluent could reach the Jajmau without any obstruction.

RANIGHAT NALLAH, SISAMAU NALLAH AND TEFCO NALLAH

82. These drains have a length of 2.17 kilometers, 7 – 8 kilometers and 0.4 kilometer respectively. While Ranighat drain and Tefco Nallah carry domestic and sewage effluents, the Sisamau drain carries mixed effluents, i.e., domestic, sewage and industrial. The Ranighat Nallah has a flow of 1.3 MLD. This Nallah is stated to have been tapped and joins pumping station in Nawabganj. As per the Joint Inspection Team, despite tapping, sewage still flows and meets river Ganga. It is both because of overflow and leakage. The effluents were analyzed and its general parameters were found to be in violation, particularly,

Total Coliform and Faecal Coliform. The analysis report reads as under:

(EFFLUENTS OF RANIGHAT NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.37
3	BOD (mg/l)	:	173
4	COD (mg/l)	:	463
5	TSS (mg/l)	:	354
6	TDS (mg/l)	:	953
7	Cl^- (mg/l)	:	133
8	NH_3-N (mg/l)	:	76.2
9	NO_3 - (mg/l)	:	2.02
10	DO (mg/l)*	:	-
11	TC (MPN/100 ml)#	:	160000000
12	FC (MPN/100 ml)#	:	160000000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

(EFFLUENTS OF RANIGHAT NALLAH-TRACE METAL/HEAVY METAL)

Sl. No.	Parameters	Results	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	BDL
4	Copper (Cu) mg/l	:	-
5	Iron (Fe) mg/l	:	1.42
6	Lead (Pb) mg/l	:	BDL
7	Manganese (Mn) mg/l	:	0.14
8	Nickel (Ni) mg/l	:	BDL
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	0.14
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		-
14	Vanadium (V) mg/l		-

DRAIN MONITORING FORMAT

(Pesticide)

Sl. No.	Parameters	Results	
1	Water temperature (°C)	:	Awaited

Pesticide Analysis report (OPPs)			
2	Monochrotophos		
3	Dimethoate (µg/l)	:	
4	Methyl Parathion (µg/l)	:	
5	Malathion (µg/l)	:	
6	Chloropyriphos (µg/l)	:	
7	Methyl Parathion	:	
8	Ethion (µg/l)	:	
Pesticide Analysis Report (OCPs)			
9	α-BHC	:	0.08
10	β-BHC	:	0.75
11	γ-BHC	:	0.07
12	δ-BHC	:	BDL
13	Total BHC (ng/l)	:	BDL
14	Aldrin (ng/l)	:	BDL
15	Diedrin (ng/l)	:	BDL
16	α-Endosulfan	:	BDL
17	Total Endosulfan (ng/l)	:	BDL
18	β-Endosulfan	:	BDL
19	OP'DDT	:	0.08
20	PP'DDT	:	0.22
21	PP'DDE	:	BDL
22	Total DDT (ng/l)	:	BDL

As per the observations of the Joint Inspection Team, Sisamau Nallah also carries untreated wastewater from the slaughter houses at Fazalganj. The flow of this drain is found to be 130 MLD. The sample for Sisamau Nallah was collected from inside the power plant. The effluents were analyzed and the parameters were found to be excessive for both the general parameters as well as under metals. However, pesticides were below the detectable limit or within the prescribed limits. The analysis report of this drain reads as follows:

(EFFLUENTS OF SISAMAU NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results

1	Colour	:	-
2	pH	:	7.05
3	BOD (mg/l)	:	83
4	COD (mg/l)	:	251
5	TSS (mg/l)	:	187
6	TDS (mg/l)	:	604
7	Cl^- (mg/l)	:	109
8	NH_3-N (mg/l)	:	36.1
9	NO_3 - (mg/l)	:	2.71
10	DO (mg/l)*	:	-
11	TC (MPN/100 ml)#	:	-
12	FC (MPN/100 ml)#	:	-

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

(EFFLUENTS OF SISAMAU NALLAH-TRACE METAL/HEAVY METAL)

Sl. No.	Parameters	Results	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	0.06
4	Copper (Cu) mg/l	:	-
5	Iron (Fe) mg/l	:	3.32
6	Lead (Pb) mg/l	:	0.02
7	Manganese (Mn) mg/l	:	0.20
8	Nickel (Ni) mg/l	:	0.06
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	0.50
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		-
14	Vanadium (V) mg/l		-

Tefco Nallah has a flow of 0.43 MLD according to the Jal Nigam. The Joint Inspection Report states that the drain has occasional flow due to bypass sewage pumping station. The drain has been partly tapped which then flows to Jajmau STP cluster. Since the drain was found to be dry, no sample was analyzed by the Joint Inspection Team. It was observed that the two drains, namely, Ranighat and

Tefco Nallah have existing sewer line system while for Sisamau Nallah the system is proposed. These two drains have been tapped while the Sisamau Nallah has not been tapped fully as of now. The stakeholders proposal is that all the 3 drains should be fully tapped and pipeline should be strengthened appropriately so as to carry the sewage or effluent to the pumping station by gravity and finally transfer into the sewer line leading to STP at Jajmau. The capacity of the pumps installed should be appropriately analyzed and strengthened. It must be ensured that there should be no backflow from the pumps or overflow from the tapping point or bypass of it, flowing into the drains beyond the point of their tapping. There should be continuous source of energy preferably by solar energy or by DG Sets. This project has already been approved by the NMCG.

Thus, we accept the proposal and direct that all these three drains shall be fully and completely tapped wherever necessary through pumps. The discharge shall be put into the sewer line leading to Jajmau STP. All the pumps shall be provided with alternative sources of energy, i.e., solar or DG sets to ensure uninterrupted functioning of the pumps. This would ensure that there is no overflow or backflow from the pumps or point of interceptions. It should be ensured under all circumstances that no overflow of effluents or sewage enters the drains beyond the point of

tapping.

PARMATH DRAIN

83. The drain has a length of 2.18 kilometers. This drain was found to be dry where it meets river Ganga and therefore, no effluents were analyzed. The drain is stated to have been tapped from the tapping point and there is an overflow.

All the parties and stakeholders agreed that the existing tapping requires up-gradation, capacity of which is 0.2 MLD. By strengthening of tapping, it should be ensured that there is no overflow into the drain after the point of tapping and no consequent pollution of river Ganga. According to CPCB, this drain should be sealed at the end while according to MoWR it should not be sealed.

Having given our considered view, we direct that the existing tapping point shall be strengthened and upgraded. It should be ensured that there is no overflow. The drain should not be sealed at the point of confluence.

MUIR MILL NALLAH

84. This Nallah meets river Ganga on its right bank and is 2 km long. It has a flow of 8.45 MLD. The effluents of the drain were subjected to analysis and pesticides and heavy metals have been found to be below detectable limit or within the prescribed limits. However, some of the general parameters of this drain are as follows:

(EFFLUENTS OF MUIR MILL NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.38
3	BOD (mg/l)	:	85.3
4	COD (mg/l)	:	210
5	TSS (mg/l)	:	421
6	TDS (mg/l)	:	774
7	Cl^- (mg/l)	:	160
8	NH_3-N (mg/l)	:	40.9
9	NO_3 - (mg/l)	:	2.01
10	DO (mg/l)*	:	-
11	TC (MPN/ 100 ml)#	:	160000000
12	FC (MPN/ 100 ml)#	:	160000000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

(EFFLUENTS OF MUIR MILL NALLAH-TRACE METAL/HEAVY METAL)

Sl. No.	Parameters	Results	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	BDL
4	Copper (Cu) mg/l	:	-
5	Iron (Fe) mg/l	:	2.34
6	Lead (Pb) mg/l	:	BDL
7	Manganese (Mn) mg/l	:	0.16
8	Nickel (Ni) mg/l	:	0.02
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	0.28
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		-
14	Vanadium (V) mg/l		-

According to the UPJN, the drain has been tapped, however, there is an overflow of 3.13 MLD. They wish to strengthen the tapping and by gravity through pipeline be taken to Parmath pumping station and then ultimately to

sewer line laid till Jajmau. The MOWR supports this view. According to the Central Pollution Control Board, this is not proper because the over flow noticed by the Joint Inspection Team was 8.45 MLD and not 3.13 MLD. It carries sewage and even other elements. It would be better to provide treatment at the end of the pipeline, 1 kilometre away from the river Ganga. MoEF&CC &CC supports the view of the CPCB. According to the UPPCB, the tapping should be strengthened and capacity enhancement be done. It is incontrovertible that there is no land available for establishment of STP.

We would have preferred the end of pipeline treatment of this drain. However, non-availability of land is a serious impediment for construction of the STP. That be so, there being partial infrastructure in existence for tapping of the drain and carrying its effluent to Jajmau finally. As already acknowledged, the drain carries pollutants, therefore, we direct that the drain should be completely tapped so as to avert overflow from the tapping point. The tapping point should be upgraded and strengthened appropriately and subject to compliance of other general directions issued in this judgement.

GOLAGHAT NALLAH

85. This drain also meets river Ganga on its right bank. The length of this drain is 0.5 kilometre. It has the flow of 1.44 MLD and carries domestic & sewage discharge. It is not

one of the major drains joining river Ganga. However, upon the analysis of the general parameters, the drain shows to carry serious pollutants. The analysis report reads as under:

(EFFLUENTS OF GOLAGHAT NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.34
3	BOD (mg/l)	:	143
4	COD (mg/l)	:	289
5	TSS (mg/l)	:	234
6	TDS (mg/l)	:	937
7	Cl- (mg/l)	:	152
8	NH_3-N (mg/l)	:	42.9
9	NO_3 - (mg/l)	:	0.876
10	DO (mg/l)*	:	-
11	TC (MPN/ 100 ml)#	:	92000000
12	FC (MPN/ 100 ml)#	:	92000000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

(EFFLUENTS OF GOLAGHAT NALLAH-TRACE METAL/HEAVY METAL)

Sl. No.	Parameters	Results	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	0.02
4	Copper (Cu) mg/l	:	-
5	Iron (Fe) mg/l	:	1.22
6	Lead (Pb) mg/l	:	BDL
7	Manganese (Mn) mg/l	:	0.16
8	Nickel (Ni) mg/l	:	BDL
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	0.52
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		-
14	Vanadium (V) mg/l		-

Besides this, it also carries metals like chromium, iron,

manganese and zinc, etc. The proposal of the stakeholders is that the drain should be tapped and effluent be taken to Parmath pumping station or any other nearest pumping station which will send the effluent to the sewer line leading to the STP/CETP at Jajmau. Sewer system has also been proposed in the catchment area of this drain. Therefore, we direct that this drain be fully and completely tapped and the effluent be taken to Parmath pumping station or any other nearest pumping station to finally put the effluent into sewer line leading to Jajmau.

BHAGWAT DAS GHAT DRAIN/GUFTAR GHAT NALLAH, SATTICHAURA GHAT DRAIN AND DABKA NALLAH DRAIN-3:

86. All these drains have their confluence point on the right bank of river Ganga. They are nearly 1.3 kilometers, 0.7 kilometer and 1 to 2 kilometers long, respectively. They carry flow of nearly 11.5 MLD, 1.54 MLD and 1.23 MLD. We make it clear that the Joint Inspection Team while examining the Dabka Nallah, found that the water of river Ganga was flowing into the drain at the confluence point, as the drain had been tapped. The effluent of the two drains, namely, Bhagwat Das drain and Sattichaura ghat drain showed high pollutants which are as follows:

(EFFLUENTS OF BHAGWAT DAS GHAT DRAIN- GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.24
3	BOD (mg/l)	:	95

4	COD (mg/l)	:	261
5	TSS (mg/l)	:	147
6	TDS (mg/l)	:	722
7	Cl- (mg/l)	:	139
8	NH_3-N (mg/l)	:	48.7
9	NO_3 - (mg/l)	:	2.17
10	DO (mg/l)*	:	-
11	TC (MPN/ 100 ml)#	:	92000000
12	FC (MPN/ 100 ml)#	:	92000000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

AND

(EFFLUENTS OF SATTICHAURA GHAT DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.42
3	BOD (mg/l)	:	56.8
4	COD (mg/l)	:	130
5	TSS (mg/l)	:	107
6	TDS (mg/l)	:	518
7	Cl- (mg/l)	:	73.2
8	NH_3-N (mg/l)	:	26.7
9	NO_3 - (mg/l)	:	2.15
10	DO (mg/l)*	:	-
11	TC (MPN/ 100 ml)#	:	22000000
12	FC (MPN/ 100 ml)#	:	13000000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed Drains & River

The metals and pesticides were found to be below detectable limits or within the prescribed limits. The wastewater from Dabka drain was taken to the STP for treatment. It was commonly conceded before the Tribunal that no land is available for construction of an STP at the end of the pipeline. Bhagwat Das drain interception has been constructed for quite some time and it is nearly 300 meters away from the riverbed. The discharge has

increased due to large population settling on the land falling within that 300 meters. It is proposed before the Tribunal that all these three drains should be intercepted, not in excess of 50 meters from the bank of river. The interceptors should be connected to a pumping station at Guftar Ghat Nallah, where it will be connected to sewer line leading to Jajmau. In the minutes dated 28th February, 2017, similar suggestion was made. In relation to the tapping location, it is submitted that Bhagwat Das drain could be tapped at new SPS site, Sattichaura drain at district-1 and Dabka Nallah drain at the existing place. We find the proposal acceptable. However, to ensure that from the point of tapping at the point of confluence, no effluent should enter into river Ganga and no waste should be permitted to go through that channel. It is directed that besides tapping the three drains taking the effluent to the pumping station at Guftar Ghat drain and finally to Jajmau, the three drains at their end should be sealed towards the river. In fact, this order was passed by the Tribunal on 20th April, 2017 which is reiterated. The waste deposited in the drains beyond the point of tapping should be mechanically lifted and appropriately dumped at regular intervals.

HEMRAJ DRAIN

87. The drain after flowing for a length of 5 to 8 kilometres joins river Ganga on its left bank in Bijnor. The drain

primarily carries domestic waste and sewage and has a flow of nearly 91.260 MLD. The Bijnor sewage drain meets this drain. Upon analysis, the effluent of the drain was found to be polluting with high values of Total Coliform and Faecal Coliform. In fact, it was found to be containing arsenic and iron, though of a very low value. General parameters upon analysis show the following results:

(EFFLUENTS OF HEMRAJ DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.82
3.	BOD (mg/l)	:	5
4.	COD (mg/l)	:	24
5.	TSS (mg/l)	:	2.0
6.	TDS (mg/l)	:	204
7.	Cl^- (mg/l)	:	12
8.	NH3-N (mg/l)	:	07
9.	NO3-(mg/l)	:	BDL
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	92×10^4
12.	FC (MPN/100 ml)#	:	47×10^3

* For Fresh water carrying drains/rivers
\# For sewage, mixed Drains & River

In the catchment area of this drain, is located Hemraj colony and presently there is no STP in existence. However, STP of capacity of 24 MLD is under construction at Bijnor and 60 per cent work has already been completed. Sewage network is completed, however, it is still to be commissioned. Interception of the drain is not required. It is commonly stated by all the stakeholders that this drain primarily carries water from river Ganga and the main pollutant is the Bijnor drain. Further it is suggested that the Bijnor drain be treated by interception

and the waste is pumped to the STP of 24 MLD being constructed at Bijnor. The STP should be upgraded in order to check the BOD, COD, TSS and bring the entire effluent within the prescribed standards. It is also propounded that toxic tank should be added to the STP with proper filters.

As the STP is already under construction and 60 per cent work has already been completed, we direct that the STP at Bijnor should be completed expeditiously but it must ensure that the technology provided in the STP should have appropriate capacity to be able to treat all the effluents including coliform and other pollutants as afore indicated. We direct that along with STP, soaking tank should be constructed with proper filtration system.

CHHOIYA DRAIN

88. Chhoiya drain was essentially an irrigation canal with a discharge of 138 MLD. It is a major drain and joins river Ganga on its left bank. It has a length of about 60 kilometres. There are heavy polluting industries located near this drain. There are two distillery industries and one paper and pulp industry. The Tribunal had issued notices to the industries, which are polluting this drain. Those cases are being separately dealt with. The effluents of the drain were subjected to analysis by the Joint Inspection Team and upon analysis it has been found that there are high pollutants in the effluent. The Joint Inspection Team

observed that there was heavy back flow of river in the drain. The water was slightly black and had 137.8 MLD of flow. Arsenic, iron, manganese, zinc etc. were found but were within permissible limits. General parameters provided the following upon analysis:

(EFFLUENTS OF CHHOIYA DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	--
2.	pH	:	7.73
3.	BOD (mg/l)	:	7
4.	COD (mg/l)	:	56
5.	TSS (mg/l)	:	33
6.	TDS (mg/l)	:	416
7.	CL^- (mg/l)	:	35
8.	NH_3-N (mg/l)	:	18
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	16×10^3
12.	FC (MPN/100 ml)#	:	35×10^2

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

There are three rural centres located within the catchment area of this drain. The parties agree that there are two options available for dealing with pollution generated which flows in this drain. There are three grossly polluting industries in the catchment area of the drain. Firstly, it is suggested that they should be preferably ZLD and if possible, there should be direct and regular supervision of the SPCB and other authorities to ensure that their parameters are strictly within the prescribed limits. This drain should be provided with the end of the pipeline treatment by setting up of a CETP as there is sewage, trade effluent and the effluent even contains metals. There is

use of zinc by the fertilizer industry and the discharge from them ultimately meets this drain which spells out as to how zinc has been found in the effluent. The drain should be de-silted immediately and the colour content should be removed so as to ensure that in future the drain is not polluted and does not cause colour mixing. One time cleaning of the drain on all the parameters should be prescribed.

Secondly, it is suggested that the three rural centres located in the catchment area should be provided with decentralized treatment by establishment of oxidation ponds or any other appropriate technology. The remaining then should be treated only through an STP in place of a CETP. If the effluents are appropriately treated in the three rural catchment areas which are discharging into the drain and the three industries are properly regulated by ZLD or other measures, then there arises no need for CETP to be constructed at the end of the pipeline.

Upon examining the rival contentions raised by the stakeholders, the Tribunal is of the considered view that it will be more appropriate to construct or provide the three rural areas in the catchment area of the drain with oxidation ponds. The effluent from these oxidation ponds should be taken to the STP that is proposed to be constructed at some distance from the point where Chhoiya drain meets river Ganga. The three major

industries afore-noticed should be directed to become ZLD either by incineration process or by recycling of 100% treated effluent. They should strictly comply with the prescribed standards for treatment of the trade effluent of these industries. The remnant from both these sources should be taken to STP where it should be treated. The treated effluents should be recycled and treated effluent not in excess of 25% should be discharged into the river Ganga.

Further, the drains should be dredged, de-silted and cleaned and all the effluents and colour even on the soil-bed of the drain should be removed, to ensure that there is no pollution generated in future. Furthermore, the land/area falling prior to the STP and the municipal limits, in future would not be permitted to discharge any sewage or effluents into this drain. In the area which is stated to be approximately 5 kilometres, if any, development, industrial and/or residential, is permitted then such development will not be permitted unless such development project has CETP/STP of required capacity capable of treating the effluent generated as a result of the development and it will only be the treated effluent that would be permitted to be discharged in the main Chhoiya drain. Every effort should be made to restore the drain to its original nature of being a canal.

BAGAD RIVER (DRAIN)

89. This drain, in fact, is a river and is stated to be nearly 200 kilometres long. However, it remains dry after nearly 15 kilometres from Gajraula. There are nearly 12 huge industries like sugar, chemical, fertilizer, distillery, pharmaceutical, pulp and paper, dairy and silica etc. in the catchment area of the drain. All these industries are highly polluting industries and discharge their effluents into this drain. This drain is called as Mahua drain before the confluence point with river Ganga by nearly 10 kilometres. The colour of the effluent was found to be black towards the end which is indicative of presence of high pollutants. The Joint Inspection Team collected the effluent from the drain near Jubilant industry in Gajraula and the analysis results thereof are as follows:

(EFFLUENTS OF BAGAD RIVER (DRAIN)-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	--
2.	pH	:	7.74
3.	BOD (mg/l)	:	282
4.	COD (mg/l)	:	606
5.	TSS (mg/l)	:	479
6.	TDS (mg/l)	:	7948
7.	CL^- (mg/l)	:	116
8.	NH_3-N (mg/l)	:	12
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	35×10^5
12.	FC (MPN/100 ml)#	:	11×10^5

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF BAGAD RIVER (DRAIN)-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL

3.	Total Chromium (Cr) mg/l	:	0.02
4.	Copper (Cu) mg/l	:	0.03
5.	Iron (Fe) mg/l	:	3.85
6.	Lead (Pb) mg/l	:	0.02
7.	Manganese (Mn) mg/l	:	0.32
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.17
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	0.02

(EFFLUENTS OF BAGAD RIVER (DRAIN)-PESTICIDE)

Sl.No.	Parameters		Results
1.	Water temperature (°C)	:	
	Pesticide analysis Report (OPPs)		
2.	Monochrotophos	:	-
3.	Dimethoate (µg/l)	:	BDL
4.	Methyl Parathion (µg/l)	:	BDL
5.	Malathion (µg/l)	:	BDL
6.	Chloropyriphos (µg/l)	:	BDL
7.	Methyl Parathion	:	-
8.	Ethion (µg/l)	:	BDL
	Pesticide Analysis Report (OCPs)		
9.	α-BHC	:	0.264
10.	β-BHC	:	0.149
11.	γ-BHC	:	-
12.	δ-BHC	:	-
13.	Total BHC (ng/l)	:	-
14.	Aldrin (ng/l)	:	BDL
15.	Diedrin (ng/l)	:	BDL
16.	α-Endosulfan	:	BDL
17.	Total Endosulfan (ng/l)	:	
18.	β-Endosulfan	:	BDL
19.	OP'DDT	:	1.109
20.	PP'DDT	:	0.153
21.	PP'DDE	:	BDL
22.	Total DDT (ng/l)	:	-

The Joint Inspection Team noticed that it carries industrial effluent and originates near Dadiyal in Amroha district, after travelling for nearly 20 kilometre from Gajraula, it becomes dry.

The industries located in the catchment area of this drain were issued notices by the Tribunal and their cases have been dealt with individually. In fact, some of these industries were ordered to be shutdown after their assurance to take all anti-pollution measures and after imposing environmental compensation, they were permitted to operate subject to inspection by the Joint Inspection Team at a subsequent day. They were required to operate their ETP without default. The UPJN has not made any other suggestions except preventing and controlling industrial pollution of this drain. All the stakeholders commonly submitted that the sewage drain constructed by Nagar Palika Parishad of Gujraula near NH-24, there should be an STP constructed at the end of that drain. All the 12 industries should operate strictly in terms of the conditions of the 'Consent to Operate'. The conditions of consent should ensure that they do not cause any pollution or discharge effluent in excess of the prescribed parameters. If they are found violating, the prescribed norms and conditions of the consent, they should be ordered to be closed. One industry M/s. Insilco is itself discharging 6 MLD of effluent every day. Thus, we

issue the following directions in relation to this drain:

a) The Bagad river (drain) inclusive of Mahua, should be cleaned, dredged and maintained as a river or storm water drain.

b) All the 12 industries located in the catchment area of this drain, which are highly polluting should be put under strict surveillance by the UPPCB as well as the Joint Inspection Team.

c) The Joint Inspection Team has already been directed to inspect these industries to conform with appropriate conditions for permitting and operating all these functions.

d) These industries have been directed to comply with the conditions of the consent order and directions issued by the Joint Inspection Team under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Environmental (Protection) Act, 1986.

e) In the event of these industries not complying with such directions, they shall be liable to be closed without any further notice.

f) The Joint Inspection Team and the UPPCB shall submit compliance report in relation to these industries before the Tribunal upon regular intervals.

PHULDERA DRAIN

90. Phuldera drain is about 35 kilometres long and primarily

carries industrial effluent with a load of 14 MLD approximately. This drain meets river Ganga on its right bank in Ghaziabad. The source of the effluent is attributed to the distillery, sugar, food and dairy industries. During the inspection, the Joint Inspection Team observed that solid waste was floating in the drain. The Committee also found Eichhornia growth in the drain. The effluent sample was collected near Bahadurgarh village after confluence of drain into Siyana escape. Upon analysis, the metals and pesticides were noticed either below the detectable limit or within the permissible limit. However, the general parameters were found to be violative of the prescribed standard and read as follows:

(EFFLUENTS OF PHULDERA DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	N/A
2.	pH	:	7.25
3.	BOD (mg/l)	:	42
4.	COD (mg/l)	:	96
5.	TSS (mg/l)	:	51
6.	TDS (mg/l)	:	268
7.	Cl^- (mg/l)	:	27
8.	NH_3-N (mg/l)	:	7
9.	NO_3^-(mg/l)	:	1
10.	DO (mg/l)	:	NIL
11.	TC (MPN/100 ml)#	:	16×10^8
12.	FC (MPN/100 ml)#	:	11×10^7

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

Siyana Escape channel carries effluent of sugar and distillery mills as they are discharging the same into the Phuldera drain. In fact, the distillery industry was directed to be closed down, however the sugar mill has been

operative. In the case of *Krishna Kant Singh*, O.A. No. 299 of 2013 (supra), the Tribunal had not only closed down Sambhaoli sugar mills and distillery but had even imposed a compensation of ₹ 5 crores and they were permitted to operate their sugar unit only after complying with the conditions imposed by the Joint Inspection Team. Such stringent measures should be taken by the concerned Boards against all such industries to ensure that they are not permitted to pollute the drain which meets the river. All these industries should be directed to strictly adhere to discharge effluents in consonance with prescribed parameters, failing which they should be ordered to be shut down. Decentralized system should be provided to similar drains that join Siyana escape and once the industrial pollution is controlled satisfactorily, there would be no need for construction of STP at the end of the pipeline. UPJN has also not suggested anything else, except preventing and controlling the industrial pollution and their ETPs and OCEMs to be made effective and functional. We accept the submissions jointly made on behalf of all the stakeholders and order accordingly that the Joint Inspection Team and UPPCB shall maintain strict vigil over the functioning of these industries and submit appropriate representation before the Tribunal.

BHAIROGHAT/TOKAGHAT DRAIN AND DHINAPUR DRAIN

91.

Both these drains after flowing for a distance of 6 to 7 kilometres and 1.5 kilometres approximately, join river Ganga. They carry a load of 22.1 MLD and 1.62 MLD which is stated to be 24 MLD and 3 MLD respectively by UPJN. The first drain is a major drain while the latter is a minor drain. The Joint Inspection Team collected the samples for analysis near Bhairav temple in Bhairavghat and the analysis report shows the general parameters highly violative of the prescribed norms that read as under:

(EFFLUENTS OF BHAIROGHAT DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.67
3.	BOD (mg/l)	:	28
4.	COD (mg/l)	:	108
5.	TSS (mg/l)	:	195
6.	TDS (mg/l)	:	1082
7.	CL^- (mg/l)	:	221
8.	NH_3-N (mg/l)	:	37
9.	NO_3^-(mg/l)	:	BDL
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	7,90,000
12.	FC (MPN/100 ml)#	:	1,40,000

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

In relation to Dhinapur drain it was stated that Bhairoghat Drain carries mixed effluents, particularly, from the dairy industry. Besides sewage, the general parameters of Dhinapur Drain were found to show adverse results which read as under:

(EFFLUENTS OF DHINAPUR DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.34

3.	BOD (mg/l)	:	35.4
4.	COD (mg/l)	:	136
5.	TSS (mg/l)	:	35.4
6.	TDS (mg/l)	:	865
7.	Cl^- (mg/l)	:	144
8.	NH_3-N (mg/l)	:	38.1
9.	NO_3^-(mg/l)	:	3.03
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	14,00,000
12.	FC (MPN/100 ml)#	:	7,00,000

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

There are small dyeing units having their own ETP at Farukhabad city. These industries have been directed to be shifted to the Textile Apparel Park being built up by the Textile industry. The proposal, in relation to these two drains for an STP of 30 MLD, is to be constructed at Dhinapur, at a site which is 1 kilometre away from the river, and there is no habitation in the area. After treatment, the treated water should be recycled for agricultural purposes and remnant discharged into the river. The industrial effluent is of a very mild nature and falls within the prescribed parameters. In light of the above submissions we direct as follows:

a) An STP of 30 MLD is to be constructed at Dhinapur at the proposed site.

b) The area bereft of habitation shall not undergo any development unless and until the developer or the concerned agency, whether governmental or otherwise install/construct its own STP so that no further effluents are added to the drain after the point

where the STP is being constructed and at the confluence point.

c) The water from STP should be recycled and reutilized for agricultural purposes.

d) The proposed CETP at Farukhabad should be constructed without any further delay but before clearance of the project, the concerned stakeholders shall ensure that the load quality of the effluent arriving at the CETP is completely analysed with reference to the capacity and technology of the CETP.

SHEETLABAZAR DRAIN, BUDHIYA GHAT DRAIN AND WAZIDPUR NALLAH

92. All these three drains join river Ganga on its right bank and flow for approximately a distance of about 1 kilometre each. They carry a flow of nearly 15.6 MLD, 6.5 MLD and 11.7 MLD, respectively in Jajmau catchment. These drains carry highly polluted mixed effluents. Around 400 tannery units located in Jajmau cluster discharge their effluents into these three drains. The colour of the effluent before it joins river Ganga was found to be black. It will be appropriate to refer to the analysis reports which read as under:

(EFFLUENTS OF SHEETLABAZAR DRAIN)

1.	Charact-eristics	Colour	:	Black
		pH	:	8.09
		TSS	:	887
		TDS	:	6065
		Cl^-	:	35.5
		SO_4^{2-}	:	1198
		S	:	36.9
		P	:	8.95

		Nitrate as N	:	22.6
		Nitrite as N	:	BDL
		Am Nitrogen	:	232
		O&G	:	12.6
		BOD (mg/l)	:	35.5533
		COD (mg/l)	:	1649
2.	Heavy Metals	Arsenic (As) mg/l	:	BDL
		Cadmium (Cd) mg/l	:	BDL
		Total Chromium (Cr) mg/l	:	11.04
		Copper (Cu) mg/l	:	-
		Iron (Fe) mg/l	:	0.88
		Lead (Pb) mg/l	:	BDL
		Manganese (Mn) mg/l	:	0.22
		Nickel (Ni) mg/l	:	BDL
		Mercury (Hg) mg/l	:	
		Zinc (Zn) mg/l	:	0.28
		Antimony (Sb) mg/l	:	
		Cobalt (Co) mg/l	:	BDL
		Selenium (Se) mg/l	:	
		Vanadium (V) mg/l	:	
3.	DO (For Fresh water carrying drains/rivers)		:	NA
4.	For sewage, mixed Drains & River	TC (MPN/ 100 ml)	:	1.7×10^7
		FC (MPN/ 100 ml)	:	1.3×10^7

The Joint Inspection Team also noticed that these drains were carrying tannery effluent along with inseparable

sewage. Part of the effluent was being sent to CETP at Jajmau while surplus was being discharged in river Ganga without any treatment. The Committee further observed that treatment of the wastewater, which is being directly discharged into river Ganga, should be taken care of on an urgent basis.

The UPJN was not able to furnish the requisite data to the Tribunal and therefore, their Project Manager was directed to be present before the Tribunal. On 21st April, 2017, he appeared before the Tribunal and provided information to the Tribunal which was duly recorded. We may refer to the relevant part of the order dated 21st April, 2017:

> "It is submitted that, these three drains are highly polluting drains. They carry tannery effluent, sewage, other waste and pesticides as well. It is stated that there are nearly 13 unauthorised colonies and 18 slums located in the catchment area of these three drains. Total area is round about 13.5 Sq. Km. and distance between these three drains is maximum 4.5 Km. There is a population of more than 2 Lakhs and about 16 thousand sewer connections have been provided and nearly 25% of the area population remains unconnected to the sewer connection. Keeping in view the entire load of these drains in mind and the attendant circumstances according to the Nigam, all three drains should be tapped and the effluents pumped to the main CETP/Chromium Plant to be established at the Jajmau Plant area. He submits that end of the pipeline treatment may not be feasible, because there is no land available on the either side of the drains as they are densely populated.
>
> The Learned Counsel appearing for the

> Ministry of Water Resources upon instructions from the Director submits that they support the view taken by the Nigam and would prefer interception of these drains and pumping of the waste to the main treatment plant, to be established at Jajmau and end of the pipeline treatment may not be possible in relation to these three drains. Tapping has been provided in the channels and not on the main drain. So the drains carry their own effluent as well as there is overflow from the tapping provided through this channel. The Learned Counsel appearing for Uttar Pradesh Pollution Control Board stated that physically it is not possible to provide at the end of the pipeline treatment to Drain No. 26, 27 and 28, for the reasons already stated by the other stakeholders and these all need to be intercepted and taken to the main plant at Jajmau. There has to be a separate Chromium Recovery Plant and CETP capable of treating quality of effluent that is being generated in this area. It is also stated that drain should be blocked at the end of the pipe to ensure that even in the case of overflow etc. effluent does not enter into River Ganga normally.
>
> The Member Secretary, Pollution Control Board also supports this view subject to the main plant become fully operative."

From the information afore provided, it became evident that the end of the pipeline treatment of these three drains was not possible. Keeping in view the limitation afore stated, the scope and dimensions of the pollutants that are being generated in the catchment area of these three drains, it was suggested that these drains need to be tapped and finally taken to the CETP of an appropriate capacity and quality, and there has to be a separate

Chromium Recovery Plant.

We would be discussing the pollution load, treatment to be provided and the methodology to be adopted for preventing and controlling the pollution generated from these three drains as all of them are located in Jajmau. It will be more appropriate to discuss that aspect in relation to these drains as well as other drains in the part of the judgement that deals with Jajmau exclusively.

CITY JAIL DRAIN

93. The drain meets river Ganga downstream of Unnao, Kanpur. This drain meets with river Ganga on its left bank. All the stakeholders (MoEF&CC; MoWR; CPCB; UPPCB; UPJN and all other stakeholders) agree that the drain shown as City Jail drain is 30 Kilometres long and has discharge of 86 MLD as per the Joint Inspection Team. However, according to the UPJN within the municipal limits the discharge is 11.5 MLD. This drain carries industrial effluent of 47 tannery units and other units. The units have ETPs which are not at all operating satisfactorily. The parameters of Inlet samples are as follows:-

CETP AT BANTHAR

Sl. No.	Parameter	Value
1.	TDS	14,578 mg/l
2.	BOD	1,250 mg/l
3.	COD	2,231 mg/l
4.	Total Chromium	21.10 mg/l
5.	Oil & Grease	64.60 mg/l

CETP AT UNNAO

Sl. No.	Parameter	Value
1.	TDS	13,982 mg/l
2.	BOD	1,152 mg/l
3.	COD	1,962 mg/l
4.	Total Chromium	27.60 mg/l
5.	Oil & Grease	72.70 mg/l

It carries high pollutant such as chromium and pesticides etc. which are very injurious to the health of the river, environment and public health. The drain directly meets river Ganga and therefore, it is source of direct pollution.

It carries effluent from tannery, textile, edible oil, steel and chemical industries, slaughter houses, leather boards, etc. Its total load as per Joint Inspection Team near Unnao bypass, Atta village is 85.82 MLD while according to the UPJN it is 9.33 MLD. However, the said discharge does not meet river Ganga but is within the municipal limits. The data collected by UPJN is quite old and documentation in support thereof has not been produced before the Tribunal. Therefore, we will proceed with the data provided by the Joint Inspection Team as it is based on physical verification and has been collected by experts in the field. Thus, it would be safe to take the flow of the drain as 85.82 MLD. In the catchment area of this drain, Magarwara and Leather Technology Park Banthar and

CETP Banthar are located. The sample from the drain, collected at Unnao was found to be almost dark black/brown. After travelling along the drain for about 20-25 km, it was observed that the water quality of the drain improves. Thus, the major source of pollution of this drain is the industrial effluents from Banthar and domestic waste discharge from Magarwara. There are nearly 47 units at Banthar. Though, majority of them have their own ETPs but they are hardly performing. Some are members of the CETP itself, which is practically inoperative for all intents and purposes of controlling pollution. The Joint Inspection Team collected the samples of the effluents at the bypass of Unnao N.H. 25 and analysis reports paint a very grim picture, indicating very high pollutants, particularly, in relation to general parameters. The analysis reports of the effluents can be usefully reproduced hereunder:

(EFFLUENTS OF CITY JAIL DRAIN-GENERAL PARAMETERS)

Sl. No.	**Parameters**	**Results**	
1	Colour	:	-
2	pH	:	7.38
3	BOD (mg/l)	:	109
4	COD (mg/l)	:	441
5	TSS (mg/l)	:	277
6	TDS (mg/l)	:	5266
7	Cl- (mg/l)	:	1906
8	Sulphate		1260
9	Sulphide		16.3
10	Oil & Grease		12.4
11	NH_3-N (mg/l)	:	-
12	NO_3 - (mg/l)	:	-
13	DO (mg/l)*	:	-
14	TC (MPN/ 100	:	7,90,000

	ml)#		
15	FC (MPN/ 100 ml)#	:	4,90,000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed drains & river

(EFFLUENTS OF CITY JAIL DRAIN-TRACE METAL/HEAVY METAL)

Sl. No.	**Parameters**	**Results**	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	2.24
4	Copper (Cu) mg/l	:	-
5	Iron (Fe) mg/l	:	1.48
6	Lead (Pb) mg/l	:	BDL
7	Manganese (Mn) mg/l	:	0.52
8	Nickel (Ni) mg/l	:	0.02
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	3.02
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		-
14	Vanadium (V) mg/l		-

(EFFLUENTS OF CITY JAIL DRAIN-PESTICIDE)

Sl. No.	**Parameters**	**Results**	
1	Water temperature (°C)	:	Awaited
Pesticide Analysis report (OPPs)			
2	Monochrotophos		
3	Dimethoate (µg/l)	:	
4	Methyl Parathion (µg/l)	:	
5	Malathion (µg/l)	:	
6	Chloropyriphos (µg/l)	:	
7	Methyl Parathion	:	
8	Ethion (µg/l)	:	
Pesticide Analysis Report (OCPs)			
9	α-BHC	:	BDL
10	β-BHC	:	0.53
11	γ-BHC	:	BDL
12	δ-BHC	:	BDL
13	Total BHC (ng/l)	:	BDL
14	Aldrin (ng/l)	:	BDL
15	Diedrin (ng/l)	:	BDL
16	α-Endosulfan	:	BDL

17	Total Endosulfan (ng/l)	:	BDL
18	β-Endosulfan	:	BDL
19	OP'DDT	:	BDL
20	PP'DDT	:	BDL
21	PP'DDE	:	BDL
22	Total DDT (ng/l)	:	BDL

The suggestion of all the stakeholders along with the Association operating the CETP is that the said CETP should be upgraded in both terms of capacity and technology. It should be fully equipped to deal with various pollutants including the metals etc. Besides this, an STP of 12.5 MLD is proposed. This STP would treat the sewage coming from Magarwara. The STP is to be located at a distance of 17 kilometers away from the river. There is sufficient land available and there is no habitation in this stretch. Both the CETP and STP should operate effectively to prevent pollution of river Ganga. The industries located across the National Highway which are distillery, textile and tannery units should be directed to establish their own anti-pollution devices and the effluent discharged from these industries should not exceed the prescribed parameters. In the event of default, it is proposed that the industry should not be shut down but should be subjected to regular joint inspection as well as supervisory inspection by the UPPCB.

The matters in relation to grant of 'consent to operate' to these industries should be dealt with expeditiously, strictly incorporating the conditions for consent to operate. There

have been serious deficiencies in the implementation of the regulatory regime of all these industries which are highly polluting industries. The analyzed sample at the inlet of the CETP of 4.5 MLD afore-stated clearly show that all these industries are discharging effluents containing high pollutants in violation to the conditions stated in consent to operate.

The directions to be issued by the Tribunal in this case in relation to this drain have to be very specific, covering the concerned areas for controlling pollution. Therefore, we issue the following directions:

1. The existing CETP of 4.5 MLD should be upgraded in terms of capacity, design and quality so as to meet the prescribed parameters. The entire effluent from these industries, containing high pollutant load should be diverted to the CETP and treated to bring the effluents within the prescribed norms.

2. There should be construction of a Chromium Recovery Plant prior to the CETP, where the entire chromium should be recovered, recycled and sold for use to the tannery industries or in the market at large. There is no dispute that chromium has enough market, particularly in that area. The industries which are not complying with the prescribed parameters and/or do not become

members of the CETP shall be ordered to be shut down by the UPPCB.

3. The STP as proposed, of 12.5 MLD should be constructed and the entire sewage from that area, particularly, Magarwara and other places should be brought to the STP and treated. The treated sewage water should be recycled in industries such as industrial, agriculture, horticulture and other purposes in that area.

4. The Regulatory Regime and Supervisory control of UPPCB and other concerned authorities including the Association of CETP has failed to bring the desired results. The industries should be asked to bring their parameters within the prescribed limit as well as to ensure that chromium is sent to the Chromium Recovery Plant, prior to it being mixed with the sewage. In fact, the industrial effluent and the sewage are proposed to be dealt with separately which all the stakeholders, particularly, the executing agency should enforce without default.

5. Both CETP and STP should operate to their optimum capacity and effectively to prevent pollution of river Ganga.

6. The CETP and all the industries located in the catchment area of this drain should be subjected

to proper supervisory control by the UPPCB.

7. All the industries of any kind which are water polluting industries located in this area within the catchment area of this drain shall pay 25% of the total cost of up-gradation of CETP and construction of STP as afore-stated.
8. The Association running the CETP shall be responsible for proper O&M of the CETP. Every industry located in that area whose effluents are being sent to the CETP shall be member of the CETP association and would be liable to pay such monthly amount as may be determined by the State of UP in consultation with the Association of the CETP.
9. The CETP and all the industries located in the catchment area of this drain should be subjected to proper supervisory control by the UPPCB.
10. There shall be a separate chromium recovery plant before the CETP, the chromium so recovered shall be recycled and utilized for tannery purpose and/or sold in the open market. The industries which are not complying with the prescribed parameters and/or do not become members of the CETP shall be ordered to be shut down by the UPPCB.
11. If any development by a government agency or a

private stakeholder is undertaken at any point of time in future, the said development would not be permitted to be carried out unless and until the said development be it industrial or residential has first installed a STP/CETP as the case may be from that CETP/STP only treated effluent strictly as per prescribed norm should be recycled, reused for agriculture, horticulture purposes and the remnant of the treated discharge should alone be permitted to be put into the drain/river.

LONI DRAIN

94. This drain flows for a length of about 150 kilometers before it confluences with river Ganga at village Bhiti in District Raebareli. The drain carries mixed effluents with a load of 21.67 MLD as per the Joint Inspection Team. However, according to the UPJN, flow is 0.8 MLD within the municipal limits. Unquestionably, the remnant of the effluents comes to the drain at the end of the municipal limit or thereafter. But in any case, this data is quite old. The drain is polluted, however, towards the end where it meets river Ganga, water is little green in color. Industrial area site-I and II fall in the catchment area of this drain. This drain has tributaries that carry sewage. The proposal of the stakeholders as well as the industrial association is to upgrade the existing CETP of 2.15 MLD run by Unnao Tannery Association. This CETP is not working properly

and the effluent discharge is in violation of the prescribed norms. The Joint Inspection Team collected the samples of the drain from near Loni drain bridge and the pollutants were found to be as follows:

(EFFLUENTS OF LONI DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.4
3	BOD (mg/l)	:	736
4	COD (mg/l)	:	1439
5	TSS (mg/l)	:	5274
6	TDS (mg/l)	:	4466
7	Cl- (mg/l)	:	25.8
8	Sulphate		258
9	Sulphide		11
10	Oil & Grease		10.4
11	NH_3-N (mg/l)	:	-
12	NO_3 - (mg/l)	:	-
13	DO (mg/l)*	:	-
14	TC (MPN/ 100 ml)#	:	33,00,000
15	FC (MPN/ 100 ml)#	:	33,00,000

*For Fresh water carrying drains/ Rivers
#For sewage, mixed drains & river

Besides this, it contains chromium to the value of 0.2 mg/l, iron 0.58 mg/l, manganese 0.20 mg/l and zinc 1.24 mg/l. Having heard the stakeholders and the other industries as well, we direct as follows:

1. The existing CETP of 2.15 MLD run by Unnao Tannery Association shall be upgraded in terms of capacity, design and quality so as to conform to the prescribed parameters upon due study.
2. The tributaries of Loni drain that carry sewage would be intercepted and taken by gravity or by pumping to Jail drain where STP of 12 MLD and the STP capacity

of 12.5 MLD should be constructed taking into consideration the inflow after interception of tributaries of Loni drain.

3. Industrial effluents of Loni drain should be treated by upgrading the CETP.
4. All the industries, slaughter houses and tannery industries should become members of the CETP at Unnao to upgrade the CETP. It shall be operated effectively and it should be ensured that it brings the trade effluent parameters within the prescribed limits. All the industries located in the catchment area of Loni drain shall contribute 15% cost of the up-gradation of the CETP and would also pay monthly O&M charges to the CETP Association as may be determined by State of UP in consultation with UPPCB and the Unnao Tannery Association.
5. The interception of the drain should take place at the end of the Housing Board drain where it meets Loni drain.
6. There shall be a separate Chromium Recovery Plant before the CETP, the chromium so recovered shall be recycled and reutilized for tannery purpose and/or sold in the open market. The industries which are not complying with the prescribed parameters and/or do not become members of the CETP shall be ordered to be shut down by the UPPCB.

DRAINS JOINING RAMGANGA AND DIRECTIONS THEREOF

95. River Ramganga is one of the major tributaries of river Ganga. Unfortunately, it is also the highly polluted river. It has a length of 596 kilometers with total discharge flow of 728.13 MLD and BOD load of 41.12 TPD from 25 drains. The river is polluted by heavy discharge from sugar industries, distillery industries, pulp & paper industries, textile and dyeing industries etc. Strangely, another paramount source of pollution in river Ramganga is dumping of electroplating waste on its floodplains. It carries effluents beyond prescribed limit with regard to BOD, COD, TDS, metals like Copper, Cadmium, Zinc, Nickel, Lead and also contains extremely high Faecal Coliform. The total Faecal Coliform in drains is in range like $35x10^8$ MPN/100 ml and in the river it ranges from 24,000 to 35,000 MPN/100 ml. The pollution in river Ramganga had been a matter of concern before the Tribunal on different occasions. When the matter came up for hearing on 9th May, 2017, the Tribunal passed the following order:

> "All the stakeholders have made a common suggestion to be implemented for preventing and controlling of pollution and rejuvenation of River Ram Ganga which is a major tributary of River Ganga. There are 25 drains as per the Joint Inspection Team, of these 19 drains come from different parts of the city of Moradabad, particularly from Zone-1 and Zone-2 of Moradabad. It is stated that the collective discharge of all these drains is

148.09 MLD as per joint inspection report, however as the report of the Uttar Pradesh Jal Nigam it is 52.45 MLD, measured in the year 2011 as opposed to the measurement of the Joint Inspection Team in November, 2016. Most of these drains carry mixed effluent, they contain majorly sewage, treated effluent, consisting of various chemicals and metals including Arsenic, Iron, Copper, Lead, Mercury, Nickel, Cadmium, Aluminium and other pesticides etc. The Uttar Pradesh Jal Nigam had proposed two STPs of 25 MLD and 58 MLD for Zone-2 and Zone-1 respectively. It is surprising that the STP have been designed which are incapable of even treating coliform which is running in Crores against the value of 235. In our opinion, this is wastage of public money and it has been designed and approved even by the Ministry of Water Resources without any proper application of mind.

It is proposed that all these drains may be tapped and their discharge be collectively taken through a common pipeline to the respective STPs, one near Prabhat Market of 58 MLD while other near Moksha Dham, where besides construction of the proper STPs with specification which are capable of treating the waste and sewage, chemical pre-treatment should be provided before the effluent can be permitted to be the processed at the STP. Once pre-chemical treatment is given which will remove metal and other chemical pollutants then the sewage for the purposes of treatment of BOD, COD, TSS and Coliform can be sent to the respective STPs. The existing STP is stated to have been constructed, therefore, it would require upgradation, even without having operation for a single day, for treatment of Coliform. This reflects inefficiency on the part of the concerned stakeholders.

It is vehemently argued by Mr. M.C. Mehta and all the Learned counsel appearing for their respective respondents that there are large number of metal, electroplating and pickling industries which are operating in Zone-1

and Zone-2 of Moradabad city. These industries are discharging untreated effluent, which is even toxic, into the drain which joins Ram Ganga, ultimately through these 19 drains. According to the Learned counsel appearing for the Uttar Pradesh Pollution Control Board, there are numerous industries which are illegally operating without consent of the Board even in the residential areas, causing environment and public health issues. According to him, they have no support from other organs of the State to enforce their directions for closer of these industries. In fact according to him, it has become even difficult to regulate the industries operating in this area which has not obtained consent of the Board and are operating in violation thereof and causing pollution. It is stated by the Member Secretary, Uttar Pradesh Pollution Control Board that they are unable to execute the directions and in fact find themselves helpless as there is least cooperation from the Administration and from the police departments.

