Legal/OA673/2018/NMCG/2019/ Date: 15th September 2020

To,
The Registrar,
Hon'ble National Green Tribunal,
Faridkot House, Copernicus Marg,
New Delhi - 110 001

Subject: 2nd Quarterly Report of Central Monitoring Committee constituted vide NGT order dated 29.11.2019 (uploaded on website on 06.12.2019) in the NGT Matter OA No. 673 of 2018

Sir/ Ma'am,

In compliance to the Hon'ble NGT Matter OA No. 673 of 2018 (News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB") regarding 351 polluted river stretches, 2nd quarterly report of the Central level Committee constituted under the Chairmanship of Secretary, Ministry of Jal Shakti is enclosed herewith for kind information.

Enclosure: As above

Yours faithfully,

(D.P.Mathuria) 15.9.2020
Executive Director-Technical

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
O. A. No. 673 0f 2018

IN THE MATTER OF:

News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB"

2nd QUARTERLY REPORT OF
THE CENTRAL MONITORING COMMITTEE (CMC)
IN COMPLIANCE OF THE ORDER DATED 22.06.2020
(UPLOADED ON 29.06.2020)

NATIONAL MISSION FOR CLEAN GANGA
DEPT. OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION,
MINISTRY OF JAL SHAKTI,
GOVERNMENT OF INDIA, NEW DELHI

SEPTEMBER 2020

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2nd QUARTERLY REPORT OF THE CENTRAL MONITORING COMMITTEE (CMC) IN COMPLIANCE OF THE ORDER DATED 22.06.2020 (UPLOADED ON 29.06.2020) IN THE MATTER OA No. 673 of 2018

I. General

That this Hon'ble Tribunal in matter O. A. No. 673 of 2018 is seized of the issues, amongst others, regarding remedial action to be taken for abatement of pollution in the polluted river stretches identified by the CPCB based on data collected from the SPCBs/ PCCs and preparation of "*Action Plans*" and their implementation by the concerned State Governments and the UTs. The Hon'ble Tribunal, vide its order dated 22.06.2020 *(uploaded on 29.06.2020)* has passed certain further directions to be complied with by all concerned.

II. Directions of National Green Tribunal

That in para 38 of the order, this Hon'ble Tribunal emphasized the need and urgency for timely preparation and compliance of the Action Plans by the State Governments/ UTs Administration which includes 100% treatment of sewage, at least to the extent of *in situ* remediation, commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs, failing which the environmental compensation will be recoverable from the defaulting States besides initiation of other legal actions against the erring officers. Amongst others, the following directions were issued in the matter:-

(i) *100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 at least to the extent*

of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

(ii). Timeline for completing all steps of Action Plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.

(iii). We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by Chief Secretaries of all the States/ UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.

(iv). For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/ UTs at least once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.

(v). The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of The States/ UTs may take necessary steps according erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.

(vi). Monthly progress report may be furnished by the States/ UTs to Secretary,

Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers. vii. As already mentioned, procedures for DPRs/ tender process needs to be shortened and if found viable business model developed at central/ state level.

(viii). Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.

(ix). CPCB may finalize its recommendations for Action Plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the Action Plans prepared by the States which may start forthwith, if not already started.

(x). The Action Plan prepared by the Delhi Government which is to be approved by the CPCB has to follow the action points delineated in the order of this Tribunal dated 11.09.2019 in O.A. No. 06/2012.

(xi). Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification, a survey may now be conducted with reference to all the said parameters by involving the SPCB/PCCs within three months. Monitoring gaps be identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB may file a report on the subject before the next date by e-mail at judicial-ngt@gov.in.

(xii). Rivers which have been identified as clean may be maintained."

III. Status of Monitoring by Central Monitoring Committee

1. Correspondences made with States

That it is submitted for consideration of this Hon'ble Tribunal that in furtherance of the above order, communications were addressed vide D.O. letters of Secretary, Department of Water Resources, River Development &

Ganga Rejuvenation to all the Chief Secretaries on 22nd January 2020, 3rd July 2020 and 6th August 2020 reiterating the urgency and significance of the measures which are required to be taken for preventing and controlling pollution in rivers/ water bodies/ lakes and ensuring that no untreated effluent/ sewage (beyond the prescribed standards) is allowed to be discharged from the ETPs/ CETPs/ STPs. Copies are enclosed as **ANNEXURE – I.**

2. That in the communications, details of *Hybrid Annuity Model* (HAM) based *PPP* projects, One City One Operator as implemented for sewerage intervention projects under Namami Gange programme as well as Faecal Sludge Management concepts have been described in terms of the order/ direction passed by this Hon'ble Tribunal. While the *HAM* based *PPP* project with in-built *one city one operator* concept, is meant to ensure the capacity utilization and effective operation & maintenance of the treatment infrastructure, also assures performance and quality infrastructure with the involvement of private players. The business model for liquid waste management has in-built mitigation mechanism against time & cost overrun, improper design, sub-optimal operation and failure to meet the performance standards. Experience has been gained by NMCG while taking up 29 projects in 18 packages at an estimated cost of Rs 10816 Crores for creating new Sewage Treatment Plant (STP) capacity of 1604 Million Liters per Day

(MLD) under this model. The first set of projects, STP with 82 MLD capacity in Haridwar have already started functioning and are meeting the required water quality parameters. Further, '*One City- One Operator*' concept, integrating the rehabilitation and Operation & Maintenance (O&M) of existing treatment infrastructure along with development & operation of new STPs in cities such as Mathura, Kanpur, Prayagraj etc would ensure a singular accountability and ownership at city level for the treatment of entire sewage generated in the city. As a business model, HAM enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue. It will help ULBs to tap the external market funding for development & operation of sewage infrastructure, apart from quality treatment services. NMCG has prepared model tender documents for development of STPs through HAM and recently these documents have also been approved by NITI Aayog. Some of the State Governments have also started showing interest in adopting this model of development.

States were also facilitated by holding a Webinar on "*Mainstreaming Faecal Sludge & Septage Management in Ganga Basin*", which was attended by officials from almost all the States. The Webinar also included a session on experience of Odisha which has taken up FSSM extensively, besides initiatives taken by NMCG in this directions. States were urged to consider the implementation of FSTPs and/ or co-treatment of faecal sludge in

existing STPs, in all towns wherever feasible, so that dumping of the faecal sludge in water bodies/ land and thereby polluting them, can be avoided.

Besides, officials from the NMCG/ NRCD are also regularly interacting with the concerned officials in the States/ UTs to impress upon timely completion of projects by the concerned States/UTs.

3. That so far as the consent to establish (CTE) and consent to operate (CTO) for ETPs/ CETPs/ STPs to the industries/ municipalities in the concerned States/ UTs are concerned, the same are regulated by the State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) established in accordance with the provisions of the *Water (Prevention and Control of Pollution) Act, 1974*. The SPCBs/ PCCs are vested with the requisite powers to take appropriate legal action, including issuing of directions for closure against the erring units for non-compliance of the industrial/ domestic effluent discharge norms and other conditions, like pollution load, design capacity for the treatment of the effluent, point of discharge of the treated effluent etc. from the ETPs/ CETPs/ STPs. SPCBs/ PCCs as also the CPCB are mandated under the *Water Act,1974* to ensure compliance of the effluent norms and conditions for the operations of the concerned plants in their respective jurisdictions.

4. **Meetings of Central Monitoring Committee (CMC)**

That, meetings of the Central Monitoring Committee (CMC) under the Chairmanship of Secretary, DoWR,RD&GR, Ministry of Jal Shakti to monitor the progress of the implementation of the Action Plans by the concerned State/ UTs are being regularly held every month. The minutes of the meetings dated 23rd June 2020, 30th July 2020 and 31st August 2020 are annexed as **ANNEXURE – II.**

That detailed meetings were also held, through Video Conferencing (*due to the continuation of the lockdown*) with the senior level officials of the State Governments/ UTs to discuss state specific issues on 14th July 2020, 23rd July 2020, 20th August 2020, 21st August 2020 and 25th August 2020 at the level of the Director General, NMCG cum Project Director, National River Conservation Directorate, along with the officials of the National Mission for Clean Ganga (NMCG) and National River Conservation Directorate (NRCD).

5. **Monthly Progress Reports**

Details of Monthly Progress Reports (MPRs) received from the States (as on 31st August 2020) are as below. It is seen that all the States have been regularly submitting the MPRs, although the quality of MPRs yet remains an issue in respect of few States. This issue will be further reviewed in subsequent meetings of CMC.

No.	State	Jan	Feb	March	April	May	June	July
1	Andhra Pradesh	Yes					Yes	Yes
2	Assam		Yes	Yes		Yes		Yes
3	Bihar			Yes		Yes	Yes	Yes
4	Chhattisgarh	Yes	Yes		Yes	Yes	Yes	Yes
5	Daman, Diu & Dadra Nagar Haveli		Yes			Yes	Yes	Yes
6	Delhi	Yes	Yes			Yes	Yes	Yes
7	Goa					Yes		Yes
8	Gujarat	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	Haryana	Yes	Yes	Yes	Yes	Yes	Yes	
10	Himachal Pradesh	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	Jammu & Kashmir	Yes	Yes	Yes		Yes	Yes	Yes
12	Jharkhand					Yes	Yes	Yes
13	Karnataka							Yes
14	Kerala	Yes				Yes	Yes	Yes
15	Madhya Pradesh	Yes				Yes	Yes	Yes
16	Maharashtra	Yes		Yes	Yes	Yes	Yes	Yes
17	Manipur						Yes	Yes
18	Meghalaya	Yes	Yes			Yes	Yes	Yes
19	Mizoram	Yes	Yes	Yes		Yes	Yes	
20	Nagaland	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21	Odisha		Yes	Yes		Yes		Yes
22	Puducherry	Yes	Yes	Yes			Yes	Yes
23	Punjab	Yes	Yes	Yes		Yes	Yes	Yes
24	Rajasthan							Yes
25	Sikkim	Yes	Yes				Yes	Yes
26	Tamil Nadu		Yes	Yes			Yes	Yes
27	Telangana		Yes	Yes	Yes		Yes	Yes

28	Tripura	Yes		Yes		Yes	Yes	Yes
29	Uttarakhand						Yes	Yes
30	Uttar Pradesh	Yes		Yes			Yes	
31	West Bengal		Yes				Yes	Yes

Further, State-wise MPRs received are being uploaded on website of NMCG at https://nmcg.nic.in/ngtprogressreport.aspx.

6. **Monitoring mechanism**

In the CMC meetings, it has been informed by the States that the implementation of the projects is being monitored in the State regularly at appropriate level, including that at the level of Chief Secretary. Nodal Officers at level of Secretary in States have been identified for monitoring the implementation of directions of Hon'ble Tribunal.

The progress made by the State(s) are being reviewed at Central Level based on the submissions made by the States in their Monthly Progress Report and the monthly review meetings of CMC. *That States/UT Administrations were specifically requested to ensure that at least one polluted river stretch in each category is restored to meet all water quality standards up to bathing level as ordered by this Hon'ble Tribunal. This may serve as a "model" with a view to replicate the efforts for restoring the remaining stretches.*

States have failed to report reasons for delay in grounding the projects as well identification of officials responsible for the delays. The necessary reporting from the States is being taken up and will be followed up in future review meetings. In general, most of States have informed that the progress of ongoing works has been severely affected due to COVID-19 pandemic which has impacted issues related to mobilization of skilled and unskilled manpower as well as supply of materials besides site works. Site works often reportedly get affected due to lockdown kind of situations whenever the same is under enforcement.

States have also informed that financing difficulties are faced by them on account of resource crunch due to COVID-19 situation. In spite of this situation, States, reportedly are trying to galvanize funding for priority projects and will be apprising the status in subsequent meetings of the CMC.

7. The present report is being submitted, in compliance of the order dated 22.06.2020 and to the extent observations passed by this Hon'ble Tribunal in the above matter. The progress reports were obtained and meetings were held to monitor the progress of the implementation of the "*Action Plan*" by the concerned States/ UTs and to ensure that no pollution is discharged in rivers/ water bodies, and wherever necessary appropriate legal action taken against the erring/ violating industrial units/ local bodies or private persons

and arrange to recover compensation as per the laid down scale.

IV. Compliance to Directions of Hon'ble Tribunal

That the status of compliance by each State/ UTs has been presented based on the inputs received from the concerned State Government/ UTs along with the remarks/ comments of the NMCG.

Central Monitoring Committee while monitoring the status of implementation of directions of Hon'ble NGT laid its emphasis on the fact that *rivers which are clean should remain so and compliance to the environmental laws* in respect of existing sewage infrastructure is maintained. Accordingly, apart from details towards pollution measures being taken in respect of 351 polluted river stretches and action plan thereto, efforts were made to compile data base for each State/ Union Territory with requisite information on sewage infrastructure and industrial pollution.

1. Existing Sewage Infrastructure

In respect of the existing sewage infrastructure, 53,396 MLD of sewage (from urban settlements) is generated in 31 States/ UTs and 29,556 MLD capacity of STPs exists (1212 nos.) which approximates to about 55% of sewage generation. Against the existing capacity, only 62% of the capacity is being utilized for treatment of municipal sewage (except for Andhra Pradesh, Tripura and West Bengal who have not reported the figures of

utilization of existing capacity). Rest of the existing capacity remains unutilized because of various reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality on various counts. This leaves a gap of 24,144 MLD in treatment capacity for which States are regularly being asked to provide their inputs with regards to their plans to fill the gap including that for financing the creation of infrastructure. It is also important that operational STPs remain compliant to the STP outlet standards as per environmental norms. The data obtained from the States of Chhattisgarh, Daman, Diu and Dadra Nagar Haveli, Gujarat, Manipur, Odisha, Sikkim, Tripura, Uttarakhand and Uttar Pradesh shows that out of total 235 operational STPs in these States, 162 STPs are compliant to the outlet standards and a large number of STPs remain non-compliant to the environmental norms. Other States have failed to report compliance of existing STPs to STP outlet standards. The States have assured that the same will be provided to CMC. The details of sewage generation, existing sewage treatment capacity, its utilization and gap thereof is presented in **Table-1**.

Table-1: Details of Existing Sewage Infrastructure in the 31 States/ UTs

No.	State	Sewage Generation (in MLD)	Existing STP (capacity in MLD and No.)	Capacity Utilization (In MLD)	Gap in Treatment at present (in MLD)
1	**Andhra Pradesh**	1384	515.45	-	868.55
2	**Assam**	703	0	0	703
3	**Bihar**	651.5	40 (2 STPs)	22 (55%)	611.5
4	**Chhattisgarh**	600	73.1 (3 STPs)	6 (8.2%)	526.9
5	**Daman, Diu And Dadra Nagar Haveli**	20.5	17.21 (2 STPs)	5.2 (30%)	3.29
6	**Delhi**	3273	2714 (35 STPs)	2455 (90%)	559
7	**Goa**	165	78.35 (9 STPs)	46.6 (59%)	86.65
8	**Gujarat**	3765	3378 (70 STPs)	2812 (83%)	387
9	**Haryana**	1454	1767	1466 (82%)	-
10	**Himachal Pradesh**	102.8	86.9	55.1 (63%)	15.9
11	**Jammu & Kashmir**	970	126.80 (11 STPs)	80.70 (63%)	843.2
12	**Jharkhand**	700	131 (19 STPs)	75 (57%)	569
13	**Karnataka**	3356.5	2561 (142 STPs)	1704 (66%)	795.5
14	**Kerala**	3759.28	124.135 (11 STPs)	81.325 (65%)	3634.935
15	**Madhya Pradesh**	2183.65	690.76 (25 STPs)	524.24 (75%)	1492.89
16	**Maharashtra**	9757	7746 (137 STPs)	4013 (51%)	2011
17	**Manipur**	114.054	27 (1 STP)	8 (29%)	87.05
18	**Meghalaya**	87.91	0	0	87.91
19	**Mizoram**	80	10 (1 STP)	0	70
20	**Nagaland**	44.3	25.4 (1 STP)	0	18.9
21	**Odisha**	439.49	91 (5 STPs)	70 (76%)	348.49
22	**Puducherry**	84	56	30 (52%)	28
23	**Punjab**	2111	1621.5 (115 STPs)	80%	456
24	**Rajasthan**	1712	966 (68 STPs)	43%	746

No.	State	Sewage Generation (in MLD)	Existing STP (capacity in MLD and No.)	Capacity Utilization (In MLD)	Gap in Treatment at present (in MLD)
25	**Sikkim**	47.68	19.02 (6 STPs)	17 (89%)	28
26	**Tamil Nadu**	2070.855	1484.42 (56 STPs)	798.34 (53%)	586.435
27	**Telangana**	2453	920.1	810 (88%)	1532.9
28	**Tripura**	175	8 (1 STP)	-	167
29	**Uttarakhand**	329.33	355.13 (61 STPs)	203.9 (57%)	-
30	**Uttar Pradesh**	5500	3365.88 (105 STPs)	2566.55 (76%)	2134.11
31	**West Bengal (as per CPCB Report 2018)**	5303	557.64 (43 STPs)	-	4745.36
Total		**53,396.849**	**29,556.795**		**24,144.47**

In particular, poor capacity utilization of Rajasthan (43%), Manipur (29%), Daman Diu & Dadra Nagar Haveli (30%), Chhattisgarh (8%), Maharashtra (51%), Puducherry (53%), Tamil Nadu (53%) needs consideration and attention for which Chief Secretaries of the concerned States have been apprised through D.O. letters from Secretary, Department of Water Resources, River Development & Ganga Rejuvenation. The States of Assam and Meghalaya do not have any existing treatment capacity while Tripura & Manipur has only one STP each. The compliance of existing STPs in Telangana (88%), Madhya Pradesh (75%), Delhi (90%), Gujarat (83%), Haryana (82%), Odisha (76%), Punjab (80%), Sikkim (89%), UP (76%), remains good. This needs to be maintained and continuously improved. Utilization has not been reported by Andhra Pradesh, West Bengal, Tripura, for which these States have been reminded.

Most of States do not have online system of monitoring the functioning of STPs, both in respect of quantity of sewage being treated and whether the treatment conforms to the environmental norms for STP outlet standards. Directions are required to be given to States to not only ensure that created capacity is optimally utilized by carrying out condition assessment of existing STPs/ sewage infrastructure in a fixed time frame, say another 3 months, but also putting in plans to upgrade STPs requiring upgradation so as to make them functional. In addition, it is also equally important that States must develop a modern technology based online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future. Such a system will enable that health of sewage treatment facility is readily available, with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.

2. Water Quality in Polluted River Stretches

Based on the discussions held in CMC meetings on the issues raised by the States about improvement in water quality (BOD levels of the water in the polluted stretches). The States of Assam, Kerala, Maharashtra, Mizoram, Odisha, Rajasthan and Tripura have informed that many of their polluted river stretches have either become unpolluted or their priority category has changed.

States/ UTs have also represented before the CMC as well as CPCB that CPCB has identified 351 polluted river stretches (PRS) in September 2018, on the basis of water quality monitoring of rivers carried out during the years 2016 and 2017, with regards to the exceedance of water quality criteria parameter of BOD (3 mg/l). But as per the latest water quality assessment by the States/ UTs, some of the river stretches earlier declared as PRS, have now been observed to be complying to the BOD criteria limit for outdoor bathing and therefore proposed for deletion from the list of identified PRS by States. Therefore, requests have been made for deletion of such river stretches from the list of identified PRS on the basis of reported improvement in their water quality.

Further, it is pertinent to mention that for the purpose of removing the river stretches from the list of identified PRS, a draft criterion has been devised by CPCB as proposed to be followed in this regard. As per the criteria, the

States/UTs may submit a detailed proposal (river stretch-wise) for deletion of river stretches from the list of identified polluted river stretches supported with the requisite information or documents for further examination by CPCB. CPCB has sought monitoring of parameters viz., *pH, DO, BOD, Faecal Coliform, Faecal Streptococci, COD and other recalcitrant toxic pollutants* to ascertain their compliance at least consecutively for a period of last two years (with minimum of 8 monthly observations in a year). Thereafter based on joint monitoring by CPCB and State PCBs, recommendations shall be made by a Committee comprising representative of Ministry of Jal Shakti (MoJS), National Mission for Clean Ganga (NMCG), Ministry of Environment, Forest and Climate Change (MoEF & CC) to Central Monitoring Committee for delisting or otherwise of identified Polluted River Stretches. The draft criterion has been circulated by CPCB for obtaining views of Ministry of Jal Shakti, Ministry of Environment, Forest and Climate Change.

Central Monitoring Committee while monitoring the status of implementation of directions of Hon'ble NGT laid its emphasis on the fact that *rivers which are clean should remain so and compliance to the environmental laws* in respect of existing sewage infrastructure is maintained. Accordingly, apart from details towards pollution measures being taken in respect of 351 polluted river stretches and action plan thereto,

efforts were made to compile data base for each State/ Union Territory with requisite information on sewage infrastructure and industrial pollution. However, Ministry of Jal Shakti has maintained that criteria for *listing* of Priority Polluted Stretches should also remain the criteria for *delisting* of these stretches.

So far as monitoring of water quality of rivers by CPCB is concerned, CPCB must continue to monitor all the parameters prescribed under '*Primary Water Quality Criteria for Bathing Water*' notified under *Environment (Protection) Rules, 1986* (i.e. pH, DO, BOD, Faecal Coliform and Faecal Streptococci) as well as COD and other recalcitrant toxic pollutants having tendency for bio-magnification as prescribed under '*Guidelines on Water Quality Monitoring – 2017*' issued by *MoEF&CC*. The monitoring will ensure that environmental standards are observed in respect of rivers and other water bodies.

The water quality data presented by the States during period since January'2020 upto August'2020 has been analyzed and the same has been summarized in **Table-2**. It can be seen that during this period, water quality (BoD) of river Tungabhadra, river Kunda, river Godavari, river Nagawali and river Krishna in **Andhra Pradesh**; river Ramrekha in **Bihar**; river Damanganga in **Daman, Diu & Dadra Nagar Haveli**; river Hasdeo in **Chhattisgarh**; river Chapora, river Tiracol, river Sinquerim, river Zuari,

river Assanora, river Valvanti, river Khandepar, river Bicholim, river Mandovi, river Talpona, river Sal in **Goa**; river Triveni, river Amaravati, river Daman Ganga, river Kolak, river Mahi, river Tapi, river Anas, river Baleshwar Khadi, river Kim, river Narmada in **Gujarat**; river Ghaggar in **Haryana**; river Basantar, river Chenav, river Gawkadl, river Sindh in **Jammu & Kashmir**; river Kyrhukhala, river Nonbah, river Umtrew, river Lukha, river Myntdu in **Meghalaya**; all river stretches in **Mizoram**; river Kuakhai, river Nandirajhor, river Banguru nala, river Mahanadi, river Bheden, river Nuna, river Ratnachira, river Nagavalli, river Budhabalanga, river Kusumi, river Rushikulya, river Sabulia in **Odisha**; river Arasalar/ Chunnambar in **Pudicherry**; river Maney Khola, river Rangit, river Ranichu, river Teesta in **Sikkim**; river Sarbanga, river Bhavani in **Tamil Nadu**; river Burigaon, river Gumti, river Haora, river Juri, river Khowai, river Manu in Tripura has been found to be within acceptable range below 3 mg/l.