In light of the above and in the interest of justice, further steps for controlling and preventing pollution of these drains, consequently Ram Ganga and finally River Ganga, are required to be taken and accordingly following directions are issued:-

1. We direct that all the industries operating without consent of the Board or without permission of the Competent Authority or in the residential areas or does not have any ETP, shall be closed forthwith in Zone-1 and Zone-2 of district Moradabad, i.e. the catchment area of these 19 drains.
2. The District Magistrate and SSP, Moradabad are hereby directed to provide all assistance and police protection for execution of this order. The primary responsibility of closing of these industries would be that of Uttar Pradesh Pollution Control Board, but they shall immediately be provided with all the administrative assistance, infrastructure and police

force to ensure closure of the industries.

3. The Learned counsel appearing for the Uttar Pradesh Jal Nigam submits that they have paid 2.99 Crores to railways for laying down pipelines and the railways has not taken any action which is resulting in delay for completion of project for interception and fixation of pipeline at intercepting point in these 19 drains. He also submits that PWD is not granting permission. Let the General Manager, Northern Railways and the concerned Chief Engineer of the PWD be present before the Tribunal day after. The Pollution Control Board and Uttar Pradesh Jal Nigam shall inform the respective authorities of today's order.
4. The Electricity Authority/Board and the Corporation of Muradabad are directed to fully cooperate with the Uttar Pradesh Jal Nigam and the Pollution Control Board for compliance of this direction. No work contrary to the order of the Tribunal shall be executed by any authority.
5. Mr. Sarvan Gupta and Mr. Amit Kumar accompanied by Senior Scientist of Central Pollution Control Board and UP pollution control Board shall inspect the site of newly constructed STP and operate it tomorrow to analyse the trade effluent. Report be submitted before the Tribunal on the next date of hearing. 6. If the STP is not in operation, this team shall submit complete and comprehensive report as to why the STP is not operative despite the fact that it had been constructed in 2015; its designed efficiency in terms of BOD, coliform etc. and whether all the functional units as per the approved design have been provided."

In furtherance to above order, a report was submitted which stated that the STP was non-operational. However, facility of using chlorine gas through chlorinators is

available. The chlorine is expected to reduce the Faecal Coliform to 100 MPN/100ml. It was noticed that there is no sewage inflow in the STP. The Civil work, electric work and piping work, etc. had been done. However, some of the components still remain to be installed. The reasons for no inflow of sewage were that the work of laying down of sewer line to the main pumping station (MPS) had not been completed as it was to undergo through the railway line and MPS is to pass through the road for which cutting permission was required. In this regard, it also may be noticed that the Tribunal had even passed directions and the railway authority has been directed to provide permission for taking the pipeline across the railway track. From the report it is evident that the STP is not functioning satisfactorily and effectively. We have already noticed that there are 25 drains joining river Ramganga, which bring different kind of pollutants into the river. Thus, it will be useful to deal with each of the drains separately, as has also been suggested by different stakeholders.

NOHRA DRAIN

96. After flowing for approximately 3 kilometers, it confluences with river Ramganga on its left bank carrying flow of approximately 15 MLD. This drain carries mixed effluents much of it comprising of domestic waste and sewage. Dhampur and Bijnor are located in the catchment areas of

this drain. The sample was taken and the drain effluent was analyzed in which and the analysis report showed the following results:

(EFFLUENTS OF NOHRA DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.67
3	BOD (mg/l)	:	3
4	COD (mg/l)	:	19
5	TSS (mg/l)	:	14
6	TDS (mg/l)	:	180
7	Cl- (mg/l)	:	23
8	NH_3-N (mg/l)	:	NT
9	NO_3 - (mg/l)	:	0.55
10	DO(mg/l)*	:	---
11	TC(MPN/100 ml)#	:	$13x10^3$
12	FC(MPN/100 ml)#	:	$33x10^2$

*For Fresh water carrying drains/ Rivers
#For sewage, mixed drains & river

These metals and pesticides were found to be either below detectable limit or within the prescribed permissible limit. This drain is not proposed to be intercepted as per the stakeholders. It is suggested that STP of 5 MLD capacity should be set up at outskirts of Sheohara town to ensure that domestic waste and sewage is properly treated before it meets the drain. It is stated that this drain should be provided with a filter system at its end and ensure that the solid waste does not enter the river by putting up screen traps. No other treatment is stated to be required as the BOD is low. The two industries, namely, the distillery industry and the sugar industries located in the catchment area of this drain should strictly adhere to the prescribed

norms. They should be directed to put up proper ETPs which should function regularly and effectively. In the event of default, the industry should be ordered to be closed down. Therefore, we direct as under:

1. An STP of 5 MLD should be constructed at the outskirts of Sheohara town and the entire sewage should be treated before it meets Nohra drain.
2. There shall be installed filter system at the end of the drain nearly, 200 meters away from the river to ensure that no waste of any kind enters the river by putting screen traps or otherwise.

The distillery and sugar industries located in the catchment area of this drain should be required to put up their own ETP and install all necessary anti-pollution devices. They should strictly ensure that effluents in drain are within the prescribed parameters. Further they are directed to recycle and reuse their treated water. The industries should be inspected by the Joint Inspection Team of the UPPCB and appropriate conditions in the consent to operate should be imposed upon them. In the event of default or discharging effluents beyond the prescribed limit, they should be ordered to be shutdown.

RAMPUR DRAIN

97. This drain travel for 30 kilometers before it meets river Kosi and ultimately river Ramganga, which is a major tributary of river Ganga. It is stated to have a flow of 34.31

MLD. It contains mixed discharge primarily domestic waste and sewage. The effluent was subjected to analysis by the Joint Inspection Team and the results are stated to be as follows:

(EFFLUENTS OF RAMPUR DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.51
3	BOD (mg/l)	:	58
4	COD (mg/l)	:	201
5	TSS (mg/l)	:	43
6	TDS (mg/l)	:	876
7	Cl- (mg/l)	:	169
8	NH_3-N (mg/l)	:	34
9	NO_3 - (mg/l)	:	7.97
10	DO(mg/l)	:	-
11	TC(MPN/100 ml)#	:	$16x10^5$
12	FC(MPN/100 ml)#	:	$92x10^4$

*For Fresh water carrying drains/ rivers
#For sewage, mixed drains & river

The metals are also found but below detectable limit or within permissible limit. Rampur city is in the catchment area of this drain. The present population of this area is stated to be around 4 lakh. Two STPs of 15 MLD and 14 MLD, respectively, have been constructed in Zone-I and II of the city. They were constructed more than two years back and are not efficient, as they cannot treat Faecal Coliform. They also do not receive required quantity of sewage for treatment as houses have not been provided with the connections to the main sewer line. There is a proposal for connecting the households to the sewer line and ultimately bringing the waste to the STPs. It is stated

that Zone III and IV of the city contributes mixed waste into the drain.

There are five major industries in the catchment area of this drain, Rampur Distillery which is in operation, discharging effluent contains pollutants. The sugar mill and the meat processing plant are closed. The mechanical slaughter house are also closed. The metal surface finish industry is in operation and has 2 KLD discharge which contains pollutants. Three industries, i.e., sugar mills, slaughter house and meat processing unit should remain closed and should not be permitted to open without specific orders of the Tribunal. They should be directed to comply with stringent conditions of prevention and control of pollution before they are permitted to restart their operations. The two industries, viz. Rampur Distillery and the Metal surface finish industry should be put under strict supervision of the UPPCB and the Joint Inspection Team. The distillery industry should be required to be ZLD and none of them should be permitted to discharge trade effluents in excess of the prescribed parameters. The UPJN should be permitted to upgrade capacity and technology of two STPs only after the houses in the city are connected to the sewer line. It is suggested that an STP should be put at the end of the pipeline that is the point where Rampur drain joins river Kosi, which ultimately joins river Ramganga. The distance between the point of joining of the

drain with Ramganga and the point where drain does not join river Kosi is nearly 3.17 kilometres having sufficient land available there. Therefore, an STP of atleast 16 MLD should be put at the said point to ensure that no untreated sewage or polluted water enters river Kosi and consequently, river Ramganga. The STPs of 15 MLD and 14 MLD in Zone 1 and 2, respectively, as and when operated, the treated water should be recycled for use in agricultural activity or for any other industrial purposes as per the demand in the area.

The construction of 16 MLD STP at the end of the pipeline was acceptable to all the stakeholders. In fact, all the stakeholders have made common submission as afore-recorded. Once the 3 STPs, 2 nearly completed and one to be constructed, becomes operative, no untreated sewage or domestic effluent would be permitted to enter river Kosi and therefore, it would not adversely affect the pollution levels of the drain and consequently river Kosi. Having considered all concerned aspects of environment, we find that the proposal jointly made by stakeholders as afore-recorded should be implemented with utmost expeditiousness. We specifically direct the State of UP and the UPJN that the sewer connections to households should be connected with the main sewer line. This should be taken with utmost priority. Due to non-connections with sewer line, the requisite quantum of sewage is not reaching

the STPs already constructed. This would tantamount to tremendous wastage of public money and assets if these STPs are not made operational immediately. They are presently not treating the sewage and therefore even causing pollution. The concerned stakeholders, therefore, must take appropriate steps without unnecessary delay.

KARULA DRAIN

98. This drain flows for nearly 25 kilometers before it confluences with river Ramganga at its left bank. Its catchment falls in the city of Moradabad. It carries a flow of 57.12 MLD according to the Joint Inspection Team while according to UPJN carries flow of 26.11 MLD within municipal limits which means remnant part of the effluent joins it at or after the municipal limit and before it meets the river Ramganga. The data provided by UPJN was collected in the year 2015. There is open land available where presently there is no habitation. This drain carries mixed effluents but it is primarily domestic/sewage effluent. The effluent of the drain was subjected to analysis by the Joint Inspection Team and the results are as follows:

(EFFLUENTS OF KARULA DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1	Colour	:	-
2	pH	:	7.34
3	BOD (mg/l)	:	44
4	COD (mg/l)	:	128
5	TSS (mg/l)	:	67
6	TDS (mg/l)	:	548

7	Cl- (mg/l)	:	123
8	NH_3-N (mg/l)	:	38
9	NO_3 - (mg/l)	:	2.76
10	DO(mg/l)	:	-
11	TC(MPN/100 ml)#	:	$35x10^8$
12	FC(MPN/100 ml)#	:	$24x10^7$

*For Fresh water carrying drains/ rivers
#For sewage, mixed drains & river

(EFFLUENTS OF KARULA DRAIN-TRACE METAL/HEAVY METAL)

Sl. No.	Parameters	Results	
1	Arsenic (As) mg/l	:	BDL
2	Cadmium (Cd) mg/l	:	BDL
3	Total Chromium (Cr) mg/l	:	0.02
4	Copper (Cu) mg/l	:	0.04
5	Iron (Fe) mg/l	:	2.41
6	Lead (Pb) mg/l	:	BDL
7	Manganese (Mn) mg/l	:	0.41
8	Nickel (Ni) mg/l	:	0.07
9	Mercury (Hg) mg/l	:	-
10	Zinc (Zn) mg/l	:	0.11
11	Antimony (Sb) mg/l	:	-
12	Cobalt (Co) mg/l	:	BDL
13	Selenium (Se) mg/l		BDL
14	Vanadium (V) mg/l		BDL

It is suggested that an STP of nearly 35 MLD just beyond a kilometre away from the confluence point should be constructed. The treated discharge should be reutilised for the agricultural purposes or may be released in the river only if it meets the prescribed standards. Only the remnant should be used for discharge into the river provided it meets the prescribed norms.

Within the floodplain of the river, no development should be permitted. When the treated water is recycled for agricultural and other purposes, it will consequently reduce the dependency of the farmers and even the

industries on use of water by extraction of groundwater.

There are two major industries (East Coast industry and Raisin Exports) in the catchment area of this drain. Both these industries have been closed under the orders of the Pollution Control Board for various violations and for causing pollution. These industries would not be permitted to restart their operations without specific orders of the Tribunal. No industry should be permitted to start its operation in the catchment area of the drain till the time it either becomes a ZLD unit or recycles its entire treated discharge for agriculture, horticulture and its own industrial purposes. The recycling or use of same water for agriculture, horticulture purposes should be permitted only when the effluent is within the parameters, which are permissible for discharge on land, etc. The UPPCB and CPCB shall adhere to this direction.

Finally, it needs to be stated, before finalizing the design and technology of the 35 MLD STP which is to be installed and constructed, the concerned stakeholders, particularly the UPJN and UPPCB, are to jointly examine if it will be more appropriate to establish Oxidation pond and tertiary treatment in place of an STP. It must be specifically examined keeping in view, that the effluent contains tremendous level of Faecal Coliform, which is in crores MPN/100ml and even the BOD is 44mg/l in violation of the proposed standards of 10 mg/l at the end of the drain.

This decision should be taken expeditiously. The Tribunal upon due examination, approves the common suggestions of the stakeholders and directs that preferably the STP should be established considering the high content of faecal coliform and BOD in the effluents. In the event, the UPJN and UPPCB are of the contrary view, they will move the Tribunal within four weeks from the date of pronouncement of the order seeking its direction to establish Oxidation pond and tertiary treatment in preference to an STP.

NAWABPURA DRAIN 1, NAWABPURA DRAIN 2, VIVEKANAND HOSPITAL-LEFT, MORADABAD, VIVEKANAND HOPSITAL-RIGHT, MIT DRAIN, MOKSH DHAM DRAIN, TDI CITY DRAIN, CHAKKAR KI MILAK, JIGAR COLONY, KATGHAR RAILWAY STATION DRAIN, BARBALAN DRAIN, KUDAGHAR DRAIN, JAMA MASJID (LEFT) DRAIN, JAMA MASJID (RIGHT) DRAIN, GHOSIYAN DRAIN, JHABBU KA NALLAH, LALBAGH DRAIN, DATERIA/DAHERIA DRAIN AND PRABHAT NAGAR DRAIN:

99. The common proposal of the UPJN in relation to all the above drains is that all these drains except Katghar Railway Station Drain, Barbalan Drain and Prabhat Nagar Drain carry mixed effluents (electroplating waste) but primarily domestic and sewage effluents. All these drains require interception while Nawabpura Drain 1 and 2 are required to be tapped. In relation to all these drains, the STPs of various capacities are already under construction. One STP of 58 MLD is under construction and 95 % of the construction work has already been completed. Another

STP of 25 MLD is proposed. Once the tapping and interception of these drains is completed and their effluents are taken to the constructed/proposed STP, then all the above drains would not release any pollutants into river Ramganga and finally into river Ganga.

In the order dated 9th May, 2017, it was specifically recorded as the common submission of the stakeholders that drains may be tapped and their waste be collectively taken through a common pipeline to the STPs, one near Prabhat market of 58 MLD under construction while the other at Moksh Dham drain. The STPs should be capable of treating the waste and sewage, if necessary, chemical treatment should be provided before the effluent is processed at the STP. The pre-chemical treatment will remove metal and other chemical pollutants then the sewage, domestic waste for the purpose of treatment of BOD, COD, TSS and the faecal coliform would go to the respective STPs. The STP under construction does not require any up-gradation.

The applicant Mr. M.C. Mehta and UPJN had raised other issues of environmental concerns. It has been stated that there are a large number of metal, electroplating and pickling industries which are operating in Zone-1 and Zone-2 of Moradabad city. These industries are discharging untreated toxic effluent, into the drain which joins river Ramganga, through these 19 drains. On behalf

of the UPJN, it was stated that the entire project is not progressing effectively because the General Manager (Northern Railways) had not granted permission for taking the pipeline under railway track for which they had already paid ₹ 2.99 crores to the Railways for laying down pipelines. We have already reproduced the order where appropriate directions were issued to the concerned authorities and they had agreed to grant the permission. The industries which were operating without consent of the State Board in Zone 1 and 2 and were discharging toxic material into the drains were ordered to be shut down.

In light of the above discussion, in addition to the directions already passed *vide* our order dated 9th May, 2017 and other orders which are reiterated herein, we also direct and approve project put forward by UPJN in relation to tapping and interception of all the above drains and taking their effluents to the specified STPs. However, they would be provided with due mechanism and anti-pollution devices for providing pre-chemical treatment of the effluent before it is taken to the STPs. We further make it clear that the industries which are operating without obtaining consent of the State Board and are water polluting industries discharging their effluent in all these drains shall be closed by the UPPCB without further delay. The administration and the police shall provide due co-operation and assistance to the UPPCB to implement this

direction.

DEVRANIYA DRAIN (RIVER)

100. Devraniya drain (River) flows for approximately 130 kilometres before it confluences with Ramganga, nearly, 0.5 kilometres away from Bareilly city at Virya Narainpur village on the left bank of the river. As per the report of the Joint Inspection Team it carries mixed waste primarily domestic and sewage from number of colonies that are in the catchment area of this drain. In terms of the Joint Inspection Report it carries a load of 287.44 MLD while according to the UPJN it is 15.678 MLD but again it is within the municipal limit and the measurement has been taken quite some time back. As of present without any treatment, this drain meets river Ramganga with all its pollutants. In terms of the Joint Inspection Report the effluent of the drain was analysed and following are the results of the analysis:

1.	Charact-eristics	Colour	:	-
		pH	:	6.99
		BOD (mg/l)	:	40.2
		COD (mg/l)	:	169
		TSS	:	104
		TDS	:	393
		$PO4^{3-}$	:	1.13
		Cl^{-}	:	28.2
		NH_3-N	:	8.38
		NO_3^{-}	:	0.6
2.	Heavy Metals	Arsenic (As) mg/l	:	-
		Cadmium (Cd) mg/l	:	BDL
		Total Chromium (Cr) mg/l	:	0.034
		Copper	:	0.008

		(Cu) mg/l		
		Iron (Fe) mg/l	:	
		Lead (Pb) mg/l	:	
		Manganese (Mn) mg/l	:	0.0086
		Nickel (Ni) mg/l	:	-
		Mercury (Hg) mg/l	:	-
		Zinc (Zn) mg/l	:	0.058
		Antimony (Sb) mg/l	:	-
		Cobalt (Co) mg/l	:	BDL
		Selenium (Se) mg/l	:	-
		Vanadium (V) mg/l	:	-
	For Fresh water carrying drains/ Rivers	DO	:	-
	For sewage, mixed Drains & River	TC (MPN/ 100 ml)	:	2,20,00,000
		FC (MPN/ 100 ml)	:	1,70,00,000

From the above analysis report, it is clear that the drain carries heavy discharge, which should necessarily be treated before the drain meets river Ramganga.

There are two industries M/s. Camphor and Allied Industry and M/s. B.L. Agro Oils Ltd. located in the catchment area of this drain. However, they are stated to be compliant and non-polluting and operating with the valid consent of the UPPCB. We hereby direct that, both these industries shall be subject to complete,

comprehensive and strict inspection by the Joint Inspection Team of CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN. This inspection team shall inspect these industries and issue directions for strict compliance to ensure that the effluent from these industries is completely recycled and if not, the effluent discharged complies strictly with the prescribed parameters without default. In the event, if they violate any of the conditions imposed by the Joint Inspection Team, these industries would be liable to be shutdown. The suggestion of the stakeholders is that the STP should be established at the end of the pipeline, where land is available, i.e. 1 kilometre before the point of confluence of the drain with river Ramganga. Technology should be finalized after collection of proper data. The Joint Inspection Team of CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN shall satisfy themselves as to the exact flow of the drain at that point. They should also consider if there should be a mechanical STP with UV technology or oxidation ponds should be constructed for removing all the effluents from the drain. This decision shall be taken within four weeks from the pronouncement of this order and approved project shall be executed appropriately, thereafter. We are giving this direction primarily to be doubly assured that no mistakes like the past are repeated and STP established is of appropriate

capacity, performs satisfactorily. The STP shall be provided with continuous and regular source of energy to ensure that the plant operates round the clock. We approve the above suggestions and issue above directions, accordingly.

CHAWARI (CHAUBARI) DRAIN

101. Chawari (Chaubari) drain travels approximately 20 kilometres before it joins river Ramganga on its left bank at Gomidpur village. The drain carries domestic/sewage and has a flow of 18.82 MLD, while according to the UPJN the flow is 1.38 MLD. The effluent of this drain was taken by the Joint Inspection Team and upon analysis it showed the following results:

1.	Charact-eristics	Colour	:	-
		pH	:	7.31
		BOD (mg/l)	:	25.8
		COD (mg/l)	:	72.5
		TSS	:	17.3
		TDS	:	710
		$PO4^{3-}$	:	2.94
		Cl^{-}	:	43.7
		NH_3-N	:	21
		NO_3^{-}	:	0.2
2.	Heavy Metals	Arsenic (As) mg/l	:	-
		Cadmium (Cd) mg/l	:	BDL
		Total Chromium (Cr) mg/l	:	BDL
		Copper (Cu) mg/l	:	BDL
		Iron (Fe) mg/l	:	-
		Lead (Pb) mg/l	:	-
		Manganese (Mn) mg/l	:	0.252
		Nickel (Ni)	:	-

		mg/l		
		Mercury (Hg) mg/l	:	-
		Zinc (Zn) mg/l	:	0.054
		Antimony (Sb) mg/l	:	-
		Cobalt (Co) mg/l	:	0.030
		Selenium (Se) mg/l	:	-
		Vanadium (V) mg/l	:	-
	For Fresh water carrying drains/ Rivers	DO	:	-
	For sewage, mixed Drains & River	TC (MPN/ 100 ml)	:	4,90,000
		FC (MPN/ 100 ml)	:	4,90,000

As is evident, this drain does not carry pollutants like TC and FC. All the stakeholders and the parties appearing commonly agreed that appropriate remedy, i.e., an STP or proper mechanism at the end of the pipeline would be provided. It would be better to provide UV technology and/or Oxidation pond in place of mechanical STP constructed on the wetland. This would be economically more sound and would environmentally protect the river. It will be much more expensive to lay down the pipeline and inspect the drain and construct an STP closer to the river. However, the technology or the STP as the case may be should preferably be 1 kilometre away from the bank of the river as far as possible. It is not disputed before us

that the land is available for that purpose. We direct the Joint Inspection Team of CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN to finalize the technology, keeping in view the load and content of the drain. The capacity should be demonstrated upon due verification. We pass this direction so that no further errors are committed in this behalf. The exercise should be completed within four weeks from the date of pronouncement of this judgement and the work should start immediately, thereafter.

NAKATIYA DRAIN

102. After covering a long distance of 100 kilometres, this drain joins River Ramganga on its left bank and its confluence point is 59 kilometres from Ramganga to Bareilly. Its flow is 170 MLD, however, according to the UPJN it is 10.4 MLD. The data has been collected from the drains joining Nakatiya drain and not of the main drain itself or anywhere near the end of the drain. The Joint Inspection Team collected samples from drain and upon analysis it showed the following values which are higher than the prescribed values.

1.	Charact-eristics	Colour	:	-
		pH	:	7.24
		BOD (mg/l)	:	24.2
		COD (mg/l)	:	56.6
		TSS	:	27.6
		TDS	:	440
		$PO4^{3-}$	:	1.58
		Cl^{-}	:	46.4
		NH_3-N	:	15.4
		NO_3^{-}	:	0.4

2.	Heavy Metals	Arsenic (As) mg/l	:	-
		Cadmium (Cd) mg/l	:	BDL
		Total Chromium (Cr) mg/l	:	BDL
		Copper (Cu) mg/l	:	0.002
		Iron (Fe) mg/l	:	-
		Lead (Pb) mg/l	:	-
		Manganese (Mn) mg/l	:	0.21
		Nickel (Ni) mg/l	:	-
		Mercury (Hg) mg/l	:	-
		Zinc (Zn) mg/l	:	0.080
		Antimony (Sb) mg/l	:	-
		Cobalt (Co) mg/l	:	BDL
		Selenium (Se) mg/l	:	-
		Vanadium (V) mg/l	:	-
3.	DO (For Fresh water Carrying drains/rivers.			:
4.	For sewage, mixed Drains & River	TC (MPN/ 100 ml)	:	17,00,000
		FC (MPN/ 100 ml)	:	17,00,000

The UPJN had proposed above that like the other two drains four mechanical STPs of 165 MLD to be constructed. There are 13 drains within the municipal limits which meet Nakatiya drain. The proposal of UPJN is neither technically sound nor economically viable. Firstly, the proposal is without collection of any appropriate data

in relation to the alleged 13 drains which joins Nakatiya drain. Secondly, their content values have not even been assessed. The STP is proposed at Jagatpur Nallah which is in the heart of the city where nearly four major drains join Nakatiya drain. Even the treated water from the STP would again be put into the same drain and would get polluted before it covers the distance of nearly 9 to 10 kilometres. It is economically not viable as four STPs would have to be established at a very high cost and still they would not produce the required result of treating the effluents of the Nallah before it meets river Ramganga. From satellite imagery, the confluence point of Nallah is still 10 kilometres.

The suggestion of all the other stakeholders together is more appropriate and acceptable. The suggestion is that as the land is available near 1 kilometre from the confluence point, the STP may be established to treat the effluent and sewage appropriately. We direct the Committee of the CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN to examine and decide on the appropriate technology that should treat 170 MLD of effluent, i.e., UV system and/or Oxidation ponds in place of mechanical STP, which would be more economically viable and environmentally better result oriented. There are agricultural lands around the proposed site, thus, the discharge from the STP should be utilized for irrigation purposes and least water should

be released into the river. In the catchment area of the Nakatiya drain there are two major industries; one is the paper mill by the name of M/s. Rama Shyama Papers Pvt. Ltd. in regard to which the Tribunal has already passed appropriate orders that the industry should strictly comply with orders, failing which the industry would be liable to be shutdown. Other industry is M/s. Mariya Agro & Forzen Foods Pvt. Ltd., which is dealing with slaughterhouse. It was also stated that it is a complying industry. This industry shall be subject to a joint inspection by the representatives of CPCB, MoEF&CC, MoWR, UPPCB and UPJN. That committee will issue appropriate directions, if needed, further to ensure that this industry does not cause pollution. If the directions are issued and if the industries are not compliant, then the said industries would be liable to be shutdown without further notice. Thus, we issue the above directions in relation to this drain.

DRAINS JOINING RIVER PANDU AND DIRECTIONS THEREOF

GANDA NALLAH, COD NALLAH AND HALWA KHANDA NALLAH (KANPUR)

103. These three drains are located at some distance from each other, however, on the same side. As of present, all these three drains directly join river Pandu, Kanpur. The three drains have a length of approximately 13.50 kilometres, 6.2 kilometres and 6.7 kilometres, respectively. Ganda

Nallah and Halwa Khanda Nallah carry domestic waste and sewage, while the COD Nallah carries mixed waste. According to the Joint Inspection Team, Ganda Nallah which is a major drain, has a flow of 210.5 MLD. With 0.65 factor for averaging of surface velocity and drain cross section profile, the flow is 136.81 MLD. The flow of COD Nallah is stated to be 78.62 MLD and of Halwa Khanda Nallah is 40.49 MLD. According to the UPJN, the flow of these three drains is 55.08 MLD, 8.81 MLD and 11.44 MLD, respectively. The data submitted by UPJN is not sound for various reasons that we have noticed under different heads. Conclusively, we would prefer to be guided by the data given by the Joint Inspection Team. The effluent samples were collected from the three drains and their analyses reports read as under:

(EFFLUENTS OF GANDA NALLAH DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.17
3.	BOD (mg/l)	:	66.6
4.	COD (mg/l)	:	203
5.	TSS (mg/l)	:	105
6.	TDS (mg/l)	:	774
7.	CL^- (mg/l)	:	117
8.	NH_3-N (mg/l)	:	55.2
9.	NO_3^-(mg/l)	:	2.87
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	54000000
12.	FC (MPN/100 ml)#	:	35000000

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF GANDA NALLAH DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results

1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	0.04
4.	Copper (Cu) mg/l	:	-
5.	Iron (Fe) mg/l	:	1.64
6.	Lead (Pb) mg/l	:	0.02
7.	Manganese (Mn) mg/l	:	0.12
8.	Nickel (Ni) mg/l	:	0.02
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.40
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

(EFFLUENTS OF COD NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters		Results
1.	Colour	:	-
2.	pH	:	7.47
3.	BOD (mg/l)	:	54.6
4.	COD (mg/l)	:	145
5.	TSS (mg/l)	:	73.5
6.	TDS (mg/l)	:	787
7.	CL^- (mg/l)	:	105
8.	NH_3-N (mg/l)	:	48.9
9.	NO_3^-(mg/l)	:	2.59
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	2200000
12.	FC (MPN/100 ml)#	:	490000

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF COD NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters		Results
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	0.04
4.	Copper (Cu) mg/l	:	-
5.	Iron (Fe) mg/l	:	0.84
6.	Lead (Pb) mg/l	:	BDL
7.	Manganese (Mn) mg/l	:	0.14
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-

10.	Zinc (Zn) mg/l	:	0.22
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

(EFFLUENTS OF HALWA KHANDA NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.23
3.	BOD (mg/l)	:	82.0
4.	COD (mg/l)	:	206
5.	TSS (mg/l)	:	88.9
6.	TDS (mg/l)	:	729
7.	CL^- (mg/l)	:	99.0
8.	NH_3-N (mg/l)	:	50.6
9.	NO_3^-(mg/l)	:	2.0
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	1,70,00,000
12.	FC (MPN/100 ml)#	:	33,00,000

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

(EFFLUENTS OF HALWA KHANDA NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	-
5.	Iron (Fe) mg/l	:	1.22
6.	Lead (Pb) mg/l	:	BDL
7.	Manganese (Mn) mg/l	:	0.18
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	2.18
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

It is agreed between all the stakeholders including UPJN

that there is already a constructed STP of 210 MLD at Bingawan, which is capable of treating all the three drains but is presently working much below its capacity. Therefore, the proposal is that all three drains should be tapped at the identified points i.e. Ganda Nallah near Tatya Tope Nagar boundary, Halwa Khanda Nallah nearly 500 meters away from the point it joins river Pandu and COD Nallah 200 meters away from the point it joins river Pandu near Hamirpur Road. Upon tapping and by gravity, the sewage of all these three drains should be brought to the STP at Bingawan through the drains. The tapping should be properly strengthened so that there is no possibility of any over flow from the tapping point into the drains leading to river Pandu. Water from the STP at Bingawan should be recycled for agricultural purposes and only the remnant of the treated water should be released into river Pandu.

The Cantonment authorities are hereby directed to lay down a proper sewer line and bring the sewage of cantonment area of Kanpur which is in the catchment area of the COD Nallah to the STP at Bingawan for treatment.

The existing ETP of the Ordinance Factory should be upgraded in terms of both capacity and technology, so as to ensure that no effluent in excess of the prescribed parameters enters the drain. After treatment, the discharge from the ordinance factory could either be put

into the COD Nallah or in the sewer line that would be constructed by the Cantonment authorities. The Ordinance Factory shall be inspected by the Joint Inspection Team and appropriate directions shall be issued within four weeks from the passing of this judgement to ensure that the effluent discharged does not exceed the prescribed parameters, under any circumstances. Thus, we pass the above directions for compliance.

If there is any industry or stakeholder operating in the catchment area of COD Nallah, the same shall be subject to an inspection by the Joint Inspection Team which shall issue appropriate directions for compliance so as to ensure that the unit is compliant and non-polluting. In the event of default, the industry or stakeholder shall be liable to be shutdown.

PANKI NALLAH (PANKI THERMAL POWER PLANT DRAIN) AND ICI NALLAH

104. Panki Nallah (also called as Panki Thermal Power Plant drain) and ICI Nallah, after flowing for nearly 1.6 kilometres and 1 kilometre, respectively, join the left bank of river Pandu. As per the stakeholders as well as the Joint Inspection Team these drains carry mixed effluent from sewage, domestic waste and trade effluent, carrying a flow of 74.17 MLD and 19.44 MLD, respectively. While according to UPJN they carry a load of 30 MLD and 40 MLD, respectively. The data of the UPJN is old, not

founded on authentic documentation as it finds effluents within municipal limits, therefore, it cannot be taken as definitive data. The data provided by the Joint Inspection Team is more reliable. The Kanpur city and particularly the Thermal Power Plant and New Transport Nagar are within the catchment area of Panki Nallah. The Joint Inspection Team had taken effluents of this drain and the analysis of the samples reflects the following results:

(EFFLUENTS OF PANKI NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.14
3.	BOD (mg/l)	:	14.0
4.	COD (mg/l)	:	41.0
5.	TSS (mg/l)	:	60.2
6.	TDS (mg/l)	:	384
7.	Cl^- (mg/l)	:	61.0
8.	NH_3-N (mg/l)	:	16.9
9.	NO_3^-(mg/l)	:	2.93
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	22,00,000
12.	FC (MPN/100 ml)#	:	11,00,000

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

(EFFLUENTS OF PANKI NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	-
5.	Iron (Fe) mg/l	:	0.62
6.	Lead (Pb) mg/l	:	BDL
7.	Manganese (Mn) mg/l	:	0.06
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.20
11.	Antimony (Sb)	:	-

	mg/l		
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

The above analysis shows that the total TC & FC are extremely high. The UPJN proposes to construct a 75 MLD STP at Pankigaon. The proposal of the UPJN is not appropriate because setting up of the same is economically expensive and in terms of control of pollution, it does not serve the requisite ends. It is suggested that this STP is to treat the effluents both from Panki Nallah and ICI Nallah, as both these Nallahs directly joins river Pandu. Panki Thermal Power Plant Nallah joins river Pandu much upstream to ICI Nallah and there are no multiple drains joining these drains. Thus, putting up of a common STP would not be practical, feasible and economically viable. The distance between the two Nallahs is 3.5 kilometres and therefore, there is a requirement for putting up the pipeline pumping system and then a STP, the expenditure for which can easily be avoided. The main source of pollution in Panki Nallah is the Thermal Power Plant from where fly ash and the pollutants travel and meet the Sail Nallah. Thus, both these Nallahs i.e., the Panki Nallah and ICI Nallah should be dealt with independently, through a Common Treatment Plant. The suggestion of the stakeholders is more acceptable which is to put up an STP of appropriate capacity, i.e., approximately of 75 MLD at

the end of the pipeline in Panki Thermal Power Plant Nallah, just at a short distance and towards the Lucknow road for which the land is also available. The STP should be capable of treating BOD, COD and primarily Coliform, the main pollutant of this drain. Another suggestion of the stakeholders is for putting up a separate STP at the identified point between Lucknow Road and river Pandu, so that the water released from the STP can be recycled for agriculture, horticulture and more particularly for cooling purpose of the Thermal Power Plant. It is commonly conceded that the land for STP between Lucknow Road and river Pandu is also available. The effluent discharged should be appropriately treated as per the prescribed norms, before it meets river Pandu.

Thus, we direct that a separate independent STP at the identified point between Lucknow Road and river Pandu should be constructed having capacity of 75 MLD. The treated water from the STP should be recycled and utilized for agriculture and horticulture purposes and particularly for cooling of the Thermal Power Plant.

We further direct that the Thermal Power Plant shall make endeavour to ensure that the fly ash content does not cause air or water pollution and discharges effluents strictly within the prescribed norms. The Joint Inspection Team shall inspect this Thermal Power Plant and issue appropriate directions for prevention and control of water

pollution. If the issued directions are not complied with by the Thermal Power Plant within prescribed period, it shall be liable to be shutdown without any further notice.

ICI NALLAH

105. The ICI Nallah has a length of approximately one kilometre. Before it crosses Lucknow Road, the two drains i.e., Panki Nallah and ICI Nallah join together. The ICI Nallah commences its journey to join river Pandu near LML Scooter factory, Panki, Kanpur. This Nallah has a flow of 19.44 MLD according to Joint Inspection Team, while as per the UPJN it is 40 MLD. The Joint Inspection Team analysed samples of this drain near LML Scooter factory and the effluents were found to be highly polluted. The analysis results are as follows:

(EFFLUENTS OF ICI NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	8.16
3.	BOD (mg/l)	:	42.9
4.	COD (mg/l)	:	141
5.	TSS (mg/l)	:	146
6.	TDS (mg/l)	:	3122
7.	CL^- (mg/l)	:	1496
8.	NH_3-N (mg/l)	:	193
9.	NO_3^-(mg/l)	:	9.85
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	24,00,000
12.	FC (MPN/100 ml)#	:	7,90,000

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

(EFFLUENTS OF ICI NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL

3.	Total Chromium (Cr) mg/l	:	0.06
4.	Copper (Cu) mg/l	:	-
5.	Iron (Fe) mg/l	:	2.60
6.	Lead (Pb) mg/l	:	0.22
7.	Manganese (Mn) mg/l	:	0.72
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	6.18
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

The above analysis report shows that the parameters of TDS, TC, FC and Coliform are very high. It surprisingly carries iron and zinc, much beyond the prescribed limits. Thus, this drain needs specific treatment so that no pollution of river Pandu results from this drain. The industrial effluent in this drain comes from industrial sites, namely Panki sites 1, 2, 3 and 4. There are nearly 40 highly polluting industries which include 1 fertilizer unit, 28 dyeing and textile units, 4 chemical units, 3 surface metal industries, 2 automobile industries and 2 food industries. There are other 729 industries located in this segment, but these industries are non-polluting and by and large are dry units. The polluting industries are stated to have installed ETPs but they do not appear to be operating satisfactorily, otherwise the parameters of the drain would not be so violative of the prescribed standards. It is proposed by the stakeholders that the STP of 45 MLD, should be constructed at a point between LML Scooter

factory and the confluence point of river Pandu and ICI Nallah. There is no dispute about space being available for ETP. The capacity of the plant should be 45 MLD keeping the future need in mind and it should be ensured that the technology used is such that the effluent discharged from the ETP/STP is strictly in consonance with the prescribed parameters. The Joint Inspection Team shall inspect all the 40 highly polluting industries in this segment and would issue appropriate directions to ensure that discharge from these industries is strictly within the prescribed norms. If the directions issued by the Joint Inspection Team are not carried out by these industries within the prescribed time, they shall be liable to be shutdown till compliance and subject to further orders of the Tribunal. Thus, we issue the above directions.

DRAINS JOINING RIVER KALI-EAST AND DIRECTIONS IN RELATION THERETO

106. River Kali-East is one of the tributaries of river Ganga. There are nearly 26 drains which join river Kali-East in district Bulandshahr. River Kali-East is an intermittent river and originates near Khatholi town in Uttar Pradesh. It flows through district of Meerut, Hapur, Bulandshar, Aligarh, Kasganj and finally merges with river Ganga in Kannauj, Uttar Pradesh. River Kali-East has a total length of approximately 550 kilometres. Mostly industrial and domestic wastewater is discharged into the river Kali-East.

With this background we would now proceed to deal with each of the 26 drains that join river Kali-East in Segment B of Phase-I.

MAMAN ROAD NALLAH, (BULANDSHAHR-I); AADIL NALLAH; CHANDBARI ROAD (BULANDSHAHR-II); CHEEL GHAT; NAHSAL GHAT; ADIL NAGAR-2; KASAI BADA; FAISALABAD ROAD, BEHIND SHANIDEV MANDIR; DEVIPURA; BRIDGE DHAMEDA ROAD AND BEHIND CHAMUNDA MANDIR

107. We would deal with above drains together. All these drains are located within a very short distance of each other constituting total distance of 4.3 kilometres and have catchment in Bulandshahr. These drains have a length of 150 meters to 4 kilometres approximately. As of now, these drains directly meet river Kali-East from Maman Road to behind Chamunda Mandi in the district of Bulandshahr. While 9 drains are located on the left bank of river Kali-East, remaining 2 drains are located on the right bank of the same. All these drains except Cheelghat drain carry domestic and sewage effluents, whereas Cheelghat drain carries mixed effluent, particularly, from auto mobile washing industry. The Joint Inspection Report shows that Maman Road Nallah has a length of approximately 3 kilometres. It carries blackish colour effluent and has a flow of 86.4 MLD as per last inspection and joins river Kali-East on its right bank. Samples being analysed from this drain, following parameters are shown:

(EFFLUENTS OF MAMAN ROAD NALLAH-GENERAL PARAMETERS)

Sl.No.	Parameters	Results

1.	Colour	:	-
2.	pH	:	7.56
3.	BOD (mg/l)	:	103
4.	COD (mg/l)	:	222
5.	TSS (mg/l)	:	231
6.	TDS (mg/l)	:	782
7.	CL^- (mg/l)	:	67
8.	NH_3-N (mg/l)	:	38
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	-
12.	FC (MPN/100 ml)#	:	-

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF MAMAN ROAD NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.06
5.	Iron (Fe) mg/l	:	4.58
6.	Lead (Pb) mg/l	:	0.03
7.	Manganese (Mn) mg/l	:	0.27
8.	Nickel (Ni) mg/l	:	0.13
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.19
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	0.01

AADIL NALLAH

108. The Joint Inspection Report shows that Aadil Nallah has a length of approximately 4 kilometres. It carries domestic discharge and has a flow of 15.6 MLD, as per last inspection and joins river Kali-East on its right bank. Samples being analysed from this drain, the following parameters are shown:

(EFFLUENTS OF AADIL NALLAH-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.51
3.	BOD (mg/l)	:	97
4.	COD (mg/l)	:	213
5.	TSS (mg/l)	:	219
6.	TDS (mg/l)	:	708
7.	CL^- (mg/l)	:	73
8.	NH_3-N (mg/l)	:	36
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	-
12.	FC (MPN/100 ml)#	:	-

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF AADIL NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	BDL
5.	Iron (Fe) mg/l	:	0.84
6.	Lead (Pb) mg/l	:	0.01
7.	Manganese (Mn) mg/l	:	0.08
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.09
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

CHANDBARI ROAD (BULANDSHAHR II)

109. The Joint Inspection Report shows that Chandbari Road (Bulandshahr II) drain has a length of approximately 4 to 5 kilometres. It carries domestic waste and has a flow of 91 MLD at 12:15 PM and 38.7 MLD at 2:36 PM, as per last inspection and joins river Kali-East on its right bank. Samples being analysed from this drain, the following

parameters are shown:

(EFFLUENTS OF CHANDBARI ROAD (BULANDSHAHR II)-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	Ph	:	7.56
3.	BOD (mg/l)	:	70
4.	COD (mg/l)	:	159
5.	TSS (mg/l)	:	81
6.	TDS (mg/l)	:	676
7.	CL^- (mg/l)	:	61
8.	NH_3-N (mg/l)	:	32
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	-
12.	FC (MPN/100 ml)#	:	-

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF CHANDBARI ROAD (BULANDSHAHR II)-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	0.04
4.	Copper (Cu) mg/l	:	0.12
5.	Iron (Fe) mg/l	:	10.08
6.	Lead (Pb) mg/l	:	0.04
7.	Manganese (Mn) mg/l	:	0.33
8.	Nickel (Ni) mg/l	:	0.06
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.26
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	0.02

NAHSAL GHAT

110. The Joint Inspection Report shows that Nahsal Ghat drain has a length of approximately 150 metres before meeting

Kali-East at its right bank. It carries domestic effluents and has a flow of 1.87 MLD, as per last inspection. Samples being analysed from this drain and following parameters are shown:

(EFFLUENTS OF NAHSAL GHAT-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.52
3.	BOD (mg/l)	:	336
4.	COD (mg/l)	:	808
5.	TSS (mg/l)	:	632
6.	TDS (mg/l)	:	1428
7.	Cl^- (mg/l)	:	192
8.	NH_3-N (mg/l)	:	31
9.	NO_3^-(mg/l)	:	9.62
10.	PO_4-p	:	2.96
11.	DO (mg/l)*	:	
12.	TC (MPN/100 ml)#	:	
13.	FC (MPN/100 ml)#	:	

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF NAHSAL GHAT-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.05
5.	Iron (Fe) mg/l	:	3.08
6.	Lead (Pb) mg/l	:	0.02
7.	Manganese (Mn) mg/l	:	0.41
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.23
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	0.01

ADIL NAGAR 2 DRAIN

111. The Joint Inspection Report shows that Adil Nagar 2 drain

is a dry drain and has a length of approximately 200 metres. It carries domestic effluents, as per last inspection and joins river Kali-East on its right bank.

KASAI BADA DRAIN

112. The Joint Inspection Report shows that Kasai Bada drain has a length of approximately 1.5 kilometres. It carries domestic effluents and has a flow of 7.3 MLD, as per last inspection and joins river Kali-East on its right bank. Samples being analysed from this drain, the following parameters are shown:

(EFFLUENTS OF KASAI BADA DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.56
3.	BOD (mg/l)	:	103
4.	COD (mg/l)	:	222
5.	TSS (mg/l)	:	231
6.	TDS (mg/l)	:	728
7.	Cl^- (mg/l)	:	67
8.	NH_3-N (mg/l)	:	38
9.	NO_3^-(mg/l)	:	3.72
10.	DO (mg/l)*	:	
11.	TC (MPN/100 ml)#	:	
12.	FC (MPN/100 ml)#	:	

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF KASAI BADA DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	0.01
4.	Copper (Cu) mg/l	:	0.15
5.	Iron (Fe) mg/l	:	4.84
6.	Lead (Pb) mg/l	:	0.13
7.	Manganese (Mn) mg/l	:	0.39

8.	Nickel (Ni) mg/l	:	0.02
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.23
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	0.01

BEHIND SHANIDEV MANDIR DRAIN

113. The Joint Inspection Report shows that behind Shanidev Mandir, drain has a length of approximately 600 metres. It carries domestic effluents and is a dry drain. It joins river Kali-East on its right bank.

DEVIPURA DRAIN

114. The Joint Inspection Report shows that Devipura drain has a length of approximately 150 metres and carries domestic effluents. It has a flow of 3.79 MLD and joins river Kali-East on its right bank. Samples were analysed from this drain and following parameters are shown:

(EFFLUENTS OF DEVIPURA DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.56
3.	BOD (mg/l)	:	70
4.	COD (mg/l)	:	159
5.	TSS (mg/l)	:	81
6.	TDS (mg/l)	:	676
7.	Cl^- (mg/l)	:	67
8.	NH_3-N (mg/l)	:	32
9.	NO_3^-(mg/l)	:	3.07
10.	PO_4-P	:	
11.	DO (mg/l)*	:	
12.	TC (MPN/100 ml)#	:	
13.	FC (MPN/100 ml)#	:	

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

(EFFLUENTS OF DEVIPURA DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.04
5.	Iron (Fe) mg/l	:	1.85
6.	Lead (Pb) mg/l	:	0.02
7.	Manganese (Mn) mg/l	:	0.14
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.10
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

BRIDGE DHAMEDA ROAD DRAIN:

115. The Joint Inspection Report shows that Bridge Dhameda Road drain has a length of approximately 500 metres and carries domestic effluents. It has a flow of 1 MLD and joins river Kali-East on its right bank. Samples were analysed from this drain and following parameters are shown:

(EFFLUENTS OF BRIDGE DHAMEDA ROAD DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.35
3.	BOD (mg/l)	:	88
4.	COD (mg/l)	:	236
5.	TSS (mg/l)	:	111
6.	TDS (mg/l)	:	1084
7.	Cl^- (mg/l)	:	123
8.	NH_3-N (mg/l)	:	20
9.	NO_3^-(mg/l)	:	4.64
10.	DO (mg/l)*	:	4.83
11.	TC (MPN/100 ml)#	:	
12.	FC (MPN/100 ml)#	:	

* For Fresh water carrying drains/rivers
\# For sewage, mixed drains & river

(EFFLUENTS OF BRIDGE DHAMEDA

ROAD DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.02
5.	Iron (Fe) mg/l	:	1.57
6.	Lead (Pb) mg/l	:	0.17
7.	Manganese (Mn) mg/l	:	0.23
8.	Nickel (Ni) mg/l	:	0.11
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.09
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

BEHIND CHAMUNDA MANDIR DRAIN

116. The Joint Inspection Report shows that Behind Chamunda Mandir drain has a length of approximately 1 kilometre. It carries domestic effluents and has a flow of 1 MLD and joins river Kali-East on its right bank. Samples from the drain were analysed and following parameters are shown:

(EFFLUENTS OF BEHIND CHAMUNDA MANDIR DRAIN-GENERAL PARAMETERS)

Sl.No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.58
3.	BOD (mg/l)	:	41
4.	COD (mg/l)	:	149
5.	TSS (mg/l)	:	69
6.	TDS (mg/l)	:	876
7.	Cl^- (mg/l)	:	80
8.	NH_3-N (mg/l)	:	25
9.	NO_3^-(mg/l)	:	5.22
10.	PO_4-P	:	4.49
11.	DO (mg/l)*	:	
12.	TC (MPN/100 ml)#	:	
13.	FC (MPN/100 ml)#	:	

* For Fresh water carrying drains/rivers
# For sewage, mixed drains & river

(EFFLUENTS OF BEHIND CHAMUNDA MANDIR DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.10
5.	Iron (Fe) mg/l	:	1.61
6.	Lead (Pb) mg/l	:	0.05
7.	Manganese (Mn) mg/l	:	0.11
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.14
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

Out of these 12 drains, all but two drains i.e. Cheel Ghat Drain and Faisalabad Road Drain are on the left bank while the remaining 10 drains are located on the right bank of river Kali-East. It was proposed by the stakeholders that the Cheel Ghat Drain and Faisalabad Road Drain are to be considered either for installation of an STP at the end of the pipeline or for interception of these drains and bringing the effluents through the pipeline, along the bridge on the river Kali-East on NH-18 to the other side of the river and join the drains that would ultimately be taken up to a common STP which is proposed to be constructed. The suggestion is that near Maman Road Nallah, there is enough space for

construction of an STP. Total flow of all these 12 drains according to the Joint Inspection Team and the CPCB is nearly 207.96 MLD but according to the UPJN it is 23.20 MLD approximately. Like other data, the UPJN collected this data in the year 2015 and within its municipal limit. However, variations need explanation, which should be driven by proper scientific analysis. In principle, it is accepted that a common STP should be constructed near Maman Road Nallah. All these 10 drains should be intercepted and their effluent should be brought to Maman Road Nallah. The two drains i.e. Cheel Ghat Drain and Faisalabad Road Drain across the left bank of river Kali-East should be intercepted. Their effluent should be brought through a common pipeline to the STP which is to be constructed at Maman Road Nallah. Resultantly, it will be appropriate to establish an STP of an appropriate capacity which is capable of treating the effluent contained in all these drains. It is also apparent from the above analysis reports that some of these 12 drains either do not carry metals and if they carry the same is below the prescribed limit or not detectable. The main load in these drains is of sewage. Pollutants like BOD, COD, Total Coliform and Faecal Coliform are the pollutants that require treatment. We consider it appropriate to direct that the capacity of the STP and its technical design should be finalized after a study is carried out by the Joint Inspection

Team of CPCB, MoWR and UPPCB. They should also analyse the effluents. There should be complete and comprehensive inspection leaving nothing to imagination or rounding off of figures. The data should be collected with exactitude in relation to flow, quality and quantum of effluent. The study in all these respects must be carried out within one month from the date of pronouncement of this judgement and wherever the project is to be executed, without undue delay.

The UPJN has also proposed a common STP of 40 MLD, which would be of inadequate capacity relying on the figures provided by the Joint Inspection Team are correct. We are also of the view that putting up a STP across the river of two drains, i.e., Cheel Ghat Drain and Faisalabad Road Drain would be unduly expensive and difficult to manage as well as to operate. While laying down pipelines and bringing effluents for interception to the Maman Road Nallah, would be economically cheaper, practicable and scientifically viable. Another aspect, which requires attention of the Tribunal, is that there are a number of automobile shops, which cast off oil and grease into drains. All these automobile shops, which are located in the catchment area of some of these drains and particularly Cheel Ghat drain, are directed to make a common pit into which the oil and grease should be stored. This pit should have due lining ensuring that there is no

leachate, particularly, in relation to groundwater. At regular intervals, the hazardous waste should be extracted and taken out to an appropriate site or plant, as the case may be from the pit. We hereby issue prohibitory directions against all these owners or all these shopkeepers running such service stations from getting rid off any effluent, including oil and grease into the drains. If any of them are found to be discharging effluents into the drains after the expiry of two weeks from the date of the order, the UPPCB, and even the concerned public authorities would be liable to impose environmental compensation of ₹ 5,000/- for each violation. The said amount so collected shall be deposited with the UPPCB. Thus, we issue the above directions for compliance.

SUGAR MILL DRAIN

117. This drain flows through the city of Muzzafarnagar for a distance of 5 km before it joins river Kali-East. Its flow as per the UPJN is 5 MLD. It is stated that river Kali-East is dry in upstream of this drain and carries water mainly during rainy season. It carries the sewage of Nagar Palika Parishad, Khatauli and village Bhoor. The drain also carries effluent from sugar mills which is located in the catchment area of same. M/s. Triveni Sugar Mills is an industry that discharges its effluent into this drain. In relation to M/s. Triveni Sugar Mills, the Tribunal has already passed detailed order and even imposed

environmental compensation for not taking appropriate anti-pollution measures and not complying with the conditions imposed under consent to operate. It has been stated that this industry has taken required measures and is presently a compliant industry. However, this industry should be subject to stringent joint inspections during the season. Continuous monitoring of this industry should be conducted to ensure that it does not cause any pollution or discharges effluents into the drain. If this industry or any other industry located in the catchment area of this Sugar Mill drain is found to be violating conditions of consent to operate order or fails to adopt appropriate anti-pollution measures, the same would be liable to be shut down by the orders of the UPPCB without any further notice.

During the course of hearing before the Tribunal it was commonly agreed between all the stakeholders that considering the flow, quantum and quality of effluents being discharged into the drain, it will not be appropriate to install a mechanical STP but it would suffice to construct an oxidation pond near Khatauli, approximately 500 meters away from the river Kali-East. The effluents must be brought within the prescribed parameters after treating them in the said oxidation pond. These treated effluents should be then used for agricultural purposes and only remnant thereof, should be discharged into the river Kali-East.

ABU NALLAH-1, ABU NALLAH-2 AND ODEAN DRAIN

ABU NALLAH-1

118. As far as Abu Nallah-1 is concerned, in furtherance to the order of the Tribunal dated 17th May, 2017, the Joint Inspection had been conducted inspection and it was acceptable to all the stakeholders that Abu Nallah-1 is 35 kilometres from its origin, before it meets river Kali-East. The major part of this drain, i.e., about 60% falls in the agriculture area while remaining 40% falls in the Urban area. It has been found that 10 major sub drains joins Abu Nallah-1:

Code	Joining on	Name of Catchment	Type of Catchment
AB-1	Left Bank	Abdullapur	Mainly Agricultural field
AB-2	Left Bank	Ganga Nagar	Sub-urban
AB-3	Right Bank	Mawana Road Xing	Cantt Area
AB-4	Left Bank	Minakship uram	Semi-urban
AB-5	Right Bank	Kaserukher a	Urban area
AB-6	Left Bank	Pallapuram	Planned Urban+ STPs
AB-7	Left Bank	Modipuram	Urban
AB-8	Right Bank	PAC/Cantt. Area	Urban
AB-9	Left Bank	Jatoli Area	Urban
AB-10	Left Bank		

The analysis report of Abu Nallah Drain 1 drain shows as

follows:

(EFFLUENTS OF ABU NALLAH-1 - GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.7
3.	BOD (mg/l)	:	55
4.	COD (mg/l)	:	163
5.	TSS (mg/l)	:	83
6.	TDS (mg/l)	:	732
7.	CL^- (mg/l)	:	146
8.	NH_3-N (mg/l)	:	55
9.	NO_3^-(mg/l)	:	3.06
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	$17x10^6$
12.	FC (MPN/100 ml)#	:	$70x10^5$

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

On a collective estimation, the flow of Abu Nallah- 1 is stated to be 39 MLD, however, there are four different STPs at Pallavpuram, Phase-1 and Phase-2, Rakshapuram and Ganga Nagar with a total installed capacity of 34 MLD, while they are receiving only 17.5 MLD for sewage and waste treatment.

All 10 drains/sub-Nallahs should be intercepted and brought to these 4 STPs depending upon their location and easy access to the concerned STP. Once the effluents of these 10 drains are brought to the 4 STPs, then the quantum of effluent set up against the existing capacity of these STPs will be required to measure upgradation. Firstly, they should be able to treat faecal coliform and bring it to the proposed norms of 230 MPN/100 ml and

secondly, at the outlet of the STP, there should be UV or Ozonation Treatment Plant, then this sewage or effluent could be brought within the prescribed parameters and should be primarily recycled for agricultural purposes as a large number of agricultural fields are stated to be on the bank or catchment areas of this Nallah, remaining part could be permitted to flow into the Nallah and join river Kali East.

Other aspect is that the Daurala Sugar Industry, Sugar Distillery Division, Durala Sugar Urban Division and Daurala Sugar Chemical Division are presently discharging their effluent into this Nallah, are not strictly adhering to the prescribed standards. The UPPCB, Namami Gange and Member Secretary, CPCB shall issue directions for strict compliance to these 4 units so that they discharge their effluents strictly in accordance with the prescribed parameters and do not cause pollution. They should be subjected to joint inspection and, if they are found to be violating the prescribed parameters and are polluting, they should be ordered to be shut down. The BOD level shall be brought down by these industries. As the STP, the BOD value of 10 mg/l should be attained irrespective of the prescribed standards. These units have already been once subjected to the Joint Inspection, and the recommendations made by the Joint Inspection Team in relation to each of the units shall be carried out positively

within three months from the date of the order, when they shall be subjected to re-inspection by the Joint Inspection Team.

All the drains including Abu Nallah-1 should be cleaned and all the waste removed, transported and disposed in accordance with the Solid Waste Management Rules, 2016.

Direction be also issued to the Meerut Development Authority to recycle water of these STPs for horticulture or allied purposes and reduce the extraction of ground water.

The dredging of all the three drains i.e. Abu Nallah- 1, Abu Nallah-2 and Odean should be done and the dredged material/silt shall be removed within three days thereafter and transported to the appropriate site as to be identified.

ABU NALLAH-2 & ODEAN DRAIN

119. The Abu Nallah-2 is 43 kilometres long while the Odean drain is about 9 kilometres long and mainly flows in Meerut city where ultimately both these drains join river Kali. Two major drains i.e. City drain and Cantt. Drains join Abu Nallah-2. These two major drains are in addition to the 11 drains which join from left or right bank of Abu Nallah-2 in the city area. There are 10 or 11 small drains which join Cantt. area drain and that drain alone then meets Abu Nallah drain. It carries sewage, wastewater and industrial waste as well. It is also pointed out that the drains are full of solid wastes which need to be removed to make any project successful. It has a flow of nearly 150

MLD. There are three STPs at Sainik Vihar, Pandav Nagar and Shardhapuri of 6 MLD, 3 MLD and 6 MLD respectively. Another STP of 72 MLD has been constructed at Sarai Quazi, thus the total capacity available in the STP as of today is 87 MLD. The analysis report of this drain shows as follows:

(EFFLUENTS OF ABU NALLAH-2 - GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.4
3.	BOD (mg/l)	:	51
4.	COD (mg/l)	:	332
5.	TSS (mg/l)	:	192
6.	TDS (mg/l)	:	624
7.	CL^- (mg/l)	:	75
8.	NH_3-N (mg/l)	:	26
9.	NO_3^-(mg/l)	:	4.7
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	$70x10^6$
12.	FC (MPN/100 ml)#	:	$46x10^6$

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

Odean drain has the flow of 182 MLD. Once the 4 STPs as above stated are made completely functional that will take care of 87 MLD out of 150 MLD plus 182 MLD. There is already a proposal for construction of an STP of 210 MLD, for which there is enough land available, near the end of the drain where Odean drain and Abu Nallah-2 meet and join river Kali, adjoining the premises where 72 MLD STP has already been constructed and the proposed 210 MLD would treat the remnant: (182 + 150 – 87 = 245 MLD). The water from all the 4 STPs has to be recycled, thus to

reduce the pressure on the main drain. This should be recycled for agriculture and horticulture purposes in the city and Cantt adjoining the catchment area. The Commissioner, Meerut would hold a meeting and lay down the effluent disposal mechanism for recycling of water. All the STPs at their outlet shall be provided with Ultra-Violet or Ozonation Technology to ensure that the effluent is being treated as per the prescribed parameters. The analysis report of this drain shows as follows:

(EFFLUENTS OF ODEAN DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.3
3.	BOD (mg/l)	:	182
4.	COD (mg/l)	:	763
5.	TSS (mg/l)	:	565
6.	TDS (mg/l)	:	864
7.	CL^- (mg/l)	:	178
8.	NH_3-N (mg/l)	:	47
9.	NO_3^-(mg/l)	:	10.29
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	$35x10^6$
12.	FC (MPN/100 ml)#	:	$24x10^5$

* For Fresh water carrying drains/rivers
\# For sewage, mixed Drains & River

(EFFLUENTS OF ODEAN DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	0.05
3.	Total Chromium (Cr) mg/l	:	0.1
4.	Copper (Cu) mg/l	:	0.11
5.	Iron (Fe) mg/l	:	5
6.	Lead (Pb) mg/l	:	0.03
7.	Manganese (Mn) mg/l	:	0.36
8.	Nickel (Ni) mg/l	:	0.07

9.	Mercury (Hg) mg/l	:	NA
10.	Zinc (Zn) mg/l	:	0.41
11.	Antimony (Sb) mg/l	:	NA
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

The Joint Inspection Team shall also recommend, if the STP which is proposed should be only of 210 MLD or should be of a higher capacity, keeping in view that there will be remnant effluent depending on the quality and quantum of the discharge in the drain. There are two industries in the catchment area of Abu Nallah-2 i.e. M/s. Sab Mailler India Ltd. and M/s. United Spirits Limited. Both these industries have been subjected to joint inspection and recommendations have been made. These industries will comply with the recommendations of the Joint Inspection Team within three weeks from today.

In the event of default, they shall be liable to be shutdown. The Joint Inspection Team shall further be entitled to issue directions for compliance under the orders of the Tribunal to these industries.

The CPCB, SPCBs, MoEF&CC and MoWR have expressed the view that the industries located in Moradabad and Meerut are primarily using Cyanide based Zinc for electroplating industries. They should be directed to use non-cyanide based technology for electroplating purposes.

We hereby direct Central Pollution Control Board to issue

directions regarding same, forthwith to the entire basin area of the river Ganga.

In relation to all these three drains, the data of the Joint Inspection Team and the UPJN does not vary substantially. The effluents of these drains have already been analysed and their contents need to be treated by installation of an appropriate STP. The UPJN has also proposed an STP as indicated above. All the existing 10 STPs which are stated to be functional should be appropriately up-graded and made effective. They should treat the sewage/effluents, while completely bringing the parameters within the prescribed limit. Once the existing STPs are made functional and effective in all respects and the proposed new STPs are constructed, having appropriate capacity and design, then there would be no pollution. The industries are also subjected to the directions as afore-stated. There will be hardly any pollution of river Kali-East from these three drains. Thus, we pass all the above directions for compliance.

CHHOIYA DRAIN

120. This drain travels nearly 50 km through District Meerut and finally joins river Kali-East in district Hapur near village Babugarh Cantt. There are villages in the catchment area of this drain. However, there are also a number of industries located in the catchment area of this drain which includes sugar, pulp and paper industries and other

highly polluting industries. These villages as well as industries discharge their effluents into the drain which carries it to some length and then the drain gets dry, before joining river Kali-East. According to stakeholders, the drain has a flow of approximately 1.6 MLD. The drain carries mixed effluents though it is stated to be not seriously polluting. This drain carries mixed effluents. Its effluents are analyzed by the Joint Inspection Team and general and the parameters for metals are found to be as follows:

(EFFLUENTS OF CHHOIYA DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.92
3.	BOD (mg/l)	:	18
4.	COD (mg/l)	:	124
5.	TSS (mg/l)	:	39
6.	TDS (mg/l)	:	908
7.	CL^- (mg/l)	:	119
8.	NH_3-N (mg/l)	:	14
9.	NO_3^-(mg/l)	:	5.84
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	$79x10^2$
12.	FC (MPN/100 ml)#	:	$49x10^2$

* For Fresh water carrying drains/rivers
\# For sewage, mixed Drains & River

(EFFLUENTS OF CHHOIYA DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/1	:	BDL
2.	Cadmium (Cd) mg/1	:	BDL
3.	Total Chromium (Cr) mg/1	:	BDL
4.	Copper (Cu) mg/1	:	BDL
5.	Iron (Fe) mg/1	:	1.2
6.	Lead (Pb) mg/1	:	BDL
7.	Manganese (Mn) mg/1	:	0.21

8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.05
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

Though, it carries metals like iron, zinc, manganese, etc. but all are below the prescribed standards. There are also some element of pesticides found in the analysis report. It is commonly agreed by all the stakeholders that this drain does not require an STP/CETP to be constructed at the end of the pipeline or otherwise. The effluents could be left to be diluted in the flow of the river without any intervention. The Tribunal is of view that specific directions are required to be issued with regard to industries located in the catchment area of this drain. These industries should be required to comply with the prescribed standards stringently and should not be permitted to cause any further pollution. The Joint Inspection Team shall conduct inspection of all the majorly polluting industries located in the catchment area of this drain and would issue appropriate directions for compliance by the industries.

The joint inspection should be completed and directions should be issued within six weeks from the date of passing of this judgement. The industries should comply with said directions of Joint Inspection Team within the prescribed

time stated in the conditions and in the event of default, they shall be ordered to be shut down by UPPCB without any further notice and delay.

The drains should be subjected to dredging, cleaning and removing of MSW. The UPPCB shall serve a notice upon all industries located in the catchment area of this drain to have effective responsibility (Corporate Social Responsibility) and to ensure that the drain is kept cleaned and no waste is permitted to be thrown into it. Thus, we issue above stated directions for compliance by all the stakeholders.

HAPUR DRAIN

121. District Hapur has three major drains. Firstly, Hapur City Drain which has a length of 4770 meters within the municipal limit and originates in Zone 3 and passes through Zone 6 to meet river Kali-East. Secondly, Gram Rampur drain which is approximately 1.6 km long, joins Hapur (Chhoiya drain) drain which is nearly 4 km long. After Gram Rampur drain joins Hapur (Chhoiya drain), it meets Khatauli drain which comes from the side of Meerut through Zone 1 and Zone 2 of Hapur and ultimately joins river Kali-East. Khatauli drain travels nearly 12 km before it joins river Kali-East. It has been proposed by the stakeholders to put up an STP of 40 MLD between the point where the Gram Rampur drain and Hapur drain meet and the point where it joins Khatauli drain. It has

been brought to the notice of the Tribunal that space is available for setting up of 40 MLD STP, which would ensure that the pollutants do not join Khatauli drain and ultimately river Kali-East. On the Hapur City drain, the proposal is to construct an STP of 10 MLD nearly 700 meters away from the edge of the river Kali-East. It has also been commonly stated that from the point where Hapur (Chhoiya drain) drain meets Khatauli drain and the point where Khatauli drain meets river Kali-East, the predominant activity is agriculture. It is also stated that there is likelihood of increased development in the command area within the municipal limit. Hence, it is directed that the concerned developer agency should be directed to set up a functional STP to treat sewage, no matter it relates to residential development or any other. Only such treated sewage should be permitted to enter Khatauli drain or any of the above drains. Furthermore, no development activity should be permitted unless an STP is installed in the concerned area.

It has also been stated during the course of hearing, there are 41 industries carrying on business of textile, dyeing, sugar, chemical, etc. out of which 34 industries fall in Meerut Cantt. area and 7 industries fall in Hapur catchment area. All these 7 industries falling in Hapur catchment area district, shall be subjected to joint inspection. The Joint Inspection Team shall issue

appropriate directions with regard to proper installation of anti-pollution devices and for taking appropriate measures so as to ensure that they are compliant and do not cause any pollution. In the event of non-compliance of directions, they shall be liable to be closed by UPPCB without further notice.

KADRABAD DRAIN

122. Kadrabad drain has a length of nearly 35 kilometres. It enters adjacent to District Meerut and passes through Modi Nagar to join river Kali-East. This drain has a discharge load of 49 MLD. There are some other drains joining this drain like Govindpuri drain, Sikhaida drain, Hanuman Puri Drain etc. All these drains carry mixed waste. However, there is inflow of industrial and domestic effluent after they meet Kadrabad drain but before finally joining river Kali-East. Therefore, the Tribunal reaches to the conclusion that setting up of STPs on any of the above stated drains would be waste of effort and public funds due to the reason that the treated water would again get mixed with the polluted sewage and trade effluent after the proposed point of interception. Likewise, it will not serve any environmental purpose unless and until there is treatment of water and absolute recycle, if possible, which has not been commonly agreed by the stakeholders. Interception of the drains is not a plausible solution as a number of drains joins this drain.

Therefore, it is proposed that at the end of the pipeline, a 50 MLD STP should be constructed. At the outlet, the resultant effluent quality is BOD= 73, COD= 154, also containing metals like Copper, Iron, Manganese etc. which are found to be within the prescribed limit.

However, to ensure that an STP functions appropriately at the end of the pipeline, it was suggested that there should be a CETP at Modi Industrial Group to treat their industrial effluents. However, to treat the sewage that is joining Kadrabad drain, near Modi Nagar, an independent STP should be setup by the Government agencies. The industrial cluster at Pilakhuwa should be directed to put a CETP on their own or in collaboration with the Government stakeholders.

The CETP/ETP at Pilakhuwa should be shared on Polluter Pays Principle, in ratio of 50% by Government of India, 25% by polluters and 25% by the Government of concerned State, as directed by the Hon'ble Supreme Court of India in the order dated 22nd February, 2017.

It would be pertinent to note that the analysis reports of the Joint Inspection Team of Kadrabad Drain:

(EFFLUENTS OF KADRABAD DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	8.08
3.	BOD (mg/l)	:	73
4.	COD (mg/l)	:	154
5.	TSS (mg/l)	:	40
6.	TDS (mg/l)	:	964

7.	CL^- (mg/l)	:	148
8.	NH_3-N (mg/l)	:	18
9.	NO_3^-(mg/l)	:	3.58
10.	DO (mg/l)	:	NA
11.	TC (MPN/100 ml)#	:	$49x10^5$
12.	FC (MPN/100 ml)#	:	$33x10^5$

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF KADRABAD DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.02
5.	Iron (Fe) mg/l	:	0.55
6.	Lead (Pb) mg/l	:	BDL
7.	Manganese (Mn) mg/l	:	0.27
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.03
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

It is directed hereby that the industries that are contributing to the pollution of the said drains, should install anti-pollution devices and take appropriate measures. The Joint Inspection Team should issue directions to these industries, stating parameters, they are required to maintain as well as the steps that they should lay hold of, to prevent and control pollution. The Joint Inspection Team should also specify the period for compliance, to ensure that these industries become compliant and non-polluting within a specified period.

Also following general directions need to be issued in relation to all the industries located in the catchment area of Kali-East river:

1. They should be strictly regulated.

2. Joint inspection should be conducted.

3. Compliance should be strictly made. If there is default in compliance within the prescribed period, which normally should not exceed 3 to 6 months, the industries should be shutdown.

GULAOTHI DRAIN:

123. This drain carries mixed waste of 7 to 8 MLD. It travels nearly 5 km before it joins river Kali-East. The effluents contain high pollutants like BOD, COD, Faecal coliform, etc. which are much beyond the permissible limit along with metals. The Joint Inspection Team pointed out that in this drain, Eichhornia growth was found and large quantity of solid wastes were also found floating with the drain. The Joint Inspection Team collected the samples of the effluents which were analyzed. The results of the analysis in relation to general and metallic parameters are as follows:

(EFFLUENTS OF GULAOTHI DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	NA
2.	pH	:	7.51
3.	BOD (mg/l)	:	139
4.	COD (mg/l)	:	282
5.	TSS (mg/l)	:	196
6.	TDS (mg/l)	:	860

7.	CL^- (mg/l)	:	130
8.	NH_3-N (mg/l)	:	38
9.	NO_3^-(mg/l)	:	3.64
10.	DO (mg/l)	:	NIL
11.	TC (MPN/100 ml)#	:	$22x10^6$
12.	FC (MPN/100 ml)#	:	$22x10^6$

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF GULAOTHI DRAIN-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	BDL
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.02
5.	Iron (Fe) mg/l	:	2.33
6.	Lead (Pb) mg/l	:	0.02
7.	Manganese (Mn) mg/l	:	0.22
8.	Nickel (Ni) mg/l	:	BDL
9.	Mercury (Hg) mg/l	:	NA
10.	Zinc (Zn) mg/l	:	0.09
11.	Antimony (Sb) mg/l	:	NA
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	BDL
14.	Vanadium (V) mg/l	:	BDL

In order to control and prevent pollution, it has been unanimously agreed between the stakeholders that the concerned State Government and the competent authority should acquire the land, which is available approximately 600 meters away from the riverbed. It is stated that between the culverts and the railway line, sufficient land is available to establish an STP. An STP of 10 MLD should be constructed which will be capable of treating BOD, COD, Faecal coliform and should duly take care that the metals remain below the prescribed parameters. The treated

sewage from six STPs should be recycled for use in agricultural and horticulture purposes and only the remnant should be released into river Kali-East. Considering the fact that only a few number of industries are located in the catchment area of this drain, the concerned Government authority should provide incentives to such industries to encourage recycling of treated water for industrial purposes.

Amongst the industries causing pollution, there are two main industries in the catchment area of this drain. Both M/s V.R.S. Food Limited Unit-3 and M/s. V.R.S. Food Limited Unit-4 are dairy units causing serious pollution. They should be directed to strictly adhere to the prescribed norms, which should be subjected to joint inspection. Detailed directions in terms of Section 33A of the Water Act read with Section 5 of the Environment (Protection) Act, 1986 should be issued. In the event of dis-obedience or non-adherence within the prescribed period, they should be ordered to be shut down.

The UPPCB should also issue notice to these industries as well as to other industries which are discharging their untreated effluents or pollutants into this drain as to why they should not be called upon to pay environmental compensation in terms of Sections 16 and 17 of the National Green Tribunal Act, 2010. The said Board in addition to the inspection by the Joint Inspection Team

along with other public authorities should conduct complete survey of this area and prepare list of the polluting industries which are discharging their effluents into this drain and submit a report to this Tribunal.

Thus, we issue the above directions for compliance by the concerned authorities and the UPJN to take steps for construction of the STP.

NEEM NALLAH:

124. This drain primarily carries domestic waste. Jahagirabad drain-1 and Jahagirabad drain-2 also join Neem Nallah at Malahpur village. Even Dibai drain 1, 2 and 3 also join Neem Nallah and it is one major drain, inclusive of all the five drains.

Neem Nallah is 102 kilometres in length, out of which 30 kilometres falls in Aligarh district and 72 kilometres falls in Bulandshahr district. Thereafter, it joins river Kali at Aligarh. This Nallah carries sewage and domestic effluent and not any industrial effluent. Five minor drains meet this Nallah.

It is stated that this drain is dry for more than 10 kilometres in length before it meets Kali. It is, therefore, suggested that on the boundary of Aligarh and Bulandshahr, at a point towards Aligarh, there should be an oxidation pond or a constructed wetland for treatment. However, this should be done after the flow is measured at

that point and the effluents are analyzed. Upon analysis, final decision should be taken. Drain should also be kept clean, as for most part of the year it remains dry and carries excessive rain water etc. in the rainy season.

As the Joint Inspection Team had not conducted inspection and taken the measurement of flow and the quality of effluent, we, therefore, direct the Joint Inspection Team to carry out measurement of flow and the quality of effluent of the drain.

It has been made clear that in the catchment of this drain there is no industry discharging its pollutants into this drain.

Even, the UPJN has proposed construction of an oxidation pond or a constructed wetland for treating sewage. Parties are in agreement that there need not be construction of a mechanical STP at the end of the drain.

KASGANJ DRAIN

125. Kasganj drain is 3 to 4 kilometres long. It mainly carries domestic effluents and sewage. The measured flow is 9 MLD. Nadrai Gate drain flows across the railway track and carries nearly 36 MLD of domestic waste. Kasgang drain finally meets river Kali. Thus, it is suggested that Nadrai Gate drain should not be intercepted. There should be two independent STPs. One 5 MLD STP should be at Nadrai Gate drain about 500 meter before it meets Kali river. Keeping in view future and projected needs, it is suggested

that 15 MLD STP should be established at the end of the Kasganj drain, about 500 meters before it meets river Kali. The places demarcated and reserved for future population near Kasganj Nallah, should be developed with an assurance that it should not over reach 15 MLD at the relevant point of time. If that be so, the sewage and domestic discharge shall be treated by the development agency for these two areas separately, before being released into the drain.

The UPPCB has not taken flow measurement of this drain. It has also not proposed any plan which should be prepared on scientifically collected data. The sample was taken near Amarpur Road pulia, Kasganj. Amarpur Kasganj area comes within catchment area of this drain. The analysis of general parameters and metals reads as under:

(EFFLUENTS OF KASGANJ DRAIN-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	6.94
3.	BOD (mg/l)	:	123
4.	COD (mg/l)	:	286
5.	TSS (mg/l)	:	176
6.	TDS (mg/l)	:	750
7.	CL^- (mg/l)	:	104
8.	NH_3-N (mg/l)	:	42.3
9.	NO_3^-(mg/l)	:	0.271
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	92000000
12.	FC (MPN/100 ml)#	:	54000000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF KASGANJ DRAIN-

TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	-
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.008
5.	Iron (Fe) mg/l	:	-
6.	Lead (Pb) mg/l	:	-
7.	Manganese (Mn) mg/l	:	0.144
8.	Nickel (Ni) mg/l	:	-
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.112
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

There is another seasonal Nallah, i.e., Salai drain which carries less than 1 MLD of discharge. It should be plugged at the end of the pipeline. It mainly carries rainwater which should be used for agricultural purpose. These STPs would have the technology for treatment of Coliform, as the Coliform value of the drain is running in crores.

PATTA NALLAH, ADANGAPUR DRAIN AND TAMMI NALLAH

126. All these Nallahs flow in the city of Kannauj and join river Kali-East. Their length is about 6 kilometres, 7.5 kilometres and 3.5 kilometres, respectively. They mainly carry sewage and domestic waste. There is hardly any other industrial effluent and wherever the same is present, it is much below the prescribed value. The general parameters and parameters in relation to the heavy metals of these drains are as follows:

(EFFLUENTS OF PATTA NALLAH-GENERAL PARAMETERS)

Sl.	Parameters	Results

No.			
1.	Colour	:	-
2.	Ph	:	7.15
3.	BOD (mg/l)	:	31.1
4.	COD (mg/l)	:	112
5.	TSS (mg/l)	:	81.2
6.	TDS (mg/l)	:	808
7.	CL^- (mg/l)	:	116
8.	NH_3-N (mg/l)	:	22.6
9.	NO_3^-(mg/l)	:	0.449
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	54000000
12.	FC (MPN/100 ml)#	:	17000000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF PATTA NALLAH-TRACE METAL/HEAVY)

Sl.No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	-
2.	Cadmium (Cd) mg/l	:	BDL
3.	Total Chromium (Cr) mg/l	:	BDL
4.	Copper (Cu) mg/l	:	0.042
5.	Iron (Fe) mg/l	:	-
6.	Lead (Pb) mg/l	:	-
7.	Manganese (Mn) mg/l	:	0.116
8.	Nickel (Ni) mg/l	:	-
9.	Mercury (Hg) mg/l	:	-
10.	Zinc (Zn) mg/l	:	0.152
11.	Antimony (Sb) mg/l	:	-
12.	Cobalt (Co) mg/l	:	BDL
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

(EFFLUENTS OF ADANGAPUR NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.45
3.	BOD (mg/l)	:	19.2
4.	COD (mg/l)	:	57.3
5.	TSS (mg/l)	:	27.8
6.	TDS (mg/l)	:	722
7.	CL^- (mg/l)	:	82.3
8.	NH_3-N (mg/l)	:	31.6
9.	NO_3^-(mg/l)	:	

10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	3300000
12.	FC (MPN/100 ml)#	:	3300000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF ADANGAPUR NALLAH-TRACE METAL/HEAVY)

Sl. No.	Parameters	Results	
1.	Arsenic (As) mg/l	:	Result awaited
2.	Cadmium (Cd) mg/l	:	
3.	Total Chromium (Cr) mg/l	:	
4.	Copper (Cu) mg/l	:	
5.	Iron (Fe) mg/l	:	
6.	Lead (Pb) mg/l	:	
7.	Manganese (Mn) mg/l	:	
8.	Nickel (Ni) mg/l	:	
9.	Mercury (Hg) mg/l	:	
10.	Zinc (Zn) mg/l	:	
11.	Antimony (Sb) mg/l	:	
12.	Cobalt (Co) mg/l	:	
13.	Selenium (Se) mg/l	:	-
14.	Vanadium (V) mg/l	:	-

(EFFLUENTS OF TAMMI NALLAH-GENERAL PARAMETERS)

Sl. No.	Parameters	Results	
1.	Colour	:	-
2.	pH	:	7.59
3.	BOD (mg/l)	:	39.6
4.	COD (mg/l)	:	120
5.	TSS (mg/l)	:	84
6.	TDS (mg/l)	:	772
7.	CL^- (mg/l)	:	107
8.	NH_3-N (mg/l)	:	19.4
9.	NO_3^-(mg/l)	:	-
10.	DO (mg/l)	:	-
11.	TC (MPN/100 ml)#	:	17000000
12.	FC (MPN/100 ml)#	:	17000000

* For Fresh water carrying drains/rivers
# For sewage, mixed Drains & River

(EFFLUENTS OF TAMMI NALLAH-TRACE METAL/HEAVY)

Sl.	Parameters	Results

No.			
1.	Arsenic (As) mg/l	:	Result awaited
2.	Cadmium (Cd) mg/l	:	
3.	Total Chromium (Cr) mg/l	:	
4.	Copper (Cu) mg/l	:	
5.	Iron (Fe) mg/l	:	
6.	Lead (Pb) mg/l	:	
7.	Manganese (Mn) mg/l	:	
8.	Nickel (Ni) mg/l	:	
9.	Mercury (Hg) mg/l	:	
10.	Zinc (Zn) mg/l	:	
11.	Antimony (Sb) mg/l	:	
12.	Cobalt (Co) mg/l	:	
13.	Selenium (Se) mg/l	:	
14.	Vanadium (V) mg/l	:	

All the stakeholders agree that keeping in view the pollutant values of the content of the drain, it will be most appropriate to have an oxidation pond/constructed wetland to reduce the BOD, mainly coliform. This remedy would be least expensive, cost effective and most beneficial. However, for the reason best known to Jal Nigam, they have an STP of the capacity of 13 MLD at the end point of Patta Nallah, which will cost several crores, and is nearing completion. Besides, sewerage network has to be laid down to provide sewage connection. They have already completed 90% work of STP and 70% of sewer network has been laid. In these peculiar circumstances, we do believe that the project of Jal Nigam, which is not study based, was avoidable. But in view of large work having already been carried out, we permit this project to be completed and 13 MLD STP should be made functional

within three months from today.

ADANGAPUR DRAIN AND TAMMI DRAIN:

127. Keeping in view the effluent values, it is commonly proposed that there should be an oxidation pond at a distance of 500 meters to 1 kilometre from the point where Nallah meets the river. Besides, due protection should be taken at the local level to ensure that the animal dung and other waste is not permitted to enter the drain so as to reduce the pressure of coliform at the end of the pipeline. Guideline for Faecal Coliform disposal need to be issued by UPPCB. There should be an oxidation pond on these drains. These drains should be kept under strict supervision and ensure appropriate functioning so as not to put pollution burden on the river which is only 6.5 kilometre away from river Ganga.

In view of the above discussion we, therefore, pass the following directions:

a) We permit the UPJN to complete the STP of 13 MLD at the end of Patta Nallah before it meets the river.

b) Directions have already been issued to complete the work within three months from the date of issue of order dated 31st May, 2017 of the Tribunal.

c) The parties would ensure the compliance as well as the discharge from the STP should be strictly within the parameters and it should be recycled, wherever possible.

d) We further direct to construct the oxidation pond/wetlands for treatment of sewage in relation to the other two drains i.e. Adangapur Drain and Tammy Nallah.

e) Since there is considerable difference between the values of the measurements taken by the Joint Inspection Team and UPJN, we direct that the Joint Inspection Team shall measure the flow of all the three drains. It should also examine if the flow is 6.5 MLD, as stated by the Joint Inspection Team and if so the possibility of other two drains being intercepted and brought to the same STP as their discharge is just 4.36 MLD and 1.52 MLD, be examined. In that event, the entire discharge could be brought to the proposed STP and treated there and consequently there should be no occasion to construct oxidation ponds/wet lands. This study should be completed within six weeks from the date of passing of this order.

GANGA–RIVER FLOW AND MINIMUM ENVIRONMENTAL FLOW:

128. The Ganga Basin, being a part of the composite Ganga-Brahmaputra-Meghna basin lies in China, Nepal, India and Bangladesh and drains an area of 10,86,000 km^2. India alone contains approximately 79% area of the Ganga basin. It is the largest river basin in the country,

constituting 26% of the country's land mass and supporting nearly 43% of its population (448.3 million as per the 2001 census).

In India, the Ganga basin extends to eleven States, namely, Uttarakhand, Uttar Pradesh, Madhya Pradesh, Rajasthan, Haryana, Himachal Pradesh, Chhattisgarh, Jharkhand, Bihar, West Bengal and Delhi. The cardinal sources of water in river Ganga are rainfall and melting ice sheets as well as glaciers. Surface water resources of the Ganga (its long term mean annual flow volume as it enters the ocean) have been assessed at 525 billion cubic meters (BCM).

In the Ganga Basin, the average density of population is 520 persons per square km compared to 312 for the entire country, according to 2001 census. Major cities of Delhi, Kolkata, Kanpur, Lucknow, Agra, Meerut, Varanasi and Allahabad, which are witnessing rapidly increasing population are also are situated in the Ganga basin. Between 1991 and 2001, the urban population of India has increased by 32% and this trend is likely to continue in the coming years. This escalates the pressure on already over-allocated natural resources, including rivers. Further, the rising standard of living and exponential growth of industrialization and urbanization have exposed water resources in general and rivers in particular, to various forms of degradation.

129. Scientists have studied that water of river Ganga at its

origin is in pure state and even after being kept for several years does not get contaminated. These medicinal properties are attributed to the medicinal secretion of herbs and mineral content which get mixed with the water. Earnest Hankin, a British bacteriologist observed and reported in 1896 about the presence of marked anti-bacterial activity against Vibrio Cholera in the water of river Ganga. He suggested that by using the holy water of river Ganga, the incidence of cholera in people might be reduced. National Botanical Research Institute, Lucknow also conducted a study to validate the anti-microbial effect of Ganga water on Escherichia Coli (E. coli) – a worldwide cause of infection in humans and animals. The water of river Ganga, after being spiked by fivefold log units of E. Coli did not affect its waters' native microbial community structure. The Ganga water killed highly pathogenic E. coli manifold, more efficiently as compared to normal water and even 16 years old Ganga water was extremely effective for the same. This is attributed to the bacteriophages, a kind of viruse which resembles bacteria feeding on E coli. These findings suggest that Ganga water has certain novel antimicrobial attributes, besides its remarkable fluidity, which may provide a much-needed basis for the development of new antimicrobial compounds. (*Refer: Chandra Prakash Nautiyal: Self Purificatory Ganga water Facilitates death of pathogenic Escherichia coliO157:H57:*

Current Microbiology (2009)58:25-29 and in Asia Agri-History, Vol. 13, No.1, 2009(53-56)

130. Rivers have self-cleansing ability, primarily due to the flow velocity which permits oxygenation and decomposition of biological waste. However, as river Ganga leaves Haridwar, the flow velocity gets reduced due to flat topography and there is large scale withdrawal of water from Ganges between Haridwar and Narora, through various barrages and canals laid for agricultural and other consumptive uses in the State. A massive diversion of the water of Ganga by the upper river Ganga Canal Network off the headwork at Haridwar, Madhya Ganga Canal network at Bijnore and Lower Ganga Canal near Aligarh/Narora causes a critical fall of dry weather flow downstream and thereby downgrading its water quality. The withdrawal of water between Haridwar and Narora is as follows:

Place	**Average Flow in Cusecs**	**Diversion to**
Hardwar	30527	Upper Ganga Canal, East Ganga Canal at Bheem Gauda Barrage
Bijnor	18000	Madhya Ganga Canal Phase I, Phase II at Ch Charan Singh Barrage
Narora	13000	Lower Ganga Canal, Parallel Ganga Canal, Narora Atomic Power Plant
Kanpur	4096	Drinking water for Kanpur City
(Source: CPCB Report dated May 2016)		

The withdrawal / diversion through the canal systems

plays a significant role in sustaining the agriculture sector in the State of Uttar Pradesh. In fact, the sectoral water allocation, like other States in India, is the highest for irrigation in the State of Uttar Pradesh, i.e., about 96%.

The Upper Ganga Canal takes off from the right flank of the Bhimgoda barrage with a head discharge of 190 M^3/s, and presently, the gross command area is about 2 million hectare (ha). The Madhya Ganga canal provides annual irrigation to 178,000 ha. Similarly, the Lower Ganga Canal comprises a weir across the Ganga at Narora and irrigates 0.5 million ha.

131. Environmental flows or E flows are the flow regime in a river that describe the temporal and spatial variations in the quantity and quality of water required by the river to perform its natural ecological functions and support the aquatic and terrestrial biodiversity, meet agricultural and consumptive needs and also support the spiritual, social and cultural activities that depend on the river ecosystem.

The wholesomeness of the water of river Ganga is also viewed in the context of it being *'aviral'*, meaning 'continuous flow' and *'nirmal'*, meaning 'unpolluted'. These attributes are linked to the maintenance of continuous flow, uninterrupted by dams and barrages, along its entire length in an unpolluted and pristine form. Such attributes are considered key ingredients of the self purification properties that the water of Ganga is found to

be possessing, not only in mythological beliefs but validated by emerging scientific research.

Environmental Flows are the flow required for the maintenance of the ecological integrity of the rivers and their associated ecosystems. Environmental Flows are increasingly recognized as a vital contributor to the continuing provision of environmental goods and services upon which the livelihood of people depend.

In a nutshell, E-Flows are required for:

1. Maintaining river regimes.
2. Conservation of self-purification properties of river.
3. Maintaining aquatic biodiversity.
4. Recharging groundwater.
5. Supporting livelihoods.
6. Maintaining sediment movement.
7. Preventing saline intrusion in estuarine and delta areas.
8. Providing recreation.

Longitudinal connectivity and lateral connectivity of the river are key considerations for flows and sediment transport. If longitudinal connectivity is not maintained, the geomorphic as well as ecological functioning of the river will collapse. The survival of various species of fish like Mahseer, which depend upon migration for spawning, will be adversely affected if the longitudinal connectivity of the river is broken. Sediment and nutrient movement will

be disrupted. Even in the driest years, some floods are necessary to maintain the longitudinal and lateral connectivity.

In privation of a definite minimum flow, the movement of biota will be severely hampered and there will be adverse impacts on nutrient supply and habitat condition, as well as the channel shape and depth in the long term.

One of the yardsticks for determining E-flow is to study the survival of Flagship species, including Dolphin, Gharial, drafts and invertebrates in order to sustain the biodiversity and food-web so that the aquatic and associated ecosystem inclusively of floodplains remain intact.

It is also recommended that E-Flow is essential for improving the water quality and health of the river. Dilution is no solution to rationalize discharge of sewage and industrial effluent into the river. It should be properly treated and there should be restrictions on such discharge into the river.

132. From the perspective of water quality, the state of the river Ganga at Kanpur is of key concern. The river in this stretch receives considerable pollution from two tributaries, the river Kali-East and river Ramganga and also forms many point and nonpoint sources. The river is classified as 'C/D' due to high BOD, low DO and high TC. The water quality in this zone should be improved to Class 'B'.

The National Water Policy 2012, under clause 1.3 states:

> iv. Water needs to be managed as a common pool community resource held, by the state, under public trust doctrine to achieve food security, support livelihood, and ensure equitable and sustainable development for all.
> v. Water is essential for sustenance of eco-system, and therefore, minimum ecological needs should be given due consideration.
> vi. Safe Water for drinking and sanitation should be considered as pre-emptive needs, followed by high priority allocation for other basic domestic needs (including needs of animals), achieving food security, supporting sustenance agriculture and minimum eco-system needs. Available water, after meeting the above needs, should be allocated in a manner to promote its conservation and efficient use.

Under clause 3.3, the policy states that, "Ecological needs of the river should be determined, through scientific study, recognizing that the natural river flows are characterized by low or no flows, small floods (freshets), large floods, etc., and should accommodate developmental needs. A portion of river flows should be kept aside to meet ecological needs ensuring that the low and high flow releases are proportional to the natural flow regime, including base flow contribution in the low flow season through regulated ground water use." However, there is a long way to go, as various stakeholders still need to understand the vitality of rivers from an environmental perspective.

133. A three Member Committee set up by the MoWR,

submitted a report in March 2015. This report hails recommendations on "Assessment of Environmental Flows". The Committee concluded that the E-flows assessment (EFA) is an important step in determining the River Health Regime (RHA). Achieving a specific River Health Regime (RHA) may warrant certain policy decisions to set boundary conditions for planned action. The timeline, resources, resource requirements and challenges faced are expected to be different and may have to be based on strategic planning. It recommended adoption of the stated description of E-flows. It emphasized that E-flows are not only about the water flows. However, maintenance of the water-sediment balance is also an essential condition. It is desired that E-flows should carry suspended load and bed load in approximately the same proportions as present in virgin flow. The Committee also came up with the recommendations about how to estimate E-flows and minimum environmental requirement in rivers, depending on the River Health Regime. The report strongly recommends the Building Block Method for assessment of E-flows as robust and scientifically most suitable. The report divides the river into five health regimes: Pristine, Near Pristine, Slightly Impacted, Impacted and Degraded.

1. Flow regime inferior than the Minimum Ecological Requirement (MER) would render the river in most

degraded rivers in India (except possibly those in North East and some Himalayan tributaries in upper reaches) are already degraded since we are not maintaining even minimum flows.

2. Flow regime that is better than MER but below the E-flows will make the river Impacted.
3. Flow regime higher than E-flows but below 90% dependable flow will make the river Slightly Impacted.
4. Flow regime better than E-flows but below the average flows will mean river is in Near Pristine.
5. If flow regime matches the average flows in the river than it is considered in Pristine.

The above classification of river health status is only with respect to hydrological quantities, we need similar classification for river water quality, geomorphology and biology.

The Committee has stated that the river needs to have Environment flows higher than the MER to allow the rivers to continue to perform its basic functions.

The Committee stated that the E-Flow is not a luxury but a necessity for the people and the society. The objective of E-flow is to recognize the physical limit, beyond which a water resource suffers irreversible damage to its eco-system functions, and systematically balance the multiple water needs of society in a transparent and informed manner. E-flows are one of the central elements in water

resources, planning and management for sustainable development. The suggestions about the E-flows are neither impractical nor will the implementation have disruptive impact on our water needs and uses. The agriculture needs more water and the source is groundwater. Therefore, groundwater recharge and sustainable use should be a fixed priority. The projects related to rivers should also be subjected to proper scrutiny and compliance to the law before they can be implemented.

134. To put it simply, the Environmental Flow is a very simple concept. First of all, this term should always be used in plural, implying that a synonym to environmental flows is an ecologically acceptable flow regime designed to maintain a river in an agreed or predetermined state. Environment Flows are a compromise between water resources development, on one hand, and maintenance of healthy river or at least reasonable condition, on the other. Another useful way of thinking about E-flows is that of 'environmental demand', similar to crop water requirements, industrial or domestic water demand. Despite the simplicity of the concept, complication arose, in the actual estimation of E-flow values, primarily due to meagerness of both understanding of and quantitative data on the relationship between river flows and multiple components of river ecology.

135. Ecologists agree that the major criteria for determining environmental flow should include the maintenance of both spatial and temporal patterns of river flow. The environmental flow should not only encompass the amount of water so needed, but also when and how this water should be flowing in the river. All components of hydrological regime have certain ecological significance. The environment flow is a very pragmatic concept and it is prepared in the interest of environment and ecology to accept a bare minimum. Bunn and Arthington (2002) have formulated four basic principles that emphasize the role of flow regime in structuring aquatic life and show the link between flow and ecosystem changes:

1. Flow is a major determinant of physical habitat in rivers, which in turn is the major determinant of biotic composition. Therefore, river flow modifications eventually lead to changes in the composition and diversity of aquatic communities.
2. Aquatic species have evolved life history strategies, primarily in response to the natural flow regimes. Therefore, flow regime alterations can lead to loss of bio-diversity of native species.
3. Maintenance of natural patterns of longitudinal and lateral connectivity in river-floodplain systems determine the ability of many aquatic species to move between the river and floodplain or between the main

river and its tributaries. Loss of longitudinal and lateral connectivity can lead to local extinction of species.

4. The invasion of exotic and introduced species in rivers is facilitated by the alteration of flow regimes. Inter-basin water transfer may represent a significant mechanism for the spread of exotic species.

136. The above elucidation demonstrates the need of predetermining minimum environment flow of a river as an essential feature because of massive reduction in the flow of the river and indiscriminate extraction of groundwater, which resultantly has adverse impacts on the health of the river. The health of the rivers in India and particularly river Ganga and river Yamuna, have deteriorated considerably. Maintaining flow of river, more particularly, E-flow, have to be adhered to in the interest of environment, health of the river, its aquatic life and its benefits to the society at large as a natural resource. The Notification issued by the MoWR dated 7th October, 2016, refer in its Preamble that there is a need to maintain ecological flow in river Ganga with the aim of ensuring continuous adequate flow of water throughout its length so as to preserve its ecological, natural and pristine condition and then enable it to self-rejuvenate but Clause-5 of the Notification mandates that every State Government shall endeavor to ensure maintenance of uninterrupted flow of water at all times in

river Ganga as required, without altering natural seasonal variations. Importantly, Clause 4 (vi) also requires that the integral relationship between surface and sub-surface water (groundwater) shall be restored and maintained. The aquatic bio-diversity in Ganga basin shall be regenerated and conserved. The banks of river Ganga and its floodplains shall be considered free zones to reduce the pollution source. Thus, both the aspects in relation to maintenance of minimum environment flow and regulated extraction of groundwater as well as to prevent undue diversion of Ganga water, are matters of concerns in relation to which the Tribunal is required to pass appropriate directions.