While the BOD observed during this period in other rivers in State was found to be varying and often beyond the permissible limits for BOD. The water quality data has not been provided by Assam, Jharkhand, Karnataka, Kerala (except Manimala), Madhya Pradesh, Nagaland, Rajasthan, Uttar Pradesh, Uttarakhand, West Bengal.

Table 2: Water Quality Data in Polluted River Stretches in 31 States/ UTs

S. No.	State	Water Quality Status Stretch wise
1	**Andhra Pradesh**	River Tungbhadra/ Kundu/ Godavari/ Nagavali/ Krishna: BOD is in the range of 2-3 mg/l
2	**Assam**	No details have been furnished in the MPRs, however as per the water quality monitoring data during Jan-Nov 2019, the number of polluted stretches under PRS category is as under: PI: Incresed from 3 to 5 PII: Reduced from 1 to 0 PIII: Reduced from 4 to 0 PIV: Reduced from 3 to 0 PV: Reduced from 33 to 10.
3	**Bihar**	Sirsa: BOD is in the range of 3.2-4.4 mg/l Ganga: BOD is in the range of 1.2-3.4 mg/l Parmar: BOD is in the range of 1.6-3.1 mg/l Punpun: BOD is in the range of 1.2-5.6 mg/l Ramrekha: OD is in the range of 2.2-4 mg/l Sikrahna: BOD is in the range of 1.1-3.2 mg/l
4	**Chattisgarh**	Hasdeo: BOD is in the range of 0.1-2 mg/l Kharoon: BOD is in the range of 1.6-8.6 mg/l Mahanadi: BOD is in the range of 1-4.2 mg/l Seonath: BOD is in the range of 2.33-3.8 mg/l Kelo: BOD is in the range of 1.5-3.9 mg/l However, as per monitoring of BOD during 2018~19, the priority of polluted stretches is as under: PI, PII & PIII: Nil PIV: River Kharoon PV: River Khelo, Mahanadi & Seonath Not polluted: River Hasdeo
5	**Daman Diu & Dadra Nagar Haveli**	Damanganga: BOD is in the range of 1-2.4 mg/l
6	**Delhi**	Yamuna: BOD is in the range of 2.6-73 mg/l
7	**Goa**	Chapora/ Tiracol/ Sinquerim/ Zuari/ Assanora/ Valvanti/ Khandepar/ Bicholim/ Mandovi/ Talpona/ Sal: BOD is observed to be less than 3 mg/l.
8	**Gujarat**	Amlakhadi: BOD is in the range of 3-18 mg/l Bhadar: BOD is in the range of 13-238 mg/l Bhogavo: BOD is in the range of 1.8-20.5 mg/l Khari: BOD is in the range of 54-164 mg/l

		Sabarmati: BOD is in the range of 1.2-145 mg/l Vishwamitri: BOD is in the range of 0.57-24 mg/l Dhadar: BOD is in the range of 0.72-18 mg/l Triveni: BOD is in the range of 1.7-2.3 mg/l Amravati: BOD is in the range of 0.9-1.01 mg/l Damanganga: BOD is in the range of 0.6-2.8 mg/l Kolak: BOD is in the range of 0.8-2.9 mg/l Mahi: BOD is in the range of 0.38-0.55 mg/l Shedi: BOD is in the range of 0.96-8.7 mg/l Tapi: BOD is in the range of 0.81-1.85 mg/l Anas: BOD is in the range of 0.43-0.71 mg/l Baleshwar Khadi: BOD is in the range of 0.72-1.08 mg/l Kim: BOD is in the range of 0.93-1.09 mg/l Meshwa: Dry river, hence no sample collected Mindhola: BOD is in the range of 0.89-8 mg/l Narmada: BOD is in the range of 0.61-0.84 mg/l However, as per monitoring of BOD during 2018~19, the priority of polluted stretches is as under: PI: River Amlakhadi, Bhadar, Khari, Sabarmati, Vishwamitri & Dhadar PII: River Mindhola PIII: Nil PIV: River Shedi PV: Nil Not polluted: River Bhogavo, Triveni, Amravati, Damanganga, Kolak, Mahi, Tapi, Anas, Baleshwar Khadi, Kim, Meshwa & Narmada
9	**Haryana**	
10	**Himachal Pradesh**	Parwanoo: BOD is in the range 2.8-3.8 mg/l Markanda: BOD is in the range 3.6-12 mg/l Sirsa: BOD is in the range 1.2-2.8 mg/l Ashwani: BOD is in the range 02.-1.0 mg/l Beas: BOD is in the range 0.1-0.3 mg/l Giri: BOD is in the range 0.5-1.2 mg/l Pabbar: BOD is in the range 0.3-1.2 mg/l
11	**Jammu & Kashmir**	Devika: BOD is in the range 0.3-3.8 mg/l Banganga: BOD is in the range 1.5-5.8 mg/l Tawi: BOD is in the range 0.1-8.5 mg/l Basantar: BOD is in the range 1.5-2.2 mg/l Chenab: BOD is in the range 0.7-0.8 mg/l Chuntkol: BOD is in the range 2.5-5.7 mg/l

		Gawkadal: BOD is in the range 1.8-2.9 mg/l Jhelum: BOD is in the range 1.3-3.3 mg/l Sindh: BOD is in the range 1-1.3 mg/l
12	**Jharkhand**	No tangible data is provided in the MPRs.
13	**Karnataka**	
14	**Kerala**	
15	**Madhya Pradesh**	
16	**Maharashtra**	Water quality data is submitted till April 2020 Priority I: BOD is in the range 3-54 mg/l Priority II: BOD is in the range 3-28 mg/l Priority III: BOD is in the range 1.8-12 mg/l Priority IV: BOD is in the range 3.6-13 mg/l Priority V: BOD is in the range 1.8-4 mg/l However as per monitoring of BOD during Jan-Apr'20, the priority of river stretches is as under: Priority I: 1 Priority II: 4 Priority III: 9 Priority IV: 6 Priority V: 20 Less Polluted: 3 Dry: 10
17	**Manipur**	Imphal: BOD is in the range 2.62-3.7 mg/l Iril: BOD is in the range 2.2-3.8 mg/l Khuga: BOD is in the range 3-3.7 mg/l Khujairok: BOD is in the range 3.4-32 mg/l Lokchao: BOD is in the range 3.1-3.7 mg/l Manipur: BOD is in the range 2.4-3.7 mg/l Thoubal: BOD is in the range 3.3-3.8 mg/l Wangjing: BOD is in the range 3.4-3.7 mg/l
18	**Meghalaya**	Umkhrah: BOD is in the range 5-35 mg/l Umshyrpi: BOD is in the range 8-30 mg/l Kyrhukhala: BOD is in the range 2.2-2.5 mg/l Nonbah: BOD is in the range 2.4-2.5 mg/l Umtrew: BOD is in the range 2.6-2.8 mg/l Lukha: BOD is in the range 2.3-2.6 mg/l Myntdu: BOD is in the range 2.3-2.5 mg/l
19	**Mizoram**	For all the river stretches, the BOD is in the range 1-2 mg/l
20	**Nagaland**	No tangible details are provided in the MPRs
21	**Odisha**	Gangua: BOD is in the range 3.3-19.9 mg/l Daya: BOD is in the range 0.6-4.7 mg/l

		Kuakhai: BOD is in the range 0.2-1.5 mg/l Kathajodi: BOD is in the range 0.4-3.4 mg/l Serua: BOD is in the range 0.7-3.8 mg/l Guradih Nala: BOD is in the range 2.9-7.6 mg/l Brahamani: BOD is in the range 0.6-6.3 mg/l Nandirajhor: BOD is in the range 0.8-1.7 mg/l Banguru Nala: BOD is in the range 0.6-1.6 mg/l Mahanadi: BOD is in the range 0.2-1.8 mg/l Bheden: BOD is in the range 0.4-1.8 mg/l Mangla: BOD is in the range 1.6-4.6 mg/l Nuna: BOD is in the range 0.2-1.1 mg/l Ratnachira: BOD is in the range 0.4-1.7 mg/l Nagavalli: BOD is in the range 0.5-1.9 mg/l Budhabalanga: BOD is in the range 1.1-1.6 mg/l Kusumi: BOD is in the range 0.2-1.6 mg/l Rushikulya: BOD is in the range 0.1-2.1 mg/l Sabulia: BOD is in the range 0.3-1.5 mg/l However, as per monitoring of BOD till July 2020, the priority of polluted stretches is as under: PI: Reduced from 1 to 0 PII: No change PIII: Reduced from 3 to 1 PIV: No change PV: Reduced from 13 to 4 Not polluted: 12
22	**Puduchery**	River Arasalar/ Chunnambar: BOD is in the range of 2-3 mg/l
23	**Punjab**	Sutlej: BOD is in the range 42-170 mg/l Ghaggar: BOD is in the range 9.5-62.88 mg/l Kali Ben: BOD Is in the range 0.5-25 mg/l Beas: BOD is in the range 1-21.1 mg/l
24	**Rajasthan**	No tangible information provided
25	**Sikkim**	River Maney Khola/ Rangit/ Ranichu/ Teesta: BOD is in the range of 2-3 mg/l
26	**Tamil Nadu**	Cauvery: BOD is in the range 2-12 mg/l Sarbanga: BOD is less than 2 mg/l Thirumunithar: BOD is in the range 3.2-15 mg/l Vasistha: BOD is in the range 2.1-24 mg/l Bhavani: BOD is in the range 2.1-2.5 mg/l Tambirapani; BOD is in the range 2-5.1 mg/l
27	**Telangana**	Musi: BOD is in the range 2.7-48 mg/l Manjeera: BOD is in the range 1.9-8 mg/l

		Nakkavagu: No data available Karakavagu: No data available Maner: BOD is in the range 3-5.9 mg/l Godavari: BOD is in the range 2-4 mg/l Kinnersani: BOD is in the 4.2-6 mg/l Krishna: BOD is in the range 2.1-8 mg/l
28	**Tripura**	Burigaon/ Gumti/ Haora/ Juri/ Khowai/ Manu: BOD is observed to be within prescribed limits.
29	**Uttar Pradesh**	No details regarding water quality monitoring during last 6 months is provided.
30	**Uttarakhand**	No details regarding water quality monitoring during last 6 months is provided.
31	**West Bengal**	No tangible data is available

3. **State-wise details of STP Projects completed within 7 months (from January-July' 2020)**

During the period w.e.f January'2020 to July'2020**, States have reported that twenty four sewerage projects (STPs) have been completed adding a total capacity of 325.43 MLD** in Bihar (2 nos), Daman Diu & Dadra Nagar Haveli (1 no), Gujarat (2 nos), Haryana (11 nos), Himachal Pradesh (4 nos), Jharkhand (1 no), Kerala (1 no), Meghalaya (1 no) and Nagaland (1 no). The details are as below.

- **Bihar:** 37 MLD STP at Karmalichak (Patna) and 43 MLD at Beur (Patna).
- **DDDNH:** 13 MLD STP at Silvassa
- **Gujarat:** 32.3 MLD at Surender nagar and 35 MLD STP at Vinzol.
- **Haryana**: State has reported that following projects have been completed. However, the dates of completion have not been provided to verify the completion status**.**

S No	Location	Capacity in MLD
1	Barara	4
2	Jind	7
3	Sec-6, Urban Estate, Thanesar	15
4	Kurukshetra	25
5	Sirsa (Kelinia)	20
6	Fatehabad (Jakhal Mandi)	3
7	Radaur Road Yamuna Nagar	20
8	Baddi Majra, Yamuna Nagar	10
9	Gharaunda	7
10	RK Puram, Karnal	8
11	Firozepur Jhirka	5

- **Himachal Pradesh:** 70KLD STP at Parwanoo, 2 STPs of 0.465 MLD at Kotkhai, 3.62 MLD STP at Nalagarh
- **Jharkhand:** 10 MLD STP of Nature Based STP Harmu Plant
- **Kerala:** 45 KLD STP at Fish Market.
- **Meghalaya:** 50 KLD STP in Polo Market.
- **Nagaland:** 25. 4 MLD at Dimapur

4. **Details of on-going Projects**

As per the information submitted by the States, STPs of around 5500 MLD treatment capacity are under-construction in the on-going projects along the polluted river stretches.

It is seen that States of Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Maharashtra, Mizoram, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh and West Bengal will be able to complete **53 projects** with capacity of about **867.46 MLD** in Polluted River Stretches by December 2020. The States have been directed in the meetings to ensure that monthly monitoring and regular watch on

the progress of these projects is to be maintained, so that the completion timelines are strictly complied and projects commissioned in time. With the completion of these projects at least 13 stretches of polluted rivers will be having water of acceptable standards thereby lead to healthier environmental norms.

Similarly, another **41 projects** in Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Karnataka, Maharashtra, Nagaland, Odisha, Punjab, Tamil Nadu and West Bengal will be completed during time window of January 2021-March 2021. Progress of these projects is also required to be continuously monitored at State level so that further lag in completion of timeline is avoided.

Among on-going projects, the projects which will be completed during the period beyond April 2021 have also been indicated. It is apparent that all these projects will be spilling beyond the timelines prescribed by Hon'ble Tribunal in its order. States have been requested to provide further details of these projects as well as to review whether the timelines of these projects can be compressed for effecting their early completion. States of J&K, Kerala, Karnataka and Uttar Pradesh have not given timelines for completion of their ongoing projects. State have to look into these issues and provide feedbacks in the subsequent meeting of CMC. State wise details of on-going projects with their completion timeline and status of physical progress has been indicated in **Table 3.**

Table 3: Details of on-going projects

No.	State	Completion By			
		By December 2020	**January 2021-March 2021**	**April 2021-December 2021**	**Beyond December 2021**
1	**Andhra Pradesh**	-	2 STPs of 20 MLD	5 STPs of 37 MLD	-
2	**Bihar**	1 project of sewerage network project	3 STPs and 3 sewer network projects	7 STPs and 9 sewer network projects	3 STPs and 5 sewer network projects
3	**Chhattisgarh**	-	-	6 STPs of 238 MLD	-
4	**Daman, Diu And Dadra Nagar Haveli**	-	House sewer connections with existing STPs	-	-
5	**Delhi**	-	1 project of total 70 MGD	-	6 projects of total 229 MGD
6	**Goa**	3 STPs of 22.4 MLD	-	-	-
7	**Gujarat**	4 STPs of 378.5 MLD	5 STPs of 254.3 MLD and connection of sewer network	4 STPs of 217.7 MLD	1 STP of 43.34 MLD
8	**Haryana**	18 STPs of 117.75 MLD	2 STPs of 12.75 MLD	14 STPs of 126 MLD	4 STPs of 53.5 MLD
9	**Himachal Pradesh**	2 STPs of 2 MLD and sewer line networks at various locations by December 2020	-	-	-
10	**Jammu & Kashmir (Timeline not provided)**				
11	**Jharkhand**	-	-	3 STPs of 87 MLD	-
12	**Karnataka (Timeline not provided)**		Sewer network connections at various locations. 1 STP of 2.5 MLD.		Dandeli CMC STP work
13	**Kerala (Timeline not**				

No.	State	Completion By			
		By December 2020	**January 2021-March 2021**	**April 2021-December 2021**	**Beyond December 2021**
	provided)				
14	**Madhya Pradesh**	7 STPs of 112.5 MLD	-	21 STPs of 267.3 MLD	-
15	**Maharashtra**	4 STPs of 67.5 MLD	10 STPs of 104.5 MLD	8 STPs of 161.5 MLD	3 STPs of 47 MLD
16	**Manipur**	-	-	-	1 STP of 72 MLD
17	**Meghalaya**	-	-	-	-
18	**Mizoram**	1 STP of 10 MLD at Aizawl and sewer network	-	-	-
19	**Nagaland**	-	Sewer network for the existing STP	-	-
20	**Odisha**	-	7 STPs of 232 MLD and sewer network	-	-
21	**Puducherry**	-	-	-	-
22	**Punjab**	3 STPs of 25.3 MLD	4 STPs of 20 MLD	20 STPs of 77.95 MLD	
23	**Rajasthan**	-	-	-	2 STPs of 55 MLD
24	**Sikkim**	2 STPs of 3 MLD	-	-	3.25 MLD STP and sewer network
25	**Tamil Nadu**	2 STPs of 5.21 MLD, underground sewerage network & collection systems in different towns.	1 STP of 8.65 MLD	Underground sewerage network	
26	**Tripura**	-	-	-	1 STP of 8 MLD
27	**Uttarakhand**	-	-	-	-
28	**Uttar Pradesh Timeline not provided**	50 MLD STP		10 projects	

No.	State	Completion By			
		By December 2020	January 2021-March 2021	April 2021-December 2021	Beyond December 2021
29	West Bengal	5 new STPs of 73.3 MLD	Renovation of 4 non-functional STPs	2 new STPs & Renovation of 2 non-functional STPs	-

Further details of each project is at **ANNEXURE-III.**

5. Projects under Tendering, DPRs awaiting sanction and DPRs yet to be prepared

Against the list of projects which will not be completed within the timelines prescribed by NGT, there are 126 projects under tendering in Bihar, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Puducherry, Punjab, UP and West Bengal, while a large no. of projects are awaiting sanction of the DPR or DPR is yet to be prepared. Details of the projects under tendering and works yet to be awarded, DPR is yet to be sanctioned, DPR yet to be prepared are given in **Table 4, 5 and 6.**

Some of projects proposing significant creation of capacity in respect of which tenders have been invited and award is awaited need to be looked into by the States. In particular, amongst the projects under tendering, the project on Polluted Stretches of rivers Mula Mutha rivers in Pune sanctioned in January 2016 under NRCP have been relied upon for implementation of action plans for these stretches. These projects propose creation of 396 MLD capacity for these polluted

stretches on Mula Mutha rivers in Pune, out of which tenders have already been invited for 277 MLD capacity of 7 STP projects (capacity varying from 7 to 127 MLD) and awaiting decision for long time. In Tapi river project, Surat 250 MLD treatment capacity (37 no) is to be created under NRCP funding, which was sanctioned in March, 2019. However, tenders have been delayed. These projects need attention of Chief Secretary of State to ensure that decision on tenders already called by State are finalized and the pending land acquisition issues for many STPs are sorted out urgently.

Table 4: Projects under Tendering and works to be awarded

No.	State	STPs in Tendering
1.	**Bihar**	9 projects of I&D with STP
2.	**Goa**	4 STPs of 38 MLD **(**Status of STPs not known)
3.	**Gujarat**	41 STPs of 134.63 MLD
4.	**Haryana**	7 STPs of 327.5 MLD
5.	**Himachal Pradesh**	1 STP of 2 MLD, expansion of existing STPs and sewerage scheme
6.	**Jharkhand**	1 STP of 15 MLD
7.	**Kerala**	5 STPs of 15.96 MLD
8.	**Maharashtra**	14 STPs of 476 MLD
9.	**Puducherry**	2 STPs of 6 MLD
10.	**Punjab**	28 STPs of 413.05 MLD
11.	**Uttar Pradesh**	7 projects of 500.6 MLD
12.	**West Bengal**	7 STP projects

Table 5: Projects awaiting sanctioning of the DPR

No.	State	STPs awaiting sanctioning of DPR
1	**Andhra Pradesh**	STPs of 175.77 MLD
2	**Bihar**	4 projects of I&D with STP
3	**Chhattisgarh**	6 STPs of 75.1 MLD
4	**Daman, Diu And Dadra Nagar Haveli**	1 STP of 16 MLD and 4.5 km vaccum sewer network
5	**Delhi**	14 (7+7) STPs in Najafgarh Drainage Zone.
6	**Gujarat**	8 STPs of 253.63 MLD
7	**Jammu & Kashmir**	4 STPs of 23.10 MLD
8	**Jharkhand**	2 STPs of 184 MLD
9	**Karnataka**	STPs of 85.06 MLD
10	**Kerala**	3 STP projects
11	**Madhya Pradesh**	6 STPs of 31.5 MLD
12	**Maharashtra**	15 STPs of 241 MLD
13	**Manipur**	1 STP of 49 MLD
14	**Meghalaya**	7 STPs
15	**Telangana**	72 STPs of 1471.28 MLD
16	**Uttarakhand**	2 I &D with STP projects
17	**Uttar Pradesh**	STPs of 590.5 MLD
18	**West Bengal**	2 STP projects

Table 6: Projects in Proposal stage (DPR to be prepared)

No.	State	STPs in proposal stage
1	**Assam**	Projects proposed
2	**Bihar**	5 projects of I&D with STP
3	**Delhi**	42 decentralized STPs at various locations.
4	**Haryana**	9 STPs of 54 MLD

No.	State	STPs in proposal stage
5	**Jammu & Kashmir**	9 STPs of 39.5 MLD
6	**Jharkhand**	4 STPs of 122 MLD
7	**Karnataka**	STPs of 22.61 MLD
8	**Kerala**	5 projects
9	**Maharashtra**	19 STPs of 125.2 MLD
10	**Punjab**	20 STPs of 95.7 MLD
11	**Rajasthan**	2 STPs of 4 MLD
12	**Sikkim**	3 STPs
13	**Tamil Nadu**	1 proposal
14	**Telangana**	41 STPs of 468.35 MLD
15	**Uttarakhand**	5 projects
16	**West Bengal**	15 STP projects

Further, project-wise details are at **Annexure-IV**.

6. Status of Bio-remediation projects

The status of in-situ bioremediation/ phyto-remediation in Polluted River Stretches being undertaken by the State was monitored. Most of the States have reported that they do not have technical expertise as well as competency to take up in-situ bio-remediation/ phyto-remediation measures. Further, it has been reported that due to lack of availability of vendors, appropriate agencies with proven capability to implement such works and non-availability of standard rates, the progress in this activity has been slow. Accordingly, Andhra Pradesh, Assam, Gujarat, Kerala, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Odisha, Rajasthan, Sikkim, Tamil Nadu, Tripura are yet to take up any such measures on the drains in the

polluted river stretches. Other States have taken up measures on pilot basis only which they propose to evaluate based on the results obtained before works in other reaches are taken. Uttar Pradesh, West Bengal have reported that works have been taken up in 42 drains and 10 drains respectively in their State.

Further, Hon'ble NGT's vide its order dated 05.3.2020 (hearing on 18.2.2020) in the matter OA No. 06 of 2012 Manoj Mishra & ors while considering the report of Yamuna Monitoring Committee on "*Approach to in-situ bio- remediation/ phyto-remediation of sewage in drains of Delhi*", has observed and directed that CPCB report on "*Alternate technologies for management of WW drains*" be revised and circulated to MoUD, MoJS, NMCG and Govt. of Delhi, UP, Haryana for formulation of Policy for alternate technologies for waste water drain management. The same has already been informed to the States for their guidance to enable them to take decisions in implementation.

State wise status of bio-remediation/ phyto-remediation projects is given below.

No.	State	Action Taken
1	**Andhra Pradesh**	State has not carried out any in-situ remediation due to lack of understanding of technology/ concept.
2	**Assam**	Bharalu: GMC has been cleaning the Bharalu river along with other water bodies viz i) Mora-Bharalu ii) Bahini iii) Lakhimijan iv) Basistha Channel. Cleaning and de-siltating has been carried out by GMC on regular basis. Borsola: Administrative approval has been accorded and work will commence post monsoon. Silsako: Bio-remediation of Silsako and Sarusola will also be done after the monsoon season.

		Sarusola: A proposal for carrying out Bio-remediation in Sarusola Beel by GMDA is under consideration of Department/will be sent to Finance next week. Deepor Beel: GMDA has taken up schemes to clean Deepor Beel and linked channels through i) Development of Deepor Beel (including excavation of Khanamukh channel) by excavation and cleaning from 2019 ii) De-silation and cleaning of Pamohi River and N.H. drain
3	**Bihar**	In-situ treatment facilities (bio-remediation) has been provided at Danapur Cantt. Drain & Rajapur drain at Patna
4	**Chhattisgarh**	All the households in polluted river stretches have on-site sanitation systems, either twin pits or septic tanks.
5	**Daman Diu & Dadra Nagar Haveli**	Pre-monsoon activities of desilting work of all natural drains and sewage has been carried out. Desilting work of 38 Natural Drains, 38 Sewage line and 30 culverts have been taken up. 13 nallahs/ drains have been identified for Phyto remediation and Bioremediation measures. NEERI has submitted a proposal on Phyto remediation and Bioremediation measures for insitu treatment of drains. Work has been initiated for in-situ treatment of the drain near Rajiv Gandhi Setu, Daman on pilot basis.
6	**Delhi**	Drain owning agencies viz. DDA/ NDMC/ I&FC/ Cantonment Board have submitted their action plans to Integrated Drain Management Cell (IDMC) and started its implementation. The waste water in Kushak Nala running through NDMC areas is under bio-remediation and the water quality parameters are being monitored. Delhi Cantonment Board has started implementation of bio-remediation plan w.e.f 11.06.2020.
7	**Goa**	Wherever underground sewer network is not existing, conventional method of septic-tank / soak-pit is adopted by

		individual housing /complexes. In villages or hinterland-areas (i.e. pocket settlement areas), stand alone soak-pit / septic-tanks system ensures effective treatment of domestic-sewage.
8	**Gujarat**	7 Municipalities including Ankleshwar (Amlakhadi), Jetpur (Bhadar), Wadhvan (Bhogavo), Vapi (Damanganga), Kheda (Shedhi), Dahod & Zalod (Anas) out of 10 municipalities related to PRS required In-Situ Bioremediation. Finalization of the technology to be adopted for In-Situ Bioremediation within a week and In- Situ remediation will be commenced within two months. – since May same status
9	**Haryana**	
10	**Himachal Pradesh**	The site is identified for carrying out Phyto-remediation work for treatment of sewage at Samtel Nallah (PI) at Parwanoo along the catchment of Sukhna Nallah and Jatta Wala Nallah (PII) at Kala Amb in the catchment of River Markanda. The work for Priority-I started.
11	**Jammu & Kashmir**	Tenders floated, work yet to commence
12	**Jharkhand**	Drains contributing pollution from 8 ULBs have been identified. Based on the site report of CSIR-NEERI for Bioremediation/Phyto-remediation or any other remediation measures for treatment of sewage flowing through drains into the river, the proposal is under consideration to implement the project through the State Funds and CSR.
13	**Karnataka**	Action has been initiated by UDD to train 35 ULBs on in-situ treatment, viz. phytoremediation and wet-land treatment. It is proposed for construction of artificial floating islands in Dorekere, Global village Tech Park, Kempambudhi and Sonnenahalli bridge.
14	**Kerala**	-
15	**Madhya Pradesh**	In-situ bio-remediation for Nagda and Mandideep town is

		under planning.
16	**Maharashtra**	Demonstration project has been started by MPCB for in-situ treatment of wastewater at Kotwali village drain on Vashisthi River to explore the possibilities and viability of the interim measures. In-situ treatment is proposed by major municipal corporation like Pune.
17	**Manipur**	The project for in-situ remediation by Phytoremediation is sanctioned by State Govt. Work will start under the State Plan.
18	**Meghalaya**	-
19	**Mizoram**	For the treatment of sewage, in-situ remediation such as onsite greywater management systems in rural areas and setting up of improved septic tanks and Bio-digesters for black water management in the catchment areas of the polluted rivers are in process.
20	**Nagaland**	No details are provided in the MPRs
21	**Odisha**	-
22	**Puduchery**	The work of providing bar screen has been completed in all the six locations in Chunnambar river (Sankaraparani river). In Ariyankuppam Commune Panchayat 16 nos. of grill gratings have been fixed on 8 drains. In Nettapakkam Commune Panchayat, in-situ remediation of drains are made in three phases.
23	**Punjab**	The work for in-situ remediation of the Sirhind Choe (near Bhadson, District Patiala), with the demonstration of Constructing Wet Land Technology has been completed. In-situ remediation of Bhulana drain by Punjab Pollution Control Board by installing bioremediation, phyto-remediation enhanced by Nano Bubble Technology on pilot basis is under progress.

		In-situ treatment system based on Soil Bio Technology (known as vertical flow CWS) installed to treat wastewater of village Phullokheri, District Bathinda. A bio-cleaner bio-remediation in-situ treatment system has been attempted in the pond of village Bhasour, Distt. Sangrur and its performance was found to be satisfactory.
24	**Rajasthan**	No tangible information provided
25	**Sikkim**	No tangible information is provided
26	**Tamil Nadu**	No details have been provided
27	**Telangana**	NEERI has submitted DPR for one drain i.e., Kokapet drain, for which phyto remediation work has started. Preparation of DPR for the 4 drains is in progress by NEERI.
28	**Tripura**	No details have been provided.
29	**Uttar Pradesh**	Bio-remediation is being done in 42 drains of Prayagraj.
30	**Uttarakhand**	No details have been provided.
31	**West Bengal**	Work started as pilot project for 10 drains for Ganga & Churni river stretches.

7. Details of Alternate technology adopted or proposed to be adopted by the States/ UTs for treatment of sewage

a. Faecal Sludge Treatment Plants

Secretary, Department of Water Resources, River Development and Ganga Rejuvenation vide his D.O. letter addressed to Chief Secretaries of all States/ UTs has highlighted the issue of adoption of alternate technologies in the form of Faecal Sludge Treatment Plants (FSTPs) as well as co-treatment of faecal sludge generated from on-site sanitation systems (OSS) in the city and fringe areas, in the existing STPs. It has been reasoned that unlike the conventional sewage treatment plants, FSTPs have many advantages such as, lesser cost, less dependency on

power, reduced time for construction, lesser operational expenditure. Further, there is no need to lay an extensive sewerage network. Accordingly, States have been urged to consider the implementation of FSTPs, and/ or co-treatment of faecal sludge in existing STPs, in all towns wherever feasible in their States, so that dumping of the faecal sludge in water bodies/ land and thereby polluting them, can be avoided. As mentioned earlier in the report, States were also facilitated by holding a Webinar on "*Mainstreaming Faecal Sludge & Septage Management in Ganga Basin*", which was attended by officials from almost all the States. The Webinar also included a session on experience of Odisha which has taken up FSSM extensively, besides initiatives taken by NMCG in this directions.

Government of India has also introduced *National Faecal Sludge & Septage Management* (FSSM) *Policy in 2017* to emphasize the importance of treating the faecal sludge from OSS. Some State Governments have also issued State level FSSM policies/ guidelines. Nearly 25 Faecal Sludge Treatment Plants (FSTPs) are operational and another 400 are in the offing in the country.

Many of the States/ UTs have also been looking for alternatives beyond conventional STPs for treatment the sewage/ faecal sludge. It has been reported that all the cities under polluted stretches in Chhattisgarh have 100% Septage Management Schemes. While Odisha has adopted *Odisha Urban Sanitation Policy*, in which 92 FSTPs with total capacity of 1700 KLD are planned in 114 ULBs. 10 FSTPs of 440 KLD capacity have been commissioned in main urban centres, while Letter of Award has been issued for 41 FSTPs. In all, these kind of

projects are undertaken by 12 States viz., Chhattisgarh, Himachal Pradesh, Kerala, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Odisha, Tripura, Telangana and Uttar Pradesh. The States of Himachal Pradesh, Kerala, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Tripura and Telangana are taking up FSTP projects of different capacities, which are in various stages of development. So far as Septage Management Policy or Regulation and Rules are concerned, Odisha and Uttar Pradesh have adopted such policies for handling the septage.

Details of measures taken by the States are given below.

- **Chhattisgarh**

  All the cities under polluted river stretches are under 100% septage management scheme. Co-treatment with STP and low-cost gravity based Phytorid treatment plant (FSTP) are proposed in 5 stretches.

- **Himachal Pradesh**

  Tenders under evaluation (3 bids received) for FSSM under AMRUT for drains contributing to Ashwani Khad.

- **Kerala**

  2 FSTPs are functional in Kochi-Ernakulama and 1 FSTP completed to be commissioned in Thissur. 7 FSTPs are in various stages of construction, tendering and approval.

- **Meghalaya**

115 KLD Septage Treatment Plant is under construction in Shillong which is 30% complete. Proposal sanctioned under AMRUT for FSSM & 5 On-site Treatment Systems (Total capacity- 4.05 MLD) and under tendering.

- **Mizoram**

  In-situ remediation such as on-site greywater management systems in rural areas and setting up of improved septic tank is proposed. Construction of bio-digesters for in-situ remediation of back water at household levels in urban areas under process. About 80 nos. of bio-digesters have been constructed for households in the catchment area. Construction of dam reservoir and recreation centre is under progress on Keilungliah Stream, a polluting stream of Tuipui River at Champhai, which is expected to minimize contamination of Tuipui river

- **Nagaland**

  2 units of Faecal Sludge Treatment Plant (20 KLD and 90 KLD) are in operation and serviced by 13 cesspool vehicles.

- **Puducherry**

  In Nettapakkam Commune Panchayat, Puducherry in-situ remediation of drains are made in three phases.

- **Punjab**

  In-situ remediation with Constructed Wetland technology has been completed on Sirhind Choe (near Bhadson, District Patiala), testing is in process and expected to be analyzed by 31.03.2021. Based on the results same shall be

replicated in other drains of the states. In-situ remediation with phyto-remediation enhanced by Nano Bubble Technology on pilot basis of Bhulana drain by Punjab Pollution Control Board is under progress. WSP based STP at Bhulath has been upgraded by adding Nano Bubble Technology on 26.07.2020 and results are expected by 15.10.2020. The work on piloting low cost eco-friendly technology for 500 KLD STP for Banur, based on modified constructed wetland approach, has been awarded at a cost of Rs. 74.17 lacs, which is to be completed by 31.12.20. A solar aerator has been installed in maturation pond of WSP based STP Malout in July 2020 at a cost of Rs. 1.50 lacs. This would help in to improve water quality of STP.

- **Odisha**

  10 FSTPs capacity of 440 KLD capacity have been commissioned in main urban centres under Odisha Urban Sanitation Policy-2017, in which a total of 92 FSTPs with total capacity of 1700 KLD are planned in114 ULBs in Odisha. LOA issued for 41 FSTPs, 29 plants are in tendering stage and tenders are to be floated for 10 FSTP.

- **Tripura**

  Preparation for floating of tenders for installation of 15 Faecal Sludge Treatment Plants (FSTPs) of 600 KLD capacity for 15 ULBs is underway and will be completed shortly.

- **Telangana**

  FSSM has been taken up in 6 co-treatment facilities at the existing STPs with 60 KLD capacity. 4 more co-treatment facilities with a capacity of 70 KLD are in progress. 1 stand-alone FSTP of 40 KLD capacity at the site of one proposed STP and 5 more FSTPs will be taken up and will be completed in another 5 months. With these FSTPS, septage in areas where there are no STPs will get treated to lake water standards. Rain guard/ wet land construction on Kukatpally nala which joins Hussainsagar lake pilot project is being taken-up by HMDA for a length of 300 RMT to reduce the BOD load of the water passing through it.

- **Uttar Pradesh**

  Bioremediation being done in 42 drains of Prayagraj. Uttar Pradesh Septage Management Policy- 2019 has been approved on 30.10.2019. FSTP has been completed in Jhansi and Unnao and is under progress in Chunar. Projects of FSSM for Rs 200 Crores have been approved in 35 towns under AMRUT. Tenders finalized for 18 towns, while projects for 17 towns are under re-tendering. *(information in S. no. 2 & 3 from QPR of OA 200/2014)*.

b. Decentralized/ modular STPs

Decentralized modular STPs are assets that can be created for sewage management of smaller capacity. These tailored systems, being pre-fabricated

and involves minimal on-site civil construction and hydro-electro-mechanical installations, are easy to install, take significantly less time in commissioning (only few months) and easy to operate being compact systems. Accordingly, they are suited in situations where sewage generation is say less than 2 MLD, water quality profile permits tailoring the modular STP system specific to the requirements of site water quality and time available for commissioning the system is less. Many of States can therefore adopt such systems in situations instead of conventional STPs (which take much longer time, not less than 24 months, for construction) based on evaluation of techno-commercial merits.

Many States/ UTs are constructing or have proposed to develop STPs in Polluted River Stretches with capacity less than 2 MLD. Details of such projects are as follows:

- Daman Diu, Dadra Nagar Haveli - Stand-alone modular STP for each Gram Panchayat proposed
- Delhi - 42 no. of STPs
- Haryana- 5 STPs under construction having capacity 3.25 MLD in Ghaggar river basin.
- Kerala – 2 STPs of 10 KLD and 50 KLD under construction, 2 STPs of 100 KLD and 360 KLD under tendering and 1 STP of 45 KLD at DPR preparation stage.
- Maharashtra – Maharashtra Pollution Control Board will provide financial & technical assistance to 19 villages in the polluted river stretches in next three

years to comply with waste management.

- Meghalaya - DPR for 7 STPs of capacity varying from 0.3 to 1.2 MLD, awaiting approval.
- Sikkim – 2 STPs of 1.6 MLD and 1.4 MLD are under-construction.

The States may consider to adopt installation of decentralized modular STPs instead of conventional centralized STPs based on merits. This will also enable them to comply to NGT stipulated timelines.

8. Industrial Pollution Management in the State/ UTs:

So far as measures for abatement of industrial pollution are concerned, the State-wise details about number of water polluting industries, industries having ETPs, quantity of effluent discharge, treatment capacity of ETPs and number of ETPs and CTPs is given in **Table-7**. It can be seen from the information provided by the States that only Delhi, Dadra and Nagar Haveli and Kerala have all the industries with functional ETPs. In respect of Andhra Pradesh, Kerala, Bihar, Jharkhand and Assam, data submitted by States has been observed to be inconsistent and needs to be further clarified by the States.

All the industries located in catchment of Polluted River Stretches in State of Gujarat, Delhi, Odisha, Maharashtra, Sikkim, Meghalaya, Jharkhand and Bihar have been provided with functional ETPs. The compliance status of these ETPs is being reviewed and will be taken up in subsequent meetings of CMC.

Table-7: Statement on Industries and Treatment Capacity established in States/ UTs

		No. of Industries (Water Polluting)	**No. of GPIs/ SPIs**	**Current Effluent Discharge (MLD)**	**No. of Industries having ETPs**	**Treatment Capacity of ETPs (MLD)**	**No. of ETP having OECMS Installed**	**CETPs (Nos. and Capacity in MLD)**
Gujarat	State	43039	NA	NA	7701	NA	NA	**Existing – 34**
	PRS	3401	NA	321	3395	NA	NA	**Existing - 12** **Under Const./Proposed:** • New 20 MLD CETP at Derdi, Monpar. Completion by Dec-2022 • Work in progress for 30 MLD CETP at Danilimda by Dec-2021 (3%) • Proposed Expansion 55 to 70 MLD. EC awaited. • 0.5 MLD CETP proposed at Nadiad. • 60 MLD CETP to become ZLD by 2021.
Tamil Nadu	State	NA	NA	NA	NA	NA	NA	NA
	PRS	7381	NA	452.7	1770	NA	NA	**Existing – NA** Proposed - 8 CETPs (status - Land identified, awaiting for fund from the Government.)
Haryana	State	NA	NA	NA	NA	NA	NA	NA
	PRS	2794	NA	133.8	197 (Ghaggar) Yamuna – NA	NA	NA	**Existing** – 18 CETPs of capacity 167.6MLD **Under Construction:**

								• 1.5 MLD at Jind by 31.03.2022 • 1.5 MLD at Sirsa by 31.03.2022 **Proposed:** 9 CETPs of 134.25MLD (all sanctioned)
Karnataka	State	NA	NA	NA	NA	NA	NA	NA
	PRS	155	NA	5.3 +	~41	NA	NA	**Existing Capacity -** NA (current utilization is 17.84KLD) **Proposed Capacity/Work in Progress -** NA
Delhi	UT/PRS	1516 (Water Polluting)	NA	36	1516 (100%)	NA	NA	• Existing – 13 (212.3MLD) out of which 4 are complying, 7 non complying, and not analyzed. All CETPs have OLMS installed. • Upgradation of CETPs has been proposed.
Goa	State	NA	NA	NA	NA	NA	NA	NIL
	PRS	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Odisha	State	181	6	133.94	40	NA	40	NIL
	PRS	22	NA	NA	21	NA	21	NIL
Tripura	State	NA	NA	NA	NA	NA	NA	NA
	PRS	179	NA	0.0144	18 ETPs Installed	NA	NA	1 CETP of 500 KLD capacity Operational
Maharashtra	State	53630 (Under Red & Orange Category)	506	403.69	16597	NA	369	**Existing CETPs**: 26 nos.
	PRS	7946	NA	343 MLD	7946	NA	114	**Existing:** 14 numbers of total capacity 83.3 MLD **Proposed** : 3 Nos (1 MLD,

								0.64 MLD and 1.2 MLD)
Himachal Pradesh	State	NA	NA	NA	NA	NA	NA	NA
	PRS	1060 (all)	NA	28.97	NA	156.8 (ETP/STP)	NA	**Existing CETP:** 1 number of 25 MLD **Proposed:** 1 CETP of 2.5 MLD
Jammu & Kashmir	State	NA	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA	**Existing:** NA **Proposed** 4 numbers of total 2.5 MLD (UC-1MLD & other 3 numbers of total 1.5 MLD capacity are under tendering)
Uttarakhand	State	7694	76 (Non complying – 10)	33.20	NA	13.20	NA	**Existing**-3(13.2MLD) **Proposed**- 3 (20MLD)
	PRS	1103+	NA	13.20	NIL	13.20	NA	**Existing**-3(13.2MLD) **Proposed**- 3 (20MLD
Uttar Pradesh	State	1699+ (Exact Data Not Available)	1533	NA	1102	NA	942	**Existing** – 7 (58.60 MLD) (NC-01/07 operational) **Under Construction** – 01 (20 MLD) **Sanctioned** – 2 (6.65 MLD) **Proposed**-01 (15MLD)
	PRS	1699 (1474 operational)	NA	263.66	1128	NA	NA	**Existing** – 06 (56.45 MLD) (NC-01/06 operational) **Under Construction** – 01 (20 MLD) **Sanctioned** – 2 (6.65 MLD) **Proposed**-01 (15MLD)
Rajasthan	State	10797	NA	470	1287 (Complying-1128)	NA	285	**Existing** – 15 (162 MLD) (NC-9/13 operational)

								Under Construction /Proposed – 09 (162MLD)
	PRS	7 (Water Polluting)	NA	36.75	NA	NA	NA	**Existing** – 01 **UC/Proposed** – NIL
Assam	State	52+ (Exact Data Not Available)	NA	6059.36+ *(To be verified with State)*	46+ (Exact Data Not Available)	5594.46+ *(To be verified with State)*	NIL	NIL
	PRS	52	NA	6059.36	46	5594.46	NIL	NIL
Sikkim	State	64+ (Exact Data Not Available)	NA	NA	64(ZLD)+ (Exact Data Not Available)	NA	64+	NIL
	PRS	64	NA	NA	64(ZLD)	NA	64	NIL
Meghalaya	State	NA	NA	NA	NA	NA	NA	NA
	PRS	236 (Water Polluting)	1 (at Umtrew)	3.29	236 (all complying)	4.37	NA	NA
DDDNH	UT/PRS	260 (WPI)	NA	6.54	260 (17 Not complying)	11.39	NA	NIL
Nagaland	State	2 (WPI)	NA	0.022	2	0.09	NA	NA
	PRS							
Manipur	State	NA	NA	NA	NA	NA	NA	NA
	PRS	No WPI	NA	NIL	NA	Existing – 1 ETP 400 KLD	NA	NA
Mizoram	State	83	NA	0.2	NA	NA	NA	NIL
	PRS	83 (WPI)	NA	0.051	52	0.0793	NA	NIL
Punjab	State	2492	NA	171	494	NA	16 installed 129 in progress	**Existing –** 4 CETPs of total installed capacity of 20.535 MLD exist. Of which, 2 CETPs are complying with the norms. One CETP of 5 MLD shut down. New 15 MLD CETP for textile dyeing at Ludhiana is

								under stabilization. **Under Construction** – 2 (Expected completion date – 31.12.2020) • 40 MLD CETP – 78.2% • 50 MLD CETP – 63% **Proposed** – 2 CETPs of 90 MLD in Ludhiana & 2 CETPs of 5.15 MLD in Jalandhar
	PRS	NA	NA	NA	509	NA	NA	NA
Madhya Pradesh	State	NA	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	12.95	NA	NA	NA	**Existing:** • 4 MLD installed in Khan river • 4.5 MLD UC in river Tapi **Under Construction:** 11.5 MLD u/c in River Khan
Jharkhand	State	NA	NA	NA	57	NA	NA	NA
	PRS	57(Water Polluting)	NA	NA	57	NA	NA	**Existing -** 2 CETPs operated by Auto cluster industrial area and Tata Steel Ltd.
Bihar	State	NA	NA	NA	65	NA	NA	**Existing :** NA **Under Construction/Proposed:** There are 52 industrial areas under control of BIADA, 5 Industrial Areas were identified in first Phase for construction of CETPs – Fathua, Hajipur Vaisali,

								Bela, Barai Bhagalpur, Patliputra. DPR for all Industrial area except for Patliputra was finalized and in first three calls for Bid submission no bidder responded.
	PRS	216 (WPI)	53	NA	208 (206 complying)	NA	NA	NA
West Bengal	State	NA	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA	**Existing - Under Construction -** 4 module CETP of 5 MLD capacity each, Total 20 MLD to be completed by KMC
Kerala	State	5166	29	NA	5146	29.8	38	**Existing**- 6
	PRS	85	29	2261	49	2920	38	**Existing**-1 (0.1MLD)
Telangana	State	2095	3	603	1319	593	292	**Existing**- 7 (11.54 MLD) **Under Construction** - 1
	PRS	849	3	352.35	352	NA	191	**Existing**- 7 (11.54 MLD)
Andhra Pradesh	State	9941	217	4494.33	1069	NA	305	**Existing**-7 (31MLD)
	PRS	10	NIL	Zero Discharge *(To be verified with State)*	4	NA	10	NA
Puducherry	UT	NA Total 6 Industrial Estates	3	4.75	94	5.2	13	NIL
	PRS	7	NIL	0.075	3	0.115	NIL	NIL

V. State Specific Issues

Based on discussions in meetings of CMC and information being provided in monthly progress reports, Secretary, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti vide D.O. letters dated 14th July 2020, 13th August 2020 and 20th August 2020 addressed to Chief Secretaries of certain States highlighted some State specific issues for expediting action in the matter. The States were urged to take appropriate action in respect of issues raised and submit action taken reports thereto.