137. Still another aspect that has to be considered which is relevant for maintaining the minimum flow of the river, is the need to check and control mining of minerals from the riverbed. It will be appropriate that except precautionary dredging of the river, no in-stream mechanical mining is permitted and even the mining on the flood plain should be semi-mechanical and preferably more manual. Indiscriminate and illegal mining on the flood plain does cause environmental degradation and adversely affect the health of the river. The aquifers in the flood plain which maintain the flow of the underground water are also adversely affected by indiscriminate and deep mining on the flood plain.

The water intensive crops like sugarcane and paddy form the main crops in Ganga River Basin and they consume excess of 20 KL per hectare under the conventional flood irrigation for sugarcane, likewise 30 KL water per hectare for paddy crop. Such irrigation is unscientific and leads to high consumption of groundwater or water drawn from other sources. This provides only 35 – 45 % irrigation efficiency leading to great loss of irrigation water whereas drip irrigation and some improved method of irrigation can enhance efficiency to as high as 95%. Thus, greatly helping in maintenance of E-flow and reducing diversion of water for agriculture purpose.

138. Before we proceed to pass these directions it will be essential to discuss the contentions of various stakeholders with regard to above stated aspects. The learned Counsel appearing for the UPPCB, upon instructions from the concerned officers stated that as per the report of WWF, the minimum flow of the river should be 45% of the average annual main run off. The learned Counsel appearing for the MoWR, upon instructions from the competent authority and the Director of Central Ground Water Commission submitted that the minimum E-flow of river Ganga should be 20% in the lean season i.e. November to March, 25% in October and April and 30% from May to September on a monthly average flow basis. Percentage should based on the flow of the river Ganga,

pre-diversion or extraction. It is also stated that excessive extraction of groundwater, is a serious issue in the floodplain and the lands falling near river Ganga in Segment-B of Phase-1. There should be reduction in extraction of groundwater as excessive extraction of groundwater directly affects the flow of river. The diversion again should not be excessive, at the maximum, it could be 75% of the flow of the river prior to extraction on a monthly average during the lean season. The Member Secretary, CPCB upon instruction stated that the minimum E-flow of the river in Segment-B of Phase-1 should be 600 cusecs. According to them, it is based upon the data of UP Irrigation Department, Notification issued by the State Government on 5th October, 2010 and the judgement of the Allahabad High Court in the case of Writ Petition No. 4003 of 2006.

139. The flow of the Ganga river at Haridwar is 13639 cusec giving a percentage of 5% and 55% of this river flow gets diverted at Haridwar itself. According to them, the discharge should be 45% while diversion 55%. According to them, there should be due check on extraction of groundwater in the Segment-B to prevent adverse impacts on the basis of flow of the river. MoEF&CC directly adopted what MoWR has said. They consider it appropriate that 20 cumecs, i.e., @750 cusecs should be minimum flow of river Ganga in Segment-B. According to them also, the excessive

groundwater extraction should be checked immediately and appropriate measures should be taken in that behalf. The Director (Technical), NMCG submitted that the information provided by the Central Water Commission which in fact is a part of their Ministry in relation to e-flow of the river Ganga is acceptable to the Ministry.

The State of UP *vide* its order dated 5th August, 2010 had issued directions that "notwithstanding anything contained in the operations manual or any standing orders in respect of Narora head Works of Lower Canal, it is hereby directed that a minimum flow of 10 cumecs (353 cusecs) shall always be released into the river, in view of the recommendations of the Empowered Committee constituted by the MoWR, Government of India, *vide* O.M. No. 3(i)-89-GB-FBI dated 12th December, 1989. It is further clarified that releases in excess of 10 cumecs, as provided in operation manual/regulation orders etc. or as per orders of the Hon'ble High Court/the Hon'ble Supreme Court, shall remain unaltered and adhered to strictly."

High Court of Allahabad on the statement made by the learned Counsel appearing for the State of UP had directed that everyday minimum 1500 cusecs water shall be released from Narora, which shall be increased to 2500 cusecs on the relevant bathing days during the Maghmela.

We may also notice here that on 2nd December, 2016, when Professors from the IIT Consortium had appeared

before the Tribunal, even they expressed the view and which they had recommended to the Government that environmental flow of river should be maintained and, if necessary, reasonable reduction in release of water to the canal and some element of regulation or even prohibition for extraction of groundwater in Segment-B be done. All efforts should be made to restore the health of the river.

The above are the contentions of different stakeholders, with the variation of percentage or cusecs of water that should be permitted to flow in the river, they are *ad-idem* that E-flow has to be maintained. There should not be unregulated and unchecked extraction of groundwater and wherever it is necessary even prohibition should be imposed for extraction of groundwater. Similarly, the diversion of river in canal and other water channels should also be regulated. The Tribunal in its judgement dated 10th December, 2015 *India Council for Enviro-Legal Action v. NGRBA & Ors.* in relation to Segment-A of Phase-1 of river Ganga had held that environmental flow of Ganga and its tributaries was affected and in turn would have extensive implications of other needs of the society and the river itself. Thus, it had directed that actions should be duly taken to maintain the environmental flow of the river.

139. In the case of '*Manoj Misra vs. Union of India*', O.A. No. 6 of 2012 (supra) in its order dated 11th June, 2015, the Tribunal held that most of the rivers in India have gone

sick primarily due to excessive diversion of their flows. The diversions have been planned and executed, without taking into consideration the survival need of nature and its riparian communities. To improve health of the river, infrastructure and development would not be in consensus, unless survival needs of the river system are made an integral factor for river planning. Noticing that indiscriminate and excessive extraction of groundwater had resulted in drastic fall in groundwater levels, all along the riparian fringes of the river, as there is no water in the river to recharge the groundwater aquifer, biodiversity (flora and fauna) which is hardly subsisting in the river or in its riparian fringes.

In the order, the Tribunal noticed that inadequacy in E-flows of river Yamuna all through the years has been a matter of concern as even stated by the Committees with great emphasis. Besides maintaining the requisite E-flows, creation of number of channel reservoirs of all cities should make it mandatory to have rain water harvesting and reuse of treated wastewater to save fresh water in the river, flood irrigation should be prevented and substituted by other economical modes of irrigation and water supply to industrial units should be strictly rationed.

Referring to the orders of the Supreme Court in that case and the agreement between the States, finally, the Tribunal directed that till the final studies are carried out and the

minimum flow is identified and notified by the Principal Committee in that case, 10 cumecs water would directly be maintained in the main stream of river Yamuna from Hathnikund barrage till Wazirabad all through the seasons.

140. Now, we may also examine the concerns in relation to groundwater. A ground water study carried out by the Directorate of Environment under a study sponsored by MoEF&CC has brought out that 659 blocks out of 820 blocks in the State are affected by ground water level decline. In fact, 179 blocks in 43 Districts are categorised as Critical/Over exploited. All the prominent urban centres like Kanpur, Meerut, Ghaziabad, Agra, Lucknow Noida and Varanasi are severely affected with depletion of groundwater level. Not only this, even the quality of groundwater is a matter of concern, as contamination is high in concentration of fluoride, iron, arsenic, chromium, magnesium and also in salinity in certain areas. This is also corroborated by the test reports submitted by the CPCB as a part of the Joint Inspection Team, carried out pursuant to the direction of the NGT. The study has estimated that in order to meet domestic, industrial and irrigation needs of a growing population, the level of groundwater extraction pollution is expected to increase from 49.48 BCM to 72.06 BCM by 2025. This is expected to put more stress on the groundwater. The impact of

climate change will further add to this critical situation and add as an additional stress.

We have already noticed that excessive extraction of groundwater can have its own adverse impacts on the environment and health of the river. The Professors representing the IIT Consortium, before the Tribunal on 2nd December, 2016 also stated that one of the main reasons for high pollution of river Ganga was excessive extraction of groundwater at Haridwar downstream. It was on two counts, i.e., one diversion of major part of the river flow to the canals. Secondly, indiscriminate, unregulated extraction of groundwater for agricultural, domestic and industrial purposes in the entire basin, particularly, in the section from Haridwar to Kanpur. Nearly 80% of the water was being extracted in different forms. The high water extraction affects the recharge of the groundwater. Besides this, all the stakeholders have also expressed the view that the extraction of groundwater is one of the principal causes for reduction of E-flows and consequential increase in pollution. It should be appropriately regulated by the CGWA.

141. According to the CGWA, the total groundwater draft (extraction) in the 60 blocks from Haridwar to Unnao alongside river Ganga is 4,70,496.16 ham (4.70 bcm). The groundwater draft for domestic and industrial uses is 47,370.32 ham (0.47 bcm). The draft towards irrigation

purposes is 4,23,125.84 ham(4.23 bcm). This shows the extent to which the groundwater is extracted for different uses. Such high industrial extraction of groundwater would definitely impact the recharging of the river and would also empty the aquifer. Constant extraction of groundwater without any precautionary measures being taken for recharging the same, is causing depletion of groundwater levels constantly. Thus, we have to pass specific directions in regard to environmental flow of the river, extraction of groundwater and the diversion of water of river Ganga into canals, etc.

1. On the cumulative analysis of the submissions made and as an interim measure, we direct that while diverting the water from Haridwar to the Ganga canal, the minimum E-flow in the main stream does not deplete below 20% of its natural stated flow, which will be referable to the status of the river at Haridwar pre-diversion. Also, the extent of diversion of water of river shall be adequately reduced and/or adjusted, in the event the flow falls below 20%. We have already noticed that the water of river canal is being wasted indiscriminately which ultimately joins various drains in Segment-B which as already directed should be prevented.
2. We direct the CGWA, Irrigation Department of State of UP, UPPCB to carry out study as to the

requirement for minimum environmental flow of river Ganga, that is essential to maintain the health of the river, its aquatic life and biodiversity. This Committee should submit the report to the Tribunal within six months from the date of passing of this judgement.

3. We direct that no person shall be permitted to extract groundwater for industrial and commercial purposes unless it has obtained permission from CGWA. The CGWA should also regulate extraction of groundwater for agriculture and other purposes as per State policy. The permission shall be granted subject to such terms and conditions as may be necessary for the purpose of preventing and controlling the pollution on the one hand and ensuring maintenance of depletion in the groundwater projects as well as ensuring measures for recharging of the groundwater levels.
4. We direct the CGWA to carry out the study and notify the areas in Segment-B of Phase-1 which are Over Exploited, Critical, Semi-critical and Safe zone. There shall be complete prohibition on extraction of groundwater in the critical areas. Further, in relation to other two areas, the CGWA shall also publicize the fundamental conditions subject to which the extraction of groundwater would be permitted and the extent thereof and if necessary would require people to fix the flow meters who are using the borewell or

tube-well for extraction of the groundwater.

DEMARCATION OF FLOOD PLAINS, DUMPING OF MUNICIPAL SOLID WASTE, BIO-MEDICAL WASTE AND E-WASTE

142. Being an integral part of the river, floodplain of the river requires protection. Floodplains play significant role in maintaining the bio-diversity and aquatic life of the river. It's significance cannot be overlooked, in terms of environment and ecology. There are numerous dimensions involved while identifying the floodplains. It is required to categorize it into different zones, namely, No Development Zone, Regulated Zone and a Free Zone for development. The principle of Sustainable Development itself justifies the classification of floodplains into such zones for protecting the river. This Tribunal in the case of *Manoj Misra* (supra) had the occasion to deal with the concept of floodplain, its zoning and management. The Tribunal held as under:

> "79. Development and regulation of floodplain of Rivers falls within the purview of the State. Floodplain is an integral part of River system even though it is used only occasionally to pass down flood flows. When floodplain is not occupied by water it forms part of the land system providing possibilities of carrying on some restricted activity. It is not possible to provide uniformity in the extent of floodplains with respect to different Rivers as well as its various reaches.
>
> 80. Floodplain zoning has been accepted as an important nonstructural strategy for flood management. The basic concept of floodplain zoning is to regulate land use of floodplains to restrict damage caused due to floods. The floodplain zoning, therefore, aims at

determination of locations so that flood damages are reduced to minimum. A very restrictive activity can be allowed in that area. It is not only to protect the areas from damage resulting from floods and failure of water protective measures, but is also useful in reducing the damage caused due to drainage congestion, particularly in urban areas. The Commission claims to have prepared a model bill relating to floodplain zoning. This model bill provides for different categories based of priorities in floodplain. Following are the recommended priorities:

1. "Defense installations, industries, public utilities like hospitals, electricity, installations, water supply, telephone exchanges, aerodromes, railway stations, commercial centres, etc buildings should be located in such a fashion that they are above the levels corresponding to a 100 years frequency or the maximum observed flood levels. Similarly, they should also be above the levels corresponding to a 50 years rainfall and the likely submersion due to drainage congestion.
2. Public institutions, government offices, universities, public libraries and residential areas. Buildings should be above a level corresponding to a 25 year flood or a 10 year rainfall with stipulation that all buildings in vulnerable zones should be constructed on columns or stills as indicated above.
3. Parks and playgrounds. Infrastructure such as playgrounds and parks can be located in areas vulnerable to frequent floods. Since every city needs some open areas and gardens, by restricting building activity in vulnerable areas, it will be possible to develop parks and play grounds, which would provide a proper environment for the growth of the city."

> 81. According to this affidavit, the National Water Policy – 2012 provides that conservation of Rivers, River corridor, water bodies and infrastructure should be undertaken in a scientifically planned manner through community participation. Encroachments and diversion of water bodies must not be allowed and wherever it has taken place, it should be restored to the extent feasible and maintained properly. Despite declaration of floodplains, demarcation has all along been a matter of concern.
> 82. The floodplain must be demarcated, kept free from any permanent developments and wherever it is possible, it should be restored to its original position."

During the course of proceedings before the Tribunal, the stakeholders also deliberated in favour of demarcation of floodplain of river Ganga, for ensuring protection and maintenance of the health of the river. The above stated precedent of the Tribunal also has its definite reference in the Notification dated 7th October, 2016 issued by the MoWR. In sub-clause (ix) of clause 4(v) of the Notification which relates to Principles to be followed for rejuvenation, protection and management of river Ganga, states that the bank of river Ganga and its floodplains shall be a construction free zone to reduce sources of pollution, pressure on floodplains and to maintain its natural groundwater recharging properties. This clearly demonstrates that fixation of the floodplain and its demarcation is one of the principal projects for cleaning and rejuvenation of river Ganga, amongst all the

stakeholders. As already stated, the project at priority is to clean river Ganga and not to diversify financial resources to the subsidiary function of cleaning innumerable drains in the city. There are innumerable factors consequential to pollution of floodplains of the river. Indiscriminate and unplanned constructions or developments, carrying on of unauthorized and impermissible activities, dumping of municipal solid waste, bio-medical waste and E-waste in and around the floodplains, are some of the main contributors of pollution in river Ganga. Referring to the proceedings of the Tribunal dated 3rd May, 2017, where it was brought to the notice of the Tribunal that huge quantity of hazardous waste generated from E-waste processing, in powder form, is being dumped indiscriminately on the banks of river Ramganga at Moradabad. It was also fairly conceded that such hazardous waste is highly polluting and would introduce heavy metals into the river, which will be injurious to both human health and environment. It was further noticed that all the concerned authorities were eluding from their responsibility, in regard to removal of waste and its disposal in accordance with the Hazardous Waste Management Rules. The Tribunal thereupon passed the following directions:

> "We are of the considered view that it is the responsibility of the UPPCB, Uttar Pradesh Jal Nigam, Government of Uttar Pradesh, Irrigation Department in

particular and all the Local authorities responsible including Local Police. It is not an issue on which the State and its various instrumentalities should be at variance or to take recourse to the blame game and they should collectively operate to ensure protection of environment and public health. It is such a serious pollutant that it cannot be permitted to be staged on the River bank whatever be the cost, whatever be the procedure adopted. Resultantly, we hereby constitute a Committee headed by the District Magistrate, Muradabad, where a senior nominee of the Member Secretary of Uttar Pradesh Pollution Control Board, Government of Uttar Pradesh, Irrigation Department, Uttar Pradesh Jal Nigam, Muradabad Municipal Corporation and Muradabad Nagar Nigam and DSP of the concerned area would be the Members of the Committee. This Committee will ensure removal of such hazardous waste from the bank of River Ramganga within one week from today.

The hazardous waste should be transported and disposed of strictly in accordance with the Hazardous Waste Rules. It should be ensured that during the course of removal no part of this waste is permitted to go in the water of River Ramganga. The work shall be executed within the time afore-stated. Each officer including the Chairman of the Committee would be personally responsible for the compliance of this Order. The Compliance Report shall be filed within two weeks from today.

All the industries concerned there and the places where the electronic waste is being handled/processed shall be informed that any person throwing such a waste on the River bank shall be liable to pay environmental compensation of Rs. 50,000/- to Rs. 1 lakh, depending on the quantum of the waste being thrown. This cost will be recovered by the SDM of the concerned area as an arrear of land revenue, in the event of default. The Committee or any of its officer would bring to the

> notice of the Tribunal, if any person failed to deposit and pay the environmental compensation in the event of the default of compliance.
> The cost incurred for disposal of the hazardous waste by the Government and the Pollution Control Board will be recovered from all the persons who are involved in the illegal activity of handling and processing the electronic waste in the city of Muradabad. However, the environmental compensation would be released at the subsequent stage, but in the first instance, it would be incurred by the State of Uttar Pradesh and UPPCB."

The Committee had also reported that the soil samples collected in the vicinity of river Ramganga exceeded the limits in relation to heavy metals like Zinc, Chromium, Arsenic, Cadmium, Mercury etc. This shows the extent of pollution resulting from indiscriminate dumping of E-waste.

143. Similarly, there are documents and reports on record to show that MSW is being directly dumped into the river and/or on its floodplain. In fact, there are few waste dumping sites which are closely located to the floodplain of river Ganga and its tributaries.

The apparent disadvantage of dumping sites being close to the floodplain is that, during high tides, the waste is carried by the water which pollutes the river. There is documentation on record of the Tribunal to show that there is a huge disparity between the total bio-medical waste generated in the State of UP, particularly, in

segment B of phase-I and the optimal capacity of the Bio-medical Treatment Plant in the area which makes it evident that large quantity of bio-medical waste is being dumped and/or is thrown into the rivers, resulting into pollution of the river which cannot be permitted to be continued. Furthermore, the authorities concerned including the UPPCB have not discharged their duties appropriately in relation to collection, segregation and appropriate disposal of these wastes in accordance with the relevant rules. All these aspects need unambiguous directions to ensure control and prevention of pollution of river Ganga.

a) We direct and constitute a Special Committee consisting of representatives from MoWR, Senior Officer from Department of Irrigation, State of Uttar Pradesh, Revenue Department of Uttar Pradesh and Central Water Commission which shall identify and demarcate the floodplains of river Ganga in Segment B of Phase-I on one in twenty five years cycle.

b) Till the said identification and demarcation of floodplain is completed, we direct that 100 meters from the edge of the river would be designated as no development/construction zone in Segment B of Phase-I i.e. Haridwar to Unnao, Kanpur.

c) The Special Committee would also identify no development/construction zone, regulatory zone and

the activities that can be/cannot be carried on in the regulatory zone of the floodplain.

d) There shall be a complete prohibition on disposing of MSW, E-waste or bio-medical waste on the floodplain or in river Ganga or its tributaries falling in Segment B of Phase-I.

e) As directed in our order dated 11th April, 2017, for each default, the defaulter would be liable to pay Environmental Compensation of ₹ 50,000 per default for such dumping and/or throwing the waste of any kind into the river.

f) All the concerned authorities including the UPPCB, UPJN and State of UP shall be responsible for carrying out these directions as well as the directions contained in our order dated 11th April, 2017 (supra).

g) There shall be no dumping or landfill sites for any kind of waste irrespective of any technology for waste processing, within 500 meters from the edge of the river Ganga and/or its tributaries.

ZERO LIQUID DISHCARGE (ZLD), CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) AND ONLINE MONITORING SYSTEM:

144. In this judgement, the Tribunal is concerned with the identification and resolution of all sources causing contamination of river Ganga and its tributaries. The paramount source of pollution of the river is the effluent discharge from the industrial sectors. Regulation of

industrial effluents introduced directly or indirectly into the river Ganga or its tributaries is a fundamental requirement for abatement of pollution. In segment-B, highly polluting industries like sugar, distillery, textile, tannery, paper mills and slaughterhouses, amongst others are located. These industries discharge treated or in majority of cases even untreated effluents into the water bodies. All industries are required to discharge their effluents strictly in accordance with the prescribed parameters. Violation thereof, leads to consequences including closure of the units in accordance with the law. Despite such serious consequences, the industrial pollution of the river has been on escalation, since past many years. There are apparent deficiencies in the effectiveness of the regulatory and supervisory regime, provided under various environmental laws in force in the country. One of the ways to improve the regulatory regime and to ensure that the industries should adhere to the relevant environmental laws was to enforce ZLD and online monitoring system. In fact, the CPCB had issued directions to the UPPCB under section 18(1)(b) of the Water Act, 1974 for seeking action plan from industries on implementation of ZLD in identifying industrial sectors in March–April, 2015. It had even issued guidelines for techno-economic feasibility of implementation of ZLD for water polluting industries in June 2015. It required that there shall be

compliance with the environmental standards notified under Environment Protection Act of 1986 and to permit the industries to discharge effluents only after compliance. It was acknowledged that ZLD was a necessity and technically exigent. It was also stated that ZLD can be achieved by adopting conventional primary, secondary and tertiary effluent treatment and polishing by filtration and using clean water back into process or domestic use. It also provided an option to select the technical system facilitating achievement of ZLD. In other words, ZLD could be attained by recycling or by achieving no discharge at all by use of appropriate technology. Similarly, the CPCB on 5th February, 2014 had directed the State Boards to further direct the 17 categories of the industries which were highly/grossly polluting industries in Ganga River Basin States to install CETPs, common bio-medical waste treatment facility, common treatment storage, disposal facility of hazardous waste and to install online monitoring system covering 13 effluent parameters in relation to pH, BOD, COD, TSS, Flow, Chromium, Ammoniacal Nitrogen, Fluoride, Phenol, Cyanide, Temperature, AOx and 8 technical parameters, PM, CO, Fluoride, NOx, SO_2, Cl_2, HCl and NH_3. In the directions, values thereof were even provided.

145. During the course of hearing, all these aspects raised serious controversies. Some of the stakeholders including

the Industries Association, particularly, All India Distillery Association vehemently objected to the enforcement of these directions. *Vide* its order dated 17th February, 2016, the Tribunal noticed the presence of the various Associations like sugar, textile, tannery industries, etc., which were provided time to submit their written submissions in relation to attainment of ZLD and installation of online monitoring system if ordered across the board.

In response to this, written submissions were filed on behalf of the various stakeholders as well as the Industries Associations. We may briefly examine the same. The challenges to ZLD on behalf of the All India Distillery Association is that the UPPCB had issued ZLD directions to member industries of the association on 4th March, 2015 stipulating Concentration and Incineration as the only option available to industries. It is stated that the CPCB and UPPCB had not considered the negative environment impacts, burden on natural resources, economic unviability, high capital cost and long term sustainability of the directions. It is stated that the directions would result in increase in the emission levels and substantially cause air pollution from pollutants such as PM 2.5, PM 10, RSPM, NOx, SOx and Hydro Carbons. The energy required for concentration system would be un-economical and at the same time would consume huge quantity of water,

additional effluents generation as MEE. The concentrated distillery effluents incinerators are very inefficient in stalk emission norms as Electro Static Separators are not installed due to technical feasibility and specifically high moisture in flue gases. The directions would result in substantial increase in greenhouse gases. Distillery effluent is a rich source of BOD and COD, which can be anaerobically treated to generate methane gas. Control line application is one of the most plausible feasibility options that should be provided. It has been practiced in various countries including Brazil, South Africa, Indonesia, etc. One Time Controlled Land Application (OTCLA) should be applied instead of 'Ferti-Irrigation' as earlier directed by the Board. OTCLA would be applied in a controlled manner through tankers and shall be once in 3 to 5 years depending on the soil nutritional deficiency, rainfall patterns, groundwater levels and soil characteristics.

According to the affidavit filed on behalf of the Industries Association, it is also stated that it acknowledges the co-operation of the CPCB in allowing Bio-composting as an alternative method of achieving ZLD. The bio-composting and use of spent wash for agriculture is most environmental friendly and ecologically sustainable technology as it records the waste as a source and prescribes a policy shift. The CPCB estimates that an addition of ₹ 6–8 per liter of product cost shall be escalated

by installing the systems of MEE, RO+MEE with incineration. There would be different criteria for different areas in the country.

The MoEF&CC had filed an affidavit dated 4th November, 2016. It has been in compliance to the directions issued by the Tribunal. It is stated that ZLD is not insisted for those tanneries which are connected with CETPs. Any tannery unit attached with CETPs shall achieve the inlet and treated effluent quality standards as per notification dated 1st January, 2016. The stipulation of ZLD has been proposed for large scale units in environmentally sensitive/critical areas based on the approval of CPCB. Similarly, directions have been issued for large scale units of Textile Industries in relation to ZLD. It was intended to introduce self-regulation. It is also stated with regard to the concept of ZLD that there is no discharge of processed wastewater from the premises of the industries. It is to permit water resource by reuse, recycle and recovery to the extent possible. Similar stand has been taken by the MoWR. The UPPCB also filed a detailed affidavit answering the issue whether ZLD can be applied across the board in respect of all industries. It was stated that ZLD cannot be applied to all industries in segment-B. In relation to distillery units, after applying ZLD technology, the industries have become ZLD units. This seems to be factually incorrect. In relation to Sugar Industries, it is

stated that notification has been issued providing the standards for discharge of treated effluent on the land. In respect of Textile Industries, the Notification dated 10th October, 2016 has been laid down and ZLD has not been insisted upon. In respect of Paper and Pulp Industries, no final notification has been issued and as per the Charter, the Paper and Pulp units which are using agro base as raw material has to treat black liquor and they could become ZLD with Chemical Recovery Plant, where black liquor is concentrated and evaporated. For tanneries, draft Notification dated 10th October, 2016 has been issued for comments and no final notification has yet been issued. The MoWR has issued a Notification dated 7th October, 2016 issued under section 24 of the Act of 1986 where it has been stated that every endeavour will be made to ensure that uninterrupted flow of water is maintained at all the times in the river and no person shall discharge any treated or untreated sewage into river Ganga, its tributaries or on its bank, directly or indirectly. Similarly, restriction has been placed on industrial waste, bio-medical waste or any hazardous substance.

146. It needs to be noticed that there is contradiction in terms, not only between the two Notifications issued by the MOWR and MOEF&CC dated 7th October, 2016 and 10th October, 2016, respectively but also the principal statute, i.e., Water Act. The MoWR has issued a Notification dated

7th October, 2016 which requires that no person shall discharge directly or indirectly any treated or untreated sewage or sewage sludge into river Ganga, its tributaries or its bank. Similarly, it also prohibits discharge of treated or untreated trade effluent and industrial waste, bio-medical waste or other hazardous substance both directly or indirectly into river Ganga or its tributaries or their banks. On the other hand, the Notification issued by MoEF&CC dated 10th October, 2016, provides that the treated effluent as well as sewage could be discharged into the water bodies provided it satisfies prescribed standards. The Notification, particularly, in relation to the Textile Industries prescribes the standards and states that in case of direct disposal into river or in the lake, stringent standards could be provided to the satisfied standards, as already noticed on similar lines the draft Notification in relation to Tannery Industry. The provisions of the Water Act specifically permits discharge of trade effluents on land, drains, water bodies and other places if it specifies the prescribed norms. The Notification issued by MoWR, thus places a complete prohibition on discharge of sewage or trade effluent, which in terms is contrary to the statutory provisions of the Water Act and the Notification issued by the MoEF&CC in terms of Environmental Protection Act, 1986. The Notification issued by MoWR can thus hardly be given effect to and the ZLD concept

proposed can hardly be complied across the Board. What probably was intended under the Notification of 7th October, 2016 was ZLD of the industrial units by ensuring recycle and reuse of effluents for irrigation, horticulture, industrial and cooling purposes. The other Notification provides a relaxation completely to various kinds of industries in relation to the effluent that such group of industries discharge. The Notification issued by MoWR cannot override the provisions of the Water Act, Environmental Protection Act, 1986 and other statutory Notifications. However, this Notification would have to be given its plausible meaning by holding that it suggests ZLD in the above terms but does not absolutely prohibit the discharge of the industrial trade effluent, i.e., inconsonance with the prescribed standards. If the Notification is given in literal interpretation it may result in shutting down of large number of industries in the country, that certainly does not seem to be the intent of the Notification, particularly, in face of the enacted law by the Parliament. The purpose is to achieve the prescribed trade effluent and preferably means for recycle, reuse thereof, unless the conditions of the Consent to Operate order specifically provide for installation of devices like incineration or evaporation.

147. At this stage, we may also refer to the compliance statement filed on behalf of the MoEF&CC and CPCB,

jointly, in furtherance to the Chamber meeting of 8th July, 2016. The issue afore-referred was fully clarified in its minutes of meeting, filed on 3rd August, 2016. It is stated that ZLD refers to installation of facilities and systems to enable the industrial effluents for recycling and converting solute into residue into solid by adopting method of concentration and thermal evaporation. Draft standards have also been spelled out by the Ministry, which were to be put up on the website inviting comments of the people. It was stated that in the case of ZLD there will be no discharge and upto 97% water can be recovered by reuse in the process. There would be salt generation of 4 tonnes per MLD, which can be recovered for reuse and would meet the prescribed standards. While the conventional treatment system would leave discharge into surface water bodies or use for irrigation releasing high TDS. It is also convenient to operate and maintain the treated effluents which can be used for irrigation purposes after compliance. Comments were also submitted with regard to online monitoring system with the purpose to create self-regulation standards and comply with the stipulation.

In furtherance to the order of the Tribunal dated 17th February, 2016, the association of industries were also directed to make representation to the CPCB and they were to be commented upon by the Central Pollution Control Board and record was to be placed before the Tribunal. The

representation from sugar sector, tannery sector and distillery sector were also received by the Board. Common argument was that and the raw distillery effluent if directly concentrated and incinerated, would not give beneficial results. It would lead to wastage of energy produced from non-renewal sources besides loss of nutrients present in the spent wash. Bio-composting, concentration or incineration had not been tested and proven to be correct and environment friendly. The cost of the technology is very high, therefore, economically not viable. It would be impossible for the industries to adhere to this technology. Probably treated effluents could easily be used for irrigation purpose. The Small Scale Industries are not capable of meeting the ZLD and therefore, CETP would be the proper remedy. Primarily, the comments of the Boards were primarily that the incinerator or bio-composting or insulation for spent wash and disposal is optional for the industries. Some industries have adopted this technology. A minimum quality specification of the finished compost is essential to ensure that the industries practice bio-composting properly following the protocol and utilisation of finished compost in agriculture. The industries in any case should achieve the standards as per the Notification of 1st January, 2016 and textile units should be attached to CETPs. The remnant of treated effluent should be allowed to be discharged into river only after exhausting it

upon reuse for irrigation.

148. From the above discussion, on advantages and dis-advantages of the ZLD, it is evident that ZLD cannot be adopted across the board. It must have rationality as its sole criteria, should be unit centric and industry specific oriented. The Sugar or Distillery Industries may be of a huge capacity say discharging 100 MLD per day. They could be a Sugar Industry or Distillery Unit with 10 MLD discharge and thus a very small-scale unit. To apply same yardstick to all would not be feasible and result oriented. They should be assessed on their own performance and function, however, ensuring in all the situations that the effluents permitted to be discharged on land/drain, etc. should be strictly adhering to the prescribed norms. The Board in its advisory capacity may be able to suggest or guide as to the integral technology, which may be feasible for the industries for attaining the prescribed norms. To impose ZLD on such industries would neither be fair nor just. In fact, it will not be in consonance with the requirement of law under relevant Acts. An industry should be permitted to operate, subject to grant of Consent to Operate, by the concerned Board. The CPCB has the competency under law to issue directions under Section 18 of the Water Act. The purpose of empowering Boards with certain powers is to restrict and control pollution. It is not expected from the Boards to stop the natural growth or

restrict industries from operating but compliance to the environmental laws is fundamental to exercise of their powers. The Board must take into consideration of the aspects including technology, financial viability, limitations of the unit, process adopted by the industries but in all events ensuring that the discharge of effluents from the unit has to be strictly in compliance with the prescribed standards. No industries, big or small can be permitted to pollute the groundwater, drains, water bodies and environment.

To put it simply, the ZLD directives cannot be applied across the board. On the one hand, it would be violative of the rights of the parties while on the other would not be in consonance with the provisions of the relevant environmental acts. ZLD should be applied on case to case basis. The concerned boards should exercise its technical know-how to issue appropriate directions in that behalf. The ultimate purpose is prevention and control of pollution and not an internal management of the plant. Effluent discharge must be strictly within the prescribed norms and the Board in appropriate cases could issue directions with regard to recycle, reuse of the treated effluent appropriately. The ZLD as inferred from the notification dated 7th October, 2016 is incapable of being enforced across the Board without reference to the member industries and other relevant aspects afore-stated.

149. Similarly, the Online Monitoring System or Continuous Emission Monitoring System should also be applied on case-to-case basis with reference to the facts and circumstances of the given unit. They must be practicable, for instance, if there is a tannery unit which has consent for processing of hides at a day to be expected to become ZLD or to install Online Monitoring System or Continuous Emission Monitoring System would be opposed to any accepted principles of technology and safeguards of economic advancement. They would be compelled to operate and discharge their effluents only and strictly as per the prescribed norms in default. They would be liable to be shutdown. Another consequential issue that arises in this context, there has to be a specialised, technically sound and dedicated mechanism with every board including CPCB which monitors entire input of Online Monitoring System or Continuous Emission Monitoring System. This monitoring should include not only collection of data but to ensure that actions taken in default and operational deficiencies in the units are rectified within the prescribed time, failing which the unit should be ordered to be closed. The concept of self-regulation would achieve its object, only when there is an effective supervisory control. There have been serious and noticeable drawbacks, deficiencies, and omissions in regulatory regimes else, the current state of industrial

clusters, drains, tributaries of the river would not have been prejudicial to such an extent.

Continuous calibration by CPCB to ensure that the online monitoring system shows the correct values and it must be compared with the actual effluent analysis collected by the Board on regular intervals.

DEFICIENCIES IN SUPERVISORY CONTROL BY EXECUTING BODIES, REGULATORY AUTHORITIES AND STATUTORY BOARDS

150. We have already discussed at some length that one of the main reason for increased pollution of river Ganga and its tributaries is discharge of industrial effluents and sewage, partially treated or untreated at a very high scale. Furthermore, lack of effective regulatory regime is the very basis of increased pollution, particularly, industrial. Its deficiency in collecting appropriate data, enforcement of environmental laws and regular functioning of environmental treatment plants are a matter of concern. We have already noticed serious variations in data collection by local authorities to the data collected by the Joint Inspection Team constituted by the Tribunal. There seems to be a common practice of preparing DPRs without detailed study and analysis of the effluents in the drain, quantum and quality of the sewage as well. The UPPCB due to lack of infrastructure and manpower and other reasons, has not been able to effectively prevent and control industrial pollution in segment B of phase-I. There

are large number of industries which have either not obtained consent of the Board or are operating in violation of the conditions of the consent to operate granted by the Board. These violations are of serious consequences as they result in discharge of high pollutants into the water bodies. In fact, there is notable and substantial variation in the number of the industries operating in this segment. According to the applicant, there are lakhs of industries which are operating in this area, in this Segment. As per the list declared and uploaded on the website by the Directorate of Industries of the State of UP, and according to the UPPCB there are only 1048 seriously or grossly polluting industries. These industries are on the radar of the UPPCB. However, a large numbers of industries are being referred non-water polluting industries and/or dry industries or small scale industries which indulge in dry processes. From records that have been produced during hearing before the Tribunal, certainly do not reflect encouraging state of affairs. The industries have either not installed ETP(s) or even if it is installed, such ETP(s) are not functioning regularly and effectively. The Board is incapacitated to check performance of the plants and discharge of effluents, strictly within the prescribed measures at regular intervals. It hardly requires further elaboration that if all these industries were operating their ETPs or other anti-pollution devices or processes effectively

and their discharged trade effluent were within the prescribed parameters, the content of the effluent in the drain would not have reflected values much in excess of the prescribed parameters. It is established from the above data and statistics that most of the drains are carrying high pollutants in terms of sewage as well as the industrial effluents, in fact, they even carry metals and pesticides. The cumulative effect of all such disappointing state of affairs upon the river and its aquatic life are certainly quite adverse. It is difficult to accept contentions that in the entire segment B of phase-I, there are only 1070 industries which cause pollution. Even the drains which primarily flow through residential sector are also found carrying mixed effluents. Therefore, it could be said that evidently the industries have settled in and around the residential area as well. The UPJN has not been able to show to the Tribunal even a small portion in the entire segment where they have achieved reality of effluents within the prescribed parameters either in relation to industrial effluent or sewage. UPJN is primarily an executing agency for drainage, sewage and establishment of STPs. The parameters like COD, BOD, TSS, Coliform etc. in the sewage drains were found to be extremely inordinate as compared to prescribed norms. STPs which they have established were within the municipal limits.

151. The STPs are found to be inoperative, inefficient, and

incapable of treating the sewage to bring it to the proposed standards of treatment. The drains have proved to be failed because there is considerable overflow from the tapping points into drain, which ultimately meets the river. The STPs are receiving sewage much in excess of their capacity sewage. During the course of hearing, it came to the notice of the Tribunal that the State of UP was not extending full cooperation as contemplated or required for successful attainment of the projects. Findings to that effect were noticed by the Tribunal *vide* its order dated 4th February, 2015, where senior officer had appeared and assured the Tribunal that they would be extending full assistance and requisite help to the other stakeholders. Even the interim directions issued by the Tribunal had not been complied with in their true spirit and substance. Officers appearing on behalf of the UPJN, UPPCB and State of UP could not provide satisfactory answers for non-compliance of the directions as recorded in the order dated 12th October, 2015.

In the order dated 19th October, 2016, the Tribunal had observed that no definite conclusion could be arrived at until quantum and quality of pollution thereof is correctly placed before it Tribunal in relation to segment B of phase-I. Due to an utmost uncertainty in data relating to quantum and quality of pollution, a meeting was held and the committee was required to inform the Tribunal that

how many drains join river Ganga or its tributaries and make clear observations in regard to the quantum and quality of the effluent entering into river Ganga or its tributaries. The data of the same should be available with both UPJN and UPPCB, which is their basic function and in fact, statutory function for the UPPCB. The UPJN was expected to have complete and accurate data in relation to entire drainage, quality and quantum thereof as well as the technology and performance of all the STPs which unfortunately was not provided to the Tribunal much less with accuracy. Similarly, the UPPCB was expected to have accurate data in relation to number of industries, quality of their effluent and quantum thereof. If they had exercised proper supervisory and regulatory control over the industry the industrial effluents could not have led to such high pollution of the water bodies, particularly, the river Ganga or its tributaries.

In the order dated 25th January, 2017, it was noticed that data in relation to 30 drains meeting river Ganga was not submitted and further directions for collection of appropriate data were issued by that order. As already stated above, the order dated 14th February, 2017, was noticed that despite the fact that ₹ 31 crores have already been spent on lying of the sewer line and for construction of STP in the area of Brijghat and Garhmukteswar, the Joint Inspection Team had noticed that the Garh drain was

carrying discharge of 13 MLD and only 3 MLD STP was operational and 6 MLD STP was under construction. As of present, nearly 10 MLD of untreated discharge was directly joining river Ganga. It came to light that no survey had been carried out before or after preparation of DPR by concerned Department and an STP was of the capacity much lower to the discharge in the drain. The Nagar Palika Parishad of Garmukteshwar had not provided sewer connections to the household and thus, even the requisite effluent of 3 MLD was not taken to the STP for treatment.

On 15th February, 2017, the Executive Officer of the Parishad stated that they had financial constraints; therefore, the project could not progress further. This reflects non-coordination, improper planning, and defective execution. We have already noticed that nearly ₹ 31 crores have already been spent on that project without any effective result. The sewage was being discharged on land thus the purpose of laying down pipeline and establishing STP stood largely defeated. Various other deficiencies in the entire network and operationalization of the STPs were also recorded in the order dated 9th March, 2017. In the order dated 9th March, 2017 and in the later order 24th April, 2017, directions were issued to the Joint Inspection Team and the police authorities were directed to provide due assistance to them.

In the order dated 9th March, 2017, it was specifically

recorded that even the designed STPs were incapable of treating coliform which is running in crores against the prescribed parameter of 230 MPN/100 ml. In proceedings before the Tribunal on 7th March, 2017, all the stakeholders were heard and serious doubts were created due to statement made by Project Manager, UPJN who was unable to state as to the exact planning of the UPJN in relation to treatment of sewage for 110 wards where each ward has 50-200 colonies. According to him 38 wards had no sewer line at all. Reference to all this makes it clear that there are large deficiencies in performance of functions by these local authorities and the Boards. We have not pointed out these patent deficiencies for the sake of finding mistakes but primarily to show that one of the reasons stated by the IIT consortium appear to be justified as to lack of supervisory and regulatory control by local authorities and lack of coordination between them which rendered GAP I and GAP II unsuccessful. This would bring us to deliberate on the role of the authorities, particularly, the Pollution Control Board.

152. The SPCBs are required to play a very critical and pivotal role in ensuring effective implementation of various environmental regulations including Water Act, Air Act and Environmental Protection Act. The Boards are the specialized agency created by statutes to deal with the menace of pollution and environmental degradation. The

Parliament, in its foresight way back in 1974, thought it necessary to create such specialized agency to deal the menace of pollution and environmental degradation. In fact, the mere look at these acts would manifestly reveal that legislative intent in formation of such boards is absolutely clear which can be seen from various provisions related to composition of board, powers given to Board and also, penalty to be imposed in case of violations. The legislative intent and foresight of a strong, proactive, technically sound and effective pollution control mechanism could be easily seen in various provisions of the Acts. The paramount important to pollution control and environment protection could be gauged from provisions of 33A of the Water Act and 31A of the Air Act, where Boards have been given powers even to close down any industry or activity in case of pollution event.

Section 16 of, both Water Act and Air Act, postulates the functions of the Central Pollution control board while Section 17 of both Acts prescribe the functions of the SPCBs. The SPCBs are expected to play a multi-faceted role including strategic planning, advisory, problem based research, technology assessment, and appraisal besides, enforcement and compliance, which is primarily, anchored on public awareness and information disclosures. In order to achieve such strong and critical mandate given in the legislations, the SPCBs are required to develop their

capacity in terms of manpower and infrastructure. The role of SPCBs has become more complex and ever widening with the newer regulations being notified particularly under the provisions of Environment (Protection) Act, 1986, with the advancement of our knowledge and understanding of the environmental pollution and degradation. However, with the passage of time the SPCBs have been systematically been reduced to mere enforcement agency rather than as envisaged in the regulations. There are number of reasons for the same for which numerous studies have been carried by CPCB and MoEF&CC and some of them have been referred in *Rajendra Bhandari v. State of Uttarakhand & Ors* (24.08.2016) (OA No. 318/2013).

153. Key observations regarding the operational strategies of the UPPCB are;

a. Pollution control strategy - UPPCB relies on inspection and investigation as the primary strategy for pollution control. This needs to change. There is no transparent, consistent and coherent enforcement protocol or framework and most of the times, the regulatory response is subjective and in firefighting mode.

b. Tools for pollution control - UPPCB relies almost entirely on internal resources (people, laboratories) for pollution control. In order to be an effective

regulator, it needs to reduce its reliance on own resources and supplement this with external resources.

c. Organizational capacity – UPPCB's organizational strengths have not kept pace with its mandate. UPPCB needs to build an organization commensurate with its activities. It needs to strengthen its technical resources. It also needs to strengthen its IT, public interaction, research and technology assessment functions.

d. No up-to-date inventory of polluting sources (industry): The UPPCB could not present any inventory of polluting sources, and rather just relied on the consent data. The inaccuracy of such data was evident from the level of non-compliances observed at various industries and also, identification of several polluting industries at Moradabad during the proceedings. Significantly, data validation among different state government agencies like UPSSIDC, industries department and Electricity authorities is missing.

e. Lack of research and technology appraisal activities. The UPPCB has no specialized cell or group or trained manpower for research, technology appraisal or standard development activities. There is no broad environmental quality

monitoring network which has been scientifically designed. Similarly there was no proper recording and compilation of the available environmental quality data besides analysis and interpretation thereof.

154. There is an urgent need to create an enabling environment at the UPPCB for research and coordination efforts in future focus areas – A dedicated technical excellence cell with the addition of new spheres of activity, the technical skills have not been updated through retraining, etc., leading to a situation where, as of today, UPPCB finds itself technically deficient in fulfilling its mandate under many of the newer laws and rules. At the same time, it is difficult to expect the operational level employees to acquire these skills independently with little or no support from the corporate office. Thus there is a requirement for a dedicated technical excellence cell, which would perform the following activities:

a. Keep abreast of the latest regulations in pollution control and frame the guidelines and procedures for operationalizing them in with the Board.

b. To research on pollution control mechanisms and coordinate with various research bodies like NEERI and other PCBs in performing the functions.

c. Provide training and systems to the operational

staff for better performance of their current duties as well as new duties that may be added over a period of time.

d. Prepare standard operating procedures (SOPs) and also, conduct benchmarking studies for all major types of industries for effective advocacy and use of covenants.

e. Conduct research as envisaged in Section 17 of Water and Air Act respectively, including assessment of pollution status, appraisal of waste treatment technologies, developing pollutant discharge standards etc.

f. Establishing a well-designed environmental monitoring network and dissemination of such information for public information and awareness, adopting innovative analytical interpretation tools.

g. Track development in the State and perform a proactive role towards pollution control and abatement in the State.

h. Thus, we direct the UPPCB to formulate a scheme for inspecting the industrial units and issue appropriate direction and their compliance on regular intervals. The inspection report should be comprehensive and must deal with all aspects and activities of the industry in question. The consent orders passed by the Board must not be of generic

nature and should be unit specific.

155. Another important aspect of UPPCB functioning is absence of a transparent and consistent enforcement mechanism. The Water act and Air act provide for various regulatory responses in terms of directions, prosecution etc. It is necessary that the regulatory response of UPPCB needs to be based on Precautionary Principle and Polluter Pays Principle aiming for the sustainable development. It was revealed during the proceedings that there is no defined enforcement protocol of UPPCB which can help the field level officials to take a transparent, consistent and coherent approach while responding to the issues of pollution and environmental degradation. This has led to the general perception that the environmental regulatory authorities are not performing and are not able to implement the environmental regulations which are at par with developed countries. The UPPCB including its Board, Chairman and Member Secretary are required to provide such uniform regulatory response mechanism for improved enforcement and compliance, which can bring some confidence of the general public in the environmental regulatory agencies and environmental governance in the country. Such enforcement protocols have already been prepared by states like Maharashtra and Goa.

In order to have such a regulatory response towards ensuring compliance, UPPCB will have to firstly, identify

the environmental risks, in terms of pollution load and intensity, associated with any particular industry or activity based on precautionary principle. In other words, the inspections, sampling and verifications need to be at a different level for a polluting industry like tannery, distillery etc than industries in green category. Board needs to develop certain environmental benchmarks in terms of resource consumption, pollution load per unit of product etc for major types of industries so that there can be uniform appraisal of a particular type of industry and also certain success or failure stories can be properly showcased. As a next step, the enforcement of regulations will have to be based on polluter pays principle. The regulatory response need to be based on scale and intensity of pollution, culpability of industry, track record of industry besides assessment of adverse environmental impacts. In order to have such a comprehensive enforcement mechanism, Board will have to undertake serious efforts in terms of developing industry specific documents, preparation of visit reports to cover all aspects of regulations, development of sound environmental monitoring network besides training of manpower. Board needs to adopt new technology and use of IT particularly web based technologies for this purpose.

While recognizing that capacity building and strengthening of SPCBs is fundamental and critical to achieve the desired

level of environmental protection in the country, the Hon'ble Supreme Court, in its interim order dated 14.10.2003 in the matter of Writ Petition No. 657/1995, regarding management of hazardous wastes, has directed all SPCBs to urgently carry out the necessary measures required for strengthening its pollution control mechanism. The capacity of the technical and scientific manpower available with the SPCBs and their operational independence, free from external influence, are always subject matter of concern. In large state like UP, this problem is likely to be serious. Furthermore, with the ever increasing scope of SPCB activities with many new regulations coming into force along with increasing knowledge of environmental pollutants and the increasing stress on the limited natural resources, it would be necessary to develop these SPCBs with an overall objective to be manned by specialized and trained manpower with sufficient degree of operational flexibility so that the enforcement would be effective. Furthermore, it was revealed that the present pay scales of the Board officials are at very low level. It can be simply assessed by the fact that even CPCB Member Secretary has a pay scale of ₹ (37400-67000) + 8900 GP (Sixth Pay Commission), which is equivalent to Director in MOEF&CC. The Regional officers who are the key field level officials who at many a times bestowed with extraordinary powers of even closing

the industry/ activity and even, manning more than even 2 districts, have very junior scale. All these things make them susceptible to external pressures. MoEF&CC has considered these aspects and the High level Committee report of 2014 has recommended a separate Indian Environmental Service, so that a dedicated specialized trained manpower is available. It is high time that such a service is initiated by the government of India.