Some of the State-specific issues needing immediate attention and are as follows;

i. Gujarat

- Land issues in respect of STPs at various locations (at least in respect of 34 projects) remains to be resolved on priority or else it will continue to delay grounding of the works.
- Some of the projects are not moving beyond the tendering or DPR stage.
- Some STPs were found to be non-compliant w.r.t discharge standards.
- Some projects pertaining to CETP capacity expansion (VGEL) or new CETP (Nadiad) are not progressing.

ii. Haryana

- BOD of water flowing through drains into rivers Ghaggar and Yamuna is observed to be very high, which implies that quantity and quality of

treatment is unsatisfactory. This is despite the fact that capacity utilization, both for sewage management and industrial effluent management, is reported good.

- Work related to house service connections needs to be expedited.

iii. Himachal Pradesh

- Immediate action is required to ensure optimal utilization of existing capacity.
- The works related to improvement of Baddi CETP has been completed, including laying of effluent lines and now effluent connections are being completed. This needs to be expedited.
- Progress of the four new CETPs at Kala Amb (Sirmaour), Bari (Kangra), Pandoga (Una) and Paonta Sahib need to be monitored closely.

iv. Madhya Pradesh

- The capacity utilization in some of the existing STPs is found to be very poor and 4 existing STPs are non-compliant.
- Some critical process units essential for optimum performance of the plant are missing from the STP at Gwalior.
- Land issues reported in respect of 6 STPs out of total 7 STPs (total capacity 25 MLD) planned for river Bichia at Rewa need to be sorted out.

v. Daman, Diu Dadra Nagar Haveli

- Immediate action is required to ensure optimal utilization of existing 13 MLD STP.

- 16 MLD capacity STP with 65 Km network is being proposed at Nani-Daman area, which is presently at DPR stage and needs to be expedited.

vi. Manipur

- Immediate action is required to ensure optimal utilization of existing 27 MLD STP.
- 17 MLD STP project sanctioned under NRCP, which is under execution, to be implemented expeditiously.
- The funding as well as sanction of the project for 49 MLD STP for Imphal may also be expedited.

vii. Mizoram

- 10 MLD STP exists (98% completed) at Aizawl, but the same remains non-operational due to incomplete sewer network (70% completed). The works related to laying of sewer lines and providing house service connections to be expedited.

viii. Nagaland

- Immediate action is required to ensure optimal utilization of existing 25.45 MLD STP, which is lying non-operational due to non-completion of sewer connections.

ix. Rajasthan

- Poor utilization capacity of the existing STPs observed due to non-completion of house sewer connections.
- A sewerage project for Kota town of 30 MLD STP and sewerage network

sanctioned in Oct'2008 remains incomplete even today after lapse of nearly 11 years.

x. Maharashtra

- As a large number of STPs in the State are under-construction, therefore the physical and financial progress of these STPs needs to be regularly monitored.
- Maharashtra being an industrial state, it is suggested that the CETPs and individual ETPs be monitored rigorously and efforts made to put in place a proper monitoring mechanism.

xi. Telangana

- In Hyderabad, 20 STPs out of 22 existing STPs are reportedly non-complaint to the discharge standards.
- No physical progress has been reported in the proposed projects in the MPRs, and it seems that only DPRs have been prepared for abatement of pollution in various polluted river stretches.

xii. Jharkhand

- Installed STP capacity and utilization capacity of the existing STPs were found to be low.
- On-going STP projects in the State needs to be expedited.

xiii. Kerala

- Immediate action is required to ensure optimal utilization of existing capacity and putting in place plans for tackling the huge deficit in treatment

capacity.

xiv. Puducherry

- There is a large gap in existing treatment capacity and utilization capacity in Puducherry.

VI. Status of Solid Waste Management, Ground Water Augmentation, Afforestation, Floodplain and E-flow Management

State-wise status of solid waste management, hazardous and plastic waste management, ground water management, good irrigation practices adopted by farmers, installation of rain water harvesting, protection and management of Floodplain Zones and maintenance of minimum E-flow in the river stretches as per the Action Plan and MPR submitted by the States is placed at **Annexure-V**. The status and progress will be monitored in subsequent meetings of Central Monitoring Committee.

VII. Scrutiny of Action Plans for P-II and P-IV:

As per the information provided by CPCB, for the purpose of scrutiny of the action plans with regard to the Priority –I and Priority-II polluted river stretches submitted by the respective State Government/ UT Administration in compliance to the Hon'ble NGT order dated 20.09.2018, CPCB has constituted a '*Task Team'* under the Chairmanship of 'Member Secretary, CPCB'. Till date, CPCB has organized fourteen meetings of the Task Team. Last meeting

was held on 4.9.2020 through Video Conferencing. Action plans received from the concerned States/UTs were considered and reviewed randomly in respect of P-I to P-IV identified polluted river stretches (PRS).

Till date, all 61 action plans pertaining to Priority I and Priority II polluted river stretches submitted by 18 States & 2 UT have been approved along with conditions by CPCB Task Team. Out of 115 Action plans pertaining to P-III and P-IV polluted river stretches received from 24 States & 1 UT, 108 action plans submitted by 22 States and 1 UT have been approved along with the conditions. 4 action Plans in respect of Chhattisgarh and 3 for Jharkhand are pending. Thus total 169 action plans submitted by 24 States & 3 UTs have been approved by CPCB Task Team.

Table-8: State-wise Identified Polluted Rivers and the Status of Action Plans approved by CPCB in compliance to Hon'ble NGT Orders dated 20.09.2018, 19.12.2018, 08.04.2019, 6.12.2019 & 29.6.2020 in OA No. 673 of 2018 (as on 10.09.2020)

Name of the State / UT	Total No. of Identified Polluted River stretches (PRS)	Priority I & II PRS approved		Priority III PRS		Priority IV PRS		Priority V PRS*	Total Action Plans Approved by CPCB Task Team
		Priority I	Priority II	Total Number	Priority III approved	Total Number	Priority IV approved		
Andhra Pradesh	5	0	0			2	2	3	2
Assam	44	3	1	4	4	3	3	33	11
Bihar	6	0	0	1	1			5	1
Chhattisgarh	5	0	0			4**	0	1	0
DD & DNH	1	1	0					0	1
Delhi	1	1	0					0	1
Goa	11	0	0	1	1	2	2	8	3
Gujarat	20	5	1	2	2	6	6	6	14
Haryana	2	2	0					0	2
Himachal Pradesh	7	1	1	1	1			4	3
J & K	9	0	1	2	2	2	2	4	5
Jharkhand	7	0	0			3**	0	4	0
Karnataka	17	0	0	4	4	7	7	6	11
Kerala	21	1	0			5	5	15	6
Madhya Pradesh	22	3	1	1	1	3	3	14	8
Maharashtra	53	9	6	14	14	10	10	14	39
Manipur	9	0	1					8	1
Meghalaya	7	2	0			3	3	2	5
Mizoram	9	0	0	1	1	3	3	5	4
Nagaland	6	1	0	1	1	2	2	2	4
Odisha	19	1	0	3	3	2	2	13	6
Puducherry	2	0	0			1	1	1	1
Punjab	4	2	0			1	1	1	3
Rajasthan	2	0	0	1	1			1	1
Sikkim	4	0	0					4	0
Tamil Nadu	6	4	0			1	1	1	5
Telangana	8	1	2	2	2	2	2	1	7
Tripura	6	0	0					6	0
Uttar Pradesh	12	4	0	1	1	2	2	5	7
Uttarakhand	9	3	1	1	1	4	4	0	9
West Bengal	17	1	1	3	3	4	4	8	9
Grand Total	351	45	16	43	43	72	65	175	169

* Action plans pertaining to Priority V does not need approval by CPCB.

** Action plans under consideration, upon receipt of RRC approved revised action plans from the respective States.

VIII. Observations and Recommendations

- States are regularly submitting Monthly Progress Reports, in the requisite formats, by the stipulated dates. However, quality of information provided in MPR in respect of a few States is wanting and needs to be improved. As MPRs are one of an important document which provides requisite status in respect of various activities being undertaken as per approved Action Plans, the quality of information is important for meetings of CMC and further reporting to Hon'ble NGT. MPR before being submitted should therefore, necessarily be studied by senior officers in States and so certified.
- Most of States have informed that the progress of ongoing works has been severely affected due to COVID-19 pandemic which has impacted issues related to mobilization of skilled and unskilled manpower as well as supply of materials besides site works. Site works often reportedly get affected due to lockdown kind of situations whenever the same is under enforcement. The project completion timelines, therefore, are getting impacted due to these factors also.
- States have failed to report specific reasons for delay in grounding the projects as well identification of officials responsible for the delays. The necessary reporting from the States is being taken up and will be followed up in future review meetings.

- States have reported about financing difficulties being faced by them on account of resource crunch due to COVID-19 situation. States, reportedly are trying to arrange funding for priority projects and will be apprising the status in subsequent meetings of the CMC. The process of sanctioning of projects, being dependent on funding, is getting affected due to pandemic situation.
- Considering financial limitations, States/ UTs may take up STP projects on Hybrid Annuity Model, which, as a business model, enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue. It will help ULBs to tap the external market funding for development & operation of sewage infrastructure, apart from quality treatment services. NMCG has prepared model tender documents for development of STPs through HAM and recently these documents have also been approved by NITI Aayog.
- *'One City- One Operator'* concepts offer integrating the rehabilitation and Operation & Maintenance of the existing treatment infrastructure along with development & operation of new STPs. This concept can be integrated with *HAM* model, as is being done in many projects under Namami Gange.
- Government of India has also introduced *National Faecal Sludge & Septage Management* (FSSM) *Policy in 2017* to emphasize the importance of treating the faecal sludge from on-site sanitation system. Some State Governments have also issued State level FSSM policies/ guidelines. Nearly 25 Faecal Sludge Treatment Plants (FSTPs) are operational and another 400 are in the offing in

the country. Other States must consider adopting State level FSSM policies/ guidelines for regulating the handling, treatment and disposal of faecal sludge.

- Many of the States/ UTs have also been looking for alternatives beyond conventional STPs for treatment the sewage/ faecal sludge. States may consider implementation of FSTPs and/or co-treatment of faecal sludge in existing STPs, or may judiciously adopt any other alternate treatment technology, in towns wherever feasible.
- Many States/ UTs are constructing or have proposed to develop STPs in Polluted River Stretches with capacity less than 2 MLD. States, in such situations, may consider to adopt installation of decentralized modular STPs; which offer advantages in form of lesser time involved in commissioning of systems, less land footprints, easy operations; instead of conventional centralized STPs based on techno-commercial considerations. This will also enable them to comply to NGT stipulated timelines.
- States have created assets for treatment of sewage and capacity of STPs so created is not being optimally utilised due to many reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality etc. A large number of STPs remain non-compliant to STPs outlet norms. States must ensure optimum utilization of the existing treatment infrastructure and also ensure compliance of the plants with regard to the environment norms. For this purpose, States may carry condition assessment studies of existing STPs/ sewage infrastructure in a

fixed time frame, say another 3 months so as to identify the reasons of sub-optimum utilization and dysfunctionality of existing STPs. This will help them in finalizing plans to upgrade STPs requiring upgradation so as to make them functional.

- States do not have an online monitoring system in place to monitor (both quantity and quality of treated water) the health of existing sewerage infrastructure. States must consider to develop an online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future. Such a system will enable that health of sewage treatment facility is readily available, with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.
- **53 projects** with capacity of about **867.46 MLD** in Polluted River Stretches are expected to be completed by December 2020. The concerned States must ensure that monthly monitoring and regular watch on the progress of these projects is to be maintained, so that the completion timelines are strictly complied and projects commissioned in time.

- **41 projects** are likely to be completed during time window of January 2021-March 2021. Progress of these projects is also required to be continuously monitored at State level so that lag, if any, in adhering to the timelines is avoided.
- State of Maharashtra, Telangana & Gujarat have to ensure that decision on tenders already called by State are finalized and the pending land acquisition issues for many STPs are sorted out urgently.

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सत्यमेव जयते

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
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DEPARTMENT OF WATER RESOURCES,
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RAFI MARG, NEW DELHI-110 001
http://www.mowr.gov.in

D.O.No.Legal/OA/673/2018/NMCG/2019 22nd January, 2020.

Dear

This is regarding pollution abatement of 351 polluted stretches identified by Central Pollution Control Board (CPCB) in the country. As per the Order of the Hon'ble NGT dated 06.12.2019 in the OA No. 673 of 2018, a Central Monitoring Committee has been constituted under the Chairmanship of Secretary, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti. The Central Monitoring Committee, as per the Order of the NGT, is required to hold a review meeting every month.

The first meeting of the Central Monitoring Committee was held on 08.01.2020. Minutes of the meeting is being sent to the States, separately, by Director General, National Mission for Clean Ganga (NMCG).

While some of you attended the meeting in person, a couple of Chief Secretaries participated in the meeting through video-conferencing as per the request made by them. Some other States were represented by senior officers. However, it was found that a number of States/UTs did not participate in the meeting either in person or through video-conferencing. These States/UTs are Madhya Pradesh, Rajasthan, West Bengal, Sikkim, Mizoram and Daman and Diu. Some other States/UTs were represented by junior officers or officers who were not conversant with the subject. Wherever Chief Secretaries are not in a position to attend the meeting either in person or through video-conferencing, they should depute the Member Secretary of River Rejuvenation Committee in their State along with the Member Secretary of State Pollution Control Board.

While minutes of the meeting indicates the steps taken so far by the States and further steps to be taken, I would like to bring certain important issues to your notice, mainly based on my experience dealing with rejuvenation of River Ganga:

Contd..2/-

i) While construction of sewage infrastructure is important for management of sewage, especially coming from the towns and cities located on the banks of various rivers, adequate flow in the river is the major issue. Hence, it is necessary that the short-term, medium-term and long-term measures to increase the flow in the rivers are taken by the State Governments on priority. Increasing water-use efficiency, avoiding excess exploitation of surface and ground water, rejuvenation of water bodies in the towns and villages located on the rivers, wet-land conservation, afforestation, etc. are some of the measures which will help improving the flow of water in the river.

ii) It is often seen that the sewage infrastructure are created but they do not function satisfactorily. Either they do not function at all, or capacity utilization of STP is poor. In other cases the quality of treated effluent does not conform to the prescribed standards. It is necessary that sewage infrastructure created are operated and maintained properly and their functioning is monitored by use of appropriate technology. To ensure long term satisfactory performance of STPs under Namami Gange, concepts like Hybrid Annuity PPP mode and One City One Operator have been introduced which can be adopted elsewhere.

iii) While quantum of industrial effluent, in terms of volume, may not be very high in some of the States, their pollution load is significant in terms of BoD & other pollution parameters. It is necessary that grossly polluting industries are inventorised and monitored closely and appropriate regulatory actions in terms of the provisions of EP Act and Water Act are taken against them by the concerned State Pollution Control Board.

iv) For sewage management, apart from, creation of sewage infrastructure in terms of network and STP, alternative cost-effective solutions also need to be explored. Sewage network with STP, though a good solution, is also a costly solution and entails substantial operation and maintenance cost. Laying of sewer network through the congested towns and cities poses significant challenges. In many cases even though sewage network has been laid, the availability of sewage at STP is low due to lack of house connections. As an alternative to sewer network, one can go for interception and diversion of the drains carrying the sewage and treatment of the same at STP. Alternatives like constructed wet-land, bio-remediation, phyto-remediation and faecal sludge management, etc. should also be explored.

Contd..3/-

Some of the States may not have adequate expertise in planning for sewage management. NMCG, NRCD and CPCB would provide technical help to the States, who are in need of such assistance. Organisations like WAPCOS, NEERI etc. can also help the States in carrying out various activities such as condition assessment and feasibility study, preparation of PFR and DPR etc.

At the end, I would request you to kindly take all necessary steps as per the directions contained in the Order dated 06.12.2019 of the Hon'ble NGT and ensure submission of monthly progress report. Any difficulty in compliance of the Order of the NGT or any technical assistance needed may kindly be intimated to the undersigned for appropriate action at this level.

With regards,

Yours sincerely,

Sd/-

(U.P. Singh)

The Chief Secretaries of all States/UTs

Copy to :

(1) Shri Rajiv Ranjan Mishra
Director-General
National Mission for Clean Ganga
Major Dhyan Chand Stadium, India Gate
New Delhi-110002.

(2) Shri S.P. Singh Parihar,
Chairman,
Central Pollution Control Board
'Parivesh Bhawan', East Arjun Nagar,
Shahdara, Delhi-110032

(U.P. Singh)

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D.O. No. Legal/OA/673/2018/NMCG/2019 2nd July, 2020

Dear

Kindly refer to Hon'ble NGT's directions in OA No.673 of 2018 vide order dated 06.12.2019 regarding pollution abatement of 351 polluted river stretches identified in the country by CPCB. To take the stock of the progress made by 31 States/ UTs in the matter, a State Level Committee under the Chairmanship of Chief Secretary of the State/UTs and a Central Level Committee under Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti has been constituted. So far, 3 meetings of the Central Monitoring Committee (CMC) have been held on 08.01.2020, 19.02.2020 and 23.06.2020, the minutes of which are being circulated regularly to the States/UTs. Due to COVID-19 pandemic, the meetings for the months of March-May, 2020 could not be convened.

The First Quarterly Report of the Centre has been submitted in NGT on 19.06.2020. Based on the discussions held in three meetings of CMC, site visits made by a team of NMCG, NRCD & CPCB to some States, and the submissions made by the States in the Monthly Progress Report (MPR), I would like to highlight few points for consideration:

i. It has been noted that while a number of Sewage Treatment Plants (STPs) are already in operation, however these are either under-utilized or are not complying with the discharge standards. Similarly, for treatment of industrial waste, industries have installed individual ETPs or CETPs and are said to be complying with the discharge norms. However, as per the water quality data in nearby drains, wherein the treated effluents are discharged, is often found to be non-compliant or have high BOD/ COD levels. Therefore, the existing sewage and industrial infrastructure needs to be optimally utilized by putting in efforts to make a non-functional plant functional/ improving the capacity utilization/ensuring that the plant is complying with the norms. Action taken by the States to improve the capacity utilization of the existing infrastructure may also be provided along with the MPR.

ii. Strict monitoring of the industrial units, ETPs and CETPs need to be undertaken by the State Pollution Control Board to ensure compliance and necessary actions to be taken against the non-complying units.

iii. Monitoring of the STPs/ CETPs may be done through online monitoring system where performance data of these assets is available in near real time for monitoring as well as to ensure compliance and proper utilization of the infrastructure.

---2/-

iv. Many of the rivers are polluted due to inadequate dilution water as these rivers are non-perennial. In order to increase the flow in the rivers, the States/UTs must adopt strategies to rejuvenate smaller rivers/tributaries/sub-tributaries and by revitalizing the water bodies/ lakes/ wetlands. MGNREGA could be leveraged for rejuvenating rivers and water bodies. States also need to adopt measures for ground water recharging, rain water harvesting, good irrigation practices and plantation activities.

v. It was informed that few projects proposed by the States are not being taken up due to fund paucity. It is suggested that as in the initial phase of the project, large amount of funds may not be required. Therefore, in order to achieve the timelines stipulated by NGT, the State may considering awarding the project on priority. Meeting project timelines as per directions of Hon'ble NGT is important responsibility of State.

vi. In order to contain the pollution load, few States such as Gujarat, Himachal Pradesh, Daman Diu, Dadar & Nagar Haveli, Telangana and Tripura have initiated the treatment through insitu remediation through their own resources and the projects are under various stages of implementation. However, many of the remaining States have not yet initiated the process. The States may take up projects after evaluating the technology best suited for the respective drain. This is also required to be strictly complied in terms of Honble Tribunal's directions.

vii. Monthly Progress Reports (MPR) are not being submitted regularly by all the States. Further, it is observed that few States such as Assam, Kerala, Nagaland are submitting details with regard to Priority I and II rivers only. The States should clearly indicate status of each and every Action Plan and their sub-components along with expected completion timelines in their MPRs. The States should regularly submit soft copies of the MPRs containing details of all the stretches to NMCG by 20th of every month. For bringing in discipline, action may be taken against the nodal officer in case of any delay(s) in submission of MPR.

viii. Instead of repetitive submissions, the MPR should also have incremental progress made by the State. The States should categorically inform progress made in each component with regard to the previous month.

ix. With regard to change in priority of the rivers, any change have to be based on periodical data monitoring by CPCB and not on the data of State PCB alone. Further, interventions adopted by the State which have led to State achieving improved water quality may also be appropriately highlighted.

x. States to submit revised Action Plans with regard to Priority III and IV as per the recommendations of CPCB / Task Team at the earliest for consideration and approval of CPCB.

- - -3/-

xi. It has been noted that many times, multiple officers not well versed with the facts are attending the meetings. Therefore, it is suggested that one nodal officer well versed with all the information should attend the meetings and brief about the progress made by the State.

xii. States are to ensure completion of projects as proposed in the Action Plans and to take adequate steps in eliminating the bottlenecks causing delays.

I, therefore, would request you to kindly take necessary actions on the points highlighted and the decisions taken in the three meetings at the Central Level. The progress shall be reviewed in the next meeting of the Central Monitoring Committee in July, 2020.

With regards,

Yours sincerely,

(U.P.Singh)

To,

Chief Secretaries of the States/ UT
(as per the list attached)

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D.O.No.Pr/4/2020/PPP/NMCG

6th August 2020.

Dear Somesh,

While conducting reviews for 351 polluted stretches as per NGT directives, it was observed that, apart from gap in sewage treatment capacity available in towns of various States, often the capacities created are either not functional, remain underutilized or fail to meet the desired standards. Though capacity creation is important to fill the gap in sewage treatment, focus on capacity utilization is missing. While we invest for creation of infrastructure, there is no adequate institutional mechanism to ensure performance of STPs.

2. National Mission for Clean Ganga (NMCG) in the past few years have gathered experience in improving the performance of existing STPs and new plants, which I would like to share with you. For ensuring the capacity utilization and effective operation & maintenance of the treatment infrastructure, with the involvement of private players, NMCG has adopted Hybrid Annuity based PPP model (HAM).

3. Under HAM, only 40% of Capex is paid during the construction and the concessionaire/private player has to invest balance 60% of capex, which is paid back in quarterly installments as Annuities along with O&M cost over 15 years. As concessionaire has skin in the game, HAM mode offers assured performance and quality infrastructure. Salient features of the Hybrid Annuity based PPP model are given at Annexure-I. A short presentation, for further clarity, is at Annexure-II.

4. Experience shows that HAM model has inbuilt mitigation mechanism against time & cost overrun, improper design, sub-optimal operation and failure to meet the performance standards. Till date National Mission for Clean Ganga (NMCG) has taken up 29 projects in 18 packages at an estimated cost of Rs. 10816 Crores for creating new Sewage Treatment Plants (STPs) capacity of 1604 Million Liters per Day (MLD). First set of projects, 82 MLD STPs in Haridwar have already started functioning and are meeting the required water quality parameters.

5. NMCG has moved one step ahead by adopting 'One City- One Operator' concept, by integrating the rehabilitation and Operation & Maintenance (O&M) of existing treatment infrastructure along with development & operation of new STPs. In cities such as Mathura, Kanpur, Prayagraj etc. development of new STPs and rehabilitation & operation of existing treatment infrastructure have already started and results are in the desired direction. One City- One Operator

under HAM would ensure a singular accountability and ownership at city level for the treatment of entire sewage generated in the city. Some of the State Governments have also started adopting this model of development. For instance, the Uttar Pradesh State Government has already assigned O&M of existing STPs under HAM mode to private players in major towns such as Lucknow, Agra etc.

6. As a business model, HAM enables the Urban Local Body/State Government to fund the development and operation of sewage treatment infrastructure according to the future flow of revenue. It will help ULBs to tap the external market funding for the development & operation of sewage infrastructure, apart from quality treatment services.

7. NMCG has prepared model tender documents for development of STPs through HAM and recently these documents have also been approved by NITI Aayog. Efforts are being made to publish these documents in the Government Electronic Market (GEM) portal of Government of India.

8. I take this opportunity to request you to consider the HAM model, for development & operation of sewage infrastructure in your State and gain maximum benefit out of it.

9. For any clarifications in this matter, you may direct the concerned officials, to contact Shri. Ashok Kumar Singh, Executive Director (Projects), NMCG, at 08826313115 and/or ed.projects@nmcg.nic.in.

With regards,

Yours sincerely,

(U. P. Singh)

Shri Somesh Kumar,
Chief Secretary,
Government of Telengana,
Secretariat,
HYDERABAD.

ANNEXURE I

Hybrid Annuity based Public Private Partnership (PPP) model for Waste water treatment.

1. Namami Gange program has been launched by the Government of India with a project cost of Rs. 20000 Crore. This includes the ongoing commitments to the tune of Rs 7200 Crores and new initiatives to the tune of Rs 12800 Crores. Out this Rs 12800 Crores about 65% of the allotment.. i.e.. Rs 8000 Crores is for Sewage Treatment infrastructure.

2. The major challenges faced in the previous efforts to clean the river Ganga were lack of ownership, lesser support for sustainability of assets, and sub optimal performance of the treatment infrastructure created. In order to address these issues and to ensure the continued performance of the assets created, Namami Gange program has been conceived as a central sector scheme with 100% funding for creation and maintenance of the assets. Further for ensuring better accountability, optimal performance and improved scale of investments, Government of India has approved for setting up of suitable institutional infrastructure and adopting Hybrid Annuity based Public Private Partnership (PPP) model for creation and maintenance of the assets. The development of assets under this PPP model will be undertaken by a Special Purpose vehicle (SPV) to be created for the purpose at the local level. For promoting confidence among the bidders, Cabinet has also approved for a payment security mechanism of setting apart 2 year annuity payments in a separate account operated by the SPV initially and then recoup the same annuity amount.

3. Under Hybrid Annuity based PPP model, a suitable Concessionaire for the Sewage treatment Plants will be procured through competitive process in line with the PPP procurement process of Government of India in other infrastructure segments. The procurement will be based on lowest bid project cost quoted by the selected bidder for developing and operating the treatment infrastructure for a period of 15 years. 40% of the Capital cost quoted is payable on completion of construction and balance 60% of the cost will be paid over the life of the project as annuities along with Operation & Maintenance(O & M) expenses.

4. In this model the Concessionaire will invest in the construction of treatment infrastructure using his own equity and debt funds from Financial Institutions. Salient features of Hybrid Annuity Model are:

    a. **Bidding and Concessionaire:** The selection of the developer will be through a competitive bidding. Bidders could be single companies or a consortium of companies having experience in the construction and operation of waste water treatment plants. The successful bidder will incorporate a Special Purpose Vehicle (SPV) under Companies Act 2013 – the concessionaire with whom a concession agreement is entered by the Project Executing Agency and National Mission for Clean Ganga (NMCG). State Government will nominate a suitable Project Executing Agency (PEA) in consultation with NMCG. For example, in Uttrakhand, the State Government has nominated Uttrakhand Pey Jal Nigam as PEA and Uttar Pradesh Jal Nigam has been nominated as PEA by the Uttar Pradesh State Government.

b. **Bid parameter:** Project life cycle cost which is sum of the quoted bid project cost (capital cost) plus the operations and maintenance (O&M) cost for the entire operations period is the bid parameter. Bid is awarded to the developer quoting lowest project life cycle cost. In the O & M cost electricity cost is provided as a pass through.

c. **Cash Construction Support:** 40% of the bid project cost shall be payable to the concessionaire in four/eight equal installments linked to physical progress of the project. Concessionaire shall have to initially bear the balance 60% of the project cost through a combination of debt and equity.

d. **Escalation clause in the project cost:** Project cost shall be inflation indexed (through a Price Index Multiple) (PIM), which is the weighted average of Wholesale Price Index (WPI) and Consumer Price Index (CPI) (IW) in the ratio of 70:30.The Bid project cost shall be escalated to include the variation in PIM on monthly basis till the achievement of commercial operations date (COD).

e. **Stable cash flow of annuity payments:** Quarterly annuity payments shall be made to the concessionaire by NMCG/Executing Agency on completion of the project for the balance 60% of the final bid project cost. Along with the annuity payments, interest shall be paid on reducing balance of final construction cost. Interest rate for the same shall be Bank rate + 3 %.

f. **Performance linked payment:** One important feature of this model is that both the Annuity and O & M payments are linked to the performance of the STP. Payments are subject to the achievement of Key Performance Indicators (KPIs) – pre determined treated effluent quality parameters such as BOD, COD, pH, Coliform level etc.

g. **Assured O&M payouts:** O&M payments shall be made to the concessionaire along with the annuity, in accordance with the amount quoted by the bidder and the same will be inflation indexed. Concessionaire shall remain responsible for the maintenance of the project till the end of the concession period.

h. **Concession Period:** Though the period is project specific, in normal course it could be 15 years excluding 2 years of construction period.

i. **Reduces sponsor's risk for funding equity commitment:** Hybrid Annuity model entails lower sponsor contribution during construction period, considering 40% construction support from NMCG and hence mitigate the funding risk to an extent. Furthermore, provision of mobilization advances is also expected to provide some support to concessionaire in the initial phase of construction. It also paves way for relatively easy achievement of financial closure, because lenders are less reluctant to fund annuity projects and/or to top it up with lower funding requirements.

5. In this model the risk of revenue generation is not with the Concessionaire. However the performance risk will be with the Concessionaire as the Annuity and O &M payments will be subject to an acceptable level of performance of the assets measured in terms of prescribed output water quality standards (Key performance indicators). Hybrid Annuity mode builds the stake of the operator for the entire project period as their capital gets linked to the performance. The model insulates the implementing agency/state from time & cost over runs and issues that may arise from improper & sub optimal design as the developer/operator is responsible for the entire development & operation of the plant.

6. The model ensures accountability and ownership, as the Concessionaire is not only creating the asset but also operating it for a longer period and his financial stake is for the entire life cycle of the asset.

7. The model will also complement/supplement the efforts of the Urban Local Bodies which lack in both financial, technical and manpower capacities for designing, developing, and operating sewage treatment plants using latest technology.

8. It is also proposed to develop a market for treated waste water for non-potable purposes and if the revenue generated through this measure is substantial, the same may be used for servicing future annuities. Also the Urban Local Bodies will be encouraged to impose and collect user charges from the residents for treatment of sewage generated in the town for promoting the polluter pays principle. The amount collected as user charges could also be used for future funding needs.

9. **Important steps in PPP project implementation**:

    a. Project Conceptualization.
    b. Preliminary Report.
    c. Appointment of Transaction advisor.
    d. Detailed Feasibility Report
    e. Tender Documentation
    f. RFP & Selection process
    g. Selection of Concessionaire
    h. Signing of the Concession agreement
    i. Financial Closure
    j. Appointment of Project Engineer.
    k. Appointed date
    l. Work Commencement & Commissioning
    m. Operation & Maintenance
    n. Transfer to ULB/Local Agency

10. **Role of Transaction Advisor**: Engaging a suitable Transaction Advisor (TA) for the project is crucial for the success of the project. Project Executing Agencies can choose to receive the services of a suitable TA through a competitive price bidding process
Broad scope of work for the TA are as follows:

    a. Collection, compilation and analysis of relevant technical/financial data relating to all costs and revenues if any;

    b. Evaluation of the strategic objectives of the State Government and/or Project Executing Agencies in relation to the Project and advising on the commercial and capital structuring, especially with reference to Applicable Laws;

    c. Review cost estimates contained in the Detailed Project Report(if available);

    d. Prepare a reasonable estimation of the likely cost of the project;

    e. Assisting the Project Executing Agencies in identification of project risks and in allocation of the same in an efficient and economic manner;

    f. Identification and quantification of estimated financial impact of the Project on Government resources by developing a Financial Model

    g. Advising on tax-related issues arising out of the Project structuring;

    h. Prepare the draft Concession Agreement;

    i. Preparation of a consolidated list of approvals/consents/clearances required from Government Instrumentalities; and

    j. Assist in preparation of Bid documents including the relevant Schedules of the Concession Agreement.

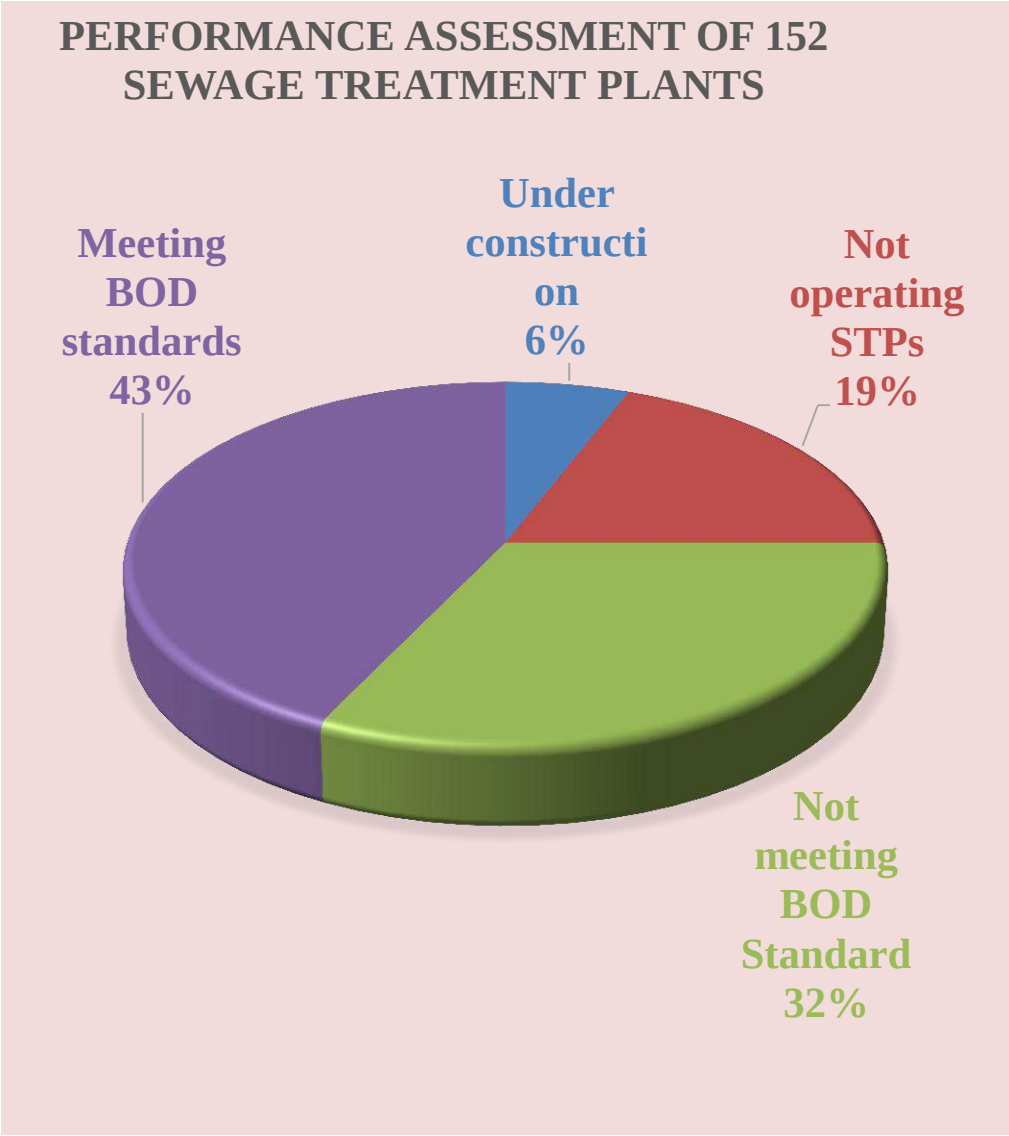
    k. Assisting the Project Executing Agencies in the entire bidding process up to the signing of the concession agreement.

    l. Providing Assistance during Financial Closure.

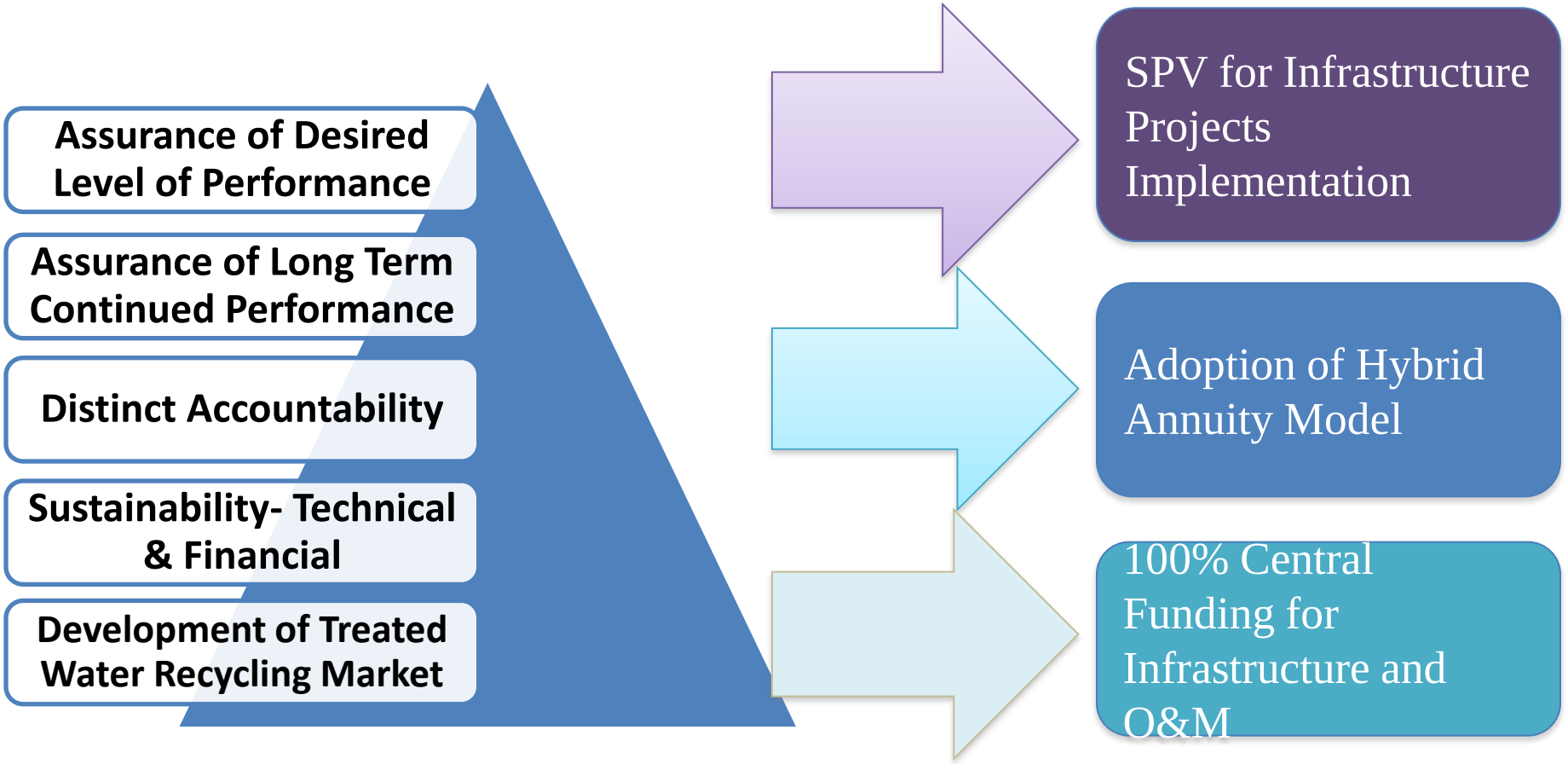
National Mission for Clean Ganga
Department of Water Resources, River Development and Ganga Rejuvenation
Ministry of Jal Shakti.
Government of India

Poor service delivery from Wastewater Treatment Plants

- Focus on asset creation and not asset maintenance
- Treatment capacities for 30% of wastewater generated
- Under utilization and inefficient operation of many STPs
- Assets rehabilitated every 6-8 years – leading to Design-Build-Neglect-Rebuild [DBNR] model.



GoI Initiative on Sewerage Management in Ganga Basin

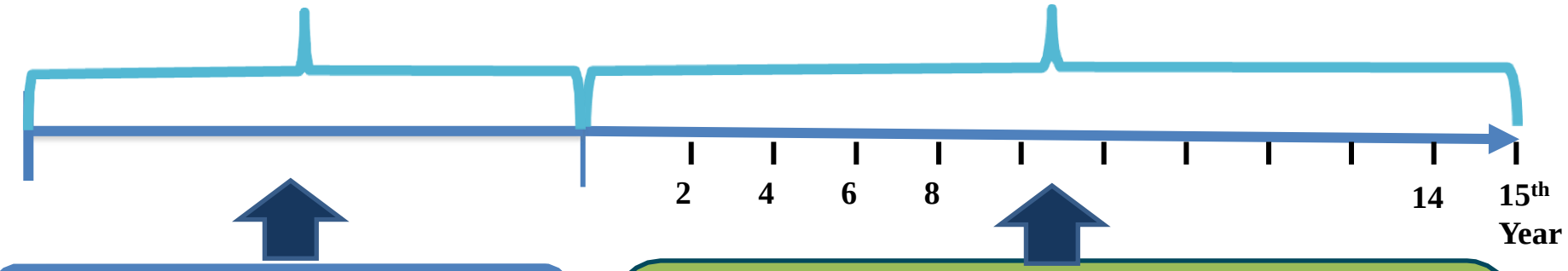


~~BUSINESS AS USUAL ?~~

Hybrid Annuity Model

Construction Phase

O&M Phase



Upto 40% of Capital Cost by Government

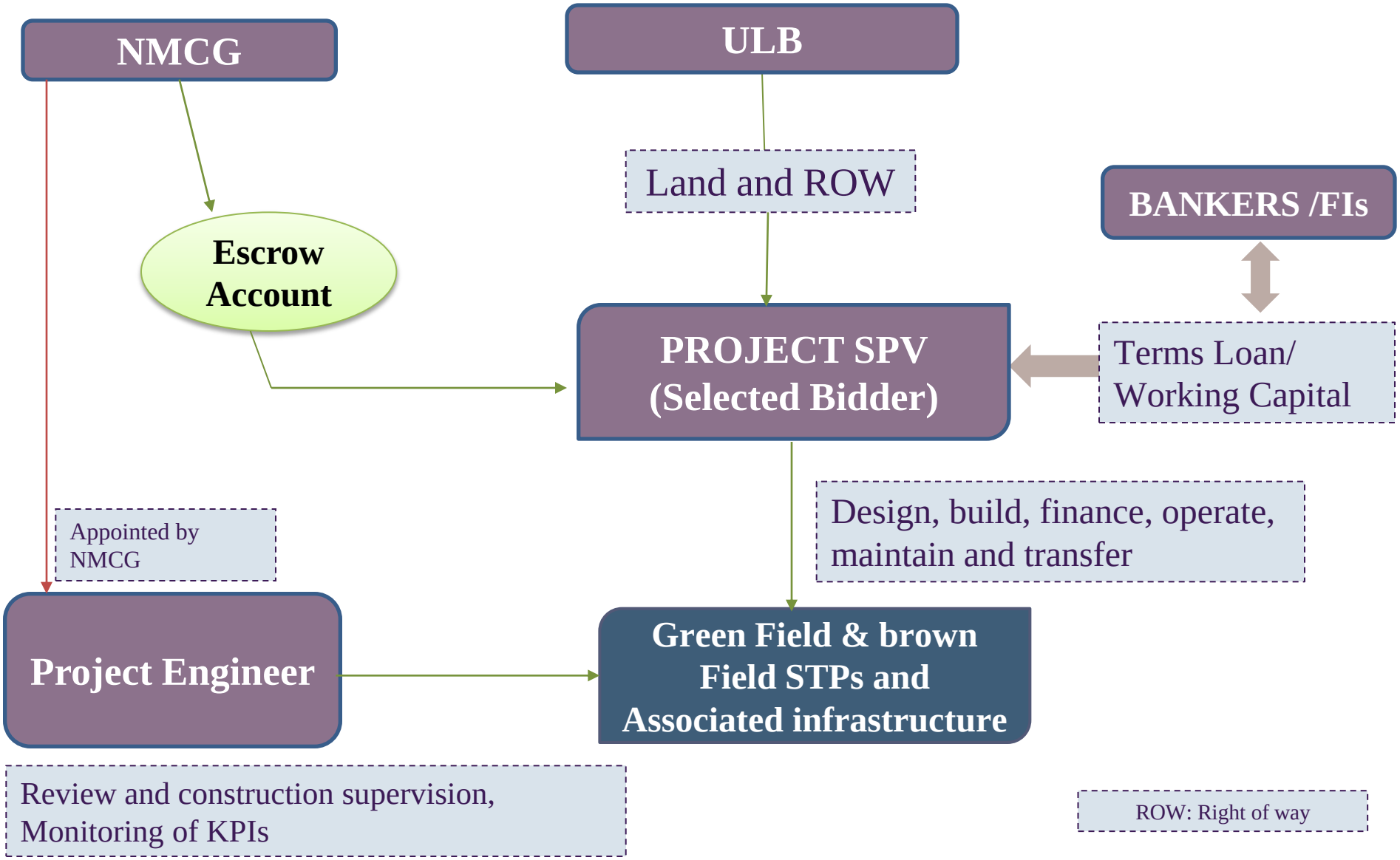
Annuity payments

- ***Remaining capital investment***
- ***Annual O&M cost***
- ***Payments linked to performance standards***
- ***Independent of treated water recycling revenue***