156. Considering the above discussions, following directions can be issued as regards to UPPCB/CPCB;

a. UPPCB shall form a separate cell for research, development and monitoring activities and all other supporting and advisory roles as envisaged in the Acts within next 2 months to be headed by senior officer of the Board and directly reporting to Member Secretary of the Board. Board shall make sufficient provisions of funds for this cell to carry out the desired functions. However, we leave it to the wisdom of the Board that till the creation of the cell or even otherwise and procurement of requisite infrastructure, it may outsource such activity, in the interest of prevention and control of pollution.

b. UPPCB shall formulate the enforcement protocol as discussed above within next 3 months and place it in public domain.

c. The State Boards are hereby directed to identify an extensive Water Quality Monitoring Network (including groundwater), analyse and collate the data collected and upload it on their respective website.

Board shall also publish a comprehensive report on water quality status of the State on annual basis, which shall be submitted to State government for necessary action.

d. UPPCB shall prepare and submit a comprehensive proposal for capacity building including additional manpower and infrastructure to the State Government within period of 2 months and Sate government shall take a decision such proposal within 3 months thereafter. In order to facilitate development of such proposal by SPCBs, CPCB shall prepare guidelines for requirements of manpower by the Boards, by standardizing the work requirements for visits, inspections, analysis, research activities, complaint redressal, etc. within 4 weeks. Keeping in view the mandate of the SPCB issued in exercise of its powers under Section 17 of the Water Act.

e. Special dedicated monitoring cell should be created in the UPPCB/Uttarakhand PCB and in

fact, in all the Boards which should have an exclusive duty of monitoring the online systems and take appropriate action, wherever the industry is found to be in default without delay.

f. The order granting and/or refusal of consent to operate or establish should be passed only upon the Joint Inspection by the officers of the Board. The inspection report should be complete and comprehensive dealing with all the operational aspects of the plant and technology required or installed for attaining the prescribed parameters.

g. The UP/Uttarakhand Government and in fact, all the State Governments are hereby directed to consider the proposal of the respective Boards for enhancement of infrastructure and manpower for effectively performing its functions. Such proposal should be considered objectively and as far as possible the infrastructure and manpower of the Board should be enhanced to ensure proper implementation and enforcement of the environmental laws.

h. Effective supervisory and regulatory control by the Board is a condition precedent to achieving effective prevention and control of pollution of environment, particularly, the water bodies.

Above directions are necessary for streamlining and ensuring the proper performance of function and duties by the Boards in accordance with the environmental acts.

POLLUTION OF RIVER GANGA AND ITS TRIBUTARIES ATTRIBUTABLE TO INDUSTRIES LOCATED IN SEGMENT-B OF PHASE-1 WITH EMPHASIS ON INDUSTRIAL CLUSTERS JAJMAU, UNNAO AND BANTHAR

157. In the matters pending before the Tribunal, the State of UP and UPPCB had filed a list of industries which are causing pollution of river Ganga and its tributaries. The Tribunal had directed issuance of notice to such industries and were called upon to show cause as to why appropriate directions should not be passed by the Tribunal to prevent and control pollution resulting from such industrial activities. Besides the main case that is *Kishan Kant Singh vs. National River Ganga Basin Authority & Ors.* (supra) there were 285 cases pending before the Tribunal that related to pollution resulting from discharge of industrial effluents into different drains, tributaries and river Ganga itself.

Vide order dated 29th October, 2014, the learned Counsel appearing for the CPCB had submitted the list which was directed to be placed on its website alongwith the criteria for terming the industries as seriously polluting industries

and/or grossly polluting industries. The Tribunal had passed the orders in relation to the industries to whom the notices had been issued. However, some of them are pending herein presently.

The Supreme Court *vide* its order dated 29th October, 2014 referred the issue of industrial pollution of river Ganga and its tributaries to the Tribunal and expressed in no uncertain terms its anguish and serious concern about the increasing pollution of river Ganga over the years. The Hon'ble Supreme Court also observed that lack of monitoring by the statutory bodies and non-implementation of Court orders by the State Governments and the concerned Pollution Control Boards had contributed to the current state of river Ganga. While noticing that the National Green Tribunal has been established for effective and speedy disposal of cases relating to natural resources including environment, the Hon'ble Supreme Court had expressed confidence in the Tribunal and desired effective and expeditious disposal of cases dealing with all the questions relating to pollution of river Ganga by the industries. This order was passed in Writ Petition No.3727/1985. The Supreme Court directed that effective and immediate steps be taken to prevent and control pollution of river Ganga and its tributaries as well as to restore the wholesomeness of the river as it is a lifeline for large number of people living in States located in

the catchment area of the river and its tributaries.

158. On 20th January, 2015, when the matter came up for hearing before the Tribunal, the learned Counsel appearing for the UPPCB had filed details of 15 industries which were not having their own ETP and were, therefore, closed. 43 industries, which did not have Consent to Operate and were not achieving the prescribed norms were also ordered to be closed. 99 other industries were under self-closure. Show cause notice had been issued to 134 industries as they were found to be defaulting or operating without consent. 19 industries out of them had applied for Consent to Operate, which had been granted and 109 industries out of 134 were ordered to be closed. It was also stated that there are nearly 700 tannery industries in and around the city of Kanpur, which are located on the banks of river Ganga. They are one of the major sources of pollution of river Ganga. The CETP that had been established for treating the seriously polluting trade effluents that was being discharged from these industries, was non-functional. It was not performing to its optimum capacity and in any case was incapable of treating the effluent that was found to be coming at the point of intake of the CETP.

In this order, a question arose for consideration before the Tribunal and for submission by the stakeholders that either these 700 industries could be shifted to a well planned industrial sector at some other site or a new CETP

should be constructed or the existing CETP should be upgraded with such additional anti-pollution devices so as to bring the parameters within the prescribed limit. In relation to the CETP operating at industrial cluster at Jajmau, directions were passed and the concerned stakeholders were required to submit a Report, particularly on the issue referred thereto. Direction was also passed with regard to inspection of the entire industrial cluster. It was undisputedly stated that the industrial cluster at Jajmau itself was generating 12.5 MLD effluents which ultimately meets river Ganga as the existing trade effluent capacity of the CETP at Jajmau, Kanpur was only 9 MLD.

The Committee carried a detailed investigation amongst others in regard to the CETP at Jajmau, Kanpur. The samples collected from this CETP were analysed by the CPCB, UPPCB and IIT Kanpur. The analysis reports have been placed in tabular form in the Report submitted by the Committee. It reads as under:

Parameter	36MLD CETP, Jajmau Kanpur								
	Raw Tannery Inlet (36MLD)			Collection Sump (36MLD)			Raw Sewage (36 MLD)		
	NC1			NC2			NC3		
	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB
pH	8.6	9.55	8.90	8.02	8.67	8.21	7.39	7.47	7.52
BOD	1200	1012	1140.00	540	556	420.00	330	186	290.00
COD	3224	2414	3120.00	1146	1213	1440.00	645	479	640.00
TDS	11500	12068	11805.00	5580	5452	5160.00	1130	932	960.00
TSS	2488	2463	1929.00	525	1229	613.00	325	455	380.00
T.Cr	87.21	70	70.320	59.83	54	53.300	1.72	1.35	1.373
Pb	BDL	0.55	0.335	BDL	0.38	0.291	BDL	0.12	0.231
Zn	BDL	0.27	0.282	0.2	0.52	0.520	0.449	0.57	0.549
As	0.0059	0.04	0.00590	BDL	0.02	0.00441	BDL	BDL	0.00282
S	156	42	104.000	--	--	--	--	--	--

It was reported that the tannery waste reaching the CETP

had excessively high concentration of chromium. It was 70–87 mg/l as against prescribed norms of 2.0 mg/l. Such high concentrations in the incoming wastewater was indicative of an overall poor state of primary treatment by tanneries.

As is evident from the above, all the material parameters are much in excess of the prescribed values. It was also noticed that the sewage reaching the CETPs also had high concentration of chromium. This indicates possible discharge of tannery wastewater into the sewage system. The Committee in relation to the effluent from the tannery as well as functioning of the CETP reported as under:

"**Action Taken/Observed status.**

- The increase in Tannery wastewater quantity is due to the increased production capacity, increase in numbers of member units (Originally 175 nos. & presently 400 nos.). The immediate attention is required to restrict the generation of wastewater from tanneries. UPPCB is required to take appropriate action. Further, tanneries in general are required to ensure wastewater metering and minimization measures and till such time it is achieved and augmentation in pumping and associated treatment capacity is made, an appropriate blanket restriction on production may be imposed on all authorized tanneries.
- As a pre-requisite all the tanneries in Jajmau, Kanpur being member of the CETP are required to ensure adequate primary treatment of the wastewater. The primary treatment is first to ensure optimised flow of the wastewater, structural safety of the conveyance system and also to feed pre-treated wastewater to the CETP. Based on monitoring by various enforcement agencies including CPCB it has been noted that the primary treatment including chrome recovery by the member units is generally

poor. This results in receipt of pre-treated wastewater at the CETP with excessively high concentration of chromium and suspended solids. The concentration as noted in the current inspection were total Chromium: 70 – 87 mg/l as against the designed characteristics of 2.0 mg/l. Poor characteristics of primary treated wastewater has adverse impact on overall performance of the CETP.

- The CETP is designed based on treatability of a mixed waste comprising 09 MLD of tannery wastewater and 27 MLD sewage. Both the input components are required to be consistent in terms of designed characteristics. Based on monitoring by various enforcement agencies including CPCB it has been noted that unauthorised discharge of tannery waste in 90 inch trunk sewer has disturbed characteristics of sewage and hence the mixed waste characteristics fed to the CETP thereby, adversely impacting its performance.
- The inbuilt provision of gas collection and utilizing it to generate power, currently lying defunct has to be made operational. This shall improve overall treatment economics by substituting use of conventional power by gas-generated power.
- Up gradation of the existing Kanpur CEPT is needed for complying the prescribed effluent limits. The option for upgrading CEPT to ZLD system through adequate tertiary treatment system shall also be enforced.
- The Committee felt the necessity for augmentation of pumping station and conveyance system for tannery wastewater. This is required to trap the entire untreated wastewater and convey it to CETP/STP for adequate treatment. This shall eliminate currently observed overflow of tannery wastewater from pumping stations.

Action Point/Issue 9.

The Committee shall examine the project with regard to establishment of CETP of 50 MLD and consider the establishment of exclusive industrial effluent treatment plant at Jaimau and whether it will be capable enough to treat all heavy metals travelling to the CETP in light of the result of the analysis report collected in furtherance to the directions passed herein.

Action Taken/Observed status.

- The existing inventory data available with UPPCB, inventory performed in the past by CLRI and ILFS, reviews that discharge quantity has increased may fold due to increase in production capacity of 250 tonnes in 90's to 1000 tonnes per day as of now. It is suggested that DPR under preparation shall include this aspect in detail and proposed the required up gradation in two modules of @ 25 MLD."

Besides the Inspection Report reflecting poor functioning of the CETP at Jajmau, the Tribunal was also informed on 13th April, 2015 on behalf of the UPJN that they are trying their best within available infrastructure but it is not possible to discharge pollution free effluent into river Ganga. It was undisputed and in fact reiterated that the CETP provides for treating trade effluent and sewage at Jajmau but 60% of the effluent coming to the CETP is being discharged directly into river Ganga without treatment.

Submitting its comments to the Report, the UPJN informed that the CETP is designed only for 36 MLD, mixed water containing 75% sewage and 25% effluent of tannery at Jajmau. However, the effluents coming to CETP are highly polluted and are in excess of the capacity of the plant. It is stated that the UPJN has brought to the notice of the SPCB from time to time that inadequate pre-treatment for wastewater is affecting the performance of the CETP. The effluents coming from the tannery sector is much in excess. It was also stated that the cost of operating the

CETP is to be borne by the Kanpur Municipal Corporation and by the tanneries in Jajmau. The arrears or share from UPJN towards operation and maintenance is more than ₹ 9 crores from the tanneries and the Corporation. The UPJN claims to have spent between the years 2014 -2015 about ₹ 13.9 crores in operation and maintenance of the CETP. The capacity of the STP at Jajmau is of 130 MLD, more STPs are under construction. Only 40% of Kanpur area would be covered by the sewage network by 2020.

In relation to CETPs at Unnao and Banthar, with analysis report and functioning of the CETPs, the following report was submitted to the Tribunal by the Committee:

> **"Action Taken/Observed Status**
> The Technical Expert Committee inspected UPSIDC Industrial Area, Site-II and Banthar Industrial area at Unnao. Inspection of Two CETPs operational in Unnao namely (a) Banthar Industrial Pollution Control Company Banthar Unnao and (b) Unnao Tannery Pollution Control Co. Site-2, Unnao was carried out. The Expert Technical Committee also randomly inspected three tanneries located in Unnao namely (a) M/s Ruksh International, B-6/B-7, UPSIDC, LTP, Banthar, Unnao; (b) M/s Lion Global, Unnao and (c) M/s Iqbal leathers, Unnao. Characteristics of samples collected were deposited for analysis to CPCB, Delhi, I.I.T. Kanpur and Central Lab, U.P.P.C.B as directed by NGT, are summarized as under:

Parameter	CETP Unnao								
	M/s Banthar Industrial Pollution Control Company, Banthar, Unnao								
	Inlet of CETP			Sample After Primary Clarifier			Final Outlet of CETP		
	ND11			ND12			ND13		
	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB
pH	7.24	7.58	7.53	7.68	8.28	8.03	7.43	7.81	7.76
BOD	640	1108	550.00	700	1045	600.00	240	528	230.00
COD	2541	1858	2400.00	2753	2092	2720.00	1341	1155	1440.00
TDS	17514	16900	17151.00	18202	18456	18080.00	15420	15764	15468.00

TSS	656	498	643.00	1080	1033	1100.00	880	609	934.00
T.Cr	10.16	10.6	8.742	6.08	11.2	7.598	6.54	9	7.260
S	--	--	--	--	--	--	8	21	12.00
Oil & Grease	--	--	--	--	--	--	3.09	9	14.000

Parameter	CETP UNNAO								
	M/s Unnao Tannery Pollution Control Company (CETP) Site-2, Unnao								
	Inlet of CETP			Sample After Primary Clarifier			Final Outlet of CETP		
	ND14			ND15			ND16		
	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB
pH	7.63	8.55	8.10	7.54	8	7.88	7.43	7.88	7.78
BOD	780	1597	740.00	580	815	580.00	420	784	432.00
COD	3465	4606	3520.00	2188	2158	2640.00	1694	1363	2000.00
TDS	14568	12724	13113.00	15732	14828	14975.00	17586	16738	16189.00
TSS	4340	7020	9002.00	680	494	590.00	580	575	541.00
T.Cr	190.48	166	148.850	6.62	8.1	7.591	6.42	6.2	6.908
S	--	--	--	--	--	--	812	0.2	14.90
Oil & Grease	--	--	--	--	--	--	1.69	10	8.000

Para meter	M/s Ruksh International, Banthar, Unnao, Final Outlet of PETP			M/s Lion Global Pvt. Ltd. , Banthar, Unnao, Final Outlet of PETP			M/s Iqbal leathers Ltd., Unnao, Final Outlet of PETP		
	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB	IIT	CPCB	UPPCB
pH	7.06	7.26	7.49	7.76	8.2	8.11	4.3	4.48	4.49
TSS	1060	796	1219.00	408	323	421.00	2140	552	2146.00
T.Cr	59.09	47.4	34.830	1.36	1.7	1.059	310.74	450	327.00

Note:- All values are in mg/l except pH
BDL:- below Detection Limit

Even the groundwater samples were analyzed from villages like Shekpur and Jana where the wastewater from CETP was being released and used for floriculture and agriculture. The analysis showed metals like Chromium and Arsenic in the samples. TDS was also noticed much higher to the prescribed parameters. The observation in that behalf is as follows:

- "Groundwater quality observed at all the three locations is noted with a high concentration of total dissolved solids (390-1860 mg/l against prescribed norm of 500 mg/l) and a marginally higher concentration of chromium (0.07-0.19 against prescribed norm of 0.05 mg/l); lead 0.18-0.23 against prescribed norm of 0.05 mg/l); lead 0.18-0.23 against prescribed norm of 0.05 mg/l).
- It has been noted that the area is used for

> (food) crop cultivation instead of floriculture in spite of carrying a potential for adverse impact due to discharge of industrial of industrial wastewater. There is a necessity for a detail study to ascertain impact of using treated wastewater on the soil and agriculture. Recommendation of such a study shall be helpful in defining scope of wastewater use in terms of restricting area and crop for which it shall be utilized."

Even the Chromium Recovery Plant was found to be not performing adequately and it was stated that the chromium recovery systems installed in the tannery are not properly designed and installed. Presently, very few tanneries are recovering chromium. The Common Chromium Recovery System (CCRS) at Jajmau was under-utilised. It indicated improper segregation, collection and transportation of spent chrome liquor from tanneries. Submissions were made on behalf of the CPCB, which were made upon analysis of the characteristics of the effluent from Common Chrome Recovery Plant. The inlet Chrome value was 21852 mg/l, while the outlet Chrome value was 14.21 mg/l as opposed to the prescribed value of 2.0 mg/l. It was stated that the plant has a capacity of processing 70 KL/d chrome liquor. It also confirms that the plant has been under-utilized. In the suggestions, it was stated that incomplete infrastructure at the plant for conversion of recovered chrome into marketable product (Flakes), required to be addressed. The member industries and in fact, all units should ensure transportation of spent

chrome liquor to the plant and a monitoring body should be setup for effective working of the plant. It was informed by the UPJN that 30-32 metric tonnes per day sludge is generated by 36 MLD CETP at Kanpur and it is temporarily stored and later taken to sites meant for dumping hazardous waste.

159. After having analysed the status of the plants and industrial clusters at all the three clusters, the Committee made the following recommendations:

> "4.0 RECOMMENDATIONS
>
> - The Committee observed that the actual generation (appx. 26 MLD against the capacity of 09 MLD) of wastewater from tanneries in Jajmau, Cluster, Kanpur in beyond the designed capacity of 9 MLD tannery wastewater in the 36 MLD CETP at Jajmau Kanpur. Till such time additional treatment provision is provided, there is an immediate need to (i) first restrict the number of tanneries contributing their wastewater. In order to restrict their numbers and capacity of operations, a reference shall be made to list of tanneries initially identified during commissioning of the CETP. (ii) Considering characteristics of combined tannery wastewater carrying high concentration of chromium and other objectionable pollutants, required additional pre-treatment provision to accept shock loading at the CETP be made available for tannery wastewater. (iii) All the tanneries are required to provide a tamper proof sealed electro-mechanical flow meters at the outlet of their Primary Treatment plants UPPCB shall ensure that the wastewater discharge is in strict conformity of notified standards for the consented capacity of hide processing; (iv) O & M cost sharing shall be based on load based contribution by the member units in place of volume.
> - Impact of using treated wastewater from CETP on crops and soil fertility is required to be studied.
> - In order to expedite up-gradation of sewage

treatment infrastructure at Kanpur with special reference to the upcoming 210 MLD STP at Bhingawan, Kanpur & reported difficulty in land acquisition, the Committee was of the view that in place of Polishing Pond requiring excessive land, possibility may be explored for post treatment of treated sewage through other existing high rate anaerobic system, thus minimising the land requirement and expedite project execution. Feasibility report may be prepared by UP Jal Nigam.

- The Committee felt the necessity to explore possibility for augmenting capacity of pumping, conveyance system and treatment for tannery wastewater. This is required to integrate untreated wastewater and convey it to CETP for adequate treatment. This shall eliminate currently observed overflow of tannery wastewater from pumping stations. It is suggested that the entire collection network and pumping stations have to be redesigned to cater for increased flow of 50 MLD (as reported by CLR).
- The Committee took up the issue with Kanpur District Administration for providing sewerage system in Jajmau area. It was noted that UP Jal Nigam has already submitted a separate project proposed under NGRBA Activities.
- UPPCB shall place immediate steps to ensure that online effluent monitoring system in all GPIS, CETP & MSTPs are installed & made operated by 30.06.2015 as directed by CPCB.
- UPPCB & local authorities are required to ensure environmental sound management & disposal of flashings. (Process waste from tanneries).
- Immediate action to close down all illegal operators/activities of Jajmau, Kanpur.
- Strict Vigilance enforcement & compliance by industries to be enforced by the UPPCB.
- To prevent any possibility of further Ground Water River pollution, indiscriminate dumped Hazardous solid wastage need to be lifted & sect. to TSDF (Treatment storage and disposal facility).
- The UPPCB should strengthen its enforcement and monitoring mechanism to ensure that Hazardous Solid Waste generated from the industries, CETP, shall be properly stored, disposed off as per provision of Hazardous Waste (Handling & Management)

Rules and not dumped in the city or along the River/Road.

- Strict action needs to be taken against the defaulting units such as operation without consent orders/authorization of hazardous waste.
- Industrial activity and associated operation in the region needs to be monitored very closely for ensuring better compliance with the prescribed pollution Control Standard. Local administration under the chairmanship of DM can monitor the implementation of action plan on quarterly basis and also take necessary corrective measures.
- The irrigation channel carrying treated wastewater from all the three treatment plants needs to be strengthened urgently and the work of modification and lining of the earthen portion be taken up by Nagar Nigam keeping in view the planned sewage treatment capacity. Capacity of the command area irrigated through treated effluent channel be ascertained on the basis that alternate watering should be with other sources of water, and if found insufficient, the channel length/command area should be increased. Nagar Nigam should also oversee and regulate the controlled use within the command area. It was noted that unutilized sewage taken from the irrigation channel anal applied on agricultural land also reached River Ganga in and around village Shekhpur.
- All possible measures are required to be taken for expediting repair of collapsed structure of trunk sewer so as to optimize its utilization and eliminate the possibility of discharge of untreated sewage into River Ganga.
- The Ganga Pollution Control Unit (UP. Jal Nigam) is required to prioritize regular cleaning/ maintenance of the Conveyance Network, optimize individual plant performance so as to avoid discharge of untreated wastewater in to the River Ganga.
- The capacities of pretreatment system designed in individual tanneries are based on the consent capacities given by pollution control board. Whereas tanneries are processing more than the consent capacity and discharging wastewater at larger quantities, due to increase in wastewater discharge quantity pretreatment system is not

effective in removing the suspended solids. Therefore, it is suggested to modify the pretreatment to the installed capacity of the individual tannery. The pretreatment system to be provided with proper screens, flow measuring devices, collection tank, pumping system and dewatering system. It is also suggested prior to construction of pretreatment system approval may be obtained from the competent authority. If required, dosing system is also to be provided for removal of suspended solids and chromium to meet standards as per Environmental (protection) rules 1986. No tannery is to be allowed to process more than the specified capacity.

- Most of the tanneries are adoption SDBs for dewatering of sludge but the area of SDBs are grossly inadequate. Therefore, it is recommended to install mechanical dewatering system for dewatering the sludge.
- The Build, Own & Operate Option/Developing Co-operative Society for management of new/proposed CETP in place of UP Jal Nigam shall be worked out.
- A monitoring body by Special Purpose Vehicle (SPV) may be constituted with the overall responsibility of collection of chrome liquor, transportation and recovery of chromium, returning the recovered chromium to the respective tanneries."

160. *Vide* its order dated 27th January, 2016, the Tribunal had directed that the State of UP and UPPCB to publically advertise that the industrial clusters could be shifted from the present site. The notices were issued and the stakeholders including the Industries Association were heard on this question. The status of these complexes was also discussed by the Tribunal in its order dated 18th November, 2016, which reads as follows:

"There are three industrial clusters primarily housing tannery industries. One in Jajmau, Kanpur where there are nearly 400 tannery industries. Second at Unnao where there are

> 15 tannery units and third is at Banthar where there are 42 tannery industries.
> The Learned Counsel appearing for the Uttar Pradesh Pollution Control Board and Central Pollution Control Board submit that the CETPs are located at Banthar and Unnao which treat the waste generated by the tannery units in respective industrial areas.
> The Learned Counsel appearing for the State of Uttar Pradesh submits that at Unnao the 15 tannery units are operational. All the 15 tannery industries have their own Chromium Recovery Plant and their outlet is connected to a CETP which is expected to treat the trade effluent in relation to all the parameters generated by such industries. The Learned Counsel appearing for the CETP submits that mostly CETP is designed to treat trade effluent to achieve the levels of prescribed standards. According to him, the treated effluent is discharged into Loni drain which ultimately joins River Ganga. As far as the tannery industries at Banthar are concerned, there are 42 industries out of which, according to the Learned Counsel appearing for the CETP, 25 industrial units are operational and remaining units for one reason and other have not started their operation and/or are under construction or otherwise closed down and all the industries are stated to have their own Chromium Recovery Plant and effluent is then treated in the CETP and finally discharged into the City Jail drain finally going to River Ganga."

But even at Jajmau and Banthar recovery of chromium is not effective and complete. The analysis report for both the drains, i.e., Loni drain and City Jail drain show that Chromium was present in the effluent that was analyzed. In the case of City Jail drain, it even exceeds the prescribed parameters.

161. *Vide* its order dated 25th January, 2017, the Tribunal had even issued notices to the industries, particularly, petro-chemical, distillery and other major industries which are

polluting the 86 drains which were joining river Ganga and its tributaries. In this order, the stakeholders were also directed to submit their report in relation to the end of pipeline treatment as opposed to decentralised treatment plants being set up all over the cities. In the order dated 17th April, 2017, the Tribunal had also issued various directions to the stakeholders for compliance. It was vehemently stated and deliberated at length that ZLD is not the desired solution as it would generate very large quantity of salt which will be very difficult to store and handle. Even if 70% of the generated salt, as stated, is converted to sodium salt which are capable of being sold, even then it will be difficult to create a market for sale of such huge quantity of sodium salts. This still would leave the remnant 30% to be stored which will require huge land and storage capacity. In view of this and even otherwise, it will not be practical and economically viable.

MoWR, however, had suggested that ZLD in CETP should be made effective and there should be three-pipeline system, one for 'chromium recovery', other for 'trade effluent' leading to CETP and third with regard to 'domestic and other effluents'. Shifting of the industrial complexes was also subject matter of deliberation before the Tribunal. The UPPCB had taken a specific stand which in fact was submitted by some of the stakeholders that there has to be a separate Chromium Recovery Plant and CETP capable of

treating the quality of the effluent that is being generated in that area. Views expressed by the various stakeholders and experts invited by the Tribunal were also taken into consideration.

162. When the matter was taken up on 11th April, 2017, the Tribunal had specifically noticed that in furtherance to the order dated 30th March, 2017, Senior Officers from the concerned Ministry, State of UP and other stakeholders including SPCB, CPCB were present. The stand of each stakeholder had been deliberated in the chamber meeting and its minutes were recorded and confirmed. The said minutes read as follows:

> 1. "The Additional Chief Secretary, (Environment & Forest) has stated that Uttar Pradesh Government has taken a policy decision for making all possible efforts to clean and rejuvenate River Ganga.
> 2. As far as Segment-B is concerned, the Government is quite clear that all the sources which pollute River Ganga should be treated on the basis of definite data and information.
> 3. The Government of Uttar Pradesh has, in principle, taken up decision to shift the tannery industries from Jajmau and the place to which they are to be shifted is under effective consideration. It would be identified shortly. However, the Government is also open to the idea that appropriate anti-pollution devices including Chromium Recovery Plant and Common Effluent Treatment Plant may be provided at the existing site and if the outlet provides the effluent as per the declared parameters then the water could be recycled.
> 4. The Executing Agency would be the Uttar Pradesh Jal Nigam, except for the projects which are taken on Hybrid

Annuity Mode.

5. The State of Uttar Pradesh would have no objection in providing the Sanitary Landfill Site beyond 500 meters from the flood plain of the River. There should be complete restriction on any kind of waste being dumped into the River.
6. The State of Uttar Pradesh will provide complete and correct with regard to the following, on the next date of hearing i.e. 17th April, 2017:-
   i. What should be the minimum environmental flow of River Ganga in Segment-B.
   ii. Whether there is excessive extraction of groundwater in this section and/or whether the water being diverted into the various Ganga Canals should be regulated so as to help maintenance of minimum flow of the River.
7. It is undisputable that two major problems are causing pollution, excessive extraction of water on the one hand while on the other high pollutants are being put into the River. Unless both are controlled, it will be difficult to restore the River to its original pristine.
8. The State of Uttar Pradesh has preference for cleaning River Ganga.
9. The Special Secretary on behalf of MoEF&CC stated that the Ministry would give all help and assistance to the State Government for the purposes of ensuring the treatment of the effluent, being discharged by Tannery industries into River Ganga.
10. The Solid Waste Management Rule, 2016 make it clear, and in fact it is a clear stand of MoEF&CC that the waste, in any form, cannot be permitted to be dumped in any form in River Ganga and there will not be any Sanitary Landfill site within the flood plain.
11. As far as the minimum environmental flow of the River as well as the excessive extraction of water intake, the Ministry would submit its comments by the next date of hearing. It can be better answered along with the Ministry of Water Resources.
12. The online monitoring system should be enforced.

13. Both the conditions i.e. ZLD as well as online monitoring system are pending consideration before NGT and MoEF&CC will comply with its order.
14. The Chairman, CPCB stated that it will be beneficial to stop/prohibit any kind of waste being dumped into the River and Sanitary Landfill site to be located beyond the 500 meters from flood plain.
15. Jajmau poses a serious pollution issue and the present CETP is as good as non-exiting, keeping in view the load of more than 25-30 MLD of trade effluent, whereas it is for treating 9 MLD of trade effluent mixed with 27 MLD of domestic sewage. It also does not have the capacity to treat other pollutants, except BOD and COD. It needs to be replaced by new CETP which is of the requisite capacity and capable of treating all effluents, besides sewage.
16. Dilution based treatment is the possible solution, though CPCB seeks to enforce standards and standards are technology neutral.
17. The Central Pollution Control Board would implement the parameters at the end of the pipe, which should be meeting the prescribed standards. However, establishment of individual ETP and proper enforcement could be a good solution, but implementation thereof would be a serious question. Separate Common Chromium Recovery Plant would be necessary.
18. 86 drains have been identified and most of them carry not only sewage, but even trade effluent. It is a mixed discharge which contains variety of elements including heavy metal and therefore, end of the pipeline would be proper treatment. But site selection of STP would require proper study of the longitudinal profile of drains.
19. The Executive Director (NMCG), on behalf of the Ministry of Water Resources, stated that the Ministry would be willing to render all help and assistance, but the object of cleaning of River Ganga rather than concentrating on cleaning of cities is the first & preferred option.

20. The Ministry will finance, in terms of its scheme, for domestic sewage and industrial effluent treatment separately.
21. As per the scheme of NMCG, the first priority is cleaning River Ganga, but it would also spend through other major schemes relatable to cleaning of cities etc.
22. In terms of the Notification and as per the stand of the Ministry, Uttar Pradesh Jal Nigam is the Executing Authority for the work falling in Segment-B.
23. As far as Jajmau Tannery Cluster is concerned, if the State chooses to shift the industries to a different site, it will be its choice. However, the existing industrial clusters at Jajmau and Unnao requires establishment of an entirely new CETP with a separate Chromium Recovery Plant and separate pipelines.
24. The Technology of the CETP would be ZLD based which would only generate salt and sludge.
25. After being cleaned, part of salt will be usable and hence saleable and rest will have to be dumped.
26. The sludge deposit site has to be created which must meet scientific standards.
27. In relation to e-flow of the River, the Ministry of Water Resources had taken holistic study of various reports submitted by the expert agencies, the final view is still required to be taken. The recommendations vary from 20% to 30% depending upon the geographical location of the River and particularly it should be site specific. However, we direct the Ministry to take a stand which may be a tentative view and inform the Tribunal on the next date of hearing. There should be complete prohibition of any kind of waste being dumped in the River and on flood plain. There should be prohibition also on construction of Sanitary Landfill Site on 500 meter or any other reasonable distance of the high flood line, with reference to once in 25 years flood cycle.
28. All of them agree to 'Polluter Pays Principle' application for control of industrial pollution.

> The concerned stakeholders shall positively provide the information required as above, to the Tribunal by 17th April, 2017, during the hearing of the case on a day-to-day basis. The State of Uttar Pradesh is at liberty to file before the Tribunal, list of its priority project(s), if any, but no expenditure would be incurred on any project without leave of the Tribunal."

163. From the above order-cum-minutes, it is evident that all the stakeholders in principle agreed to cleaning of river Ganga and its tributaries on priority to cleaning of cities which itself is a major project. Uncertainty in execution of such project was writ large as was evident from the records that there are a large number of unauthorized and unplanned colonies which had no sewer lines and no mechanism for collection, transportation and disposal of the sewage generated in such colonies which were highly populated. Furthermore, the areas, which were within the planned development, were still not provided with proper sewer lines. In view of this, providing decentralized STPs is a long-term solution, which under no circumstances, can be executed in the near future. Cleaning of river Ganga and its tributaries being the prime object, such solutions have to be applied, which are capable of achieving this object atleast in the coming years. The State of UP, however, showed its reluctance in shifting the industries from Jajmau. Other suggestions afore-referred were found to be acceptable to all the concerned stakeholders and they

were required to be implemented. The entire emphasis has to be on cleaning of 86 drains and ensuring that from these drains no pollutants join river Ganga or its tributaries. This solution would ensure that the pollutants do not enter river Ganga and its tributaries falling in Segment-B, thus, cleaning and rejuvenating river Ganga in all respects.

Since Jajmau industrial cluster is one of the major contributors of pollution of river Ganga, it would be appropriate to examine in detail the working of this cluster, existing systems and the pollutants being generated from those cluster industrial clusters.

1. Jajmau cluster mainly accommodated tannery industries. The Jajmau cluster is located on the right bank of river Ganga on North Eastern border of Kanpur city. As per the information given by CPCB and UPPCB, there are 400 tanneries in this cluster. According to them, most of these tanneries are chrome based with varying scales of operations.
2. The tannery industry is known to be a highly polluting industry especially through industrial effluents which are high in organic and inorganic matters, highly toxic content accompanied by propensities for high oxygen demand and potential toxic metal salt residue. These industries are also associated with environmental concerns mainly

from issues like decomposition of protein content of solid waste, presence of Hydrogen Sulphide, Ammonia and complex Volatile Organic Compounds. An important aspect of this industry is that a significant part of the chemicals used in the leather processing are not actually used or consumed in the process but are released in the environment in the form of waste.

3. The tannery operations involve conversion of raw hides or screened leather, stable material that can be used for manufacturing of large number of products. The tannery industry operations can be broadly classified into three stages namely- pre-tanning, tanning and post-tanning processes. The pre-tanning is employed mainly for removal of impurities from the raw materials.

4. The impurities consists of mainly hair, flesh etc. which can cause degradation of protein material. The pre-tanning process involves use of salt lime, sulphide etc. as process chemicals. The pre-tanning process may include stages like curing, soaking, de-hairing, fleshing, deliming etc.

5. The tanning process is aimed at converting the air collagen fiber of the hides into a stable product which is no longer susceptible to bio-degradation or rotting. The tanning process can be of different type

like chrome tanning, vegetable tanning, mixed vegetable tanning and mixed chrome tanning. However, the chrome tanning is predominantly used due to its operational simplicity, lesser cost and sustained product quality.

6. The post tanning processes include coloration and several other operations that enhance the product quality in terms of appearance, softness and reliability of leather.

7. It is now necessary to understand the configuration of the tannery industry at Jajmau. According to the CPCB, there are 400 tannery industries in Jajmau. The UPPCB has granted Consent to Operate to all these 400 industries with a condition to treat their industrial effluent as per the standards. UPPCB further submits that out of 400 industries, 272 units are in operation and of the balance 128 units, 85 have been closed by the UPPCB for non-compliance and the remaining 43 industries are self-closed. The UPPCB is unable to furnish record of how many industries have their own Chrome Recovery Plant (CRP) and how many have the membership of the Common Chrome Recovery Plant (CCRP).

8. However, all the parties admit to a fact that all these industries are in operation in small and

medium scale industry category as per the definition of the Industry Department. The tannery industries association on 24.11.2016 submitted that out of 400 industries, 211 use chrome tanning process and remaining 189 are rather using vegetable or split tanning process. They further submit that out of 211 chrome tanning units, 141 units have their own Chrome Recovery Plant and 61 industries are member of Common Chrome Recovery Plant (CCRP). The details of 9 chrome tanning units are not known. The tannery industry association further submits that all the tannery units at Jajmau have a Primary Effluent Treatment Plant within their premises and all the chrome tanning units either have their own Chrome Recovery Plant or are the member of the CCRP.

9. According to CPCB, drains originating from Jajmau are characterized by high concentrations of total Chromium. The CETP discharge is in irrigation canals. CPCB submits that the main issues related to Jajmau are:

   a. The tannery industries in Jajmau are located in thickly populated residential areas and many units are also part of the residence as units operate on job work basis.

   b. Though there are 400 listed tannery

industries, it is highly possible that there are many more small scale units which are not registered and operating without unauthorization.

c. Though, there is a limit prescribed in consent for the number of hides to be tanned, there is no effective mechanism to verify such compliance limit. However, based on thumb rule related to chrome waste generated per hide from tanning, authorities have estimated than much more hides than the consented numbers are being tanned in the Jajmau area.

d. The existing Common Chrome Recovery Plant of 72000 ltr/day capacity is operated at a maximum 25% capacity due to non-availability of adequate chrome liquor from the member industries, which is transported to the plant by tankers by the Nagar Nigam. Though UPPCB has all necessary information on spent chrome liquor sent by respective tannery yet no action has been taken by it.

e. The chrome recovery plant is operated by Kanpur Nagar Nigam while the CEPT is operated by UPJN. There is no coordination between these two units or the agencies. Significantly, both these plants are located

adjoining to each other.

f. The CETP at Jajmau has a capacity to treat 9MLD of tannery effluent and 27 MLD of domestic effluent. However, there is much more flow i.e. about 43.55 MLD reaching the Sump, from which untreated effluent is pumped to CETP.

g. The industries at Jajmau are discharging much more than 9 MLD industrial effluents, mainly containing Chromium. These industries are located in thickly populated residential area, thereby causing mixing of industrial effluent with domestic sewage which is nearly 35 MLD. This mixed waste is collected through four major conveyer drains in a common Sump, from where the mixed waste is pumped to CETP operated under Kanpur Nagar Nigam for treatment. As the capacity of CETP is much less, the excess of mixed waste overflows from this Sump and meets river Ganga through drains.

h. There is no enforcement of consent conditions by UPPCB which requires all industries to send their chrome liquor to the Chrome Recovery Plant and pay for the treatment.

i. Industries are finding it easy to dispose their

entire waste including the chrome liquor in the common drain which conveys both domestic as well as industrial waste.

j. No analysis of river sediments or embankments is available and CPCB has now taken some samples to verify the critical pollutant concentrations.

k. The fate of pollutants once it reaches the rivers is an area where research is required. The rivers with its natural flow and velocity will have self-cleansing capacity as far as BOD or organic load is concerned, but in the present case, with low or practically no flow, this phenomenon is hardly relevant in the present stretch. The fate of metals in the river is another area, which is largely unexplored. The diffusion, dispersion, sedimentation and leaching are the natural processes, but how much metals are further dispersed in downstream water environment, and how much either enters the biological cycle by bioaccumulation or converted as deposits due to sedimentation, is not known or assessed.

10. The CPCB in its Report dated 24th August, 2016 has elaborately explained the present scenario of the tannery effluent being generated at Jajmau,

Kanpur. The existing CETP of 36 MLD was constructed and commissioned in 1994 for about 175 Tanneries, which were existing at that point of time. This CETP is based on UASB technology with an inflow capacity of 36 MLD with tannery effluent to sewage (T:S) blending ratio of 1:3 i.e. 9 MLD tannery effluent and 27 MLD sewage. For collection of wastewater from tanneries located in the Jajmau area, 12 kilometres long conveyance system was constructed. The conveyance system is meant for the tannery wastewater conveyance through 4 pumping stations from where waste is pumped to the 36 MLD CETP. The tannery wastewater and the domestic sewage are blended in a mixing tank in the ratio of 1:3 and ultimately pumped into UASB reactors. The treated effluent is finally utilised for irrigation after mixing with treated sewage of two STPs (of the capacity of 130 MLD and 5 MLD) located in the same premises. The CPCB further informed that they have actually measured the tannery wastewater flows at 4 pumping stations in March and September, 2016 and observed that the total discharge is in the range of 68 MLD to 72 MLD on the grab sampling. CPCB further informed that based on the composite sample in March, the daily wastewater generation from Jajmau is about

44 MLD based on the composite monitoring in April-May, 2016. CPCB further informed that the Common Chrome Recovery Plant installed with the capacity of 70 kl per day is underutilized and chrome liquor coming to the plant is very low. According to CPCB, this indicates improper segregation, collection and transportation of spent chrome liquor from tanneries to the Common Chrome Recovery System (CCRS) for recovery and reuse of chromium. CPCB further elaborately presented the performance data of the CETP which indicates that the industrial inlet has a very high chrome content of about 77 mg per litre which is affecting the performance of CETP resulting in the outlet of more than 7 mg per litre Chromium, besides, other non-compliance in terms of BOD, Total Dissolved Solids, Suspended Solids and Ammoniacal Nitrogen. CPCB further informed that even after dilution with the treated sewage, the problems related to Chromium, TDS, Oil and Ammonical Nitrogen are persisting and this treated effluent if used for irrigation may pose serious environmental problems.

As stated in the report dated 24th August, 2016, the Committee had collected samples from the CEPTs/STPs, analysed them and submitted their

report and opinion to the Tribunal. It found that the samples collected from the CIDCOL Haridwar, Jajmau, Kanpur, Banthar, Unnao and UPSIDC Site-II in Unnao are non-compliant and violative of the prescribed parameters. The report noticed high concentration of TSS, Total Coliform. It was pointed out that the high concentration of Total Coliform at the inlet adversely affects the biological treatment system due to its toxic nature. Amongst metals, Cadmium, Cobalt, Copper, Iron, Manganese, Nickel, Lead and Zinc were found. To be precise, it was found that these CETPs/STPs were non-functioning or were functioning in violation to the prescribed standards. Large quantity of trade effluents and sewage were being bypassed and directly discharged into river Ganga and its tributaries.

11. On specific query, CPCB informed that the river dredging is not commonly practiced in India, which is generally used for navigational purposes or raising the embankments of rivers. CPCB further submits that there is a need to collect information regarding suitability and effectiveness of dredging versus scrapping of riverbeds, which may depend upon the characteristics of the sediments. In coastal areas, benthic and sediments have

tendency of accumulating pollutants due to currents and tides, but in riverine stretches, the actual accumulation pattern may be different. It would, therefore, be necessary to study whether the riverine banks and the sediment in the main river stream shows characteristics of accumulation of pollutants similar to benthic in coastal waters. This aspect of the fate of pollutants released into the river water stream is important, as floodplains and banks are extensively used for agriculture and have a significant health consideration, due to bioaccumulation of pollutants.

12. It is also informed by the CPCB that there are reports indicating a broad diversity of aquatic species in river Ganga, and in 1970 there were 70 fish species which were predominantly native species. However, as per some published research papers, there are about 53 species in the river and water quality sensitive fish varieties have disappeared, whereas the commercial species are now predominant species.

13. The Tannery Industries Association submits that the mismanagement and non-compliance of the waste treatment at Jajmau cannot be solely attributed to the tannery industries. The learned Counsel submitted that the conveyer belt

(conveyance system) which is laid down to collect the industrial effluent from tanneries is broken and damaged at several locations which allows ingress of sewage and industrial effluent from other industries in the area. He submits that there are about 42 to 50 industries in the vicinity, which are using Chromium and discharging waste which is containing Chromium. He further submits that because of such increase in other wastes, the Sumps at 4 pumping stations are over flowing and discharging the waste directly or indirectly in river Ganga. It is further submitted that total industrial effluent from the tannery is only about 12 MLD as against 46 MLD projected by CPCB. The Association further submits that they are fully coordinating with the Jal Nigam to operate the CETP efficiently and consistently in order to ameliorate the problems of pollution.

14. It is the case of the Industry Association, that the ZLD which has been proposed by the MoWR cannot be a long term and sustainable solution, for the reason that the proposal is financially not feasible due to very high capital investment and recurring cost. Instead, the Association is of the opinion that the upgradation of the existing CETP coupled with appropriate waste collection system is the most

feasible option. They further submit that in this regard, they had submitted a detailed project report twice, and both these reports have been recently rejected by NMCG without hearing them or assigning any justified reasons for such rejection. The Association also submits that it is possible to lay down a 3 pipeline collection system to collect sewage, effluent containing chrome, and other effluents separately and they are ready to bear the cost of such pipe line to the tune of 30 per cent.

15. The Industries Association further submitted that ZLD has not been prescribed in the standards notified under the Environmental Protection Rules, 1986 and, therefore, the MoWR under a subsidiary notification cannot impose such standards over-looking the standards prescribed under the Rules. They also submit that the online monitoring system for the tannery industries is also not technically and economically feasible, for the simple reason that most of the effluent is in the batch process and, therefore, there is no continuous flow. Further, there are standards prescribed for several parameters like pH, TDS and Chrome. It is submitted that as on today, about 120 industries have installed only the flow meters and not the analysers for the above mentioned polluting

parameters. It is further submitted that there is no ZLD industry in Jajmau Industrial Cluster.

16. Most of the CETPs in the country have been developed under the CETP scheme of MoEF&CC, which envisages an active participation of the Industries Association. In fact, in most of the cases, the CETP have been built by the Industries Association with the financial aid/ subsidy from Central and State Governments. Further, the operation of the CETP is also managed by the Industries Association or an operator selected by them. In some industrial areas, the Industries Association have even taken the responsibility of collection and disposal of the waste as per the prescribed standards. This situation and scenario was discussed in the proceedings on 21st November, 2016 and the tannery association was specifically asked about their willingness to implement the up-gradation of the CETP, operation of CETP as well as to undertake proper collection and disposal in order to remove any chances of lack of coordination or undefined responsibilities. The learned Counsel for the Tannery Association on instructions from his client expressed their inability to operate the existing CETP. He also expressed his inability to undertake the up-gradation of the

collection treatment and disposal system, as per the CETP scheme. The Learned Counsel submitted that UPJN which is a specialized body of UP Government is technically equipped and mandated to undertake such works and they are ready to cooperate with them.

17. The NMCG which is now entrusted with the responsibility of Mission Clean Ganga has also evaluated the pollution problems arising out of the tannery cluster at Jajmau, Kanpur in order to abate water pollution of river Ganga. Secretary of Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India *vide* its letter dated 21st March, 2016 has submitted the executive summary of the Report prepared by NMCG for this purpose. It is seen from this Report that NMCG had appointed Tamil Nadu Water Investment Company (TWIC) to prepare a detailed project report for 20 MLD capacity with Zero Liquid Discharge (ZLD) based tannery effluent Management System and resource recovery from the tannery cluster at Jajmau, Kanpur. The system broadly comprises of separate collection of chrome liquor and process wastewater, treatment for meeting usable quality criteria and its distribution back to the Member Tanneries, besides salt

recovery based on State of the Art Technology. It is further submitted that this system has been thoroughly corroborated by the Indian Institute of Technology, Kanpur.

18. The proposed ZLD project envisaged by NMCG includes collection and a conveyance piping system for raw effluent and separate piping for collection of spent chrome liquor. It also includes Common Chromium Recovery Plant and reused chrome. The treatment of raw effluent from the Tanneries is followed by use of reverse osmosis and Multiple Effect Evaporator in addition to the captive power plant. The proposed ZLD-CETP aims to recover water upto 96% which will be reused in the Member Tanning units and redistributed back to the Member units through separate dedicated piping network. NMCG has considered various information as available from CPCB and UPPCB and has come to a reasonable conclusion that a 20 MLD capacity CETP will be necessary to manage the wastewater from 400 Tanning Industries. It is also expected that out of 420 tonnes of salt generated at a CETP about 70%, i.e., 320 tonnes per day will be recovered and reused. The remaining salt, i.e., which would be a mixed waste salt about 120 tonnes per day will be stored at

CETP for 5 years as it is expected that with the proposed R&D activities this remaining salt will also be reused and recycled in the near future. Similarly, the sludge (lime sludge) generated in the CETP will be sent to the Cement Plant for co-processing, subject to the condition that the Chrome segregation is effective and the lime sludge is reasonably free from chrome contents. The expected capital cost of this ZLD-CETP (20 MLD) will be about ₹ 856 crores and the cost of its operation and maintenance will be about ₹ 314 per kl. This O&M cost will be substantially reduced upto ₹ 163 per kl after considering the recovery of water, salt and power generated from the Captive Power Plant. According to NMCG, this proposal of ZLD-based CETP at Jajmau, Kanpur will be a long-term sustainable solution though the same is comparatively costlier. The NMCG feels that with the improved environment and stringent compliance, the industries will be able to operate their plant to the desired capacity which will make their industrial operations economical and sustainable.