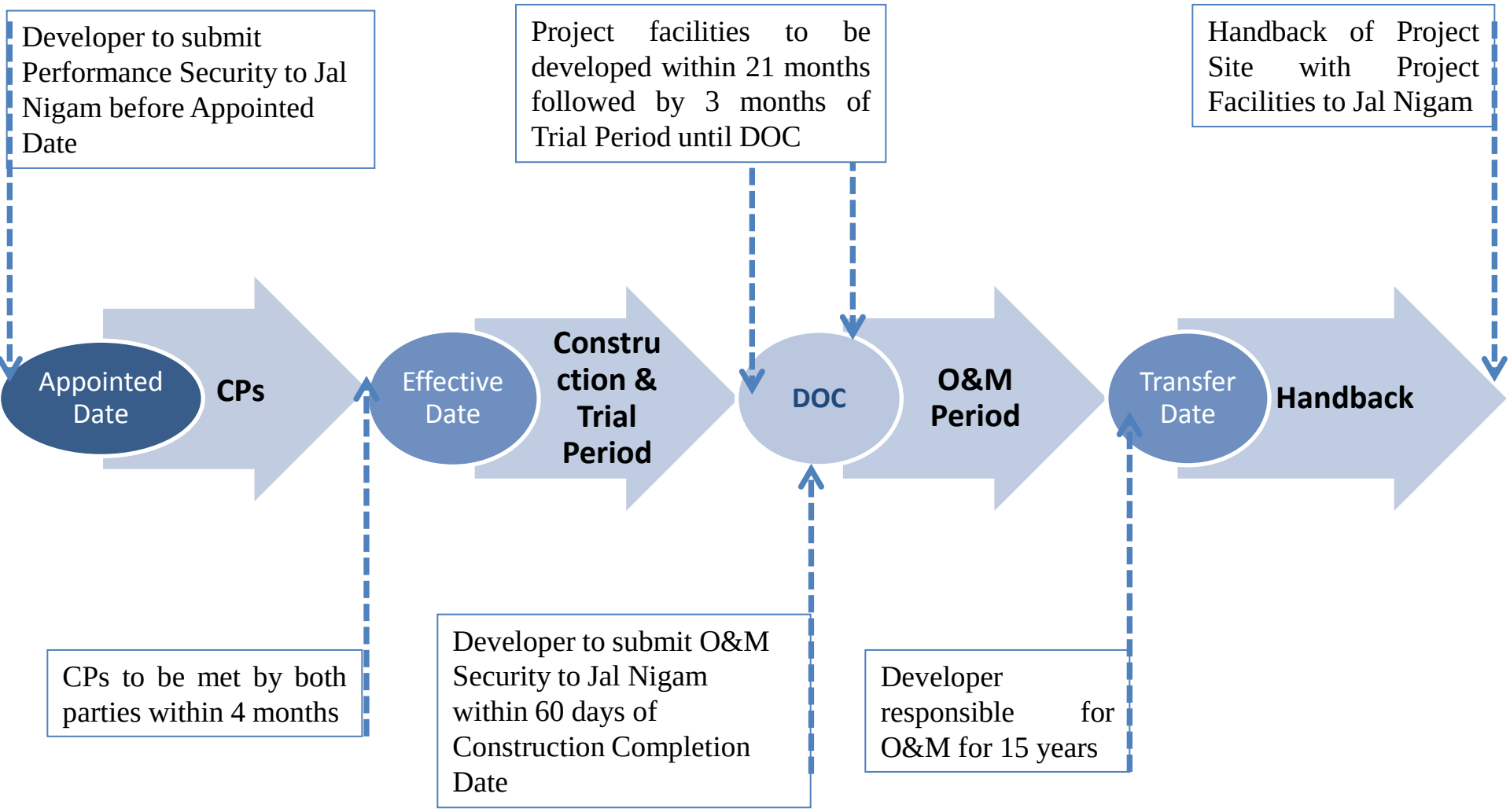
Interest rate risk and inflation risks are covered.

Transaction Structure

Tripartite agreement to be executed between the Executing agency, NMCG and identified private developer



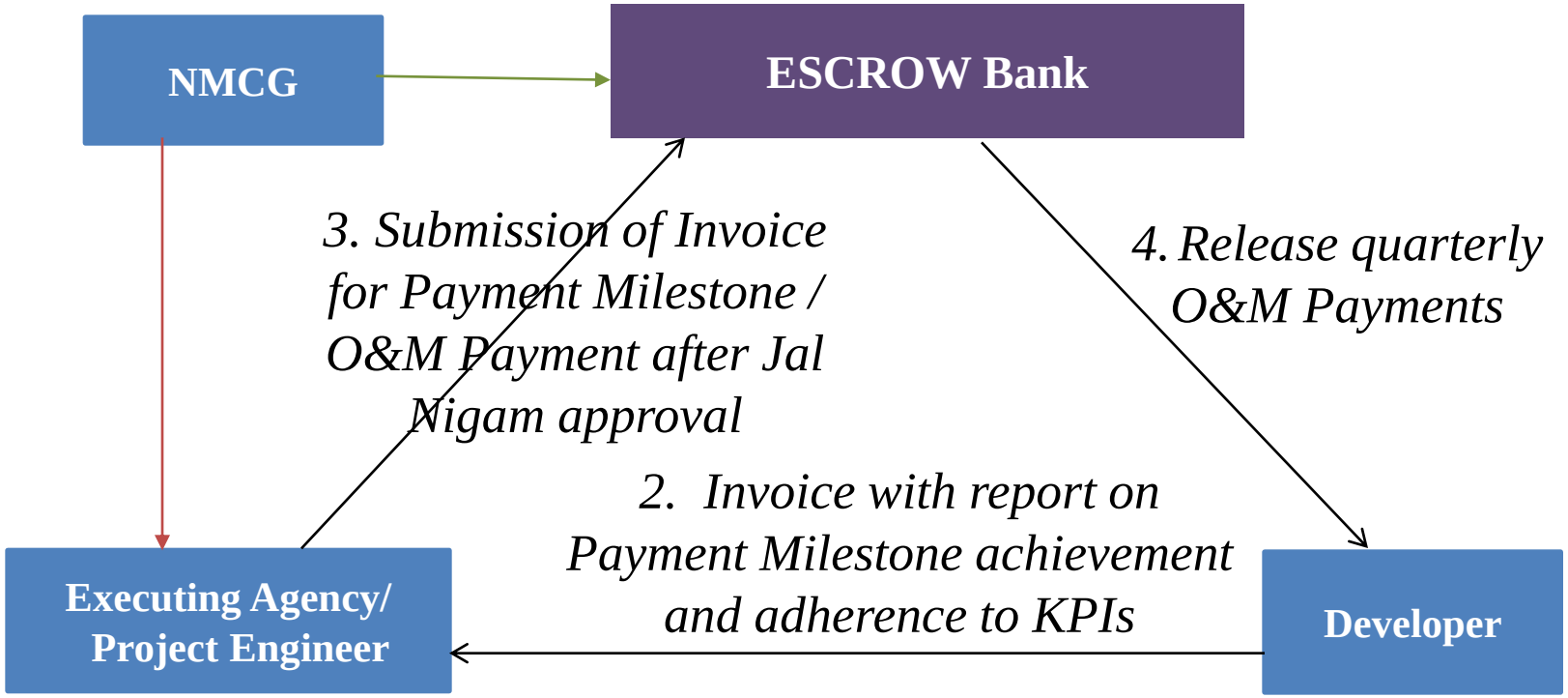
Project Execution Timeframe



DOC: Date of Commercial Operation.
CP: Conditions Precedent.

Payment Security Mechanism

1. Minimum Escrow Balance (Upcoming Payment Milestone during Construction Period and for 2 year of O&M Payments during O&M Period)



Lender will have substitution rights through a Substitution Agreement in a Concessionaire Event of Default

First set of Projects

Haridwar

Two STPs – 68 MLD at Jagjeetpur & 14 MLD at Sarai

Uttarakhand Pey Jal Nigam as Executing Agency.

Awarded to M/s HNB Engineers Private Limited

Total awarded cost Rs. 171.53 Cr

14 MLD STP at Sarai is operational and 68 MLD in Jagjeetpur under trial operations.

Varanasi

50 MLD STP at Ramana & rehabilitation of existing associated infrastructure.

Uttar Pradesh Jal Nigam as Executing Agency.

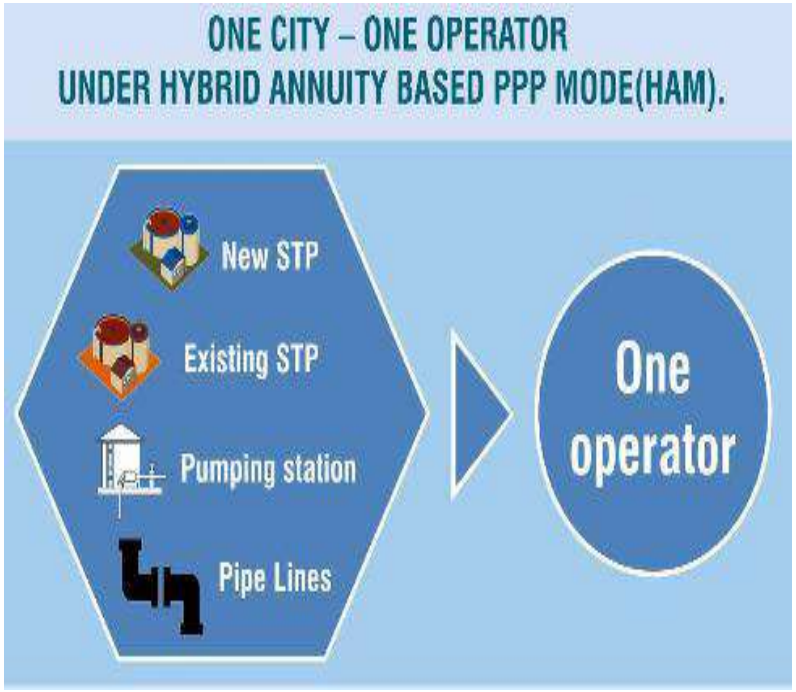
Awarded to Consortium of Essel Infraprojects Limited – RPC ECOS LLC.

Total Awarded Cost : Rs. 153.16 Cr

3rd Construction milestone completed.

Three national level stakeholder consultations,
More than 800 queries replied during pre bid meeting
International Finance Corporation as the Transaction Advisor.

One City One Operator

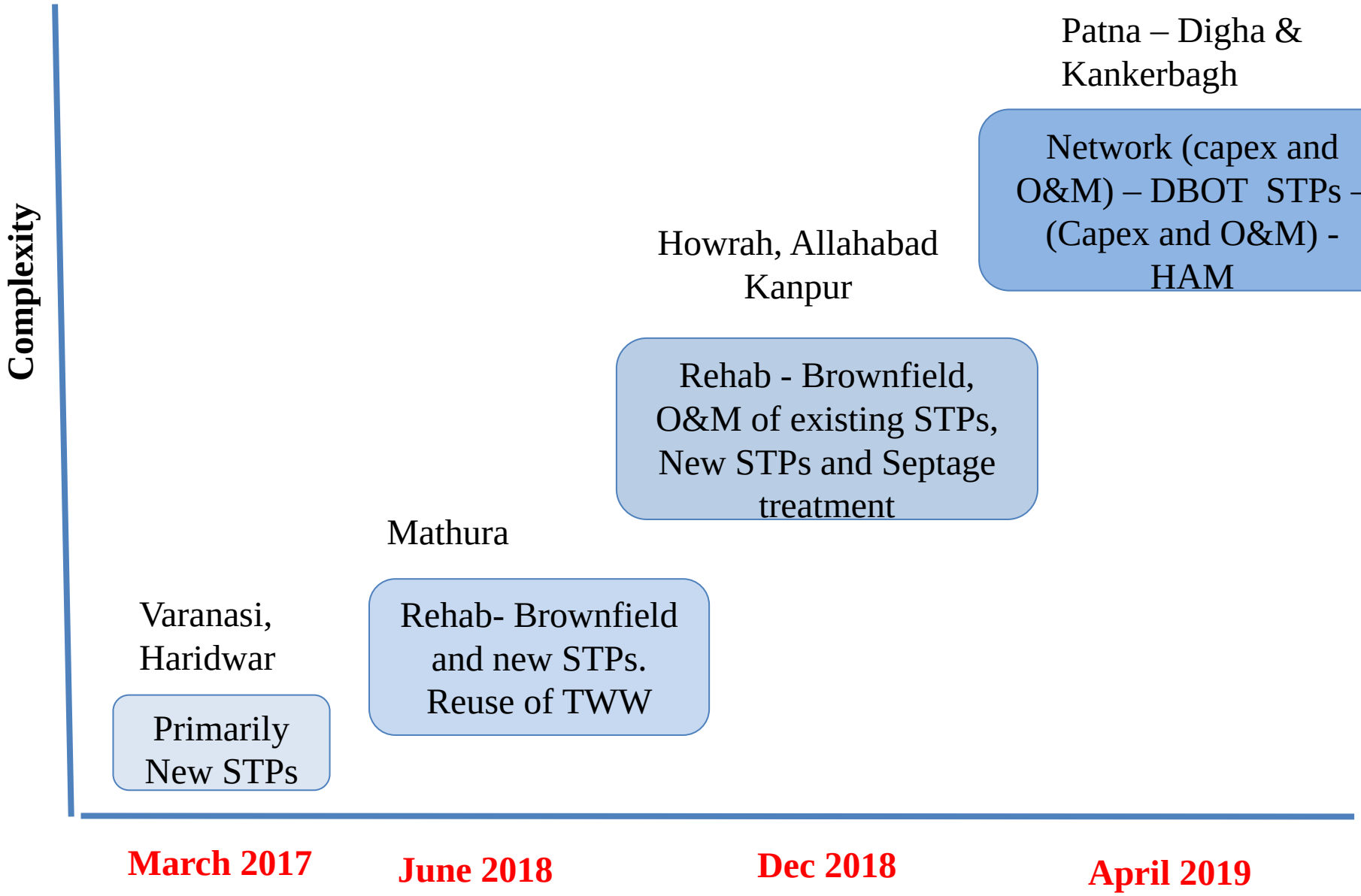


- **Paradigm shift in the sector – one stop solution for city wide sewage treatment**
- **Integration of new and existing sewage treatment infrastructure**

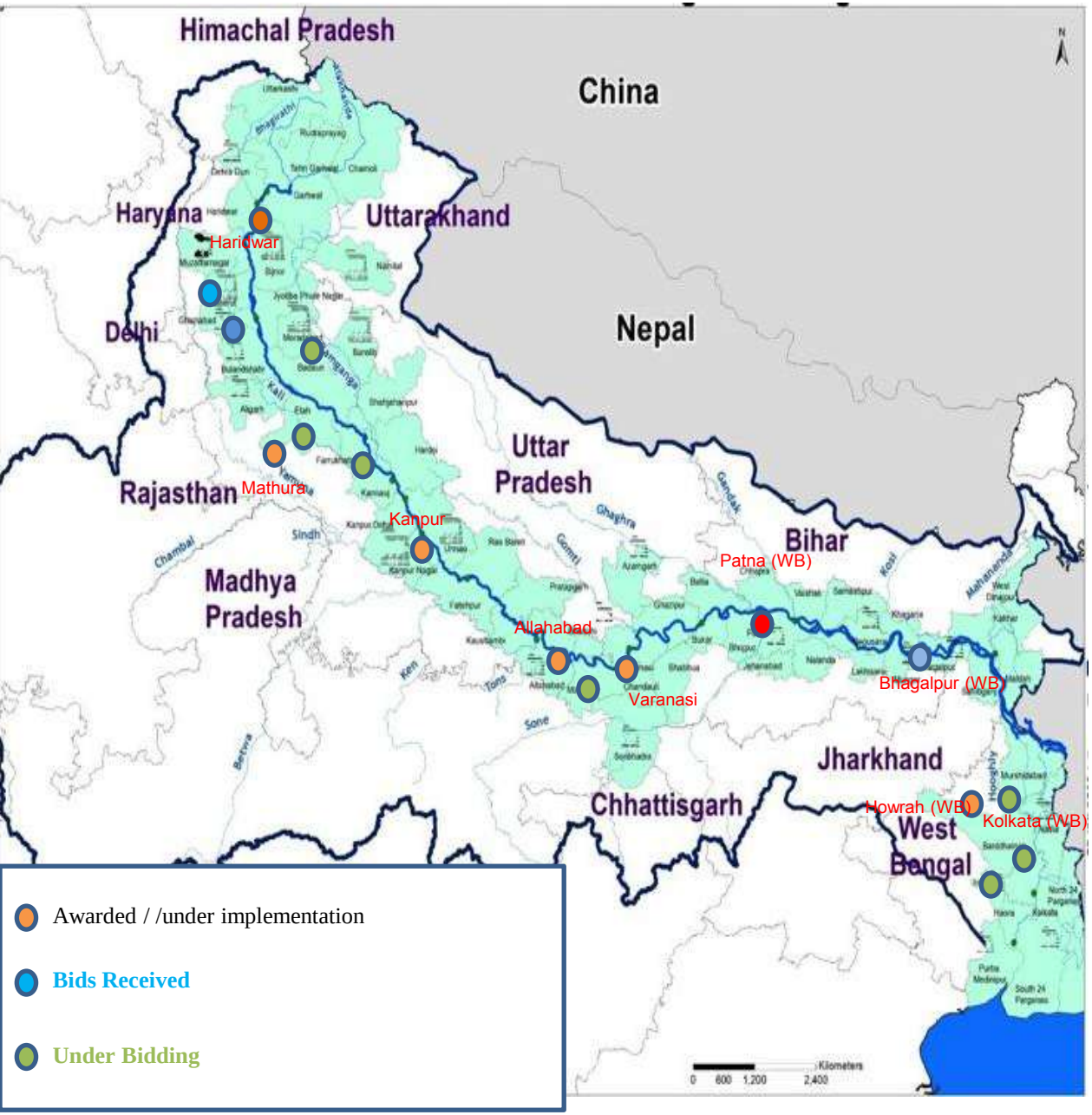
City	Existing	New	Total STP capacity (MLD)
Prayagraj	254	72	**326**
Kanpur	425	50	**475**
Mathura	37.3	30	**67.30**
Howrah	22	165	**187**
Patna		150	**150**
Farukkabad	2.7	35	**37.7**
Mirzapur-Ghazipur	14	39	**57**

- **Single ownership and accountability**
- **Assured & continued of performance for both existing and new Sewage infrastructure**

Evolution of HAM – towards One City One Operator approach



HAM status



- Total 29 projects in 18 packages.
- Awarded Packages– 9
- Bids received – 2
- Under Bidding – 7
- Total value– USD $ 1.4 billion(Rs.10816 Cr)
- Pvt. Capital Mobilized - $ 102 million(Rs.716 Cr)
- Total potential for private capital – USD $ 250-285 million(Rs.1800-2000 Cr)
- Encouraging new players to enter the market

Players

Bidders

HNB Engineers	Esssel Infra
Shapoorji Pallonji	Organica
Triveni Industries	JKB Infra
VA Tech Wabagh	GA Infra
Adani Enterprises	RPC ECOS LLC
Vishwaraj Enterprises	Vital Capital
Suez	Tahal Engineering
SMS Limited	Metito
Swachh Limited	

Lenders

Yes Bank
Indus Ind
PTCFSL
Tata Clean Tech
IFC
SBI

Project Engineers
AECOM
Shah Technical
Mahindra Consulting

Transaction Advisors
IFC
Deloitte
KPMG
AT Kearney
PWC

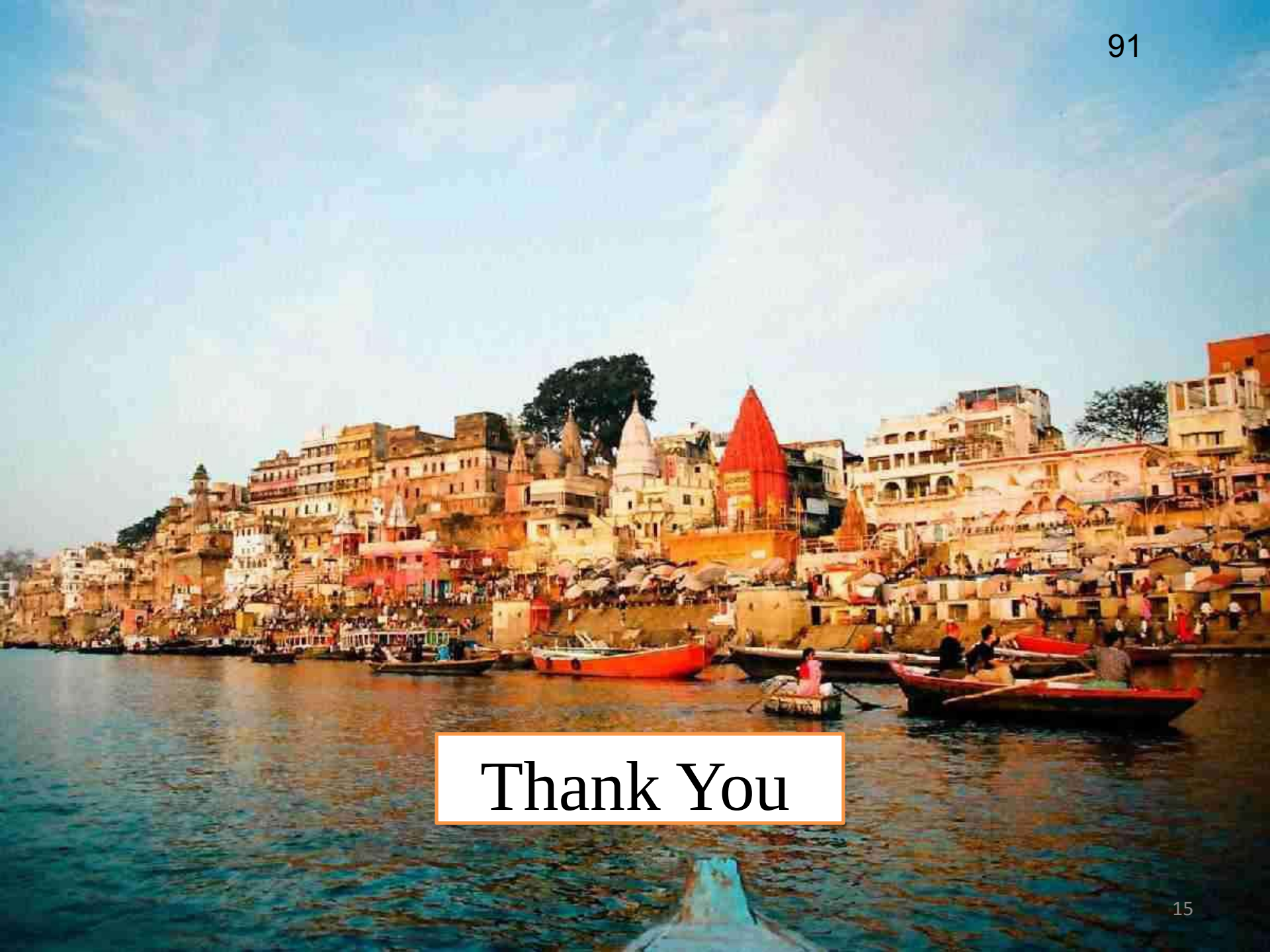
Experience

1. Bidders are selective on size and Geography of investments.
2. Land issues delay the project implementation.
3. Local executing Agencies to gear up to raise to the occasion.(Business as usual problem)
4. Partnership in true sense to be emphasized.
5. Bandwidth of waste water investors(local players).
6. Optimization of recycle of Sludge and reuse of waste water.
7. Priority lending for water sector from PSB.
8. Strategic timing of project procurement / staggering the procurement

Way Forward

Moving from Project to Program

- ✓ Nation wide adoption of the model -Asset Procurement to Service procurement.
- ✓ Polluter Pays – sewage charges for long-term sustainability
- ✓ Strengthening ULB ownership
- ✓ Widening the market players– domestic and international.
- ✓ Building a stable market for wastewater reuse


Thank You

यू. पी. सिंह, आई. ए. एस
U.P. SINGH, IAS
सचिव
SECRETARY
Tel. : 23710305
Fax : 23731553
E-mail : secy-mowr@nic.in

सत्यमेव जयते

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
श्रम शक्ति भवन
रफी मार्ग, नई दिल्ली-110 001
GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
SHRAM SHAKTI BHAWAN
RAFI MARG, NEW DELHI-110 001
http://www.mowr.gov.in

DO.No: Pr/4/2020/PPP/NMCG

6th August 2020

Dear Sri Rao,

India's bigger cities have large centralized sewerage systems, vast underground pipelines, pumping stations and huge treatment plants. These systems are expensive to build and even more expensive to operate them effectively. During my review with States on 351 polluted stretches, I have observed that these capacities are either underutilized, or non-functional and do not meet the output standards. Small and medium towns find it even more difficult to afford to such systems. Because of exorbitant cost of network and STPs, in many cases, it becomes difficult to lay sewer network, which also lead to poor capacity utilization of STPs.

2. It is fact that more than 50% of the urban population in India is dependent on Onsite Sanitation Systems (OSS) such as Septic tanks and soak pits. With the implementation of Swach Bharat Mission, the proportion of OSS is bound to increase. Though containment of human waste will be largely achieved, its treatment still poses a huge challenge. For instance in many cities, the Faecal Sludge and Septage (FSS) from the OSS are de-sludged and disposed of on land/ in water bodies, thereby polluting them and leading to environmental degradation & health hazards.

3. Taking cognizance of the above facts, Government of India has introduced National Faecal Sludge & Septage Management (FSSM) policy in 2017 to emphasize the importance of treating the feacal sludge from OSS. Some State Governments have also issued State level FSSM policies/guidelines. It is understood that nearly 25 Faecal Sludge Treatment Plants (FSTPs) are operational and another 400 are in the offing in the country.

4. But considering the number of towns in the nation, there is a need to scale up the efforts in setting up of FSTPs. Unlike the conventional sewage treatment plants, FSTPs have many advantages such as, lesser cost, less dependency on power, reduced time for construction, lesser operational expenditure. Further, there is no need to lay an extensive sewerage network.

Contd..2/-

5. Another option is co-treatment of faecal sludge generated from OSS in the city and fringe areas, in the existing STPs. As STPs are designed for large time horizon of 10-15 years, they are expected to be operated at reduced capacity. The available unutilized capacity offers an opportunity for utilizing them for co-treatment of faecal sludge. This will allow optimal utilization of the treatment capacities already created and also reduce pollution & environmental degradation of water bodies.

6. Hence, I would urge you to consider the implementation of FSTPs, and/or co-treatment of faecal sludge in existing STPs, in all towns wherever feasible in your State, so that dumping of the faecal sludge in water bodies/land and there by polluting them, can be avoided.

7. National Mission for Clean Ganga (NMCG) will be willing to collaborate with the States by providing technical assistance and handholding, to accelerate the implementation.

With regards,

Yours sincerely,

(U.P. Singh)

Shri M.S. Rao,
Chief Secretary,
Government of Meghalaya,
Main Secretariat,
Riland Building,
Shillong – 793 001

Annexure-II

Legal/OA673/2018/NMCG/2019
National Mission for Clean Ganga
Department of Water Resources, River Development
& Ganga Rejuvenation, Ministry of Jal Shakti

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 30th June 2020

OFFICE MEMORANDUM

Subject: **Minutes of the 3rd meeting of Central Monitoring Committee in the NGT Matter OA No.673 of 2018 held on 23.06.2020 at 10.30 AM**

A copy of Minutes of the 3rd Meeting of Central Monitoring Committee, in the NGT matter O.A. No. 673 of 2018, held through Video Conferencing on 23.06.2020 at 10.30 AM under the Chairmanship of Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti is enclosed herewith for information/ necessary action.

(D. P. Mathuria)
Executive Director-Technical, NMCG

Encl: As above.

To,

1. Chief Secretary, Government of Andhra Pradesh, Ist Block, A.P Secretariat Office, Velagapudi – 522503
2. Chief Secretary, Government of Assam, Block- C, 3rd Floor, Assam Sachivalaya, Dispur - 781006, Guwahati
3. Chief Secretary, Government of Bihar, Main Secretariat, Patna – 800015
4. Chief Secretary, Government of Chhattisgarh, Mahanadi Bhawan, Mantralaya, Naya, Raipur – 492002
5. Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa – 403521
6. Chief Secretary, Government of Gujarat, 1st Block, 5th Floor, Sachivalaya, Gandhinagar – 382010
7. Chief Secretary, Government of Haryana, 4th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh – 160019
8. Chief Secretary, Government of Himachal Pradesh, H P Secretariat, Shimla –171002
9. Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu -180001
10. Chief Secretary, Government of Jharkhand, 1st Floor, Project Building, Dhurwa, Ranchi-834004

11. Chief Secretary, Government of Karnataka, Room No. 320, 3rd Floor, Vidhana Soudha, Bengaluru -560001
12. Chief Secretary, Government of Kerala, Secretariat, Thiruvananthapuram -695001
13. Chief Secretary, Government of Madhya Pradesh, MP Mantralaya, Vallabh Bhavan, Bhopal – 462004
14. Chief Secretary, Government of Maharashtra, CS office main Building, Mantralaya, 6th floor, Madame Cama Road, Mumbai – 400032
15. Chief Secretary, Government of Manipur, South Block, Old Secretariat, Imphal – 795001
16. Chief Secretary, Government of Meghalaya, Main Secretariat Building, Room no 316, Shillong – 793001
17. Chief Secretary, Government of Mizoram, New Secretariat Complex, Aizwal – 796001
18. Chief Secretary, Government of Nagaland, Civil Secretariat, Kohima – 797004
19. Chief Secretary, Government of Odisha, General Administration Department, Odisha Secretariat, Bhubaneswar – 751001
20. Chief Secretary, Government of Punjab, Chandigarh – 160001
21. Chief Secretary, Government of Rajasthan, Secretariat, Jaipur – 302005
22. Chief Secretary, Government of Sikkim, New Secretariat, Gangtok – 737101
23. Chief Secretary, Government of Tamil Nadu, Secretariat, Chennai-600009
24. Chief Secretary, Government of Telangana, Block C, 3rd floor, Telangana Secretariat Khairatabad, Hyderabad, Telangana
25. Chief Secretary, Government of Tripura, New Secretariat Complex Secretariat – 799010, Agartala, West Tripura
26. Chief Secretary, Government of Uttar Pradesh, 1st floor, Room No. 110, Lal bahadur Sastri Bhawan, Uttar Pradesh Secretariat, Lucknow – 226001
27. Chief Secretary, Government of Uttarakhand, 4 Subhash Road, Uttarakhand, Secretariat Dehradun – 248001
28. Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325, Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah – 711102
29. Administrator, Daman & Diu and Dadra and Nagar Haveli, Secretariat, Moti, Daman -396220
30. Chief Secretary, Govt. of NCT of Delhi, Delhi Secretariat, IP Estate, New Delhi – 110002
31. Chief Secretary, Govt. of Puducherry, Main Building, Chief Secretariat, Puducherry-605001

Copy To:

1. Secretary, Department of Forest, Ecology & Environment, J&K, Room no. 2/33-34, Main Building, Civil Secretariat, J&K, Jammu.
2. Secretary, Department of Environment, Science and Technology Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001
3. Principal Secretary, MGSIPA Complex, Sector-26, adjacent Sacred Heart School, Chandigarh, 160019
4. Additional Chief Secretary to Govt. of Haryana, Environment Department of Environment & Climate Change, R.No. 108, 7th Floor, Main Secretariat Sec16, Chandigarh 160017
5. Principal Secretary, Department of Environment, U.P., Room No. 601, Bapu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.

6. Special Chief Secretary, Department of Environment, Forest, Science & technology, 4th Block, Ground Floor,Room No:268, A.P Secretariat Office, Velagapudi
7. Secretary, Department of Environment and Forest, H-Block, 2nd Floor Janata Bhawan, Dispur, Guwahati 781006, Assam
8. Principal Secretary, Department of Environment, Forest and Climate Change, Van Vibhag Rd, Nehru Nagar, Patliputra Colony, Patna, Bihar 800013
9. Additional Chief Secretary (Forests & Environment), Forests & Environment Department, Block 14, 8 th floor, Sachivalaya, Gandhinagar - 382 010 Gujarat.
10. Principal Secretary, Department of Environment, Room No. S-2/23, Mahanadi bhawan, Mantralaya, Nava Raipur, Atal Nagar, Raipur - 492001
11. Additional Chief Secretary to Government, Forest, Environment and Ecology, Department, Karnataka Government Secretariat, Room No. 447, 4th Floor, Gate no. 2, Multi-storey Building, Bangalore-560001.
12. Principal Secretary, Department of Environment, Room No. 406 4th Floor Annex II, Secretariat, Kerala Thiruvananthapuram, Kerala, PIN- 695001
13. Principal Secretary, Department of Housing and Environment, Government of Madhya Pradesh, Paryavaran Parisar, E- 5, Arera Colony, Bhopal, Madhya Pradesh, 462016
14. Principal Secretary, Environment Department, Maharashtra 15th Floor, New Administrative Building, Madam Cama Road, Mantralaya, Mumbai – 400032
15. Additional Secretary, Forests & Environment Deptt, Secretariat Building, North Range, Forest Colony, Khasi Hills, Shillong, Meghalaya 793001
16. Deputy Conservator of Forest (Headquarters) Environment, Forests & Climate Change Department Tuikhuahtlang, Aizawl Mizoram.
17. Principal Secretary, Department of Environment, Forest & Climate Change, New Secretariat, Kohima, Nagaland Tel.- 0370-2243025
18. Additional Chief Secretary, Department of Forest & Environment, Government of Odisha, Secretariat, Bhubaneswar-751001
19. Principal Secretary, Forest and Environment Department, Rajasthan 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur, Rajasthan 302004
20. Principal Secretary, Chief Project Director (SBFP-JICA), Forests, Environment & Wildlife Management Department, Government of Sikkim
21. Principal Secretary, Environment and Forest Department, Government of Tamil Nadu, Secretariat, Chennai- 600009.
22. Secretary, Department of Science, Technology & Environment, Vigyan Prajukti O Paribesh Bhawan, P.N. Complex, Gorkhabasti, Agartala,West Tripura, PIN-799006
23. Special. Chief Secretary, TSCOST, 4th Floor, Aranya Bhavan, Saifabad, Hyderabad, Telangana State, Pin – 500004
24. Deputy Conservator of Forests, (Territorial Division), Department of Environment & Forest Office of the Deputy Conservator of Forest, Daman, Fort Area, Post Office Moti Daman Daman & Diu (U.T.)
25. Deputy Conservator of Forests, (Territorial Division), Van Bhavan, Dadra and Nagar Haveli
26. Secretary, Department of Environment, Govt. of NCT of Delhi, 6th Floor, Delhi Secretariat, IP Estate, New Delhi 110002

27. Secretary, Environment & Forest, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Fourth Floor, New Building Dehradun, Pin code-248001
28. Joint Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - Goa
29. Secretary, Environment, Office of Environment, Chief Secretariat, Goubert Avenue, Puducherry 605001
30. Principal Secretary, Department of Environment, 5th Floor, Pranisampad Bhawan, Block LB-II, Salt Lake, Sector III, Bidhannagar, Kolkata – 700 106
31. Additional Chief Secretary Forest, Environment & Climate Change Deptt., Nepal House, Doranda, Ranchi-834002, Jharkhand
32. The Member Secretary, Assam Pollution Control Board, Bamunimaidam, Guwahati – 781021
33. The Member Secretary, Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010
34. The Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 010
35. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Atal Nagar Dist- Raipur (C.G.) 492002
36. The Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
37. The Member Secretary, Daman, Diu & Dadra Nagar Haveli Pollution Control Committee, Office of the Deputy Conservator of Forests, Fort Area, Court Compound, Moti Daman, Daman – 396220
38. The Member Secretary, Goa State Pollution Control Board, 1st Floor, Dempo Tower, EDC Patto Plaza, Panaji, Goa-403 001
39. The Member Secretary, Gujarat Pollution Control Board Paryavan Bhavan, Sector 10- A, Gandhinagar – 382 043
40. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula-134109, Haryana
41. The Member Secretary, Himachal Pradesh Pollution Control Board, Him Parivesh, Phase-III, New Shimla, Himachal Pradesh 171009
42. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu, Jammu and Kashmir 180004
43. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar (J&K)
44. The Member Secretary, Jharkhand Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834004
45. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor, # 49, Church St., Bengaluru-560 001
46. The Member Secretary, Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O. Thiruvananthapuram - 695 004

47. The Member Secretary, Manipur Pollution Control Board, Lamphelpat, Imphal West D.C. Office Complex Imphal– 795004
48. The Member Secretary, Meghalaya Pollution Control Board Arden- Lumpyngngad Shillong: 793014
49. The Member Secretary, Nagaland Pollution Control Board, Signal Point, Dimapur Nagaland – 797112
50. The Member Secretary, Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal - 462 016, Madhya Pradesh
51. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022
52. The Member Secretary, Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl, Mizoram: 796001
53. The Member Secretary, Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar, Puducherry -600 005
54. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab 147001
55. The Member Secretary, Odisha Pollution Control Board, A-118, Nilakanta Nagar, Unit – VIII, Bhubaneshwar – 751012
56. The Member Secretary, Rajasthan Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur (Rajasthan) - 302 004
57. The Member Secretary, Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management Government of Sikkim, Deorali, Gangtok, - 737102
58. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad-500 018
59. The Member Secretary, Tripura Pollution Control Board, Vigyan Bhawan, Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban Agartala – 799006
60. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032
61. The Member Secretary, Uttarakhand Environmental Protection & Pollution Control Board, 29/20, Nemi Road, Dehradun, Uttarakhand – 248001
62. The Member Secretary, Uttar Pradesh Pollution Control Board, Building.No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010
63. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Kolkata - 700 106

Copy for kind information:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director NRCD
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
4. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032

5. PS to ED (DDG/Project/ Finance/Admin), NMCG
6. Adviser, NRCD
7. Shri S.K. Srivastava, Additional Director, NRCD

Minutes of the 3rd meeting of the Central Monitoring Committee held on 23.06.2020 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 3rd meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through Video Conferencing with the States on 23.06.2020 at 10.30 AM in Conference Room, NMCG under the Chairmanship of Secretary, DoWR, RD & GR, Ministry of Jal Shakti. The list of participants of NMCG, NRCD and CPCB present at the meeting is at *Annexure-I.*

II. Secretary, DoWR, RD & GR, Ministry of Jal Shakti, welcomed all the participants and remarked that following compliances have been undertaken based on the NGT's order dated 06.12.2019 in the matter OA No. 673 of 2018:

- Two meetings of CMC were held on 08.01.2020 and 19.02.2020. Due to pandemic, meetings of the Committee could not be convened for the months of March-May.
- Five States of Assam, Gujarat, Madhya Pradesh, Maharashtra and Telangana were visited by a team of officials of NMCG, NRCD and CPCB in February, 2020. Based on the visits, DO letters were sent to the Chief Secretaries of these States along with the site visit report and recommendations of the Team.
- Similar exercise was carried out in March, 2020 and the teams had visited seven States viz., Haryana, Karnataka, Kerala, Meghalaya, Nagaland, Punjab and Tamil Nadu. Further, visits to remaining States shall be convened after the situation becomes favourable.
- First Quarterly Report of the Committee was submitted in NGT on 19.06.2020.

It was also informed that NGT hearing in the matter was held on 22.06.2020, wherein Hon'ble Chairman, NGT highlighted that environmental laws are being violated by way of discharge of untreated waste water into rivers. Timelines have been prescribed in the orders for setting up of STPs/ CETPs by March, 2021. Yet it is difficult to comprehend how timelines can be prescribed for violating the environmental laws, which is a criminal act. During the hearing, State of Assam requested that based on recent monitoring of river water quality, it has emerged that number of priority reaches in their State have come down from 44 as contained in the CPCB report. The Hon'ble Bench remarked that their order was based on data provided by CPCB and any further changes in priority reaches have, therefore, to be based on independent periodical monitoring data by CPCB. CPCB based on upon independent periodical monitoring has to take a final call in the matter.

Further, as per the information provided by CPCB, 12 meetings of the Task Team have been organized. Till date, all 61 out of total 61 action plans pertaining to P-I and P-II PRS (polluted river stretches) received by CPCB from 18 States and 2 UTs have been approved. 91 out of 115 Action plans pertaining to P-III and P-IV polluted river stretches, submitted by 17 States and 01 UT has been approved by CPCB Task Team. The Action Plans in respect of Chhattisgarh, Jharkhand, Punjab, Rajasthan, Uttarakhand and West Bengal requires modification in light of the recommendations of the CPCB Task Team, whereas Nagaland State could not participate in Video Conferencing of the last 2 Task Team meetings due to technical problem.

Secretary, DoWR, RD&GR highlighted that Monthly Progress Report (MPR) are not being submitted by all the States regularly. Few States such as Goa, Jharkhand, Karnataka, Manipur, Rajasthan and Uttarakhand have not even submitted single MPR in the 6 months period. Due to the pandemic, exercise of physical verification of the State by the team of officials from NMCG, NRCD and CPCB is not possible, hence the progress of works carried out by the States can only be monitored through their submissions made in MPR. Further, concern was raised against the quality of MPRs and the information provided by the States. Few States such as Assam (as submitted in May), Kerala (as submitted in January), Nagaland (as submitted from January – May) were submitting details with regard to Priority I and II rivers or few rivers only, which was not acceptable. MPR must also include status of P-III & IV PRS. Further, it was directed that the States should clearly indicate status of each and every Action Plan and their sub-components along with expected completion timelines in their MPRs. The MPR must clearly bring out incremental progress/ action taken by State against each of activity since last MPR submitted by them. Therefore, all the States were directed to regularly submit (by email) soft copies of the MPRs containing details of all the stretches to NMCG by 20th of every month. The MPR should include details of sewerage, industrial, solid waste, bio-medical, hazardous, groundwater, floodplain and e-flow management and other components as per the format.

Apart from NGT compliance, in order to maintain a healthy environment, the concept of Aviral (continuous flow) and Nirmal Dhara (un-polluted flow) was suggested to be adopted by the States for all their rivers. With regard to maintaining the flows in rivers, it was stressed to rejuvenate smaller rivers tributaries by revitalizing the water bodies/ lakes/ wetlands in order to have adequate flow in the rivers. With regard to the pollution in rivers, it was highlighted that while a number of sewage treatment plants (STPs) are already in operation,

however these are either under-utilized or are not complying with the discharge standards. Similarly, for treatment of industrial waste, industries have installed individual ETPs or CETPs and are said to be complying with the discharge norms. However, the water quality data in nearby drains wherein the treated effluents are discharged is often found to be non-compliant or have high BOD/ COD levels. Therefore, it was recommended that existing sewage and industrial infrastructure needs to be optimally utilized by putting in efforts to make a non-functional plant functional or improving the capacity utilization or ensuring that the plant is complying with the norms.

Secretary, DoWR, RD & GR, directed officials of Ministry of Jal Shakti (NRCD and NMCG) to prepare State-wise summary report based on the MPRs received, wherein work progress made in consecutive months should be clearly highlighted.

Further, considering the slow-down in works related to different projects due to COVID-19 pandemic, all the States were directed to expedite the implementation of all the project works keeping the timelines stipulated by Hon'ble NGT in mind.