19. The Executive Director of National Mission for Clean Ganga (NMCG) submits that the DPR for the ZLD technology based CETP for the Jajmau tannery

cluster has been prepared by the Expert Agency. He further submitted that as per the information available from the State Authorities there are 400 tannery units. He further conceded that NMCG itself has not verified the number of industries or physically investigated the present status of effluent collection, treatment and disposal. NMCG has relied on the data given by the State Agency and also the report submitted by the consultants. The Executive Director, NMCG further submitted that subsequent to the proposal for this ZLD/CETP, further discussions have been held with CLRI Madras which has recently come up with a new modified environment friendly tanning process, which is called as Water-Less Tanning. The Executive Director, NMCG further submits that as per the primary estimation of CLRI, there will be minimum 40% reduction in use of water for the tannery process and equivalent reduction in the salt used. It is further submitted that the salt which is generated after the ZLD process will mainly comprise of Sulphates and Chlorides and if proper segregation of these salt could be done then there are several opportunities to commercially reuse these salts.

20. However, Executive Director, NMCG fairly

submitted that the appropriate technology for segregation of Sulphates and Chloride salt from the salt recovered in the ZLD process has not been identified so far. Besides that the commercial aspect of salt recovery, particularly, market availability of these salt has not been studied so far. It is an admitted fact that even today the existing CETP generate significant quantity of salt which also contain substantial concentration of Chromium (Cr) due to ingress of chrome containing tannery effluent into the CETP. The environmental implication of the huge quantity of such salts stored in the CETP premises, particularly, ground water contamination, has not been stated so far. In fact, it would be necessary to study the characteristics of such accumulated sludge to verify the concentration of chromium viz-à-vis the stipulated criteria identification of such sludge as hazardous waste.

21. CPCB further informed that the Ministry of Environment and Forest had launched the Charter on "Corporate Responsibility for Environmental Protection" (for short, 'CREP') in 2003 as a covenant to look beyond the compliance of regulatory norms for industrial pollution control. The action points under the CREP for Tannery

Sector were formulated under this programme and they are as under:

ACTION POINTS UNDER CREP FOR TANNERY SECTOR

Chrome Recovery

- *All the chrome-tanning units in the country will have the Chrome Recovery Plant either on individual basis or on collective basis in the form of Common Chrome Recovery Plant and use the recovered chrome in the tanning process.*
- *Common Chrome Recovery Plant is to be installed and commissioned at Kanpur , for which the Feasibility Report has already been prepared.*
- *Recovered Chromium is to be utilized in tanning process*

Waste Minimization Measures

- *Waste minimization circles will be formed in all the clusters of tanneries in the country to implement waste minimization measures and for adoption of clean technologies.*
- *Efforts should be taken to implement the waste minimization measures in all the tanneries in the country and gradually made obligatory with time to the tannery units.*

Reduction of Water Consumption in Tannery Units

- *All the tanneries should install water meters and flow meters to measure actual consumption and wastewater discharge.*
- *Water consumption rates will be brought down to 28 m 3 /tonne of hides by taking waste minimization measures.*

Compliance of standards

All CETPs and ETPs should take the following measures:

- *Employ qualified and well trained staff for O & M of the ETPs/CETPs.*
- *Installation of automatic monitoring instruments.*
- *Interlocking of manufacturing processes with ETP operation*
- *Separate Energy meters for ETPs/CETPs by December 2003.*
- *Open anaerobic lagoons should be converted into closed systems with gas recovery*
- *For health & safety of worker in the industry & ETP/ CETP the guidelines developed by CPCB should be implemented.*
- *All major tannery units should take-up environmental auditing on annual basis.*

- *Major tannery units & CETPs should attempt to obtain ISO-14000 certification.*
- *Tannery units &CETP management should take-up modification/up-gradation of the CETPs/ETPs wherever necessary*

Management of Total Dissolved Solids (TDS)
All tannery units to adopt the following

- Manual/mechanical desalting.
- Use of cleaner technology for less use of salt.
- Refrigerated transportation of hides
- High Rate Transpiration system for effluent treatment
- Treated wastewater will be mixed with the sewage & the treated effluent be used on land for irrigation.

Solid Waste Management
All the tannery units to adopt the following:

- *i. Utilization of Process sludge for by-product recovery.*
- *ii. Resource Recovery from process sludge and ETP sludge in the form of Biogas.*
- *iii. Chromium recovery from tanned leather shavings.*
- *iv. Safe disposal of hazardous sludge and non-hazardous solid wastes.*

Salts from Solar Evaporation
All the tannery units to adopt the following:

- *Reuse of recovered salt.*
- *Quality improvement of recovered salts for reuse*
- *Safe land disposal*
- *Sea disposal*

Use of Boron *bearing compounds will be dispensed with. By: December 2003*
Ground water quality monitoring *to be strengthened.*
Sulphur recovery *from sulphide bearing effluents to be explored.*
The implementation of recommendations of the Task Force on leather tannery units constituted by the Ministry of Environment & Forests, Govt. of India in a phased manner

164. Upon proper analysis of the reports, data and functioning of the industrial clusters as submitted by various stakeholders and more particularly the regulatory bodies, it is clear that the industrial cluster at Jajmau requires immediate action and steps to ensure prevention of further

pollution of river Ganga. There are only two alternatives by which contamination of river Ganga from the industrial clusters particularly, the tannery cluster at Jajmau can be controlled and prevented without losing any further time. One of such options is that the entire industrial cluster at Jajmau should be shifted to another area which is developed and fully equipped to treat the effluents generated by such industries. In this regard, it was stated that the land is available and the Government could take effective steps for shifting the industrial cluster but it is reluctant to do so for obvious reasons. Once the industrial cluster is shifted in its entirety, there would be no requirement for establishment of an STPs/CETPs, Chromium Recovery Plant and/or up-gradation of the existing plants. The other alternative is the two pipeline system to be provided. One pipeline will be dedicated pipeline for bringing the Chromium from the industries to the Chromium Recovery Plant. The Chromium Recovery Plant would recover the Chromium and sell the same for being reused by the Tannery Industries itself. Such recovered Chromium has an open market for sale. The other pipeline, in fact which is the existing conveyor belt, should be completely dredged, cleaned and other trade effluents along with the sewage could bring the effluents collected from industrial-cum-residential complex to the CETP which requires complete up-gradation and/or

construction of a new STP at the existing site. The discharge from the CETP should be either recycled for use by the Tannery Industries for agriculture and horticulture purposes and only the remnant which normally should not exceed 25% of the total discharge of the treated effluents from the CETP should be released into river Ganga. This option has to be time bound which the responsibility and obligation of the industries should be clearly defined. The industrial cluster should share the expenses for construction/up-gradation of CETPs/STPs/ Chromium Recovery Plant and for laying down the pipelines. The CETPs/STPs/Chromium Recovery Plant should be collectively run by the UPJN and they should be responsible in all respects for smooth and effective performance of the plants. The drainage system bringing the sewage to these CETPs/STPs at Jajmau should be cleaned, dredged and kept free of any accumulation of waste and sludge to ensure free flow of the sewage effluents to the CETPs/STPs as discussed above at some length.

165. The reply filed by the Jajmau Kanpur Tannery Industry Association states that the industrial cluster should not be shifted to another site but steps for prevention and control of pollution at the existing site should be taken by up-grading the CETPs. They claimed that they are not seriously polluting industries and, therefore, they should

not be shifted. It will cause heavy financial loss and displacement of labour if the industry is directed to be shifted.

It is averred that the pumping stations at Jajmau have become outdated and are not working properly. The population has increased and there is no proper maintenance of drainage and sewer lines, even the pipelines are broken at different places. It is submitted that the tanners are law abiding citizens who have taken initiatives suggested for up-gradation and expansion of the CETP. This was even suggested by them to the State Government but no effective steps have been taken so far.

166. According to Industrial Association, the order of the Hon'ble Supreme Court in relation to shifting of tannery industries in Calcutta in the case of *MC Mehta Vs. Union of India and ors* (supra) would not apply to the present situation as in the Calcutta case, space for installation of appropriate CETP and other anti-pollution devices was not available. While in the present case, enough space is available at the industrial cluster to treat the effluents. Industries have also raised serious objections with regard to enforcement of ZLD and online monitoring system at Jajmau. In fact, the Association had filed specific objections in regard to ZLD before the CPCB. The CPCB considered those objections and offered comments. The objections primarily related to economic viability of ZLD,

desired audit of salt balance, ZLD system not being installed anywhere in the world and there would be excessive energy consumption and carbon footprinting. There is no solution for use or disposal of quantity of salt recovered. The CPCB had expressed the view that the final effluent discharge from the Jajmau CETP does not conform to the prescribed standards. The final effluent discharge from Banthar, Unnao CETP also did not conform to the prescribed standards. There was no compliance to the directions issued by the CPCB and UPPCB. The Members had not complied with the installation of Continuous Emission Monitoring System. The Principal Committee had also suggested in its meeting dated 2nd January, 2015 that the Joint Monitoring System would be applicable to the industries working in clusters like Jajmau and connected to CETPs. Both the installation of online monitoring system and ZLD remained the question of debate. The UPPCB and UPJN had also taken the stand that it is necessary to dilute tannery effluent of Jajmau by 10 times of the treated sewage and the CETPs/STPs should be made functional to ensure discharge of effluents within the prescribed limits.

167. The State of UP prior to the stand recorded in the minutes of April 2017 had earlier taken the stand that the industrial cluster could be shifted to another part of land located at some distance from Kanpur. However, in the

submission made by the Advocate General, it was stated that shifting is neither possible nor feasible and it will give rise to social problems. However, all with regard to other issues, the State Government was in line with the measures suggested by the stakeholders for prevention and control of pollution of river Ganga. In relation to industrial clusters at Unnao and Banthar, the precise suggestions are upgrading of the existing CETPs, greater regulatory and supervisory control by the authorities and proper maintenance of the conveyor belt/drains, bringing the effluents to the CETPs /STPs. The industries have raised no serious objections with regard to up-gradation and improvement of the existing anti-pollution devices and measures to ensure that there is no pollution of river Ganga. The industries along with other stakeholders have suggested time bound programme and upgradation of the plants and willingness to fully comply with the prescribed standards of discharge of effluents. They make no exception that the pollution of river Ganga and its tributaries should be controlled and they would not shirk from their responsibility in that behalf. It is also suggested that the industries would make their contribution and discharge their liabilities in relation to carrying on of the proposed activity and up-gradation of plants for better control and prevention of pollution of river Ganga.

168. Once the jurisdiction of the Tribunal has been invoked in a

case involving substantial question relating to environment, the Tribunal is obliged to apply the three principles described in Section 20 of the NGT Act, 2010 while deciding the case under the Act. Sustainable development is the guiding principle but it has an inbuilt element of Precautionary Principle. Industrial or any other development should progress but with due care for Precautionary Principle.

169. A development in absence of precaution would fall beyond the known parameters of sustainable development. Industries have a Right to carry on their business in terms of Article 19(1)(g) of the Constitution of India which is subject to restriction imposed by law. Article 21 of the Constitution which guarantees Right to decent and clean environment as a fundamental right is free of any such limitation. The Constitutional obligation upon the State and the citizens to protect the environment and ecology, and the rivers clearly implies that Right to carry on business should be subjected to reasonable restrictions, which would be in the large public and environmental interest. The environment thus, must take precedent over the restricted Right to carry on business. An industry cannot be permitted to contend that it has a Right to carry on business and by necessary implications right to pollute. The Constitution imposes an obligation that it must protect the environment while carrying on any industrial

activity to ensure that it causes no pollution. It necessarily must comply with all the environmental laws in force. The Right to carry on business is subject to obtaining Consent to Operate from the concerned Board to discharge its effluents within the prescribed limits, while ensuring that it has taken all precautionary and preventive measures thereto. The provisions of NGT Act, 2010 enumerate the application of Principle of Strict Liability. In other words, the onus is upon the industry to prove that it is not causing any pollution and it has taken all precautionary and preventive measures on that behalf. The application of Strict Liability by the Statute itself places the duties and obligation of person carrying on an activity, which may result in pollution at a much higher pedestal. Such pedestal is not a social concept but is a constitutional and statutory obligation. In case of default in discharge of such duties/obligations, the business or industry can be subjected to the order of closure and the liability to pay for such pollution is inseparable and based on Polluter Pays Principle. Within this framework of law, we have to examine the present case. In fact, it is undisputable and unquestionable that these industries are causing severe pollution of river Ganga and its tributaries. Industrial development cannot be taken as cause of deprivation of either Right to business or Right to clean environment.

170. Large population of the country is dependent upon river

Ganga and its tributaries for its livelihood and drinking water. The industries which are carrying on its business have to take all precautions and preventions to ensure that they cause no pollution. They should operate with the consent of the Board and release trade effluents which are strictly within the prescribed limits. The violations are admitted. Partial failure of the Regulatory Regime by the Statutory Authority and Boards is undisputed.

The pollution by tannery industries, particularly, in this segment has been a matter of serious concern not only for the stakeholders but even for the judiciary. As already noticed, the public interest litigation was filed by M.C. Mehta (supra) to prevent discharge of trade effluent by these industries into river Ganga. At this stage, there were only 70 tanneries which increase to 80 in 1988, out of which in terms of the order of the Supreme Court dated 22nd September, 1987 titled *'M.C. Mehta vs. Union of India'* 1987 4 SCC 463, the Supreme Court noticed that no effective and preventive steps have been taken by the authorities and the tanneries at Jajmau, Kanpur cannot be allowed to continue to carry on industrial activity unless they take steps to set up functional Primary Effluent Treatment Plant. The pollution caused by them was affecting the life, public health and ecology which has priority over unemployment and loss of revenue. The Supreme Court of India resultantly, directed that 29

tanneries specified in the order itself, which had failed to install anti-pollution devices and were causing pollution should not be allowed to continue to carry on industrial activity and were ordered to be shut down.

Despite the above order of the Supreme Court of India, as of present, there has been a tremendous increase in the tannery units which is stated to be 402 and the extent of discharge of industrial effluent has increased manifolds. The industrial effluent carries pollutants much beyond the prescribed limits and the units have failed to install functional Primary Effluent Treatment Plant. This status continued and even by a very recent order dated 22nd February, 2017, the Supreme Court of India in the case of *'Paryavaran Sanrakshan Samiti vs. Union of India'* (supra) while transferring the cases to this Tribunal directed that the industries which have not installed anti-pollution device, i.e., Primary Effluent Treatment Plant and are not connected to CETPs, should not be permitted to carry on their industrial activities.

171. Significantly, the Tribunal has to take notice of the order passed by the High Court of Allahabad in the Public Interest Litigation No. 4003 of 2006 *Re Ganga Pollution* dated 26th March, 2010 wherein it had directed shifting of tannery industries to the land which is to be acquired under the scheme named as 'Banthar (Unnao Extension)'. The UPSIDC had even published advertisement for

registration of the applicants to which there was poor response.

The Court was not impressed with the submission raised on behalf of the Government that the acquisition should be on self-finance basis. The Court held that shifting of tannery industries is not an acquisition for a company so as to compel the tanneries to bear entire compensation. It further passed certain directions in relation to the manner and methodology for such shifting. The said directions obviously remain un implemented in their entirety till date. The State had even contended at a subsequent stage before the High Court that compliance of the directions may not be possible. Such submission came to be rejected.

172. In any case, increase in industrial units and their income on the one hand and increase in the pollution of river Ganga and its tributaries on the other also remains unchallenged. Industries have not fairly shared their responsibility in terms of finances and enforcement of prescribed standards during this period. The data and report show flagrant violation of the prescribed norms. Thus, the liability to pay on the basis of Polluter Pays Principle does not admit any argument to the contrary. All the stakeholders including the industries must discharge their constitutional, statutory, social and moral obligations in accordance with the law. Thus, the Tribunal has to find solution that would be in consonance with the three above

stated principles. The mechanism so devised by the Tribunal may provide the opportunity to the industries to carry on their industrial activity but subject to strict compliance of the prescribed standards and Consent to Operate orders. If they fail to do so, the only alternative would be to shut down the industries at the existing site and they shall be ordered to be shifted to another appropriate site, which is fully developed and has the capacity to treat the effluents generated by such tannery industries. In no event, they should be permitted to cause any pollution of environment, water bodies or for that matter the groundwater. The mechanism would include construction of new STPs/CETPs and/or up-gradation of existing CETPs/STPs, setting up of the pipeline, construction of other anti pollution devices and installation of all other incidental requirements thereto, in a time bound manner. The industry should fully co-operate and discharge its responsibility in all respects including financial liability.

173. Therefore, we must state with clarity the outline of the project that must be carried out at Jajmau, Unnao and Banthar:

1. The CETP which is stated to be operational at Jajmau presently has the capacity of treating 9 MLD of tannery effluent and 27 MLD of sewage. It is based on UASB technology followed by aerobic

post-treatment managed by UPJN. This CETP is incapable of treating metals, particularly, it cannot recover chromium. It receives 9 MLD of trade effluent mixed with 27 MLD of domestic sewage while around 60% of it is directly discharged into river Ganga. It is deficient in a number of ways and does not meet the prescribed parameters, much less the proposed parameters.

This CETP requires upgradation and setting up of other anti-pollution devices which we shall state in some elaboration hereinafter.

2. The existing Chromium Recovery Plant was again found to be deficient in various respects. Firstly, the tanneries from the Jajamau complex were not collecting and sending chromium contained effluent to the plant. Secondly, the Chromium Recovery Plant was not designed and installed appropriately. The Chromium Recovery Plant which is undisputedly under-utilized, cannot be operated and maintained properly and efficiently. It indicated improper segregation, collection and transportation of spent chrome liquor from the tanneries. Nearly 30 to 32 metric tonnes per day sludge is generated and is temporarily stored at CETP at Kanpur site. Thus, it is directed that the Chromium Recovery Plant shall be upgraded to

ensure effective and proper supervision of the plant. The operating agency/public authority concerned shall ensure that the Chromium Recovery Plant operates and is maintained efficiently and does not at any stage release the effluent that would contain chromium in excess of the prescribed parameters. In fact, the content of the chromium in the discharged effluent should be much below the prescribed limit, which can be safely taken care of by dilution process.

All the tannery industries at Jajmau and even at Banthar and Unnao shall be duty bound to ensure transportation of the spent chrome liquor from their premises to the plant through tankers, which are being operated by the authorised agencies as of today. The tankers used for appropriate transportation of the spent chrome liquor shall be fitted with GPS to maintain due record of transportation of the effluent.

The public authority concerned, that is, the UPJN shall issue duly endorsed booklets containing three counterfoils which will be titled as 'Industry'. Upon signature of the concerned officials, one copy shall be retained by the plant while the other by the transporter and the third copy would be retained by the local authorities, i.e., officials of

the UPJN/the Association identified for operation and maintenance of the plant. This would be signed by the industry at the time of collection and by the officials of the plant at the time of receiving the spent chrome liquor.

The chromium recovered from each unit shall be processed and recovered at the Common Chromium Recovery Plant. Recovered chromium shall be provided to the industry at a no profit no loss basis. The remnant recovered chromium shall be sold in the open market and funds so received shall be utilised for efficient operation and maintenance of the plant.

It shall be ensured that the remnant effluent discharged from the plant is appropriately subjected to dilution by treated sewage, before it meets river Ganga or any of its tributaries.

The sludge generated from the plant shall be stored and transported regularly to the fully developed sites presently at Kanpur maintained by Ramkay. It shall be ensured that the sludge and other hazardous waste collected from the plant should be maintained strictly in accordance with the Hazardous Waste Management Rules, 2016.

3. Compliance of these directions shall be paramount duty of the industries, the Association and the

public authority responsible for operating and maintaining the plant and the agency appointed for transportation of the spent chrome liquor. In default, each or all of them would be liable to pay environmental compensation. The environmental compensation for such breach and default would be ₹ 50,000/- for each default on the part of the agency responsible for transportation and the Association and Public Authority responsible for operation and maintenance of the plant. Besides the above, in case of offences relating to discharge of chrome by an industry, which is processing more than 30 and less than 100 hides per day, they would be liable to pay environmental compensation of ₹ 25,000/- per breach; industry entitled to process more than 100 hides per day, would be liable to pay environmental compensation of ₹ 50,000/- per breach and the industry processing 100 and above hides per day, ₹ 1,00,000/- per breach. This environmental compensation shall be payable instantaneously, on default found either by the concerned public authority i.e. UPJN and/or UPPCB and/or any Member of the Committee constituted by the Tribunal under this judgement.

4. All the industries shall operate their units strictly

and limited to the hides that have been sanctioned in the order of consent to operate.

5. It is commonly and without exception agreed that as of present there is a dedicated pipeline network in existence that takes the industrial effluent to the existing CETP at Jajmau. It is also agreed that there is a dedicated sewage network in operation that takes the sewage of the industrial clusters as well as surrounding areas to the STPs located at Jajmau itself.

It is on record that the CETP suffers from technical deficiencies and as of present is non-performing. As already stated, the CETP is even discharging 60% of the effluent directly into river Ganga which is completely untreated. Thus, we direct that the CETP at Jajmau shall be upgraded in terms of the capacity and quality. The CETP should have physio-chemical treatment before primary treatment, biological treatment and tertiary treatment (R.O. System). All these three treatments should be installed to upgrade the CETP at the earliest. The treated effluents being discharged from the CETP should be subjected to dilution by the treated sewage received from the STPs in Jajmau itself. Such diluted effluent discharged from the CETP should be recycled,

reused for industrial units at Jajmau, agriculture or horticulture activity in that area or nearby areas and for cooling purpose of the power plants located in close vicinity. The remnant treated effluent should be released into the river but not in excess of 25% of the total discharge.

6. The tannery industries should be encouraged to adopt the methodology for processing of hides as per the Central Leather Research Institute, Chennai. The pinpoints are as follows:

   - *Alternative methods of preservation of hides/ skins nd processing of green hides.*
   - *Desalting of hides and skins and collection of salt for disposal or reuse.*
   - *Use of enzymes in soaking process.*
   - *Soaking in drums instead of pits*
   - *Green fleshings of hides.*
   - *Cleaner liming options.*
   - *Ammonia-free deliming process.*
   - *Alternative pickling & chrome tanning process.*
   - *High exhaust tanning process.*
   - *Pickle less Chrome tanning process*
   - *Pickle-Basification Free Chrome Tanning.*
   - *Salt Free Chrome Tanning.*
   - *Direct Chrome Liquor Recycling (DCLR).*
   - *Chrome Recovery and Reuse.*
   - *Cleaner technologies in post tanning and finishing.*

7. All the 402 industries and/or such other numbers which are operational, would be permitted to operate strictly in compliance with the conditions of the Consent to Operate order. Any industry which violates the prescribed parameters, conditions of the Consent to Operate and the directions

contained herein, shall be liable to be shut down by CPCB/UPPCB.

8. The industries would be liable to pay the determined share, by the competent authority, of the expenditure to be incurred on laying down of pipelines and construction/up-gradation of the CETP/ Chromium Recovery Plant on the basis of Polluter Pays Principle. The CETP and the Chromium Recovery Plant shall be operated and maintained by the Association of the Industries under the strict supervision and under the effective control of the UPJN. The UPJN and the Association of Industries would be collectively responsible and liable to be proceeded against, in accordance with law, in the event of default and violations.

9. It is again commonly agreed and undisputed that as of now two STPs of the capacity of 130 MLD and 5 MLD, respectively, are operating in Jajmau. Another STP of the capacity of 43 MLD is under construction. It has already been noticed that the two operational STPs are not working satisfactorily and the parameters are much beyond the prescribed limits. It is in crores as far as coliform is concerned and BOD is also very high. Thus, we direct that the two existing STPs of 130 MLD and 5 MLD respectively shall be subjected to inspection

by the Joint Inspection Team within 4 weeks from today and the recommendations made by the Joint Inspection Team consisting of representatives from MoEF&CC, NMCG, CPCB, UPPCB, UPJN and Professor in the required specialty from IIT Roorkee. They shall make due recommendations for proper operation and maintenance of the plant and to ensure that these violating values are brought within the prescribed norms. The recommendations made shall be implemented by UPJN and NMCG without any further delay or default. This must be executed with utmost priority and expeditiousness.

As far as the STP of 43 MLD under construction is concerned, we direct that the said STP shall be constructed and completed to ensure that it meets the prescribed values, particularly, in relation to BOD, Faecal coliform and all other parameters. It should achieve value of BOD at 10 mg/l and 230 MPN/100 ml of coliform, as directed by CPCB and MoEF&CC.

The discharge from the STP should firstly be used for dilution of the trade effluent from the CETP and the remnant should be reused for agriculture, horticulture and industrial cooling of power plants etc., not in excess of 25% of the total discharge that should be released into river Ganga.

10. The CETPs at Unnao and Banthar, Kanpur are stated to be in operation. Unnao CETP is being operated with the activated sludge process technology. The analysis report shows quality of treated effluents at the outlet exceeding notified standards. It shows high concentration, particularly, of TSS, total coliform and chromium, which adversely affects the biological treatment system, it being toxic. The CETP at Banthar was found not complying. It was violative of the prescribed parameters and was found not efficiently working and causing adverse impacts. Both these CETPs need to be upgraded in terms of capacity and quality of treatment. We direct upgradation of these CETPs on the basis of the reports submitted to the Tribunal and which should be reconfirmed while submitting the final project report to the Tribunal for implementation.

    Both these CETPs shall also be subjected to inspection by the Joint Inspection Team within 4 weeks from the date of passing of this judgement. Their recommendations should be implemented with utmost priority and expeditiousness.

11. The conveyor belt/drains carrying the effluents from the industrial clusters should be dredged and cleaned. Immediate steps should be taken in

that direction by the concerned authorities primarily by UPJN and Kanpur Nagar Nigam collectively.

12. The industries at Unnao and Banthar shall be liable to pay and share the financial responsibility for properly preparing the pipeline/conveyor belt, construction/ upgradation of the CETPs, as per the share determined by the competent authority on the basis of Polluter Pays Principle.

13. A direction is issued to the State of UP, UPJN, UP Nagar Nigam and UPSIDC with due consultation with Director NMCG and CPCB to submit a complete project report in furtherance to these directions giving time bound programme for completion of the project in terms of these directions within a period of six weeks from today. The report shall be submitted within six weeks and the work in furtherance to such project report and in consonance with this judgement should start within four months from the date of pronouncement of this judgement and the projects completed and made operational in all respects without exception within two weeks from the date of pronouncement of this judgement.

14. In the event, the above direction is not carried out in its true spirit and substance and report placed

before the Tribunal within the stipulated time, then all the tannery industries at Jajmau, Unnao and Banthar shall be directed to be shut down and would be shifted to a new industrial site which is fully developed having provisions for CETP and Chromium Recovery Plant.

Keeping in view the directions of the Supreme Court and the judgement of the Allahabad High Court as referred above, we direct that the State of UP alongwith the Association of the Industries, who shall submit the project action plan as afore directed within 6 weeks from the date of passing of this judgement, failing which, it shall take steps for shifting of the tannery industrial complex from Jajmau to the identified site at 'Banthar (Unnao Extension)' or any other land identified by the State within that period.

15. Having passed generic directions in relation to the tannery industries located at Jajmau, Banthar and Unnao, we also need to deal with the three drains, namely, Sheetlabazar Drain, Budhiyaghat Drain and Wazidpur Drain as discussed in para 92 at page no. 217 of the judgement above and other specific matters peculiar to the tannery industries located at Jajmau. Thus, in addition to the above, we pass the following directions in

relation to industrial cluster at Jajmau:

I. All the tannery industries shall abide by all the directions afore-stated.

II. The two dedicated pipelines for carrying sewage and trade effluent shall be cleaned, silt and sludge removed and shall be maintained in future directly so that there is no obstruction to the flow of the effluent/sewage and there is no overflow coming from the interception/points, where pumps have been constructed to the above three drains. Once the pipelines operate efficiently and the CETP and STPs operate to their optimum capacity as afore directed, the three above-stated drains would carry no effluent or sewage and they would be restored to their original status of being storm water/natural drains.

III. It will be ensured that the sewage from Jajmau industrial complex as well as surrounding areas is carried through the dedicated pipeline to either of the STPs located at Jajmau itself. Similarly, the trade effluent is carried to the CETP at Jajmau. The entire network of sewer line and drain should be kept free of

obstruction, sludge or silt.

IV. Due record shall be maintained for collection, transportation and treatment of the spent chrome liquor at Jajmau.

V. Each tannery industry shall maintain a tank of an appropriate size in their premises in which the spent chrome liquor is stored, till it is transported as directed. It should be ensured that the tank does not have any leachate affecting groundwater in that area.

VI. In any of the above events, if the unit is found to be defaulting and/or discharging chromium contained effluent into drain or conveyor belt or in any form and causing pollution, the unit shall be liable to be closed and shutdown with immediate effect.

VII. Resultantly, the three drains would be converted and maintained as natural storm water drains and they shall be cleaned, silt and sludge removed without any further delay.

VIII. All the drains would be fixed with 'screen traps' at the end of the pipeline to ensure that no waste of any type enters the river.

IX. All the concerned stakeholders including the public authorities would ensure that no trade effluent/sewage or municipal sludge waste is permitted to be discharged or dumped in any of these three drains and they should maintain their natural character.

16. The administrative regime/body shall be primarily of the association of industry itself, supervised by UPJN and the UPPCB.

17. The charges for collection and transportation of the remnant chromium effluent or the entire spent chrome liquor shall be fixed by the above mentioned administrative regulatory body, which will be payable every month in advance but such payment will not absolve the responsibility of the unit for actual transportation of the effluent to the Chromium Recovery Plant and the same should be applicable to CETP as well.

18. It is directed that where the effluent discharge standards have been fixed, keeping in view the dilution ratio of 1:10, then it must be ensured that the recipient water body carries that capacity. In the event it falls short of 10 times dilution then the standards of discharge of effluent should be accordingly revised and fixed by the Board on case-

to-case basis, while granting consent to the industries.

FINANCIAL REQUIREMENT AND DIMENSIONS OF THE PROJECT

174. The project of cleaning and rejuvenation of segment B of phase I of river Ganga and its tributaries as stated in this judgement is not likely to incur any financial blockage or impediment. The Tribunal had already held that there exists a triangular responsibility for providing decent and clean environment specifically in relation to prevention and control of pollution of river Ganga and its rejuvenation. This responsibility and obligation co-exists with the exercise of Right to decent and clean environment. It is not an exclusive responsibility of the Central Government but needs to be shared collectively by the State Government and the class of Industries or persons responsible for generating pollution. All these three stakeholders, i.e., Central Government and State Government and its instrumentalities, the industries are responsible for causing of such pollution and even the public at large which generates heavy quantity of sewage, adds to the excessive pollution of river Ganga and its tributaries. The financial liability is expected to be shared in the defined proportion by these stakeholders.

175. The Prime Minister of the Country in 2015 declared river Ganga and its cleaning and rejuvenation as a National

Project. The allocation was coupled with providing of financial budget of ₹ 20,000 crores for a period of 5 years i.e. 2015-2020. This amount had to be spread over for a period of 5 years. For the financial year 2015-16, ₹ 2750 crores had been allocated which includes ₹ 100 crores for Ghat work. There could not have been a greater financial commitment for the cause of environment and bringing back the pristine nature of the holy river Ganga. The funds committed for cleaning of river Ganga since 2011-12 to 2016-17 as declared by National Mission for Clean Ganga are stated to be as follows:

National Mission for Clean Ganga Funds allocated and spent so far on cleaning of Gang since inception till 15.09.2016 Rs. In crore

FY	**BE**	**RE**	**Actual Expenditure by Govt. of India**
2011-12	500.00	216.61	192.58
2012-13	512.50	193.50	191.52
2013-14	355.00	309.00	303.95
2014-15	2,137.00	2,053.00	326.00
2015-16	2,750.00	1,650.00	1,632.00
2016-17	2,500.00	-	315.00
Total	8,754.50	4,422.11	2,961.05

If one examines the above figures, the budgeted estimate for 2013-14 to 2015-16 was ₹ 5242 crores and the revised estimate for the same period was stated to be ₹ 4,012 crores. Even the revised estimates have not been actually spent and considerable amount remains unspent for each financial year as well as on the whole. The Government of

India has formulated the schemes under NMCG and the comprehensive approach to rejuvenate the river Ganga by inclusion of tributaries under an umbrella, which was the basic programme of Namami Gange as approved by the Cabinet on 13th May, 2015. The programme envisages 100% Central Government funding, however, the expenditure shown for the year 2015-16 (till July, 2015) was only ₹ 85.34 crores in relation to cleaning of river Ganga for the year 2014-15 expenditure, stated to be ₹ 326 crores. Besides this, the Government has also established a Clean Ganga Fund for harnessing the enthusiasm of those who are concerned about the rejuvenation of river Ganga. The total contribution received till 15th July, 2015 is ₹ 64.57 crores which includes funds received from Indian residents, Non-resident Indians, corporate both public and private sectors including PSUs (as stated on the floor of Rajya Sabha on 3rd August, 2015).

176. The NMCG had also submitted a note before the Tribunal on 26th July, 2016 on the guidelines of mode of funding of Hybrid Annuity Mode and PPP base under Namami Gange Scheme. It was stated that the policy decision has been taken on 6th January, 2016, inter alia to introduce Hybrid Annuity based PP funding model for the projects under this scheme. The Annuity Mode funding aims to reform the Wastewater Management Sector in the Country to ensure performance, efficiency, viability and sustainability.

In terms of this mode out of all the funding, a part of the capital invested, i.e., 40% will be paid by the MoEF&CC through construction linked milestones and the balance from annuity over contract operation upto 25%. The Executive Director, NMCG submitted that this was taken in view of the lesson learned from the implementation of Ganga Action Plan-I and Ganga Action Plan-II. In the proposed Hybrid Annuity Mode, 40% capital cost will be given to the contractor/operator on completion of STP and balance 60% of the capital cost will be paid on annuity mode for a period of 20 to 50 years, along with operation and maintenance cost based on satisfactory performance. The State Agencies will have an important role in DPR tendering work and execution of the project, though the final approval to the project will be given by NMCG as per the notified scheme. The local bodies and agencies are the partner agencies in the entire planning and execution of the project and NMCG as on today envisage handholding with these agencies for a period of 15 to 20 years. Thereafter, the State Agencies will be able to take over these projects. The above financial data clearly demonstrate that funding for the project is nowhere scarce, on the contrary more than ample funds are available for execution of the work under the project outlined in this judgement. While NMCG should be primarily responsible for cleaning and rejuvenating river Ganga and its

tributaries as per this judgement and must sanction and get work executed as enunciated in this judgement.

177. The prime object of this judgement is to ensure cleaning and rejuvenation of river Ganga and its tributaries and not cleaning the cities *per se.* While NMCG would grant priority only to the projects covered, under this judgement in Segment- B of phase I through State Governments, the State Governments would simultaneously take up the decentralised projects within the city to further clean sewage, drains and ensure free flow of sewage and effluents. We have already noticed that in terms of the notification issued by the Government, the primary responsibility of NMCG is to clean river Ganga and its tributaries. It is incidental to various other functions of NMCG to deal with the drains of the city, by providing centralised or decentralised STPs/CETPs and improving sewage system, etc. Thus in discharge of its fundamental functions, the NMCG should meet its financial responsibility for completing the mega project of cleaning of river Ganga without default and delay.

178. While the Central Government and the State Government have to discharge their responsibility and financial commitments, the industries causing pollution are equally liable for their share of financial responsibility for the defined portion on the basis of 'Polluter Pays Principle'. On facts of the present case, there is no escape from such

liability qua the tannery and other industries. What supports adopting of such an approach is that, for all this period, the industries have failed to perform their obligation of ensuring discharging of trade effluent from their premises strictly in accordance with the prescribed norms. Other major failure is lack of proper regulatory, monitoring and supervisory control by the authorities vested with the power under the different environmental laws. There is hardly any compliance of the law as well as the conditions of the Consent to Operate order. The cumulative effect of this is constantly increasing pollution of river Ganga and its tributaries. The industries have failed to establish ETPs and install/construct Chromium Recovery Plants and discharging effluent within the prescribed parameters. Of course, an array of reasons have been advanced on behalf of various stakeholders for such non-performance which are unacceptable by the Tribunal. Non-fulfillment and non-performance of obligations was evidently for earning economic benefits at the cost of environment.

There is unequivocal responsibility upon the industry, now atleast, to pay for pollution that they have caused over the years and even presently causing. The industry must contribute in the cost that would be incurred for installation of CETPs/STPs, providing of sewer line network and for installation of required anti-pollution

devices for prevention and control of pollution of river Ganga and its tributaries. The Central Government and the State Government constitutionally, statutorily and in terms of the Notification issued by NMCG are duty bound to clean and rejuvenate river Ganga and its tributaries. The State Government and its instrumentalities are to provide Public health and sanitation; hospitals and dispensaries (Entry 6 List II). Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power in terms of Entry 17 of List-II which is subject to Entry 56 of List-I. Entry 56 List-I provides for Regulation and development of Inter-State rivers and river valleys to the extent to which such regulation and development under the control of the Union is declared by the Parliament by law to be expedient in the public interest. Furthermore, in view of the Right to decent and clean environment being a fundamental right, the stakeholders and the industries are liable to bear the cost for effective exercise of this right. The industry has to contribute on the basis of 'Polluter Pays Principle' and in fact even the public at large is expected to contribute for the huge quantity of sewage and other domestic effluent that is put into river Ganga and its tributaries.

179. Having determined the financial liability of the respective stakeholders, now, we may examine the availability of funds for execution of the projects contemplated under this

judgement. In this regard, it would suffice to refer to the order of the Tribunal dated 7th July, 2017 which reads as under:

> "Today is the 5th hearing before this Tribunal when the Central Government, State Government, Uttar Pradesh Jal Nigam and all concerned departments had been directed to furnish the expenditure incurred upon cleaning of river Ganga particularly in Segment-B of Phase-I. The figures that have been furnished even on this 5th day of hearing suffer from patent inaccuracy and deficiencies.
>
> Be that as it may, the Tribunal has to proceed further with the matter rather than keep on adjourning the case just for providing of this information, which we notice with great regret.
>
> The officers are present and they have furnished some statements of expenditure to the Tribunal in relation to State of Uttar Pradesh and by the Central Government on the expenditure incurred for the entire stretch of river Ganga. According to the statement furnished, duly signed by the Ministry of Water Resources, the total expenditure prior to constitution of National Mission for Clean Ganga in Gap-I and Gap-II and even thereafter is stated to be as follows:
>
> 1. Actual amount released by Government of India is ₹ 6788.78 crores.
> 2. The amount actually released for expenditure is ₹4864.48. Thus leading to the unspent balance as on 30th June, 2017 is ₹ 1924.30 crores.
>
> According to Ministry of Environment, Forest and Climate Change, there is a little variation in the amount released and spend under Gap-I. According to them the original sanction for Gap-I

was ₹ 256.26 crores which upon revision increased to ₹ 462.04 crores. Out of this only a sum of ₹ 451.70 crores was released out of which ₹ 433.30 crores was spent, leaving balance of ₹ 28.74 crores.

Besides the above amount, the State of Uttar Pradesh has as on March, 2017 spent a sum of ₹ 1827.07 crores in the State of Uttar Pradesh for cleaning of River Ganga and its tributaries. This includes a sum of ₹ 164.69 actually spent on standalone projects of State of Uttar Pradesh, while the remnant of ₹ 1662.38 crores is State contribution towards the Central schemes. Unutilised amount of both these accounts is ₹ 171.09 crores. The amount spent by the State of Uttar Pradesh is primarily through Uttar Pradesh Jal Nigam. There might be certain more amounts spent by the State of Uttar Pradesh directly through local authorities etc. in relation to cleaning of river Ganga. On the basis of above statements which have been reaffirmed before the Tribunal by the stakeholders, as of today ₹ 2095.39 crores is un-utilised amount available with the Centre and the State, for rejuvenation and cleaning of river Ganga and its tributaries. It is commonly conceded before us that these amounts do not lapse as they are already earmarked particularly for expenditure which is a continuing expenditure. It may be noticed here that only in the year 2015-16, the Uttar Pradesh Jal Nigam has spent ₹ 95.96 crores on Segment-B of Phase-I alone, obviously without any improvement in the water quality of river Ganga. In the year 2016-17 they have already ₹ 83.83 crores.

The above financial statement clearly shows that more than enough funds are available for execution of the projects. There are considerable unutilised funds as of

today, besides the huge funds that have been made available under the national project as declared by the Hon'ble Prime Minister wherein ₹ 20,000/- crores have been allocated for the five years commencing from 2015-2020. Even after spending ₹ 7304.64 crores upto March, 2017, by the Central Government, State Government and local authorities of the State of UP, the status of river Ganga has not improved in terms of quality or otherwise and it continues to be a serious environmental issue. The NMCG is the Nodal Agency for overseeing the execution of the project and to provide requisite funds for completion of the projects in appropriate, effective and expeditious manner.

DISCUSSION ON: WAY AHEAD-A NEW PERSPECTIVE

180. Having deliberated upon different aspects of pollution in relation to river Ganga, its tributaries and cleaning and rejuvenation of river Ganga, we may now advert to the discussion on a crucial aspect of this judgement, which relates to the necessity for adopting a new perspective of planning and execution of the projects for better prevention and control of pollution and rejuvenation of river Ganga and its tributaries as directed under various heads of this judgement. In the considered view of this Tribunal, it was found essential to avoid the conventional approach that had been adopted by the stakeholders so far for variety of reasons. The results of the projects

undertaken *vide* different schemes did not provide desired results, on the contrary, there has been tremendous increase in the pollution levels adversely effecting the water quality of the river Ganga and its tributaries. For instance, the discharge flow of river Ganga from sewage is 2683.6 MLD and from the industrial effluent it is 285.9 MLD in 2009. While as per the report of the CPCB in the year 2012 it was reported to be 6966.3 MLD from sewage and 501 MLD from industrial effluent. Out of which in segment B the total wastewater meeting river Ganga through drains is 2775 MLD and correspondingly the BOD load being 229.61 TPD. Besides this, 225 MLD of wastewater is generated by the industries. The experiences of the past where different schemes were formulated, heavy expenditure (₹ 2961.05 Crores) was incurred, however, the results produced were not only unsatisfactory but counterproductive to the extent that there had been serious increase in the levels of the pollution of the rivers. This compelled the Tribunal for not adopting existing practices for planning and execution of the projects and to look for a new beginning or way ahead with new perspective, which is technically feasible, economically viable, and practically executable with tested modern technology, appropriate technical inputs from the stakeholders, expert institutions as to performance and planning, free from fundamental errors. All this was

initiated through stakeholders, special constituted high-powered committees, experts from different institutions including IITs and finally through the stakeholders consultative process in adjudication by holding chamber meetings. Once these basic parameters were satisfied, a draft action plan had been put before the stakeholders and all concerned parties including industries for better execution and acceptance. The stakeholders and all concerned gave their inputs and significant issues of the action plan and project which were unanimously accepted, by the representatives from MoEF&CC, MoWR, NMCG, CPCB, UPPCB, UPJN, UPPJN, Kanpur Nagar Nigam and the State of UP and the Tribunal further proceeded to examine the merit or otherwise of the proposals and suggestions. After a critical examination of various aspects in this behalf, the Tribunal which itself has an expert panel, reserved the matter for pronouncement. The judgement contains all essential features and a complete project which needs to be executed for achieving common object of cleaning and rejuvenation of river Ganga and its tributaries in a time bound manner. The judgement caters to all the necessary ingredients required for data collection, planning and execution of the project of such magnitude. The Tribunal has taken due care to frame the judgement to be inclusive of most of the projects that have already been planned by the stakeholders or are under partial

execution. Such approach would help not only in saving the public funds but would ensure proper utilization thereof. It remains undisputed before the Tribunal that no part of river Ganga and its tributaries is free of pollution as of today. This by itself is a sufficient indicator that the stakeholders must adopt an innovative approach quite different to the orthodoxical and uncertain approach. There has to be proper planning, better execution, higher accountability and ensuring objective performance of the project. Unless these factors are inbuilt in the project, its success would always be doubtful and that is the precise reason that the Tribunal has dealt with each drain separately which confluences river Ganga and pollutes it, with certain definite solutions. It must be ensured that sewage/effluent from each drain is recycled and only remnant is permitted to join river Ganga and its tributaries when it is well within the prescribed parameters.

181. In order to avoid repetition and to bring out the reasons with greater precision, we would mention the following points that would substantiate the adoption of a new approach or perspective that the Tribunal had adopted:

a. Undisputedly and as discussed in detail in the judgement above, it is established on record that GAP I and GAP II has failed to yield the required results and on the contrary there has been tremendous increase in the industrial and sewage

pollution load in river Ganga and its tributaries.

b. Lack of collection of appropriate and definite data by the local authorities and the stakeholders which creates a sustainable question as to the very preparation of the DPRs.

c. Quantum and qualitative analysis in relation to the various drains was not only lacking but was absent.

d. Performance of most of the STPs or CEPTs was found to be poor and they could not even treat the basic pollutants and metals. It is a known fact and for years in the past that TC and FC are the highest pollutants of river Ganga and its tributaries. None of the plants are capable of treating these pollutants and no other mechanism had been provided to remove this highest contaminating pollutant. The industrial effluent which were acidic and contain metals could not be removed from the effluent, before the same is permitted to join river Ganga and its tributaries. The Hon'ble Supreme Court of India in the case of *Paryavaran Suraksha Samiti & Anr. v. Union of India & Ors.*, WP(C) No. 375 of 2012, pronounced on 22nd February, 2017, enunciated on the setting up of functional CETP and PETPs in order to continue with industrial activities and upheld that no industry which requires Consent to Operate from the concerned

Pollution Control Board shall be permitted to function unless it has a functional ETP which is capable to meet the prescribed norms.

e. Lack of coordination and cooperation between various Central and State Agencies caused hindrances in achieving the object of cleaning river Ganga and its tributaries. There was no clear demarcation of responsibilities and performance between various stakeholders which resulted in conflict not only in decision or policymaking but even in the execution.

f. Lack of supervisory and regulatory regime, particularly in relation to providing pollution treatment at source.

g. The segment approach was found to be more appropriate as to treatment of pollutants with reference to 'hot spot' approach. The segment approach was not only approved by the stakeholders but even by the High Powered Committee consisting of various senior officers from the Ministries, experts from the IITs and even by the special experts that are invited by the Tribunal at the request of MoWR.

h. River basin approach was supported by all the stakeholders. This approach needs to be adopted to ensure the wholesomeness of the river by taking

appropriate control and mitigation measures in respect of the identified sources of pollution.

i. Waste volume reduction and waste strength reduction were well accepted principles of wastewater treatment, design and planning have been incorporated in the new approach. Reliance has been placed upon the efficacy, economy and consistency of waste management methodologies.

j. End of the pipeline treatment, which is a more practical and scientifically implementable approach, has been adopted in preference to decentralized treatment plants all over the city. The geography of the drains, the drainage hydrological aspects, quantum and quality of the pollutants and load of the effluent in the drains has been formed as the very basis for arriving at appropriate decisions.

The end of pipeline treatment has not been adopted as a rule. Wherever the situation has demanded, decentralized construction of CETP/STP or laying of pipeline has been permitted. It is primarily for the reason that the internal drainage system of the city is not available much less with exactitude. There are large number of unauthorized and illegal colonies and jhuggi clusters, which have no drainage system and it, would require much longer duration to implement regular drainage, sewer line

projects of such areas. Furthermore, there are even planned and developed areas, which do not have sewer line or drainage systems. Thus, it may not be incorrect to observe that the projects confined to cleaning the cities internally within the municipal limits are no solution to the problem of severe pollution at hand.

k. The failure on the part of the industries to perform their obligations of discharging only those effluents, which are within prescribed parameters. Thus, the liabilities of the industries to bear consequences of their default and causing damage to the environment must follow practical approach including most of the works planned or under execution by different stakeholders but taking due care of public funds as well as environment.

l. The objectives taken by the State Government and its instrumentalities with regard to the planning, execution, maintenance and performance of the project, not being in consonance with the federal structure by the other stakeholders and inconsistency in policy decisions.

FINAL DIRECTIONS AND ORDER OF THE TRIBUNAL

182 Such substantial environmental issues relating to massive pollution of river Ganga and its tributaries are incapable of being resolved by issuance of directions, which are routine

or quotidian in their scope and implementation. Problems of extraordinary dimensions of industrial and sewage pollution would necessarily require stringent and path-breaking directions. Problems of such magnitude need to be resolved by recourse to extraordinary measures and actions. The historical background of this case demonstrably exhibit fundamental errors in planning, adoption of technology and implementation of the projects. Deficiencies in the regulatory and supervisory regimes are writ large from the record of the case. Thus, the directions for compliance that are required to be passed by the Tribunal should serve the purpose of established environmental principles of Sustainable Development and Precautionary Principle. Violators must realize the consequences of their consistent defaults. Causing of continuous pollution must visit them with liability to pay for the pollution caused in the past years and presently. The fundamental object of these directions is to achieve the goal of prevention and control of pollution of river Ganga and its tributaries on the one hand and its cleaning and rejuvenation on the other. The remedial directions and solutions provided herein, would enforce the Principle of Sustainable Development as the industries would be encouraged to carry on their industrial activities but with a clear caution that they would face coercive orders including closure of industry, if required. The government

and public authorities must perform their functions and complete the project in a time bound manner as that is their constitutional, statutory and public law obligation.

In light of the constitutional mandate and the statutory scheme contemplated under Section 20 of the National Green Tribunal Act, 2010, we may examine legal aspect of the environmental issues arising in the present case. Right to decent and clean environment is an integral part of Article 21 of the Constitution of India. By law, the industry is mandated to adhere to the prescribed standards for discharge of trade effluents. The State in discharge of its constitutional obligation is to ensure prevention of contamination of rivers. Protection and improvement of environment is the golden principle underlining the various judgements of the Hon'ble Supreme Court of India. In the case of '*Ashok Kumar Thakur v. Union of India', (2008) 6 SCC 1*, the Hon'ble Supreme Court of India repelled the plea of the State that lack of availability of finances could be a defence for not taking effective steps for providing clean environment. It is to be noted that financial constraint cannot be a ground to deny fundamental rights and the provision for the schemes and the utilisation of the funds are also relevant factors. It appears that better coordination between the funds provider and the utiliser is necessary.

The constitutional duty upon the citizens is to protect and

improve the nature, environment including forests, rivers, wildlife and to have compassion for living creatures. No industry much less the State or its instrumentality can be permitted to indulge in pollution of natural resources particularly the river for economic benefits. It is a settled principle of law that the Polluter Pays Principle and Precautionary Principle have to be read into the Principle of Sustainable Development. Normally, they are applied collectively. Restrictions imposed are inbuilt fact of sustainable developments and that itself serves the cause of Intergenerational Equity. To protect and improve the environment has a direct nexus to the quality of human life, thus, all environmental principles must come to the aid of the Courts and Tribunals for furthering the cause of Sustainable Development. In the case of *'Vellore Citizens Welfare Forum vs. Union of India' 1996 5 SCC* 647 held with approval:

> "The concept of development to say that the traditional concept that development and ecology are opposed to each other is no longer acceptable. Sustainable Development is the answer i.e., development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. It is intended to improve the quality of human life, while living within the carrying capacity of the supporting ecosystems. The 'Precautionary' Principle and 'Polluter Pays' Principles were, therefore, said to be the essential features of the Principle of Sustainable Development."

The Sustainable Development means that the richness of the earth's bio-diversity would be conserved for future generations by greatly slowing or if possible halting extinctions, habitat and ecosystem destruction, and also by not risking significant alterations of the global environment. The trend of law is that a delicate balance has to be struck between the ecological impact and development. The other principle that has been ingrained and of which the Courts and Tribunals have taken note of is that if a project is beneficial in the larger public interest, inconvenience to smaller number of people is to be accepted, as having interest or interest of a class of persons is smaller to the public interest and must yield to the larger public interest for effective and efficient environmental management, transparent accountable and participatory administration and approach is necessary.

Under our legal system, environmental jurisprudence includes the Public Trust Doctrine and the State is a trustee of all the natural resources. The aesthetic use and the pristine glory of the natural resources, the environment and the ecosystems of our country cannot be permitted to be eroded for private, commercial or any other use unless the courts find it necessary, in good faith, for the public good and in public interest to encroach upon the said resources. Professor Joseph L. Sax in his classic article, "*The Public Trust Doctrine in Natural Resources Law:*

Effective Judicial Intervention" (1970), indicates that the public trust doctrine, of all concepts known to law, constitutes the best practical and philosophical premise and the legal tools for protecting public rights and for protecting and managing resources, ecological values or objects held in trust.

The Polluter Pays Principle is universally accepted as a sound principle and is applied for determining the question of liability of the polluter for causing pollution as well as the cost of the remedial measures. The liability of the polluter is absolute for the harm done to the environment, which extends not only to compensate the victims of pollution but is also aimed to meet the cost of restoring environment and also to remove the sludge and other pollutants as held by the Hon'ble Supreme Court of India in the case of '*Indian Council for Enviro-Legal Action and Ors. vs. Union of India* and Ors.'1996 SCC (3) 212.

The industries that have caused pollution spread over such a long time must be held liable and, therefore, directed to ensure cost of precautionary and restorative measures. The State *ex-facie* has not been able to protect the natural resources despite its duty to do so. The Principle of Intergenerational Equity, Precautionary Principle and the Sustainable Development applied to the facts of the present case demands application of balanced approach and issuance of appropriate directions.

Thus, the directions are widespread and would deal with various aspects while ensuring that no pollutants are permitted to enter river Ganga and its tributaries from any of the drains falling in Segment 'B' of Phase I, that is Haridwar to Unnao, Kanpur. Once the projects in terms of this judgement are completed, preventive, precautionary and remedial steps, as directed, are taken, stretch of 500 kilometres of river Ganga besides its tributaries shall be cleaned and rejuvenated. The stretch of 450 kilometres in the State of Uttarakhand is covered by the judgement of this Tribunal dated 10th December, 2015 in Original Application No. 10 of 2015, while the 500 kilometres stretch falling in Segment-B, Haridwar to Unnao, UP is covered by the present judgement. As already noticed, the total length of river Ganga is 2525 kilometres and total discharge flow is 11374.28 MLD. The discharge flow in Segment A of Phase I is 216.99 MLD and discharge flow in Segment B of Phase I is 2775.19 MLD. In other words, 2992.18 MLD discharge flow of river Ganga in Phase I (Segment A and B) would be remedied by implementation of this judgement. It can be stated that projects completed under this judgement would clean the entire stretch of river Ganga and its tributaries falling in Segment A and B of Phase-I, i.e., Gaumukh to Unnao, UP. This would reduce pollution load by 27% of the entire stretch of river Ganga from Gaumukh to Bay of Bengal that would be the

impact of compliance of cleaning and rejuvenating of river Ganga and its tributaries. Besides cleaning and rejuvenation of river Yamuna in terms of the judgement of the Tribunal dated 13th January, 2015, which is under implementation. It is the constituent of the pollution that gains greater relevancy as opposed to the quantum of the discharge. The discharge in Segment B of Phase I is highly contaminated. The industrial or sewage discharge in this Segment, besides containing metals, pesticides and being acidic also carries effluents, sewage, i.e., highly violative of the prescribed norms, therefore, effluent in each drain must be treated before it meets river Ganga and its tributaries. The Central Government, the State Government and local authorities of the State of UP have spent approximately a sum of Rs. 7304.64 crores upto March 2017 without any effective improvement in the water quality of river Ganga or its tributaries. It is after due deliberations and advice of the experts that the Tribunal has preferred by and large end of pipeline treatment in the peculiar facts and circumstances of the case. The projects directed under the judgement not only bring within its ambit the proposed projects of the stakeholders and the Government with some variations but has even evolved scheme of the projects which is environmentally sound, technically acceptable, economically viable and practical to be implemented. The

directions to be issued by the Tribunal can be divided into two different but interlinked segments, first would relate to directions which are generic in their character and implementation, while the other would be project or plant centric. Hence, the following directions and order:-

GENERAL DIRECTIONS:

182.1 The general directions contained under this head shall apply *mutatis mutandis* to the directions specified under the respective heads of the judgement (supra). In order to provide clarity and for better understanding, we have referred to most of the directions in the operative part of this judgement, to that extent, the directions stated in the body of the judgement and the operative part, may be overlapping or repetitive. Thus, it is necessary that the directions must be read and given effect to conjunctively.

1. We hold and direct that ZLD (Zero Liquid Discharge) and online monitoring system would not be applied by any of the official respondents in the present application to the industrial units across the board. The directions in that behalf shall be on case to case basis particularly with reference to the load of effluent being discharged, quality of effluents, the anti-pollution devices that have been installed or directed to be installed and the resultant pollution caused by such industrial units and

the environmental risk associated with such pollution. This should have reference to the financial viability as well.

2. The State Government, its instrumentalities, Departments and concerned public authorities shall ensure that all the 86 drains specified in the judgement as well as other major drains and sewerage line connecting thereto shall be dredged, cleaned of sludge and waste removed therefrom within a period of six weeks from the date of pronouncement of the judgement.

Similarly, the sludge from the plants i.e. Chromium Recovery Plant and CETP etc. should also be properly collected and transported to the identified site.

The sludge containing the hazardous waste and the waste which even may contain hazardous waste should be collected on regular basis transported and dealt with, to a duly identified site in accordance with Hazardous Waste Management Rules, 2016.

Presently, there is Ramky Hazardous Waste Treatment plant located in Kanpur and it has a area of 18 acres of land out of which 5 acres is being used for dumping of waste/hazardous waste and 13 acres is kept for green belt.

Additional land of 6.88 acres has also been purchased. The landfill site has been approved and consent granted by the UPPCB. The site has also been inspected by CPCB and has been found to be operated and maintained appropriately. Thus, we direct that the site in question should be expanded beyond 5 acres should be constructed, maintained and operated strictly in accordance with rules afore-stated. Around the site, green belt should be maintained.

3. All the directions contained in this judgement and more, particularly, in this part shall be carried out and implemented within the time frame specified under those directions. Wherever the directions relate to submissions of plan of the project/DPR the same shall be submitted to the Tribunal within six weeks from the date of the pronouncement of this judgement. The works identified and directed in this judgement must commence within four months of the order of the Tribunal and construction of STP/CETP or installation of any other anti-pollution devices, laying of pipeline should be completed positively within two years from the date of pronouncement of this

judgement. Every authority, i.e., State Government, NMCG and all other departments of the Government and local authorities shall ensure compliance of this direction without delay and default. In the event any extension of time is required, they shall file an application before the Tribunal for that purpose well in advance.

4. That the Tribunal is of the considered view and hold that the dilution (by way of mixing with sewage) process of CETP should be preferred to the ZLD technology for tannery cluster in the present case. The ZLD technology would generate huge quantity of salt which is required to be treated to convert it into a marketable product. Its storage has already been discussed as a serious issue. There is uncertainty in economic as well as technical field. Opposed to this, the dilution process by sewage would provide a consistent source for reuse and recycle of the treated sewage effluent for agriculture, horticulture, industries and for cooling and other purposes. Thus, it would provide not only a useable benefit but would also have a direct impact on reduction in extraction of groundwater. This, however, we do not state as

a rule but as an approach to the present case, in view of the peculiar facts and circumstances and projects on record and reasons afore recorded.

5. Any Government Agency, Public Authority, Industry or person who violates any of the directions contained in this judgement and more particularly in relation to storage, transportation of spent chrome liquor, dumping of any kind of waste in river Ganga and its tributaries or on the banks of the same and discharges effluents from outlet, including the STP/CETP in violation to the prescribed norms or is found to be discharging spent chrome liquor or any effluent containing chrome or otherwise, shall be liable to pay environmental compensation of Rs. 50,000/- for each breach or default. Besides above, where offence is related to chrome, in case of industry which is processing 30 or less hides per day, they would be liable to pay environmental compensation of Rs. 25,000/- per breach; industry entitled to process more than 30 but less than 100 hides per day, would be liable to pay environmental compensation of Rs. 50,000/- per breach and the industry processing more than 100 hides per day, Rs. 1,00,000/- per breach. The environmental

compensation shall be recovered by the UPPCB on the basis of the violations detected by the Board, any of the inspecting agency or the inspection teams appointed by this Tribunal. In the event of default of payment of the environmental compensation, the industry shall be ordered to be closed.

6. We hereby constitute the following committees to perform the functions directed hereinafter and for reporting the progress to the Tribunal:

(I). Supervisory Committee: following will be the Chairman and Members of this Committee:

A. Secretary, Ministry of Water Resources, Chairman
B. Additional Secretary, MoEF&CC
C. Additional Secretary, Urban Development, State of Uttar Pradesh
D. Chief Secretary, State of Uttar Pradesh
E. Chairman of the Central Pollution Control Board
F. Professor A.K. Gosain, IIT Delhi
G. Professor Vinod Tare, IIT Kanpur
H. Concerned Executive Director of NMCG shall be the Nodal Officer.
I. Dr. A. B. Akolkar, presently Member Secretary, CPCB

This Committee shall oversee and supervise proper and effective implementation of all the projects under this judgement and will ensure providing of funds expeditiously and finally submit the implementation-cum-progress report to the Tribunal every three months. This

Committee shall hold its first meeting within two weeks from the date of pronouncement of this judgement to examine the outline of the action plan. Meeting shall be held alongwith the Members of the Implementation Committee. The Committee will hold its subsequent meetings on regular intervals.

(II).Implementation Committee: following will be the Chairman and Members of this Committee:

A. Secretary, Environment, State of UP, Chairman
B. Secretary, Urban Development, State of UP
C. Concerned Executive Director of NMCG
D. Mr. Sundeep, Director (T-II), NMCG
E. Dr. A. B. Akolkar, presently Member Secretary, CPCB
F. Member Secretary, UPPCB
G. Managing Director, UP Jal Nigam
H. Sr. Most Officer of Kanpur Nagar Nigam
I. Concerned Professors or his Nominees from IIT Roorkee
J. Concerned Director of NMCG shall be the Nodal Officer.
K. Chief Engineer, Department of Irrigation, State of UP

This Committee shall submit to the Tribunal action plan reports for giving details of the projects, the manner and methodology in which those projects should be implemented, including the technology but strictly in consonance with this judgement for commencement and

completion of the projects at site and their effective execution.

7. Till the demarcation of the floodplains and identification of permissible and non-permissible activities by the State Government of this judgement, we direct that 100 meters from the edge of the river would be treated as no development/construction zone in Segment-B of Phase-I (Haridwar to Unnao, Kanpur).

8. There shall be a complete prohibition on disposing of MSW, E-waste or bio-medical waste on the floodplain or into river Ganga or its tributaries falling in Segment B of Phase-I.

9. On the cumulative analysis of the submissions made and as an interim measure, we direct that while diverting the water from Haridwar to the Ganga canal or even otherwise, the minimum E-flow in the main stem does not fall below 20% of the average monthly lean season flow, which will be referable to the status of the river at Haridwar pre-diversion. Also, the extent of diversion of water of river shall be adequately reduced and/or adjusted, in the event the flow falls below 20%. We have already noticed that the water of river canal is being wasted indiscriminately which ultimately joins various

drains in Segment-B which as already directed should be prevented.

10. From the above discussion, on advantages and disadvantages of the ZLD, it is evident that ZLD cannot be adopted across the board. It must have rationality as its sole criteria, should be unit centric and industries specific. The Sugar or Distillery Industries may be of a huge capacity say discharging 100 KL per day. They could be a Sugar Industry or Distillery Unit with 10 KLD discharge and thus a very small-scale unit. To apply the same yardstick to all would not be feasible and result oriented. They should be assessed on their own performance and function, however, ensuring in all the situations that the effluents permitted to be discharged on land/drain, etc. should be strictly adhering to the prescribed norms.

11. Keeping in view the directions of the Supreme Court and the judgement of the Allahabad High Court as referred above, we direct that the State of UP, Implementation Committee under this judgement including the representatives of the Industries Association shall submit the project action plan as afore-directed within six weeks from the date of passing of this judgement,

failing which, the State Government shall be duty bound to close the tannery industry and shift the same from the present location of tannery industrial complex at Jajmau to the identified site at Banthar, Unnao Extension or any other developed site or identified site to be developed in accordance with the Rules by the State, after the expiry of the said period of six weeks.

A direction is issued to the State of UP, UPJN, Kanpur Nagar Nigam and UPSIDC with due consultation with Director NMCG and CPCB to submit a complete project report in furtherance to these directions giving time bound programme for completion of the project in terms of these directions within a period of six weeks from today. The report shall be submitted within six weeks and the work in furtherance to such project report and in consonance with this judgement should start within four months from the date of pronouncement of this judgement and the projects completed and made operational in all respects without exception within two years from the date of pronouncement of this judgement.

12. There shall be no dumping or landfill sites for

any kind of waste irrespective of any technology for waste processing, within 500 meters from the edge of the river Ganga and/or its tributaries.

13. All the action plans under various directions of the Tribunal should be submitted by the Implementation Committee including representative of Industries Association, in relation to different industrial clusters, local authorities and bodies and the State Government, within a period of six weeks from the date of pronouncement of this judgement. The action plan should deal with all sources of pollution of river Ganga, i.e., sewage, industries effluent, municipal solid waste, hazardous waste, bio-medical waste, diversion of water, extraction of groundwater and all other relevant fields.

14. It will be appropriate that while carrying out precautionary dredging of the river, no instream mechanical mining is permitted and even the mining on the flood plain should be semi-mechanical and preferably more manual. Such mining should be permitted only after a detailed and comprehensive assessment of the annual replenishment of sand and gravel in the river

bed and ensuring that the longitudinal and lateral connectivity of the river is not disturbed and that only quantity less or equal to the annual replenishment is permitted to be removed from the river bed or its banks. This is absolutely essential for the health of the river, maintaining of aquifers, ground water flow and protecting the flood plains.

15. All the industrial units falling on the basin/catchment area of river Ganga and its tributaries should not be permitted to indiscriminately extract ground water. Extraction of groundwater should be subject to the CGWA granting permission for such extraction, and that too, only after ensuring that such permission is granted after rigorous water use assessment by the industry, water reuse and recycling methodologies adopted by the industry and also subject to the rain water harvesting measures adopted by the industry and monitored by the CGWA.

The flow meters must be installed prior to the grant of such permissions. Every industry should be directed to pay for extraction of such water, that too, subject to the conditions stated in the order permitting such extraction.

16. The State Government, its instrumentalities, Departments and concerned public authorities shall ensure that there are no encroachments, unauthorized illegal constructions on the banks/flood plain of the major drains, river Ganga and its tributaries. Preferably, these areas should be utilized for creation of a Green Belt and biodiversity park, etc. (natural fringes of effluent and sewage).

17. As directed, all the projects under this judgement shall be finalized by NMCG and wherever necessary contribution shall be invited from the State Government. Primarily it would be the responsibility of MoWR and NMCG to finalize these projects out of funds available, as these projects relates to the cleaning of river Ganga. The finances shall be provided in terms of this Notification. The industry shall contribute finances not exceeding 25% of the total cost in relation to the construction, up gradation of STP, CETP and providing common infrastructure in terms of this judgement. Till the works on the projects in accordance with the judgement are commenced, the NMCG and/or any other funding Ministry would not incur any expenditure on any projects in the States of Uttarakhand and Uttar

Pradesh relating to cleaning and rejuvenation of river Ganga and its tributaries falling in Segment A and B of Phase-I, i.e., Gaumukh to Unnao, Kanpur.

18. All the stakeholders through the committees constituted under these directions shall submit periodical progress reports in relation to the projects under this judgement to the Tribunal. The compliance report should be submitted every three months.

19. The CPCB and the respective SPCBs, particularly, concerned with river Ganga shall issue consent orders which must contain stipulations/conditions with regard to reuse of the treated sewage for industrial and other purposes. This condition should also be incorporated by an amendment in the orders already issued by the Boards to the industries, however, they may be provided time frame for compliance of this direction. The Board can implement this direction in stages, giving preferences first in the urban areas and later in rural areas.

20. All the existing STPs as well as the STPs to be designed and constructed should satisfy the existing standards. The new STPs should be

designed and constructed in a manner in which they should be able to achieve more stringent norms, if prescribed in future.

21. The STPs should not be constructed close to the riverbed, preferably there should be a distance of 500 meter plus from the edge of the river.

22. The Association running the CETP shall be responsible for proper O&M of the CETP. Every industry located in that area whose effluents are being sent to the CETP shall be member of the CETP association and would be liable to pay such monthly amount as may be determined by the State of UP in consultation with the Association of the CETP.

23. The charges for collection and transportation of spent chrome liquor from each unit shall be determined and notified by the concerned authority that is UPJN and the State of UP within four weeks from the date of pronouncement of the judgement. The monthly charges payable in advance would be determined with reference to number of hides, the unit is entitled to process as per consent order and it will be fixed charges.

24. It is brought to the notice of the Tribunal that chromium sulphate dumps have been created in open in the area of Jajmau and other locations

like Rakhi Mandi and Khanpur village. This is a hazardous waste, therefore, we direct that this entire chromium sulphate dumps shall be remediated by UPPCB, UPJN and Kanpur Nagar Nigam within four weeks. This shall be disposed appropriately and in accordance with the Rules of 2016 at the site being maintained by the State of UP and being run by Ramkay Plant or at a secured landfill site identified by the State Government.

25. The sewer line carrying sewage and effluent of Jajmau which is presently 70% non-functional should be cleaned, dredged and silt waste removed from the drain within four weeks from the date of pronouncement of the judgement. The said sewer line leading to Jajmau and all connected drains should be cleaned.

26. We direct the CGWA to carry out the study and notify the areas in Segment-B of Phase-1 which are Over exploited, Critical, Semi-critical and Safe zone. There shall be complete prohibition on extraction of groundwater in the critical areas. Further, in relation to other two areas, the CGWA shall also publicize the fundamental conditions subject to which the extraction of groundwater would be permitted and the extent thereof and, if

necessary, would require people to fix the flow meters who are using the bore well or tube-well for extraction of the groundwater.

27. As directed in our order dated 11th April, 2017, for each default, the defaulter would be liable to pay Environmental Compensation of ₹ 50,000/- per default for such dumping and/or throwing the waste of any kind into the river.

28. It is commonly and without exception agreed that as of present there is a dedicated pipeline network in existence that takes the industrial effluent to the existing CETP at Jajmau. It is also agreed that there is a dedicated sewerage network in operation that takes the sewage of the industrial clusters as well as surrounding areas to the STPs located at Jajmau itself.

It is on record that the CETP suffers from technical deficiencies and as of present is non-performing. As already stated, the CETP is even discharging 60% of the effluent directly into river Ganga which is completely untreated. Thus, we direct that the CETP at Jajmau shall be upgraded in terms of the capacity and quality. The CETP should have physio-chemical treatment before primary treatment, biological treatment and tertiary treatment (R.O. System). All these three

stages of treatment should be installed to upgrade the CETP at the earliest. The treated effluents being discharged from the CETP should be subjected to further dilution by the treated sewage received from the STPs in Jajmau itself. Such diluted effluent discharged from the CETP should be recycled, reused for industrial units at Jajmau, agriculture or horticulture activity in that area or nearby areas and for cooling purpose of the power plants located in close vicinity. The remnant treated effluent should be released into the river but not in excess of 25% of the total discharge.

29. The tannery industries should be encouraged to adopt the methodology for processing of hides as per the Central Leather Research Institute, Chennai. The pinpoints are as follows:

- *Alternative methods of preservation of hides/ skins and processing of green hides.*
- *Desalting of hides and skins and collection of salt for disposal or reuse.*
- *Use of enzymes in soaking process.*
- *Soaking in drums instead of pits*
- *Green fleshings of hides.*
- *Cleaner liming options.*
- *Ammonia-free deliming process.*
- *Alternative pickling & chrome tanning process.*
- *High exhaust tanning process.*
- *Pickle less Chrome tanning process*
- *Pickle-Basification Free Chrome Tanning.*
- *Salt Free Chrome Tanning.*
- *Direct Chrome Liquor Recycling (DCLR).*
- *Chrome Recovery and Reuse.*
- *Cleaner technologies in post tanning and finishing.*

30. We order and direct that the State Government, its instrumentalities, Departments and concerned public authorities shall ensure, wherever possible, adjacent to and on the floodplain of river Ganga and its tributaries, it shall create the Green Belt by plantation of the endemic species and protect the Green Belt areas from any encroachment and illegal and/or unauthorised construction.

31. It will be appropriate that while carrying out precautionary dredging of the river, no instream mechanical mining is permitted and even the mining on the floodplain should be semi-mechanical and preferably more manual. Such mining should be permitted only after a detailed and comprehensive assessment of the annual replenishment of sand and gravel in the river bed and ensuring that the longitudinal and lateral connectivity of the river is not disturbed and only that quantity which less or equal to the annual replenishment is permitted to be removed from the riverbed or its banks. This is absolutely essential for the health of the river, maintaining of aquifers, groundwater flow and protecting the floodplains.

32. The State Government, its instrumentalities/ Departments and concerned Public Authorities should incentivise farmers to adopt agricultural/irrigation technologies for more efficient use of surface and groundwater including adoption of drip irrigation wherever feasible besides promoting crop diversification to promote less water intensive crops in the Ganga river basin. Technologies developed by Research Institutions to promote water use efficiency in irrigation even in the existing crops like sugarcane and paddy, which are high water consuming crops, grown in river basin should be encouraged through demonstration, extension, incentivization and adoption of new technologies.

33. The State Government, its instrumentalities, Departments and concerned public authorities shall formulate guidelines and notify the same by putting it in the public domain in relation to strictly regulating the activities, religious or otherwise, which could be permitted on the Ghats and or near the floodplains of river Ganga and its tributaries in accordance with law. The prime object of these guidelines should be to prevent and control pollution of river Ganga and its tributaries.

34. The State of UP, UPPCB, UPJN and the body/association running and maintaining the CETP/CRP shall ensure proper regulatory and supervisory regime to be implemented, enforced and in default shut down the respective erring units.

35. Wherever the industry is discharging its effluents, particularly, in case of Distillery and Sugar Mills, by method of composting, in such event, the compost material should meet the prescribed standards for such purpose as per the Notification issued by the Ministry. If the industry is found to be in default, it shall be treated a statutory violation and action should be taken accordingly by the State Board.

36. The State Boards are hereby directed to identify the Water Quality Monitoring Network (including groundwater), scientifically based and analysis the data collected and upload it on their respective website.

37. Similarly, the Online Monitoring System or Continuous Emission Monitoring System should also be applied on case-to-case basis with reference to the facts and circumstances of the given unit. They must be feasible, for instance, if there is a tannery unit which has consent for

processing of say 10 hides a day, it cannot be expected to become ZLD or to install Online Monitoring System or Continuous Emission Monitoring System would be opposed to any accepted principles of technology and safeguards of economic advancement. They would be compelled to operate and discharge their effluents only and strictly as per the prescribed norms in default. They would be liable to be shutdown.

38. No industry should be permitted to start its operation in the catchment area of the drain till the time it either becomes a ZLD unit or recycles its entire treated discharge for agriculture, horticulture and its own industrial purposes. The recycling or use of same water for agriculture, horticulture purposes should be permitted only when the effluent is within the parameters which are permissible for discharge on land etc. The UPPCB and CPCB shall enforce this direction.

39. Any STP/CETP discharging effluent in violation of the prescribed norms and/or in the event the plant is not operating effectively in accordance with the prescribed norms, shall also be liable to pay environmental compensation of Rs. 50,000/-

per breach. This shall be the responsibility of the person in-charge and responsible for running of the plant.

40. The six drains, namely, Ranighat Drain, Police Line Drain, Jail Drain, Adil Nagar-2 Drain, Behind Shanidev Mandir Drain and Neem Nallah and such other drains which are not carrying any effluent or sewage as a result of interception or otherwise and are dry may be fixed with screen traps at the end of drain to ensure that no municipal or other waste enters the river through these drains. It should be ensured that these drains do not carry any trade effluent or sewage.

41. All the industries which have an effluent generation of 100 KLD or above per day and are located in the catchment area of river Ganga and its tributaries would be subjected to an inspection by the Joint Inspection Team of UPPCB and CPCB, if not already inspected. Appropriate directions for compliance to ensure prevention and control of pollution of discharge of trade effluent directly as per prescribed parameters shall be issued within six weeks from today.

42. As UPJN, Kanpur Nagar Nigam and the Jal Sansthan are the authorities responsible for constructing, operating and maintaining the plants, sewer line etc. Thus, we direct that all these public authorities must be provided with additional infrastructure, manpower and training. All these authorities must act and execute the work in coordination and cooperation with the State Government, NMCG and the Central Government.

43. We also grant liberty and in fact, it shall be desirable for every local authority to recover environmental conservation charges from the public at large or in any case a class of persons responsible for generating higher sewage. Appropriate decisions in this regard shall be taken by the local authorities in accordance with law and should be duly publicized within the municipal limits of the authority.

SPECIFIC DIRECTIONS RELATING TO A PROJECT, PLANT AND DRAIN AND THE 86 DRAINS JOINING RIVER GANGA AND ITS TRIBUTARIES.

DIRECTIONS WITH REGARD TO ENVIRONMENTAL FLOW:

182.2 Thus, we have to pass specific directions in regard to environmental flow of the river, extraction of groundwater and the diversion of water of river Ganga into canals, etc.

1. On the cumulative analysis of the submissions made and as an interim measure, we direct that while diverting the water from Haridwar to the Ganga canal or even otherwise, the minimum E-flow in the main stem does not fall below 20% of the average monthly lean season flow, which will be referable to the status of the river at Haridwar pre-diversion. Also, the extent of diversion of water of river shall be adequately reduced and/or adjusted, in the event the flow falls below 20%. We have already noticed that the water of river canal is being wasted indiscriminately which ultimately joins various drains in Segment-B which as already directed should be prevented.

2. We direct the CGWA, Irrigation Department of State of UP, UPPCB to carry out study as to the requirement for minimum environmental flow of river Ganga, that is essential to maintain the health of the river, its aquatic life and biodiversity. This Committee should submit the report to the Tribunal within six months from the date of passing of this judgement.

3. We direct that no person shall be permitted to extract groundwater for industrial and commercial purposes unless it has obtained

permission from CGWA. The CGWA should also regulate extraction of groundwater for agriculture and other purposes as per State policy. The permission shall be granted subject to such terms and conditions as may be necessary for the purpose of preventing and controlling the pollution on the one hand and ensuring maintenance of depletion in the groundwater projects as well as ensuring measures for recharging of the groundwater levels.

4. We direct the CGWA to carry out the study and notify the areas in Segment-B of Phase-1 which are Overexploited, Critical, Semi-critical and Safe zone. There shall be complete prohibition on extraction of groundwater in the critical areas. Further, in relation to other two areas, the CGWA shall also publicize the fundamental conditions subject to which the extraction of groundwater would be permitted and the extent thereof and if necessary would require people to fix the flow meters who are using the borewell or tube-well for extraction of the groundwater.

DEMARCATION OF FLOOD PLAINS AND CONNECTED DIRECTONS

182.3 We pass the following directions for compliance:

i) We direct and constitute a Special Committee

consisting of representatives from MoWR, Senior Officer from Department of Irrigation, State of Uttar Pradesh, Revenue Department of Uttar Pradesh and Central Water Commission which shall identify and demarcate the floodplains of river Ganga in Segment B of Phase-I on one in twenty five years cycle.

ii) Till the said identification and demarcation of floodplain is completed, we direct that 100 meters from the edge of the river would be designated as no development/construction zone in Segment B of Phase-I i.e. Haridwar to Unnao, Kanpur.

iii) The Special Committee would also identify no development/construction zone, regulatory zone and the activities that can be/cannot be carried on in the regulatory zone of the floodplain.

iv) There shall be a complete prohibition on disposing of MSW, E-waste or bio-medical waste on the floodplain or in river Ganga or its tributaries falling in Segment B of Phase-I.

v) As directed in our order dated 11th April, 2017, for each default, the defaulter would be liable to pay Environmental Compensation of Rs. 50,000/- per default for such dumping and/or throwing the

waste of any kind into the river.

vi) All the concerned authorities including the UPPCB, UPJN and State of UP shall be responsible for carrying out these directions as well as the directions contained in our order dated 11th April, 2017 (supra).

vii) There shall be no dumping or landfill sites for any kind of waste irrespective of any technology for waste processing, within 500 meters from the edge of the river Ganga and/or its tributaries.

DIRECTIONS WITH REGARD TO ZERO LIQUID DISCHARGE, CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) AND ONLINE MONITORING SYSTEM

182.4 1. From the above discussion, on advantages and dis-advantages of the ZLD, it is evident that ZLD cannot be adopted across the board. It must have rationality as its sole criteria, should be unit centric and industries specific. The Sugar or Distillery Industries may be of a huge capacity say discharging 100 KL per day. They could be a Sugar Industry or Distillery Unit with 10 KLD discharge and thus a very small-scale unit. To apply same yardstick to all would not be feasible and result oriented. They should be assessed on their own performance and function, however, ensuring in all the situations that the effluents

permitted to be discharged on land/drain, etc. should be strictly adhering to the prescribed norms.

2. The Board in its advisory capacity may be able to suggest or guide as to the appropriate technology, which may be feasible for the industries for attaining the prescribed norms. To impose ZLD on such industries would neither be fair nor just. In fact, it will not be in consonance with the requirement of law under relevant Acts.

3. An industry should be permitted to operate, subject to grant of Consent to Operate, by the concerned Board. The CPCB has the competency under law to issue directions under Section 18 of the Water Act. The purpose of empowering Boards with certain powers is to restrict and control pollution. It is not expected from the Boards to stop the natural growth or restrict industries from operating but compliance to the environmental laws is fundamental to exercise of their powers.

4. The Board must take into consideration of the aspects including technology, financial viability, limitations of the unit, process adopted by the

industries but in all events ensuring that the discharge of effluents from the unit has to be strictly in compliance with the prescribed standards.

5. No industries, big or small can be permitted to pollute the groundwater, drains, water bodies and environment.

6. The ZLD directives cannot be applied across the board. On the one hand, it would be violative of the rights of the parties while on the other it may not be in consonance with the provisions of the relevant environmental acts.

7. ZLD should be applied on case to case basis. The concerned boards should exercise its technical know-how to issue appropriate directions in that behalf. The ultimate purpose is prevention and control of pollution and not an internal management of the plant. Effluent discharge must be strictly within the prescribed norms and the Board in appropriate cases could issue directions with regard to recycle, reuse of the treated effluent appropriately. The ZLD as inferred from the notification dated 7th October, 2016 is incapable of being enforced across the

Board without reference to the member industries and other relevant aspects afore-stated.

8. Similarly, the Online Monitoring System or Continuous Emission Monitoring System should also be applied on case-to-case basis with reference to the facts and circumstances of the given unit. They must be feasible, for instance, if there is a tannery unit which has consent for processing of say 10 hides a day, it cannot be expected to become ZLD or to install Online Monitoring System or Continuous Emission Monitoring System would be opposed to any accepted principles of technology and safeguards of economic advancement. They would be compelled to operate and discharge their effluents only and strictly as per the prescribed norms in default, they would be liable to be shutdown.

9. Another consequential issue that arises in this context is that there has to be a specialised, technically sound and dedicated mechanism with every board including CPCB which monitors entire input of Online Monitoring System or Continuous Emission Monitoring System. This

monitoring should include not only collection of data but to ensure that actions taken in default and operational deficiencies in the units are rectified within the prescribed time, failing which the unit should be ordered to be closed. The concept of self-regulation would achieve its object, only when there is an effective supervisory control.

10. There have been serious and noticeable drawbacks, deficiencies, and omissions in regulatory regimes else, the current state of industrial clusters, drains, tributaries of the river would not have been prejudicial to such an extent. Therefore, CPCB or UPPCB should ensure continuous calibration so that the online monitoring system shows the correct values and it must be compared with the actual effluent analysis collected by the Board on regular intervals.

DIRECTIONS WITH REGARD TO UPPCB/CPCB

182.5 i) UPPCB shall form a separate cell for research, development and monitoring activities and all other supporting and advisory roles as envisaged in the Acts within next 2 months which is to be headed by senior officer of the Board and directly

reporting to Member Secretary of the Board. Board shall make sufficient provisions of funds for this cell to carry out the desired functions. However, we leave it to the wisdom of the Board that till the creation of the cell or even otherwise and procurement of requisite infrastructure, it may outsource such activity, in the interest of prevention and control of pollution.

ii) UPPCB shall formulate the enforcement protocol as discussed above within next 3 months and place it in public domain.

iii) The State Boards are hereby directed to identify an extensive Water Quality Monitoring Network (including groundwater), analyse and collate the data collected and upload it on their respective website.

iv) Board shall also publish a comprehensive report on water quality status of the State on annual basis, which shall be submitted to State government for necessary action.

v) UPPCB shall prepare and submit a comprehensive proposal for capacity building including additional manpower and infrastructure to the State Government within period of 2 months and Sate

government shall take a decision such proposal within 3 months thereafter. In order to facilitate development of such proposal by SPCBs, CPCB shall prepare guidelines for requirements of manpower by the Boards, by standardizing the work requirements for visits, inspections, analysis, research activities, complaint redressal, etc. within 4 weeks. Keeping in view the mandate of the SPCB issued in exercise of its powers under Section 17 of the Water Act.

vi) Special dedicated monitoring cell should be created in the UPPCB/Uttarakhand PCB and in fact, in all the Boards which should have an exclusive duty of monitoring the online systems and take appropriate action, wherever the industry is found to be in default without delay.

vii) The order granting and/or refusal of consent to operate or establish should be passed only upon the Joint Inspection by the officers of the Board. The inspection report should be complete and comprehensive dealing with all the operational aspects of the plant and technology required or installed for attaining the prescribed parameters.

viii) The UP/Uttarakhand Government and in fact, all

the State Governments are hereby directed to consider the proposal of the respective Boards for enhancement of infrastructure and manpower for effectively performing its functions. Such proposal should be considered objectively and as far as possible the infrastructure and manpower of the Board should be enhanced to ensure proper implementation and enforcement of the environmental laws.

ix) Effective supervisory and regulatory control by the Board is a condition precedent to achieving effective prevention and control of pollution of environment, particularly, the water bodies.

x) Above directions are necessary for streamlining and ensuring the proper performance of function and duties by the Boards in accordance with the Environmental Acts.

DIRECTIONS WITH REGARD TO JAJMAU, UNNAO AND BANTHAR

182.6 We must state with clarity the outline of the project that must be carried out at Jajmau, Unnao and Banthar:

1. The CETP which is stated to be operational at Jajmau presently has the capacity of treating 7 MLD of tannery effluent and 27 MLD of sewage. It is based on UASB technology followed by aerobic post-treatment which is managed by UPJN. This CETP is incapable of

treating metals, particularly, it cannot recover chromium. It receives 9 MLD of trade effluent mixed with 27 MLD of domestic sewage while around 60% of it is directly discharged into river Ganga. It is deficient in a number of ways and does not meet the prescribed parameters, much less the proposed parameters.

This CETP requires upgradation and setting up of other anti-pollution devices which we shall state in some elaboration hereinafter.

2. The existing Chromium Recovery Plant was again found to be deficient in various respects. Firstly, the tanneries from the Jajamau complex were not collecting and sending chromium contained effluent to the plant. Secondly, the Chromium Recovery Plant was not designed and installed appropriately. The Chromium Recovery Plant which is undisputedly under-utilized is also not being operated and maintained properly and efficiently. It indicated improper segregation, collection and transportation of spent chrome liquor from the tanneries. Nearly 30 to 32 ML per day sludge is generated and is temporarily stored at CETP at Kanpur site. Thus, it is directed that the Chromium Recovery Plant shall be upgraded to ensure effective and proper supervision of the

plant. The operating agency/public authority concerned shall ensure that the Chromium Recovery Plant operates and is maintained efficiently and does not at any stage release the effluent that would contain chromium in excess of the prescribed parameters. In fact, the content of the chromium in the discharged effluent should be much below the prescribed limit, which can be safely taken care of by dilution process.

All the tannery industries at Jajmau and even at Banthar and Unnao shall be duty bound to ensure transportation of the spent chrome liquor from their premises to the plant through tankers, which are being operated by the authorised agencies as of today. The tankers used for appropriate transportation of the spent chrome liquor shall be fitted with GPS to maintain due record of transportation of the effluent.

The public authority concerned, that is, the UPJN shall issue duly endorsed booklets containing three counterfoils which will be titled as 'Industry'. Upon signature of the concerned officials, one copy shall be retained by the plant while the other by the transporter and the third copy would be retained by the local authorities, i.e., officials of the UPJN/the Association identified for operation and maintenance

of the plant. This would be signed by the industry at the time of collection and by the officials of the plant at the time of receiving the spent chrome liquor.

The chromium recovered from each unit shall be processed and recovered at the Common Chromium Recovery Plant. Recovered chromium shall be provided to the industry at a no profit no loss basis. The remnant recovered chromium shall be sold in the open market and funds so received shall be utilised for efficient operation and maintenance of the plant.

It shall be ensured that the remnant effluent discharged from the plant is appropriately subjected to dilution by treated sewage, before it meets river Ganga or any of its tributaries.

The sludge generated from the plant shall be stored and transported regularly to the fully developed sites presently at Kanpur maintained by Ramkay. It shall be ensured that the sludge and other hazardous waste collected from the plant should be maintained strictly in accordance with the Hazardous Waste Management Rules, 2016.

3. Compliance of these directions shall be paramount duty of the industries, the Association and the public authority responsible for operating and maintaining the plant and the agency appointed for transportation of the spent chrome liquor. In default, each or all of

them would be liable to pay environmental compensation. The environmental compensation for such breach and default would be ₹ 50,000/- for each default on the part of the agency responsible for transportation and the Association and Public Authority responsible for operation and maintenance of the plant. Besides the above, in case of offences relating to discharge of chrome by an industry, which is processing more than 30 and less than 100 hides per day, they would be liable to pay environmental compensation of ₹ 25,000/- per breach; industry entitled to process more than 100 hides per day, would be liable to pay environmental compensation of ₹ 50,000/- per breach and the industry processing 100 and above hides per day, ₹ 1,00,000/- per breach. This environmental compensation shall be payable instantaneously, on default found either by the concerned public authority i.e. UPJN and/or UPPCB and/or any Member of the Committee constituted by the Tribunal under this judgement.

4. All the industries shall operate their units strictly and limited to the hides that have been sanctioned in the order of consent to operate.
5. It is commonly and without exception agreed that as of present there is a dedicated pipeline network in existence that takes the industrial effluent to the

existing CETP at Jajmau. It is also agreed that there is a dedicated sewage network in operation that takes the sewage of the industrial clusters as well as surrounding areas to the STPs located at Jajmau itself.

It is on record that the CETP suffers from technical deficiencies and as of present is non-performing. As already stated, the CETP is even discharging 60% of the effluent directly into river Ganga which is completely untreated. Thus, we direct that the CETP at Jajmau shall be upgraded in terms of the capacity and quality. The CETP should have physio-chemical treatment before primary treatment, biological treatment and tertiary treatment (R.O. System). All these three treatments should be installed to upgrade the CETP at the earliest. The treated effluents being discharged from the CETP should be subjected to dilution by the treated sewage received from the STPs in Jajmau itself. Such diluted effluent discharged from the CETP should be recycled, reused for industrial units at Jajmau, agriculture or horticulture activity in that area or nearby areas and for cooling purpose of the power plants located in close vicinity. The remnant treated effluent should be released into the river but not in excess of 25% of the total discharge.

6. The tannery industries should be encouraged to adopt the methodology for processing of hides as per the Central Leather Research Institute, Chennai. The pinpoints are as follows:

    - *Alternative methods of preservation of hides/ skins nd processing of green hides.*
    - *Desalting of hides and skins and collection of salt for disposal or reuse.*
    - *Use of enzymes in soaking process.*
    - *Soaking in drums instead of pits*
    - *Green fleshing of hides.*
    - *Cleaner liming options.*
    - *Ammonia-free deliming process.*
    - *Alternative pickling & chrome tanning process.*
    - *High exhaust tanning process.*
    - *Pickle less Chrome tanning process*
    - *Pickle-Basification Free Chrome Tanning.*
    - *Salt Free Chrome Tanning.*
    - *Direct Chrome Liquor Recycling (DCLR).*
    - *Chrome Recovery and Reuse.*
    - *Cleaner technologies in post tanning and finishing.*

7. All the 402 industries and/or such other numbers which are operational, would be permitted to operate strictly in compliance with the conditions of the Consent to Operate order. Any industry which violates the prescribed parameters, conditions of the Consent to Operate and the directions contained herein, shall be liable to be shut down by CPCB/UPPCB.

8. The industries would be liable to pay the determined share, by the competent authority, of the expenditure to be incurred on laying down of pipelines and construction/up-gradation of the CETP/ Chromium

Recovery Plant on the basis of Polluter Pays Principle. The CETP and the Chromium Recovery Plant shall be operated and maintained by the Association of the Industries under the strict supervision and under the effective control of the UPJN. The UPJN and the Association of Industries would be collectively responsible and liable to be proceeded against, in accordance with law, in the event of default and violations.

9. It is again commonly agreed and undisputed that as of now two STPs of the capacity of 130 MLD and 5 MLD, respectively, are operating in Jajmau. Another STP of the capacity of 43 MLD is under construction. It has already been noticed that the two operational STPs are not working satisfactorily and the parameters are much beyond the prescribed limits. It is in crores as far as coliform is concerned and BOD is also very high. Thus, we direct that the two existing STPs of 130 MLD and 5 MLD respectively shall be subjected to inspection by the Joint Inspection Team within 4 weeks from today and the recommendations made by the Joint Inspection Team consisting of representatives from MoEF&CC, NMCG, CPCB, UPPCB, UPJN and Professor in the required speciality from IIT Roorkee. They shall make due recommendations for proper operation and

maintenance of the plant and to ensure that these violating values are brought within the prescribed norms. The recommendations made shall be implemented by UPJN and NMCG without any further delay or default. This must be executed with utmost priority and expeditiousness.

As far as the STP of 43 MLD under construction is concerned, we direct that the said STP shall be constructed and completed to ensure that it meets the prescribed values, particularly, in relation to BOD, faecal coliform and all other parameters. It should be designed to achieve suggested values of BOD at 10 mg/l and 230 MPN/100 ml of Faecal Coliform, as directed by CPCB and MoEF&CC, but in any case must achieve the presently prescribed norms.

The discharge from the STP should firstly be used for dilution of the trade effluent from the CETP and the remnant should be reused for agriculture, horticulture and industrial cooling of power plants etc., not in excess of 25% of the total discharge that should be released into river Ganga.

10. The CETPs at Unnao and Banthar, Kanpur are stated to be in operation. Unnao CETP is being operated with the activated sludge process technology. The analysis report shows quality of

treated effluents at the outlet exceeding notified standards. It shows high concentration, particularly, of TSS, total coliform and chromium, which adversely affects the biological treatment system, it being toxic. The CETP at Banthar was found not complying. It was violative of the prescribed parameters and was found not efficiently working and causing adverse impacts. Both these CETPs need to be upgraded in terms of capacity and quality of treatment. We direct upgradation of these CETPs on the basis of the reports submitted to the Tribunal and which should be reconfirmed while submitting the final project report to the Tribunal for implementation.

11. Both these CETPs shall also be subjected to inspection by the Joint Inspection Team within 4 weeks from the date of passing of this judgement. Their recommendations should be implemented with utmost priority and expeditiousness.

12. The conveyor drains carrying the effluents from the industrial clusters should be dredged and cleaned. Immediate steps should be taken in that direction by the concerned authorities primarily by UPJN and Kanpur Nagar Nigam collectively.

13. The industries at Unnao and Banthar shall be liable to pay and share the financial responsibility for properly preparing the pipeline/conveyor belt,

construction/ upgradation of the CETPs, as per the share determined by the competent authority on the basis of Polluter Pays Principle.

14. A direction is issued to the State of UP, UPJN, UP Nagar Nigam and UPSIDC with due consultation with Director NMCG and CPCB to submit a complete project report in furtherance to these directions giving time bound programme for completion of the project in terms of these directions within a period of six weeks from today. The report shall be submitted within six weeks and the work in furtherance to such project report and in consonance with this Judgement should start within four months from the date of pronouncement of this judgement and the projects completed and made operational in all respects without exception within two years from the date of pronouncement of this judgement.

15. In the event, the above direction is not carried out in its true spirit and substance and report placed before the Tribunal within the stipulated time, then the tannery industries at Jajmau shall be directed to be shut down and would be shifted to a new industrial site which is fully developed or to be developed having provisions for CETP and Common Chromium Recovery Plant.

Keeping in view the directions of the Supreme Court

and the judgement of the Allahabad High Court as referred above, we direct that the State of UP alongwith the Association of the Industries, who shall submit the project action plan as afore directed within 6 weeks from the date of passing of this judgement, failing which, it shall take steps for shifting of the tannery industrial complex from Jajmau to the identified site at 'Banthar (Unnao Extension)' or any other land identified by the State within that period.

16. Having passed generic directions in relation to the tannery industries located at Jajmau, Banthar and Unnao, we also need to deal with the three drains, namely, Sheetlabazar Drain, Budhiyaghat Drain and Wazidpur Drain as discussed in para 92 at page no. 217 of the judgement above and other specific matters peculiar to the tannery industries located at Jajmau. Thus, in addition to the above, we pass the following directions in relation to industrial cluster at Jajmau:

a. All the tannery industries shall abide by all the directions afore-stated.

b. The two dedicated pipelines for carrying sewage and trade effluent shall be cleaned, silt and sludge removed and shall be maintained in future directly so that there is no obstruction to the flow

of the effluent/sewage and there is no overflow coming from the interception/points, where pumps have been constructed to the above three drains. Once the pipelines operate efficiently and the CETP and STPs operate to their optimum capacity as afore directed, the three above-stated drains would carry no effluent or sewage and they would be restored to their original status of being storm water/natural drains.

c. It will be ensured that the sewage from Jajmau industrial complex as well as surrounding areas is carried through the dedicated pipeline to either of the STPs located at Jajmau itself. Similarly, the trade effluent is carried to the CETP at Jajmau. The entire network of sewer line and drain should be kept free of obstruction, sludge or silt.

d. Due record shall be maintained for collection, transportation and treatment of the spent chrome liquor at Jajmau.

e. Each tannery industry shall maintain a tank of an appropriate size in their premises in which the spent chrome liquor is stored, till it is transported as directed. It should be ensured that the tank does not have any seepage affecting the groundwater in that area.

f. In any of the above events, if the unit is found to be defaulting and/or discharging chromium contained effluent into drain or conveyor belt or in any form and causing pollution, the unit shall be liable to be closed and shutdown with immediate effect.

g. Resultantly, the three drains would be converted and maintained as natural storm water drains and they shall be cleaned, silt and sludge removed without any further delay.

h. All the drains would be fixed with 'screen traps' at the end of the drain before it joins the river, to ensure that no waste of any kind enters the river.

i. All the concerned stakeholders including the public authorities would ensure that no trade effluent/sewage or municipal sludge waste is permitted to be discharged or dumped in any of these three drains and they should maintain their natural character.

17. The administrative regime/body shall be primarily of the association of industry itself, supervised by UPJN and the UPPCB.

18. The charges for collection and transportation of the remnant chromium effluent or the entire spent chrome liquor shall be fixed by the above mentioned administrative regulatory body, which

will be payable every month in advance but such payment will not absolve the responsibility of the unit for actual transportation of the effluent to the Chromium Recovery Plant and the same should be applicable to CETP as well.

19. It is directed that where the effluent discharge standards have been fixed, keeping in view the dilution ratio of 1:10, then it must be ensured that the recipient water body carries that capacity. In the event it falls short of 10 times dilution then the standards of discharge of effluent should be accordingly revised and fixed by the Board on case to case basis, while granting consent to the industries.

182.7 **DIRECTIONS WITH REGARD TO INDIVIDUAL DRAINS JOINING RIVER GANGA OR ITS TRIBUTARIES.**

GARH DRAIN

i. The 3 MLD STP Plant at Brijghat should be made operative without any further delay.

ii. The 6 MLD STP Plant that is under construction at Garh drain to treat the sewage from Garhmukteshwar should be completed without any further delay. Though, we have provided the load discharge under this drain as well as quality analysed but we direct the concerned executing agencies to ensure that the capacity and design of the plant is duly confirmed

before any further construction of the plant and it should be ensured that the plant brings the proposed standards of faecal coliform of 230 MPN/100 ml and BOD 10mg/l, but in any case should conform to the existing standards.

iii. No discharge shall be permitted in the Jhorh at Brijghat, henceforth. The remaining work of sewer line should be completed and each household should be connected to the sewer line without any further delay. This should be taken up by the executing agency as a project of top priority and all the concerned authorities and respondents are directed to deal with the matter accordingly

iv. The treated discharge from STP even if chlorinated should be used for agriculture and horticulture as far as possible. The sewer line is to be connected to the STP through pumping station which are still to be constructed. However, the sewer drain should be connected even during the interregnum by providing adhoc pumping arrangements or any other appropriate measures.

v. All the stakeholders including MoWR, MoEF&CC, CPCB, State of UP, UPPCB, UP Jal Nigam entirely agreed with these directions.

ANUPSHAHR STP DRAIN I & II

i. We direct that two different STPs shall be

constructed, one of 1.5 MLD while other of 2 MLD capacity.

ii. The work of 1.5 MLD STP has already been started for drain I, completion thereof should be expedited. The STP should be so constructed that it should satisfy, preferably, the proposed standards of faecal coliform of 230 MPN/100 ml and BOD 10mg/l, but in any case should conform to the existing standards.

iii. The executing agency shall duly confirm before the commencement of the work, the discharge in the respective drains and quality thereof. These drains need not be intercepted and independent STPs should be constructed to provide regular source of power. Also, solar energy should be utilized.

iv. The STPs should not be constructed close to the riverbed. Ideally there should be a distance of more than 500 meter from the edge of the river.

HATHIKHANA NALLAH, BARGADIYAGHAT NALLAH AND CANTT. NALLAH

i. The effluents from Cantt. Nallah and Bargadiyaghat Nallah shall be brought to Hathikhana Nallah at the point where presently MPS is proposed and the STP of 17 MLD capacity will be constructed.

ii. This STP should have the capacity to treat and bring the values of the general parameters to the prescribed norms.

iii. If any development is sanctioned by the Government or any local authority between the point of establishment of STP and the river bank in that event that developing agency shall ensure that STP/CETP is required to be constructed by such developing agency. In the event if it is a colony being built up by Government or any of its agencies then it shall not do so without constructing any STP/CETP and only the discharge from that STP/CETP that would be permitted to join the Hathikhana Nallah. The 17 MLD STP shall take due care of the future demands and therefore constructed with utmost expeditiousness and with proper technology.

PERMIYA NALA, RANIGHAT DRAIN, SESAMAU, TEFCO NALA, PARMATH GHAT, MUIR DRAIN, POLICE LINE DRAIN, JAIL DRAIN, GOLAGHAT NALA, BHAGWATDAS/GUPTARGHAT NALA, SATTI CHAURAHA, DABKA NALA-3 AND AIR FORCE DRAIN

i. The Nawabganj drain should be intercepted and its effluents taken to the main sewer line which goes to Jajmau STP.

ii. The STP of 43 MLD at Jajmau under construction should be completed with utmost expeditiousness. All these STPs should be upgraded and should be of an appropriate capacity so that they can treat the entire effluents left from these 5 drains and Permiya Nallah and sent to appropriate STP at Jajmau.

iii. It is informed that there is sufficient land available at

Jajmau for construction of STP and since the existing STPs are already there, it will be more convenient to install another STP at the same site.

iv. The Local authorities, Nigam and State of UP are hereby directed to ensure that the 70% non-functional factor of the sewer line taking the sewage effluents of Jajmau should be cleaned forthwith and the flow of the drain should be 100% as opposed to 30%. This direction is necessary because if there is no proper conveyance capacity of the sewer line, the entire sewage and effluent collected would overflow or leak from the point of interception or tapping, defeating the entire project which had already been sanctioned by NMCG in 2016.

v. The STP at Jajmau should be able to treat all the effluents including BOD, COD, TSS, Coliform and the CETP should be able to treat the industrial pollutants so as to achieve the prescribed norms.

vi. The treated water from the STP shall be recycled for use in industrial and agriculture purposes and it is only the remnant that would be subjected to discharge in river Ganga. The escape channel of Ganga canal should be strengthened and it should be ensured that there is no leakage to the Permiya drain and no unintended discharge.

vii. A new STP of 3.5 MLD by interception and diversion

of Nawabganj drain with sewer line along Permiya drain which has already been approved by NMCG is permitted to be executed.

viii. The pumping station of Nawabganj drain should be upgraded, cleaning and capacity enhancement to be carried out so that the entire effluent could reach the Jajmau without any obstruction.

RANIGHAT NALLAH, SISAMAU NALLAH AND TEFCO NALLAH:

i. We direct that all these three drains shall be fully and completely tapped wherever necessary through pumps. The discharge shall be put into the sewer line leading to Jajmau STP.

ii. All the pumps shall be provided with alternative sources of energy, i.e., solar or DG sets to ensure uninterrupted functioning of the pumps. This would ensure that there is no overflow or backflow from the pumps or point of interceptions.

iii. It should be ensured under all circumstances that no overflow of effluents or sewage enters the drains beyond the point of tapping.

PARMATH DRAIN:

i. We direct that the existing tapping point shall be strengthened and upgraded.

ii. It should be ensured that there is no overflow. The drain should not be sealed at the point of confluence.

MUIR MILL NALLAH:

i. We direct that the drain should be completely tapped so as to not permit overflow from the tapping point.

ii. The tapping point should be upgraded and strengthened appropriately subject to compliance of other general directions issued in this judgement.

GOLAGHAT NALLAH:

i. We direct that this drain be tapped fully and completely and the effluent be taken to Parmath pumping station or any other nearest pumping station to finally put the effluent into sewer line leading to Jajmau.

BHAGWAT DAS GHAT DRAIN/GUFTAR GHAT NALLA, SATTICHAURA GHAT DRAIN AND DABKA NALLA DRAIN-3:

i. It is directed that besides tapping the three drains taking the effluent to the pumping station at Guftar Ghat drain, finally to Jajmau the three drains should be sealed towards the river at their end. In fact, this order was passed by the Tribunal on 20th April, 2017 which is reiterated.

ii. The waste deposited in the drains beyond the point of tapping should be mechanically lifted and appropriately dumped at regular intervals.

HEMRAJ DRAIN

i. We direct that the STP of 24 MLD under construction at Bijnor should be completed expeditiously but it

must ensure that the technology provided in the STP should have appropriate capacity to be able to treat all the effluents including coliform and other pollutants indicated in the Judgement.

ii. We direct that along with STP, soaking tank should be constructed with proper filtration system.

CHHOIYA DRAIN (RIVER GANGA)

i. The drain should be de-silted immediately and the colour content should be removed so as to ensure that in future the drain is not polluted and does not cause colour mixing. One time cleaning of the drain on all the parameters should be prescribed.

ii. The Tribunal is of the considered view that it will be more appropriate to construct or provide the three rural areas in the catchment area of the drain with oxidation ponds. The effluent from these oxidation ponds should be taken to the STP that is proposed to be constructed at some distance from the point where Chhoiya drain meets river Ganga. The three major industries afore-noticed should be directed to become ZLD either by incineration process or by recycling 100% treated effluent. They should strictly comply with the prescribed standards for treatment of the trade effluent of these industries. The remnant from both these sources should be taken to STP treated where it should be treated. The treated effluents

should be recycled and not in excess of 25% should be discharged into the river Ganga.

iii. The drains should be dredged, de-silted and cleaned and all the effluents and colour even in the soil on the bed of the drain should be removed to ensure that there is no pollution generated in future. Furthermore, the land/area falling prior to the STP and the municipal limits in future would not be permitted to discharge any sewage or effluents into this drain. In the area which is stated to be approximately 5 km if any development, industrial and/or residential, is permitted then such development will not be permitted unless such development project has CETP/STP of required capacity capable of treating the effluent generating as a result of the development and it will only be the treated effluent that would be permitted to be discharged in the main Chhoiya drain. Every effort should be made to restore the drain to its original nature of being a canal.

BAGAD RIVER (DRAIN)

i. The Bagad river (drain) inclusive of Mahua, should be cleaned, dredged and maintained as a river or storm water drain.

ii. All the 12 industries located in the catchment area of this drain, which are highly polluting should be put

under strict surveillance by the UPPCB as well as the Joint Inspection Team.

iii. The Joint Inspection Team has already been directed to inspect these industries to conform with appropriate conditions for permitting and operating all these functions.

iv. These industries have been directed to comply with the conditions of the consent order and directions issued by the Joint Inspection Team under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and Environmental (Protection) Act, 1986.

v. In the event of these industries not complying with such directions, they shall be liable to be closed without any further notice.

vi. The Joint Inspection Team and the UPPCB shall submit compliance report in relation to these industries before the Tribunal upon regular intervals.

PHULDERA DRAIN

i. The Joint Inspection Team and UPPCB shall maintain strict vigil over the functioning of these industries and submit appropriate representation before the Tribunal.

BHAIROGHAT/TOKAGHAT DRAIN AND DEENAPUR DRAIN

i. An STP of 30 MLD is to be constructed at Dhinapur

at the proposed site.

ii. The area bereft of habitation shall not undergo any development unless and until the developer or the concerned agency, whether governmental or otherwise install/construct its own STP so that no further effluents are added to the drain after the point where the STP is being constructed and at the confluence point.

iii. The water from STP should be recycled and reutilized for agricultural purposes.

iv. The proposed CETP at Farukhabad should be constructed without any further delay but before clearance of the project, the concerned stakeholders shall ensure that the load quality of the effluent arriving at the CETP is completely analysed with reference to the capacity and technology of the CETP.

SHEETLABAZAR DRAIN, BUDHIYA GHAT DRAIN AND WAZIDPUR NALLAH

i. The two dedicated pipelines for carrying sewage and trade effluent shall be cleaned, silt and sludge removed and shall be maintained in future directly so that there is no obstruction to the flow of the effluent/sewage and there is no overflow coming from the interception/points where pumps have been constructed to the above three drains. Once the pipelines operate efficiently and the CETP and STPs

operate to their optimum capacity as afore directed, the three above-stated drains would carry no effluent or sewage and they would be restored to their original status of storm water/natural drains.

ii. It will be ensured that the sewage from Jajmau industrial complex as well as surrounding areas is carried through the dedicated pipeline to either of the STPs located at Jajmau itself. Similarly, the trade effluent is carried to the CETP at Jajmau. The entire network of sewer line and drain should be kept free of obstruction, sludge or silt.

iii. Due record shall be maintained for collection, transportation and treatment of the spent chrome liquor at Jajmau.

iv. Each tannery industry shall maintain a tank of an appropriate size in their premises in which the spent chrome liquor is stored, till it is transported as directed. It should be ensured that the tank does not have any seepage affecting groundwater in that area.

v. In any of the above events, if the unit is found to be defaulting and/or discharging chromium contained effluent into drain or conveyor belt or in any form and causing pollution, the unit shall be liable to be closed and shutdown with immediate effect.

vi. Resultantly, the three drains would be converted and maintained as natural storm water drains and they

shall be cleaned, silt and sludge removed without any further delay.

vii. All the drains would be fixed with 'screen traps' at the end of the drain before it joins the river, to ensure that no waste of any kind enters the river.

viii. All the concerned stakeholders including the public authorities would ensure that no trade effluent/sewage or municipal sludge waste is permitted to be discharged or dumped in any of these three drains and they should maintain their natural character.

ix. All the tannery industries shall abide by all the directions.

CITY JAIL DRAIN

i. The existing CETP of 4.5 MLD should be upgraded in terms of capacity, design and quality so as to specify the prescribed parameters. The entire effluent from these industries, containing high pollutant load should be diverted to the CETP and treated to bring the effluents within the prescribed norms.

ii. There should be constructed, a chromium recovery plant prior to the CETP where the entire chromium should be recovered, recycled and resold for use to the tannery industries or in the market at large. There is no dispute that chromium has enough market, particularly in that area.

iii. The STP as proposed of 12.5 MLD should be constructed and the entire sewage from that area particularly Magarwara and other places should be brought to the STP and treated. The treated sewage water should be recycled in industries such as industrial, agriculture, horticulture and other purposes in that area.

iv. The Regulatory Regime and Supervisory control of UPPCB and other concerned authorities including the association of CETP has failed to bring the desired results, the industries should be asked to bring their parameters within the prescribed limit as well as to ensure that chromium is sent to the chromium recovery plant prior to this being mixed with the sewage. In fact, the industrial effluent and the sewage are proposed to be dealt with separately which all the stakeholders, particularly the executing agency should enforce without default.

v. Both CETP and STP should operate to their optimum capacity and effectively to prevent pollution of river Ganga.

vi. All the industries of any kind which are water polluting industries located in this area within the catchment area of this drain shall pay 25% of the total cost of up-gradation of CETP and construction of STP as afore-stated.

vii. The Association running the CETP shall be responsible for proper O&M of the CETP. Every industry located in that area whose effluents are being sent to the CETP shall be member of the CETP association and would be liable to pay such monthly amount as may be determined by the State of UP in consultation with the Association of the CETP.

viii. The CETP and all the industries located in the catchment area of this drain should be subjected to proper supervisory control by the UPPCB.

ix. There shall be a separate chromium recovery plant before the CETP, the chromium so recovered shall be recycled and utilized for tannery purpose and/or sold in the open market. The industries which are not complying with the prescribed parameters and/or do not become members of the CETP shall be ordered to be shut down by the UPPCB.

x. If any development by a government agency or a private stakeholder is undertaken at any point of time in future, the said development would not be permitted to be carried out unless and until the said development be it industrial or residential has first installed a STP/CETP as the case may be from that CETP/STP only treated effluent strictly as per prescribed norm should be recycled, reused for agriculture, horticulture purposes and the remnant of

the treated discharge should alone be permitted to be put into the drain/river.

LONI DRAIN:

i. The existing CETP of 2.15 MLD run by Unnao Tannery Association shall be upgraded in terms of capacity, design and quality so as to specify the prescribed parameters upon due study.

ii. The tributaries of Loni drain that carry sewage would be intercepted and taken by gravity or by pumping to Jail drain where STP of 12 MLD and the STP capacity of 12.5 MLD should be confirmed or constructed while taking into consideration the inflow after interception of tributaries of Loni drain.

iii. Industrial effluents of Loni drain should be treated by the upgraded CETP.

iv. All the industries, slaughter houses and tannery industries should become members of the CETP at Unnao to upgrade CETP. It shall be operated effectively and it will be ensured that it brings the trade effluent parameters within the prescribed limits. All the industries located in the catchment area of Loni drain shall contribute 25% cost of the up-gradation of the CETP and would also pay monthly O&M charges to the CETP association as may be determined by State of UP in consultation with UPPCB and the Unnao association.

v. The interception of the drain should take place at the end of the Housing Board drain where it meets Loni drain.

vi. There shall be a separate chromium recovery plant before the CETP, the chromium so recovered shall be recycled and utilized for tannery purpose and/or sold in the open market. The industries which are not complying with the prescribed parameters and/or do not become members of the CETP shall be ordered to be shut down by the UPPCB.

NOHRA DRAIN

i. An STP of 5 MLD should be constructed at the outskirts of Sheohara town and the entire sewage should be treated before it is put into Nohra drain.

ii. There shall be installed filter system at the end of the drain nearly 200 meters away from the river to ensure that no waste of any kind enters the river by putting screens or otherwise.

iii. The distillery and sugar industries located in the catchment area of this drain should be required to put up their own ETP and install all necessary anti-pollution devices. They should be strictly adhered to ensure that the drains effluents are within the prescribed parameters. In fact, they are directed to recycle, reuse their treated water. The industries should be inspected by the joint inspection team of

the UPPCB and appropriate conditions in the Consent to Operate should be imposed upon them. In the event of default or discharging effluents beyond the prescribed limit, they should be ordered to be closed down.

RAMPUR DRAIN:

i. We specifically direct the State of UP and the UP Jal Nigam that the sewer connections to households should be connected to the sewer line and then should be taken with utmost priority as it is not connecting the households to the sewer line. As a result of which the requisite quantum of sewage is not reaching the STPs already constructed. This would amount to tremendous wastage of public money and assets if these STPs are not made operational immediately. They are presently not treating the sewage and therefore even causing pollution. The concerned stakeholders, therefore, must take appropriate steps without unnecessary delay.

KARLUA DRAIN:

i. No industry should be permitted to start its operation in the catchment area of the drain till the time it either becomes a ZLD unit or recycles its entire treated discharge for agriculture, horticulture and its own industrial purposes. The recycling or use of same water for agriculture, horticulture purposes should be permitted only when the effluent is within the

parameters which are permissible for discharge on land etc. The UPPCB and CPCB shall adhere to this direction.

ii. The Tribunal upon due examination, approves the common suggestions of the stakeholders and directs that preferably the STP should be established considering the high content of faecal coliform and BOD in the effluents. In the event, the UPJN and UPPCB are of the contrary view; they will move the Tribunal within four weeks from the date of pronouncement of the order seeking its direction to establish Oxidation pond and tertiary treatment in preference to an STP.

NAWABPURA DRAIN 1, NAWABPURA DRAIN 2, VIVEKANAND HOSPITAL-LEFT, MORADABAD, VIVEKANAND HOPSITAL-RIGHT, MIT DRAIN, MOKSH DHAM DRAIN, TDI CITY DRAIN, CHAKKAR KI MILAK, JIGAR COLONY, KATGHAR RAILWAY STATION DRAIN, BARBALAN DRAIN, UDAGHAR DRAIN, JAMA MASJID (LEFT) DRAIN, JAMA MASJID (RIGHT) DRAIN, GHOSIYAN DRAIN, JHABBU KA NALA, LALBAGH DRAIN, DATERIA/DAHERIA DRAIN AND PRABHAT NAGAR DRAIN

i. In light of the above discussion, in addition to the directions already passed *vide* our order dated 9th May, 2017 and other orders which are reiterated herein, we also direct and approve the project put forward by UP Jal Nigam in relation to tapping and interception of all the above drains and taking their effluents to the specified STPs. However, there would be provided due mechanism and anti-pollution devices for providing pre-chemical treatment of the effluent before it is taken to the STPs. We further make it clear that the industries which are operating

without obtaining consent of the Board and are water polluting industries and are discharging their effluent in all these drains shall be closed by the UPPCB without further delay. The administration and the police shall provide due co-operation and assistance to the UPPCB to implement this direction.

DEVRANIYA DRAIN (RIVER)

i. We hereby direct that both these industries shall be subject to complete, comprehensive and strict inspection by the Joint Inspection Team of CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN. This inspection team shall inspect these industries and issue directions for strict compliance to ensure that the effluent from these industries is completely recycled and if not, the effluent discharged strictly complies with the prescribed parameters without default. In the event, if they violate any of the conditions imposed by the Joint Inspection Team, these industries would be liable to be shutdown. The suggestion of the stakeholders is that the STP should be established at the end of the pipeline, where land is available, i.e. 1 kilometre before the point of confluence of the drain with river Ramganga. Technology should be finalized after collection of proper data.

ii. The Joint Inspection Team of CPCB, representative of

MoEF&CC, MoWR, UPPCB and UPJN shall satisfy themselves as to the exact flow of drain at that spot. They should also consider if there should be a mechanical STP or with UV technology or oxidation ponds should be constructed for removing all the effluents from the drain. This decision shall be taken within four weeks from the pronouncement of this order and approved project shall be executed appropriately, thereafter.

iii. The STP shall be provided with continuous, regular source of energy to ensure that the plant operates round the clock.

CHAWARI (CHAUBARI) DRAIN

i. We direct the Joint Inspection Team of CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN to finalize the technology keeping in view the load and content of the drain. The capacity should be demonstrated upon due verification. We pass this direction so that no further errors are committed in this behalf. The exercise should be completed within four weeks from the date of pronouncement of this judgement and the work should start immediately, thereafter.

NAKATIYA DRAIN

i. We direct the Committee of the CPCB, representative of MoEF&CC, MoWR, UPPCB and UPJN to examine

and decide on the appropriate technology that should treat 170 MLD of effluent i.e. UV system and/or oxidation ponds in place of mechanical STP, which would be more economically viable and environmentally better result oriented.

ii. There are agricultural lands around the proposed site thus the discharge from the STP should be utilized for irrigation purposes and least water should be released into the river. In the catchment area of the Nakatiya drain there are two major industries; one is the paper mill by the name of M/s. Rama Shyama Papers Pvt. Ltd. in regard to which the Tribunal has already passed appropriate orders that the industry should strictly complied with those orders failing which the industry would be liable to be shutdown.

iii. Other industry is M/s. Mariya Agro & Forzen Foods Pvt. Ltd., which is dealing with slaughter of animals. It was also stated that it is a non-polluting and complying industry. This industry shall be subject to a joint inspection by the representatives of CPCB, MoEF&CC, MoWR, UPPCB and UPJN.

iv. That committee will issue appropriate directions, if needed, further to ensure that this industry does not cause pollution. If the directions are issued and if the industries are not compliant, then the said industries would be liable to be shutdown without

further notice.

GANDA NALLA, COD NALLA AND HALWA KHANDA NALLA (KANPUR)

i. The Cantonment authorities are hereby directed to lay down a proper sewer line and bring the sewage of cantonment area of Kanpur which is in the catchment area of the COD Nalla to the STP at Bingawan for treatment.

ii. The existing ETP of the Ordinance Factory should be upgraded in terms of both capacity and technology, so as to ensure that no effluent in excess of the prescribed parameters enters the drain. After treatment, the discharge from the ordinance factory could either be put into the COD Nalla or in the sewer line that would be constructed by the Cantonment authorities. The Ordinance Factory shall be inspected by the Joint Inspection Team and appropriate directions shall be issued to ensure that the effluent discharge do not exceed the prescribed parameters, under any circumstances.

iii. If there is any industry or stakeholder operating in the catchment area of COD Nalla, the same shall be subject to an inspection by the Joint Inspection Team which shall issue appropriate directions for compliance as to ensure that the unit is compliant and non-polluting. In the event of default, the industry or stakeholder shall be liable to be shutdown.

PANKI NALLAH (PANKI THERMAL POWER PLANT DRAIN) AND ICI NALLAH

i. Thus, we direct that a separate independent STP at the identified point between Lucknow Road and river Pandu should be constructed having capacity of 75

MLD. The treated water from the STP should be recycled and utilized for agriculture and horticulture purposes and particularly for cooling of the thermal power plant.

ii. We further direct that the thermal power plant shall make endeavour to ensure that the fly ash content does not cause air or water pollution and discharges effluents strictly within the prescribed norms. The Joint Inspection Team shall inspect this thermal power plant and issue appropriate directions for prevention and control of water pollution. If the issued directions are not complied with by the thermal power plant within prescribed period, it shall be liable to be shutdown without any further notice.

ICI NALLAH:

i. The Joint Inspection Team shall inspect all the 40 highly polluting industries in this segment and would issue appropriate directions to ensure that discharge from these industries is strictly within the prescribed norms. If the directions issued by the Joint Inspection Team are not carried out by these industries within the prescribed time, they shall be liable to be shutdown till compliance and subject to further orders of the Tribunal.

MAMAN ROAD NALLAH, (BULANDSHAHR-I); AADIL NALLAH; CHANDBARI ROAD (BULANDSHAHR-II); CHEEL GHAT; NAHSAL GHAT; ADIL NAGAR-2; KASAI BADA; FAISALABAD ROAD, BEHIND SHANIDEV

MANDIR; DEVIPURA; BRIDGE DHAMEDA ROAD AND BEHIND CHAMUNDA MANDIR

i. We consider it appropriate to direct that the capacity of the STP and its technical design should be finalized after a study is carried out by the joint inspection team of CPCB, MoWR and UPPCB. They should also analyse the effluents. There should be complete and comprehensive inspection leaving nothing to imagination or rounding off figures. The data should be collected with exactitude in relation to flow, quality and quantum of effluent. The study in all these respects must be carried out within one month from the date of pronouncement of this judgement and wherever the project is to be executed, without undue delay.

ii. We hereby issue prohibitory directions against all these owners or all these shopkeepers running such service stations from getting rid of any effluent including oil and grease into the drains. If any of them are found to be discharging effluents into the drains after the expiry of two weeks from the date of the order, the UPPCB, the Corporation and even the Police Authorities would be liable to impose environmental compensation of Rs. 5,000/- for each violation. The said amount so collected shall be deposited with the UPPCB. Thus, we issue the above

directions for compliance.

ABU NALLAH-1

i. Other aspect is that the Daurala Sugar Industry, Sugar Distillery Division, Durala Sugar Urban Division and Daurala Sugar Chemical Division, presently discharging their effluent into this Nallah, are not adhering strictly to the prescribed standards. The UPPCB, Namami Gange and Member Secretary, CPCB shall issue directions for strict compliance to these 4 units so that they discharge their effluents strictly in accordance with the prescribed parameters and do not cause pollution. They should be subjected to joint inspection and, if they are found to be violating the prescribed parameters and are polluting, they should be ordered to be shut down.

ii. The BOD level shall be brought down by these industries. As for the STP, parameter 10 mg/l should be in accordance with the prescribed parameters irrespective of what is the prescribed value. These units have been already subjected once to the Joint Inspection, and the recommendations made by the Joint Inspection Team in relation to each of the units shall be carried out positively within three months from the date of the order, when they shall be subjected to re-inspection by the Joint Inspection Team.

iii. All the drains including Abu Nallah-1 should be cleaned and all waste removed, transported and disposed in accordance with the Solid Waste Management Rules, 2016.

iv. Direction be also issued to the Meerut Development Authority to recycle this water of these STPs for horticulture or allied purposes and reduce the extraction of ground water.

v. The dredging of all the three drains i.e. Abu Nallah- 1, Abu Nallah-2 and Odean should be done and the dredged material/silt shall be removed within three days thereafter and transported to the appropriate site as to be identified.

ABU NALLAH-2 & ODEAN DRAIN

i. The joint inspection team shall also recommend, if the STP which is proposed should be only of 210 MLD or should be of a higher capacity keeping in view that there will be remnant effluent as depending on the quality and quantum of the discharge in the drain. There are two industries in the catchment area of Abu Nallah-2 i.e. M/s. Sab Mailler India Ltd. and M/s. United Spirits Limited. Both these industries have been subjected to joint inspection and recommendations have been made. These industries will comply with the recommendations of the joint inspection team within three weeks from today.

ii. In the event of default, they shall be liable to be closed down. The joint inspection team shall further be entitled to issue directions for compliance under the orders of the Tribunal to these industries.

iii. The CPCB, SPCBs, MoEF&CC and MoWR have expressed the view that the industries located in Moradabad and Meerut are primarily using Cyanide based Zinc for electroplating industries. They should be directed to use non-cyanide based technology for electroplating purposes.

iv. We direct Central Pollution Control Board to issue directions forthwith that this would apply to the entire basin area of the river Ganga.

CHHOIYA DRAIN (RIVER KALI-EAST)

i. The Tribunal is of view that specific directions are required to be issued with regard to industries located in the catchment area of this drain. These industries should be required to comply with prescribed standards stringently and should not be permitted to cause pollution any further. The Joint Inspection Team shall conduct inspection of all the majorly polluting industries located in the catchment area of this drain and would issue appropriate directions for compliance by industries.

ii. The joint inspection should be completed and directions should be issued within six weeks from the

date of passing of this judgement. The industries should comply with said directions of Joint Inspection Team within the prescribed time stated in the conditions and in the event of default, they shall be ordered to be shut down by UPPCB without any further notice and delay.

iii. The drains should be subjected to dredging, cleaning and removing of MSW. The UPPCB shall serve a notice upon all industries located in the catchment area of this drain to lay hold of an effective Corporate Social Responsibility and to ensure that the drain is kept cleaned and no waste is permitted to be thrown into it.

HAPUR DRAIN

i. All these 7 industries falling in Hapur catchment area district shall be subjected to joint inspection. The Joint Inspection Team shall issue appropriate directions with regard to proper installation of anti-pollution devices and for taking appropriate measures so as to ensure that they are compliant and do not cause any pollution. In the event of non-compliance of directions, they shall be liable to be closed by UPPCB without further notice.

KADRABAD DRAIN

i. It is directed hereby that the industries that are contributing to the pollution to the said drains should

install anti-pollution devices and take appropriate measures.

ii. The Joint Inspection Team should issue directions to these industries stating parameters, they are required to maintain as well as the steps that they should lay hold of to prevent and control pollution. The joint inspection team should also specify the period for compliance to ensure that these industries become compliant and non-polluting within a specified period.

iii. Also following general directions need to be issued in relation to all the industries located in the catchment area of Kali-East river:

1. They should be strictly regulated.
2. Joint inspection should be conducted.
3. Compliance should be strictly made. If there is default in compliance within the prescribed period, which normally should not exceed 3 to 6 months, the industries should be shutdown.

GULAOTHI DRAIN

i. Amongst the industries causing pollution, there are two main industries in the catchment area of this drain. Both M/s V.R.S. Food Limited Unit-3 and M/s V.R.S. Food Limited Unit-4 are dairy units causing serious pollution. They should be directed to strictly adhere to the prescribed norms which should be

subjected to joint inspection. Detailed directions in terms of Section 33A of the Water Act read with Section 5 of the Environment (Protection) Act, 1986 should be issued. In the event of dis-obedience or non-adherence within the prescribed period, they should be ordered to be shut down.

ii. The UPPCB should also issue notice to these industries as well as to other industries which are discharging their untreated effluents or pollutants into this drain as to why they should not be called upon to pay environmental compensation in terms of Sections 16 and 17 of the National Green Tribunal Act, 2010.

iii. The said Board in addition to the inspection by the Joint Inspection Team along with other public authorities should conduct complete survey of this area and prepare list of the polluting industries which are discharging their effluents into this drain and submit a report to this Tribunal.

Thus, we issue the above directions for compliance by the concerned authorities and the UPJN to take steps for construction of the STP.

NEEM NALLAH:

i. As the Joint Inspection Team had not conducted inspection and taken the measurement of flow and the quality of effluent, we, therefore, direct the Joint

Inspection Team to carry out measurement of flow and the quality of effluent of the drain.

ii. Even, the UPJN has proposed construction of an oxidation pond or a constructed wetland for treating sewage. Parties are in agreement that there need not be construction of mechanical STP at the end of the drain.

PATTA NALLAH, ADANGAPUR DRAIN AND TAMMY NALLAH:

i. All the stakeholders agree that keeping in view the pollutant values of the content of the drain, it will be most appropriate to have an oxidation pond/constructed wetland to reduce the BOD and mainly coliform. This remedy would be least expensive, cost effective and most beneficial. However, for the reason best known to Jal Nigam, they have an STP of the capacity of 13 MLD at the end point of Patta Nallah, which will cost several crores, and is nearing completion. Besides, sewerage network has to be laid down to provide sewage connection. They have already completed 90% work of STP and 70% of sewer network has been laid. In these peculiar circumstances, we do believe that the project of Jal Nigam, which is not study based, was avoidable. But in view of large work having already been carried out, we permit this project to be

completed and 13 MLD STP should be made functional within three months from today.

ADANGAPUR DRAIN AND TAMMY DRAIN:

i. We permit the UPJN to complete the STP of 13 MLD at the end of Patta Nallah before it meets the river.

ii. Directions have already been issued to complete the work within three months from the date of issue of order dated 31st May, 2017 of the Tribunal.

iii. The parties would ensure the compliance as well as that the discharge from the STP should be strictly within the parameters and it is recycled, wherever possible.

iv. We further direct to construct the oxidation pond/wet lands for treatment of sewage in relation to the other two drains i.e. Adangapur Drain and Tammy Nallah.

v. Since there is considerable difference between the measures taken by the Joint Inspection Team and UPJN, we direct that the Joint Inspection Team shall measure the flow of all the three drains (Patta Nallah, Adangapur Drain and Tammy Drain). It should also examine if the flow is 6.5 MLD, as stated by the Joint Inspection Team then the possibility of other two drains being intercepted and brought to the same STP as their discharge is just 4.36 MLD and 1.52 MLD be examined. In that event, the entire discharge could be brought to the proposed STP and treated there

and, there should be no occasion to construct oxidation ponds/wet lands. This study should be completed within six weeks from the date of passing of this order.

183. The Registry of the Tribunal is directed to upload this judgement on the website of NGT today itself. Further, the Ld. Registrar General of NGT should send a personal communication to all the stakeholders, including the Secretaries of the concerned Ministries, Chief Secretary of the State of UP, NMCG and the heads of the local authorities and bodies and the Members of the Committee under this judgement, informing them that the period to be reckoned under the judgement triggers from the date of pronouncement itself and in the event of default or non-compliance, they would be liable to be proceeded against, in accordance with law.

184. In any event, the State, its instrumentalities, local authorities and all other public servants would extend their full cooperation for effectively implementing and executing the directions contained in this judgement. If any officer/official is found to be causing unnecessary impediments in compliance of the judgement, the officer/official concerned shall be liable to be proceeded against, in accordance with law including action for Contempt of Court and payment of personal costs as well.

185. We not only express a pious hope but we are confident that

all stakeholders will work in tandem and extend full cooperation to each other to implement this judgement. They shall make a concerted effort to achieve the object of this national project of cleaning and rejuvenation of river Gang and its tributaries. There is no scope for waiting any further. Stakeholders have to take both effective and remedial measures to restore the pristine nature of the holy river Ganga and its tributaries, now, atleast.

186. Ergo we dispose of the above applications and appeal to the limited extent with the directions and orders as afore-stated, while leaving the respective parties to bear their own costs.

Swatanter Kumar
Chairperson

Jawad Rahim
Judicial Member

Raghuvendra S. Rathore
Judicial Member

Bikram Singh Sajwan
Expert Member

Ajay A Deshpande
Expert Member

Nagin Nanda
Expert Member

New Delhi
13th July, 2017

Item No. 02 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 284/2025
(I.A No. 432/2025)

Industrial Area A Dyers Association Applicant

Versus

State of Punjab & Ors. Respondent(s)

Date of hearing: 04.07.2025

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Applicant: Mr. Asheesh Jain, Senior Advocate with Mr. Shahrukh Ejaz & Mr. Danish Khan, Advocates

ORDER

1. In this Original Application (OA), applicant an association of 19 dyeing units (as disclosed in paragraph 10 of the OA) of Industrial Area – A, Ludhiana has raised multiple grievances and prayed for as many as four reliefs. Learned Senior Counsel for the applicant on instructions submits that the applicant will not be pressing the prayer clause no. 4 which is as under:-

> *" iv. allow Associate Units to continue without insisting upon deployment of Zero Liquid Discharge technology;"*

2. He has sought liberty to take up the separate proceedings in respect of the said prayer clause as the Consent to Operate (CTO) on page 1770 itself contains the condition requiring the industry to complete the ZLD plant by 30.09.2025.

3. The applicant will be at liberty to pray for the relief contained in prayer clause 4 in appropriate proceedings and in accordance with law.

4. Pressing the other prayers, learned senior counsel for the applicant submits that the members of the applicant units are complying with the other norms and intend to get connected with the common affluent treatment plant. The submission of learned senior counsel for the applicant is that the units of the applicant association are not directly discharging the affluent in Budha Nallah. He has submitted that the other matters concerning the Budha Nallah pollution are already pending and coming up for hearing on 22.07.2025.

5. Subject to carrying out the amendment in the OA in respect of deletion of prayer clause 4 and the pleading concerning thereto, let notice be issued to the respondents. Applicant is directed to serve the respondents and file the affidavit of service at least one week before the next date of hearing.

6. List on 22.07.2025

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

July 04, 2025
Original Application No. 284/2025
(I.A No. 432/2025)
AS

Item Nos. 05 to 15 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 225/2022
(IA 379/2025, I.A. No. 380/2025, IA No 815/2023, IA No.668/2023, IA No 596/2023,IA No 273/2025, IA No 271/2025, IA No 269/2025, IA No 270/2025, IA No 268/2025, IA No 20/2023,IA No 21/2023)

Nitin Dhiman Applicant

Versus

State of Punjab & Ors. Respondent(s)

WITH

Original Application No. 546/2024

News item titled "Ludhiana PPCB report flags 54 dyeing units in Buddha Nullah's catchment" appearing in the Hindustan Times dated 25.04.2024

WITH

Appeal No. 40/2024
(IA No 544/2024, IA No 536/2024 & IA No. 115/2025)

Panjab Dyers Association Tajpur road Ludhiana Appellant

Versus

Punjab Pollution Control Board & Ors. Respondent(s)

WITH

Appeal No. 41/2024
(IA No 691/2024, IA No 545/2024, IA No 537/2024,
IA No 529/2024, IA No 528/2024)

M/s Punjab Dyers Association
(Focal Point Module) Appellant

Versus

Punjab Pollution Control Board & Ors. Respondent(s)

WITH

Appeal No. 48/2024
(I.A. No. 702/2024)

Bahadur Ke Textiles & Knitwears Association Appellant

Versus

Punjab Pollution Control Board & Ors. Respondent(s)

WITH

Appeal No. 51/2024
(IA No 692/2024, IA No 657/2024)

M/s Punjab Dyers Association
(Focal Point Module) Appellant

Versus

Punjab Pollution Control Board & Anr. Respondent(s)

WITH

Original Application No. 1325/2024

WITH

Original Application No. 1326/2024
(I.A. No. 129/2025)

WITH

Original Application No. 1327/2024

Public Action Committee & Ors. Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Appeal No. 18/2025

Punjab Dyers Association Appellant

Versus

Punjab Pollution Control Board & Ors. Respondent(s)

WITH

Appeal No. 20/2025
(I.A. No. 151/2025 & I.A. No. 150/2025)

Bahadur Ke Textiles and Knitwears Association Appellant

Versus

Punjab Pollution Control Board & Anr. Respondent(s)

Date of hearing: 16.05.2025

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

Applicant: Mr. Nitin Dhiman, Applicant in Person in OA 225/2022
Mr. Sanjay Upadhyay, Senior Advocate with Mr. Chiranshu Rattan, Ms. Mansi Bachani, Mr. Shubham Upadhyay, Ms. Anukriti Bajpai & Mr. Mohit Thakur, Advs. for Appellant in Appeal 48/2024 & Appeal 20/2025
Mr. Gaurav Agarwal, Adv. (Amicus Curiae) in OA 225/2022
Mr. A.R. Takkar, Ms. Shriya Takkar, Mr. Manan Takkar, Ms. Aastha Tyagi & Mr. Prince Sharma, Advs. for Appellant in Appeal No. 41 & 51/2024 and for R - 4 in OA 1326/2024 Mr. I.K. Kapila, Adv. for Appellant in Appeal 40/2024 & Appeal 18/2025 and for R - 4 in OA 1325/2024 & for R - 7 in OA 225/2022
Mr. Zain Haider & Mr. Manik Gupta, Advs. for Applicant in OA 1325-1327/2024

Respondents: Mr. Vivek Jain, Addl. Advocate General with Ms. Savi Nagpal, Assistant Advocate General for the State of Punjab
Mr. Rahul Mehra, Senior Advocate with Ms. Richa Kapoor, Mr. Chaitanya Gosain & Ms. Atika Singh, Advs. for Punjab PCB
Mr. Asheesh Jain, Senior Advocate with Mr. Shahrukh Ejaz & Ms. Devika Samant, Advs. in I.A 268-271/2025 & I.A. 268/2025
Mr. A.R. Takkar, Ms. Shriya Takkar, Mr. Manan Takkar, Ms. Aastha Tyagi & Mr. Prince Sharma, Advs. for R - 9 in OA 225/2022
Ms. Suhasini Sen & Ms. Masooma Rizvi, Advs. for MoEF & CC
Mr. Ankit Siwach, Adv. for MC, Ludhiana (Through VC)
Mr. Raj Kumar, Adv. for CPCB in OA 225/2022 & OA 1325-1327/2024
Mr. Mohit Singhal, Adv. for CPCB in OA 546/2024
Mr. Abhishek, Adv. in I.A. 379-380/2025
Mr. Prannv Dhawan, Adv. for R - 10 & 11 in OA 225/2022 (Through VC)

ORDER

OA No. 225/2022:(Item no.5)

1. **IA No. 379/2025** has been filed in OA No. 225/2022 seeking permission to intervene in the OA. IA is not opposed by Counsel for the applicant. Hence, allowed.

2. **IA No. 380/2025** has been filed by the applicant in IA No. 379/2025 seeking a direction to concerned authorities to take immediate and effective steps to clean, restore and rejuvenate the Buddha Nala. Similar is the prayer made in the OA and now OA is at the final hearing stage, therefore, no order in this IA is required to be passed and IA 380/2025 is accordingly disposed of.

3. IA Nos. 268/2025 & 269/2025 are listed today whereas said IAs have already been allowed by order dated 09.04.2025. IA Nos. 20/2023 & 21/2023 are also listed today whereas said IAs have already been allowed by order dated 24.01.2023. Hence, Registry is directed not to list the IAs which are already allowed or disposed of.

4. **IA No. 273/2025** has been filed by the original applicant seeking permission to place on record additional documents. On due consideration IA is allowed.

5. **IA 270/2025**:-has been filed by Industrial Area-A Dyers Association seeking a direction to the authorities to collect fresh samples of the effluents from ETPs of the Associate Units to test the same for compliance with the prescribed pollution norms and till such time test results in terms of the prayer are received, permit the Associate Unit to operate. A perusal of the IA reveals that applicant is mainly aggrieved with the insistence of the PPCB on the deployment of ZLD system. Plea of the Counsel for the applicant is that it is not viable and feasible to deploy the ZLD system. For such an issue, the applicant has a separate cause of action. Applicant being an intervener in this case can either support the case of the applicant or oppose it but he cannot be permitted to bringing an issue which is based upon an separate cause of action for which the applicant has a separate remedy. Permitting such an issue to be raised in this matter will unnecessarily complicate and will alter its scope. Thus, we do not find any ground to issue any direction in this IA. Hence, IA No. 270/2025 is disposed of, permitting the applicant to take such other remedies as available in law to raise the grievance indicated in this IA.

6. **IA 596/2023**:-has been filed by the original applicant seeking permission to place on record additional facts and documents. IA is not opposed by any of the parties. Hence, allowed.

7. **IA 815/2023**:- has been filed by the applicant – M/s. Dhawan Processors and M/s. Raghav Industries seeking intervention in OA No. 225/2022. No one is present to press this IA. Hence, IA is dismissed as not pressed.

8. **IA No. 668/2023**:- has been filed by the original applicant seeking permission to place on record additional facts and documents. IA is not opposed by any of the parties. Hence, allowed.

9. **IA 271/2025**:- this is an application for exemption from filing the certified and legible copies of the annexures. IA is allowed subject to the condition that appellant will place on record certified and legible copies of the documents on which he wants to rely upon during the arguments.

Appeal No. 40/2024: (Item no.7)

10. **I.A. No. 544/2024**:- has been filed by one Nitin Dhiman seeking intervention in this appeal. The said applicant has already filed a separate connected OA, therefore, we do not find any justification to permit him to intervene in the appeal. IA 544/2024 is accordingly dismissed.

11. **I.A. No. 536/2024**:-has been filed by one Public Action Committee seeking impleadment in this appeal. Learned Counsel for the applicant in this IA submits that he is not pressing this IA. IA 536/2024 is accordingly dismissed as not pressed.

12. **I.A. No. 115/2025**:-has been filed by one Nitin Dhiman for listing. The said application has already been filed as separate OA. Hence, no

justification is found to allow such a prayer in this appeal which has a different scope. IA 115/2025 is accordingly dismissed.

Appeal No. 41/2024: (Item no.8)

13. **IA No.691/2024**: has been filed in Appeal No. 41/2024 for placing on record additional facts and documents. On due consideration IA is allowed.

14. **IA No.545/2024**: has been filed by one Nitin Dhiman with the prayer seeking intervention in this appeal. For the reasons recorded, rejecting the similar IA as above, this IA 545/2024 is also rejected.

15. **IA No.537/2024**: has been filed by Public Action Committee & others seeking impeadment and Counsel for the applicant in IA submits that he is not pressing the IA. Hence, IA is dismissed as not pressed.

16. **IA No.529/2024**: has been filed by the appellant under Section 151 of CPC seeking interim relief. Tribunal has already passed the interim order dated 04.11.2024. The said interim order is made absolutenand IA 529/2024 is accordingly disposed of.

17. **IA No.528/2024**: has been filed by the appellant seeking exemption from filing legible/translated/typed copies of the illegible documents. IA is allowed subject to the condition that appellant will place on record legible typed copies of the documents on which he want to rely upon during the arguments.

Appeal No. 48/2024: (Item no.9)

18. **IA No.702/2024**: has been filed by one Nitin Dhiman with the prayer seeking intervention in this appeal. For the reasons recorded, rejecting the similar IA as above, IA 702/2024 is also rejected.

Appeal No. 51/2024: (Item no.10)

19. **IA No.692/2024**: has been filed by the appellant seeking permission to place on record additional facts and documents. On due consideration IA is allowed.

20. **IA No.657/2024**: this is an application for stay. In the connected appeal Tribunal has passed the interim order dated 04.11.2024. The said interim order will be applicable in the present appeal. With the aforesaid IA 657/2024 is disposed of.

Original Application No. 1326/2024: (Item no.12)

21. **IA No. 129/2025:** has been filed by respondent no.4 seeking exemption from filing legible/translated/typed copies of the illegible documents. IA is allowed subject to the condition that respondent no.4 will place on record legible typed copies of the documents on which he wants to rely upon during the arguments.

Appeal No. 20/2025: (Item no.15)

22. **I.A. No. 150/2025**: has been filed by the appellant seeking condonation of delay in filing the appeal. There is a delay of about 25 days in filing this appeal. For the reason stated in the application, we find that delay has been properly explained and sufficient reason exists for not filing the appeal within time. IA is not opposed by any of the parties. IA is allowed. Delay in filing the appeal is condoned.

23. **I.A. No. 151/2025**: this is an application for exemption from filing the certified and legible copies of the annexures. IA is allowed subject to the condition that appellant will place on record certified and legible

copies of the documents on which he wants to rely upon during the arguments.

Common Order:

24. As of last opportunity, parties are permitted to complete the pleadings within three weeks.

25. List for final hearing on 22.07.2025.

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

May 16, 2025
Original Application No. 225/2022
& Connected matters
JG..