III. Subsequently, State-wise discussions held are as follows:

1. **Punjab**

Chief Secretary, Punjab informed that 88 STPs are proposed to be constructed, of which 11 STPs are expected to be completed by 31.03.2021, 25 STPs by 31.03.2022, 32 STPs by 31.03.2023 and 20 STPs by 31.12.2023. Works are being awarded, with a clause of payment to be made based on the performance of the plant with 15 years O&M. With regard to Buddha Nallah, it was informed that 3 big STPs are proposed to be constructed in Ludhiana. The projects are under-tendering stage and are expected to be completed by 2023. The State Government is seeking relief from NGT with regard to extension in timeline for the projects.

It was further informed that 93 STPs are operational in Punjab, out of which 32% in terms of capacity are not complying with the standards. Up-gradation of these STPs is also in progress and shall be completed in a years' time. Around 1980 MLD of sewage is being generated in Punjab, against which treatment capacity of 1302 MLD is existing. Only 900 MLD of the plant meets the discharge standards. With regards to solid waste management, 98% door-door collection is happening. As per the water quality monitoring data of the rivers in Punjab stretch, River Beas (Priority – V) is classified in category B, River Satluj (Priority – I) remains in category D downstream confluence of Buddha Nallah and River Ghaggar (Priority

– I) remains mostly D. In 38 towns of Punjab, where STPs do not exist or are proposed, black water is being treated ex-situ into grey water.

A non-complying 5 MLD CETP at Jalandar was closed down and the industries in the leather complex have also closed down due to High Court orders. One newly setup 15 MLD CETP for textile dyeing at Ludhiana is under stabilization and two CETPs complying with the norms are operational in Ludhiana. Work is in progress for setting up of two new CETPs for textile dyeing cluster with capacity of 40 MLD and 50 MLD, the work for which slowed down due to financial issues.

Secretary DoWR,RD&GR raised the issue of pollution in Satluj river due to Buddha Nallah and requested the State Govt. to ensure timely completion of project for pollution abatement of Buddha Nallah and that work should not be affected due to financial constraints.

It was informed that funds for the projects related to Buddha Nallah have already been tied up. It was also assured that the complete time-line for achieving the mile stones for setting up of STPs and CETPs along with PERT chart shall be submitted to the Ministry in next MPR.

2. <u>Haryana</u>

Principal Secretary, Haryana informed that the total sewage generation in different towns in the State is 1311 MLD. There are 116 STPs having capacity of 1563 MLD, of which 8 STPs are non-complying. These STPs receives about 1100 MLD of sewage and utilization capacities of the plants is 70%. For small recently approved colonies, additional STPs are being proposed. 23 STPs are under construction in River Yamuna (Priority – I) and 13 STPs in River Ghaggar (Priority – I). Another 11 STPs having capacity of 395 MLD are proposed in Haryana, especially for Faridabad and Gurgaon. For the proposed STPs, financial assistance is being sought.

Secretary, DoWR,RD&GR highlighted that 70% treatment of sewage reflects good utilization of capacity. However, the water quality monitoring data of the drains in Haryana and River Yamuna does not show much improvement in quality. Further, the State was directed to indicate status of all the projects (on-going/ proposed), capacities of the STPs and laying of sewer lines along with completion timeline in the MPRs. The State to also provide actions proposed for improving the capacity utilization of the STPs and the non-complying 8 STPs. With regard to industrial waste, status of existing CETPs and their utilization capacities, capacity of under-construction CETPs with completion timeline are to be included in the MPR. It was also remarked that as per States plan, many of STPs in Yamuna and Ghaggar

PRS were slated for completion during the period wef March-May'2020. However status of their completion or otherwise is not available.

3. <u>Assam</u>

Principal Secretary, Department of Environment & Forests, Assam along with Commissioner, Guwahati Municipal Corporation (GMC) briefed about the status of projects. It was informed that the GMC has been regularly cleaning and de-silting Bharalu river, Mora Bharalu, Bahini river, Lakhimijan river and Basistha Channel. Under Swachh Bharat Mission, GMC have constructed 4697 toilets to prevent open defecation. Disposal of municipal waste, plastic, biomedical waste in the river bodies are prohibited. Commissioner, GMC informed that 5 STPs are proposed and EOIs were called but could not be received due to COVID-19.

Secretary, DoWR,RD&GR directed the State representatives to review the directions of Hon'ble NGT in its order dated 06.12.2019 and to provide status of all the on-going and proposed projects along with completion timeline in the MPR. The MPR should also provide details about all the 44 polluted river stretches identified by CPCB, which is presently not available. It was also directed that one nodal officer well versed with the subject should in future attend the meeting and provide all requisite information for the State in a consolidated manner. Further, it was directed that Director General, NMCG may take a meeting with the officials of Assam within 15 days to review the progress.

Principal Secretary, Department of Environment & Forests agreed to submit status of all the projects at the earliest and assured to follow up with above directions.

4. <u>Gujarat</u>

Member Secretary, Gujarat Pollution Control Board informed that Action Plan for rivers in Priority I, II, III and IV have been approved by CPCB. Nodal officer have been appointed in the office of Chief Secretary. Monthly Progress Reports are being regularly submitted. There are 24 STPs operational in Gujarat and 3 STPs have recently been commissioned. For the remaining 21 STPs, which were earlier proposed to be completed by 2023, the completion timeline for the same has been reduced to 2022. With regard to industrial waste, it was informed that works related to expansion and up-gradation of 3 CETPs have been completed. Gujarat has developed treated waste water policy, under which treated water is being reused in irrigation as well as supplied in industrial areas. It was also informed that Chief Secretary, Gujarat has convened a meeting with the concerned Departments to resolve the land

allotment issues in various towns due to which works related to establishment of STPs were being delayed.

In the polluted river stretches, for 7 municipalities in situ-remediation is proposed. Trials have been started in Ankleshwar and in the remaining 6 municipalities projects are in tendering stage. In situ remediation is proposed to be carried out until completion of the sewerage projects.

With regard to the NRCP project on Tapi River in Surat, it was informed that 2 STPs are under-construction, tenders are under invitation with regard to left and right bank of river Tapi. For SUDA area, I & D work has begun. For 17 villages in GWSSB area, tenders have been invited and for 23 other villages, tenders are to be invited. Works related to possession of land at various sites has already begun.

Further, it was informed that total sewage of 2494 MLD is generated in Gujarat against which there is a treatment gap of 748 MLD, for which 65 STPs of 1300 MLD are proposed.

Secretary, DoWR,RD&GR appreciated the efforts put in by the State with regard to the policy developed for reuse of treated water and directed to resolve the land issues at the earliest as its resolution would enable timely completion of projects

5. <u>Maharashtra</u>

No representative from the State attended the meeting. It was directed by Chair to put up letters to seek reasons for non-attendance the State. The Committee is functioning on orders of NGT and States should remain committed to attend the meeting with up-to-date progress.

6. <u>Kerala</u>

Additional Chief Secretary along with Principal Secretary, Department of Environment & Forests, Kerala attended the meeting. It was informed that 21 polluted river stretches were identified in Kerala, of which now bathing quality standards is being maintained in 15 rivers. In the balance 6 rivers, efforts are being put in to achieve the bathing quality standards by March, 2021. In these stretches, 14 STPs are planned, of which 2 STPs have been completed, 3 STPs would be completed by March 2021, balance 9 projects are in DPR stage. Further, it was informed that there are no major industrial pollution in these stretches.

Executive Director, NMCG informed that MPR submitted by Kerala for the month of January 2020 had details only about River Karamana (Priority I). Details with regard to other 20 rivers need to be submitted as per the format.

Secretary, DoWR,RD&GR informed that with regard to the 15 rivers already meeting the bathing quality standards, as per the directions of NGT, the State should approach CPCB with relevant data for their consideration to exclude them from the list of polluted river stretches. Further, the details may also include the steps taken by State in form of sewerage intervention projects, in-situ remediation measures and other measures that have helped in rejuvenating the river reaches and attainment of bathing standards thereof.

7. Tamil Nadu

Additional Chief Secretary (Environment and Forest) Tamil Nadu informed that there are 6 polluted river stretches in the State.

PWD is preparing DPR for Gram panchayats in catchment area of river Cauvery and the DPR shall be prepared by July, 2020. Action Plan will take 2 years for implementation, i.e by March, 2023. There are 5 Fecal sludge management plants under-construction and are expected to be completed by December, 2020. There are 10,900 industrial units in Tamil Nadu and all have their own ETPs, which are being regulated as per consent conditions. 36 CETPs are existing in the State, of which 35 are working and 1 CETP is non-functional and is being closed down. Bio-medical waste, hazardous waste and e-waste are being segregated as per the PCB rules.

Secretary, DoWR,RD&GR highlighted that a team of officials had visited Tamil Nadu in March 2020 and as per the reports, many of the rivers are polluted due to inadequate dilution water as these rivers are non-perennial. For rejuvenating the rivers, focused attention is required in respect of tributaries and sub-tributaries of these rivers. MGNERGA could be leveraged by Chief Secretary for rejuvenating rivers. Further, it was stressed that along with capacity creation, monitoring of the STPs/ CETPs through online performance monitoring mechanism and ensuring optimum utilization of the plants need to be undertaken by the States.

8. Telangana

Principal Secretary, Environment and Forest, Telangana informed that there are 5 river stretches in the State. It was informed that in Hyderabad a total of 1900 MLD sewage is being generated, of which 770 MLD is being treated and there is a gap of 1130 MLD. For treatment of 730 MLD sewage, DPR for I&D with 9 STPs has been prepared. For remaining 400 MLD of sewage, a project for sewage network and 13 STPs has been proposed. DPR has been prepared and tenders are to be bid based on Hybrid annuity model within 45 days. I&D

projects are expected to be completed within 2 years and sewerage network project within 3 years. In compliance to the NGT directions, phyto-remediation has started in 5 drains (700 MLD) with targeted completion of works in 2-3 months. With regard to industries, it was informed that 6800 KLD of industrial waste and 4 CETPs are operational in the catchment areas of the rivers. It was also informed that in order to maintain e-flow of the Musi River, water will be brought from other river nearby as a part of Kaleshwar project.

Secretary, DoWR,RD&GR highlighted that Telangana has huge gap in treatment capacity, which needs to be addressed.

9. Meghalaya

Principal Secretary, Forest & Environment, Meghalaya informed that CPCB has approved the Action Plans for 2 rivers in Priority I and 3 rivers in Priority IV. With regard to Priority I rivers, under AMRUT, Faecal Sludge and Septage Management Plants (FSSMP) have been taken up in Shillong. Along with this, 5 on-site river treatment plants are proposed along the river. DPR has already been prepared, consultation with CPHEEO is in progress, tendering works to begin soon and the project is proposed to be completed by 31.03.2021.

Secretary, DoWR, RD & GR appreciated the state of Meghalaya for taking up FSSMP for addressing the issue of pollution as the project shall be completed at a faster pace and at lesser cost as compared to conventional STPs.

10. Tripura

Principal Secretary, Environment, Tripura informed that all the 6 stretches identified fall under Priority-V, based on BOD levels of the respective stretches in 2016-17. However, based on the water quality monitoring regularly carried out from the year 2017 to till date, the BOD values in the river stretches were found to be achieving bathing quality standards i.e. below 3 mg/l. State is implementing the Action Plan prepared and the Monthly Progress Report is being submitted regularly. The State shall approach Hon'ble NGT and CPCB with water quality data to exclude the State from the list. With regard to domestic pollution, it was informed that a STP of 8 MLD is operational in Agartala and an STP at Akhaura is under-construction and the same shall be completed by 2022. 70 drains have been identified for phyto-remediation and are under-tendering stage.

11. Nagaland

Member Secretary, Nagaland Pollution Control Board informed that there is one river Dhansiri in Priority-I. With regard to issue of grey water, 3 drains polluting the river have been identified by the State having high BOD level. The households discharging into the river are being traced and Department of Urban Development is providing assistance in construction of septic tanks/ digesters. Further, it was informed that construction of 25.43MLD STP under NRCP has been completed, however works related to laying of sewer line is 47 % complete. For Priority –III, IV& V, Action Plans have been submitted to CPCB and the same could not been approved due to absence of the State in the last Task Team Committee meeting of CPCB owing to technical issue. However, it was assured river stretch-wise Monthly Progress Report will be submitted to NMCG from June onwards.

Secretary, DoWR, RD & GR requested CPCB to approve remaining Action Plans and directed State to initiate the works related to implementation of Action Plans.

12. Manipur

No representative from the State attended the meeting.

13. Mizoram

Secretary, Irrigation and Water Resources, Mizoram and Joint Secretary, Environment, Forest & CC along with official from PCB attended the meeting. Secretary, Irrigation & Water Resources Department, Govt. of Mizoram informed that Mizoram has 9 river stretches, for which Action Plan for 4 rivers (in III & IV Priority) have been approved by CPCB. MPRs are regularly been submitted. It was further informed that the BOD level in all the rivers is below 3 mg/l, as per the monitoring data from 2017 onwards. This has been achieved through undertaking of a number of works in Swachh Bharat Mission (Grahmin) for management of liquid and solid waste. In the Action Plan, considering the future requirements, bio-digesters and community beds for liquid waste have been proposed. For Aizwal, 1 STP has been installed covering 30% area of the city and remaining city is covered by 285 community based bio-digesters of capacity up to 50 households. Similar bio-digesters are proposed for other areas. State accordingly requested for de-listing the PRS in the State.

Secretary, DoWR, RD & GR recommended that for de-listing the identified polluted rivers in the state, CPCB may be approached with relevant monitoring data as discussed in reference to earlier States.

14. Sikkim

Representative from Sikkim informed that 4 river stretches identified are under Priority V. However, as per the latest monitoring data, these stretches are achieving the bathing quality standards i.e. having BOD values below 3 mg/l. It was informed that no CETPs are operational in Sikkim. All the industrial units have their own operational ETPs. Further CCTVs are installed to monitor the compliance. Department of Forest has taken up plantation works near the river beds.

Executive Director, Technical, NMCG pointed out that till date only one MPR was received from the State in the month of January and directed State to submit stretch-wise MPR to NMCG regularly through mail.

Director General, NMCG recommended that with regards to excluding the river stretches from the polluted list, the State may approach CPCB with relevant data.

15. Delhi

CEO, Delhi Jal Board and Member Secretary, Delhi Pollution Control Committee attended the meeting. However, due to time-constraints and number of issues in Delhi, Director General, NMCG recommended that a separate detailed meeting with the State shall be taken up soon by the Ministry of Jal Shakti.

16. Andhra Pradesh

Secretary of Municipal Administration, Andhra Pradesh along with Chairman, Andhra Pradesh Pollution Control Board (APPCB) attended the meeting. Chairman, APPCB informed that out of 5 rivers identified in the State, 2 rivers are under Priority IV and 3 rivers are under Priority V. Based on the latest water quality monitoring data, except for Total Coliform (TC) parameter, all rivers are meeting bathing quality standards in respect of other parameters. BOD values are mostly below 3 mg/l, DO ranges are above 5.5 mg/l, Fecal coliform ranges from 200 to 350 MPN/100ml whereas the TC ranges 800 MPN/100ml, due to which the rivers are in C category. These rivers flow through 6 towns of AP – Kurnool, Rajahmundry, Vijayawada, Srikakulam, Nandyal and Tadepalli. Existing STPs in these towns are not sufficient, therefore new STPs of 100 MLD have so far been proposed. 456.6 MLD sewage is generated in these 6 towns, for which 160 MLD capacity existing, 54 MLD capacity STPs are under-construction and a gap in treatment capacity of 242 MLD for 5 year

has been projected. Secretary of Municipal Administration, AP presented that status of the project:

Town	Projected sewage generation for 5 years	Existing STP Capacity	Under-construction STP	Proposed STP
Srikakulam	22 MLD		10 MLD	DPR prepared for 12 MLD STP. Financial assistance to be sought.
Vijayawada	250 MLD (needs revision)	130 MLD	20 MLD Contractual issues to be sought	
Rajahmundry	61 MLD	30 MLD	5 MLD. Land issues to be resolved	
Kurnool	Contractual and land related issues to be resolved			
Nandyal				
Tadepalli				

Director General, NMCG directed the State to resolve the land and contractual issues urgently and take up implementation of works as per Action plans in a time bound manner, and submit stretch-wise MPRs monthly to NMCG.

17. <u>Bihar</u>

No representative from the State attended the meeting.

18. <u>Chhattisgarh</u>

Principal Secretary (Housing & Environment), Chhattisgarh informed that there are 5 identified stretches in Priority IV &V, for which Action Plans were submitted to CPCB. In the last meeting of Task Team held in June 2020, CPCB had asked to submit additional information, which will be done. Industrial units along the stretches have adopted Zero Liquid Discharge policies. With regard to the pollution due to sewage discharge, 12 STPs are proposed, of which 6 STPs are under construction and 1 STP out of these is expected to be completed by November, 2020. For the remaining proposed 6 STPs, DPR has been prepared and release of State budget is awaited. Out of this, 1 project is being taken up in PPP mode with NTPC and negotiations are on with the State Urban Department. With regards to maintaining the e-flow in the rivers, Irrigation Department has prepared SOP for release of e-flow, wherever required. For identification of encroachment and pollution, discharges are being stringently monitored regularly. 30 encroachment sites have been identified along these

stretches, out of which 4 sites have been removed and major plantation drive has been carried out in these stretches. Chief Secretary, Chhattisgarh regularly monitors the progress. Water harvesting structures are being taken up and the industries are complying.

Director General, NMCG suggested to sensitize the municipal bodies with regards to solid waste management as often solid waste dumped on Ghats along the rivers and is seen floating in the rivers, which gives a bad picture of management of rivers in the State. State may also provide status of FSSM projects undertaken by them in next meeting. Further, it was directed to submit updated status and completion timelines of all the on-going and proposed projects in the MPR.

19. <u>Daman, Diu and Dadra Nagar Haveli (DDDNH)</u>

Chief Conservator of Forest and Member Secretary, Pollution Control Committee, DDDNH, informed that Damanganga River which flows through the UT and Gujarat has been identified as polluted river stretch. Action Plan has been approved by CPCB. 2 STPs are existing in the UT, 13 MLD at Silvassa and 4.21 MLD at Moti Daman. With regard to connecting households to sewer network and STP, work is in progress for Silvassa and Moti Daman. DPR has been prepared for 16 MLD STP at Nani Daman, approval of which and release of funds is awaited. Accordingly, more time may be required for completion of the project.

All the industrial units utilizing water in their process have been directed to install ETPs. Industries without ETPs or non-compliant are being closed based on regular inspection. Bio-medical waste of UT is regularly collected from the hospitals and clinics by a firm from Surat, which collects and treats the waste as per the rules. Along the river stretch, activities such as establishment of parks, basic amenities and plantation activities are being undertaken. For management of floods, check dams have been construction. Phyto-remediation by NEERI was proposed to be undertaken in 7-8 natural drains, however the same could not be carried out due to the pandemic and the same shall be done soon.

Director General, NMCG suggested UT to submit updated status and completion timelines of all the on-going and proposed projects in the MPR.

20. <u>Himachal Pradesh</u>

Joint Secretary, Environment & Forest, Himachal Pradesh along with Member Secretary, HP Pollution Control Board attended the meeting. It was informed that Chief Secretary regularly

monitors the progress and MPRs are being submitted. There are 7 river polluted river stretches, and Action Plans for all these stretches stand approved and implementation of the plans is under-progress. For Priority I river (River Sukhana), tenders have been awarded for establishment of 2 proposed STPs. For Priority II river (River Markanda), tenders have been awarded and funds have been allocated for establishment of a STP. The project is expected to be completed within 31.03.2021. Another STP-cum-CETP is proposed in the catchment area. For Priority III River (Sirsa), 2 STPs have already been constructed and work in progress for sewer line connections.

Legacy waste in the catchment area of Priority I river has been cleared and composting for wet waste has been started. Phyto-remediation works for Priority - I have been started, sites have been identified for Priority- II and estimated have been prepared. HP Pollution Control Board is monitoring compliance of drains/ STPs/ CETPs on monthly basis. Online monitoring systems are being proposed to be installed. Bio-diversity Park already exists in Priority- I stretch, land is being identified in Priority-II and works have started in Priority-III for establishment of bio-diversity parks.

Director General NMCG suggested to also submit details of Priority-V rivers in the MPR.

21. <u>Jammu & Kashmir</u>

Principal Secretary (Housing and Urban Development Department), Secretary (Environment & Forest) and Chairman, J&K Pollution Control Board attended the meeting. It was informed that Action Plans were submitted to CPCB, all plans have been approved and implementation of the plans has begun. Plantation works along the stretches under CAMPA has also begun. It was informed that of the 9 river stretches identified, 5 are in Jammu and 4 in Kashmir. Total sewage of 160 MLD is being generated, 70 MLD is being treated, different projects have been sanctioned for treatment of 30 MLD sewage and action plan for 60 MLD of sewage is remaining. With regard to project of pollution abatement of river Devika sanctioned under National River Conservation Plan (NRCP) having total treatment capacity of 13.6 MLD, it was informed that work is in progress and is expected to be completed by June, 2021.

With regard to project for pollution abatement of river Tawi, already 66 MLD capacity STPs are existing and 19 MLD is being constructed under AMRUT. A 4.5 MLD STP is existing in the catchment area of Jhelum river, and STPs of 22 MLD are being constructed. For remaining 8 rivers, DPR has been prepared and the same are being revised as per the suggestions of NRCD and MoHUA.

It was informed that water quality monitoring of rivers is being carried out regularly, and in most of stretches improvement of quality has been observed and the reports are being submitted along with the MPRs. Catchment area treatment has been taken in all stretches. Work is in progress for installation of real time monitoring systems in the STPs.

Director General, NMCG directed State to submit updated status and completion timelines of all the on-going and proposed projects in the MPR. The MPRs should include details of all the stretches and the same to be regularly submitted to NMCG through mail also as hard copies apparently sent have not been received.

22. <u>Goa</u>

Official from Goa Pollution Control Board informed that out of total 11 polluted river stretches identified in Goa, action plans for three (one under P-III and two under P-IV) have been approved and are being implemented. Action plans for stretches under category P-V (8 nos) are being revised and additional information is being incorporated and the same shall be submitted to State level RRC and subsequently to CPCB for approval. No industrial effluent was reported to be discharged in the said polluted river stretches, and thus there are no CETPs existing. With regard to the domestic pollution, it was informed that cities of Madagaon, Navelim and Panji are having sewerage system while at other locations standalone soak pits are constructed.

Director General, NMCG directed the State to submit stretch-wise MPRs to NMCG regularly as per the format and it should include the updated status and completion timelines of all the on-going and proposed projects.

23. <u>Karnataka</u>

Principal Secretary, Environment & Forest Department cum Chairman, Karnataka Pollution Control Board informed that in Karnataka 17 river stretches have been identified in Priority III, IV and V. Total sewage generation for these stretches is 882 MLD, for which already 622 MLD capacity STPs are existing and gap in treatment capacity at present is 272 MLD. Considering the gap in treatment and projected sewage generation, 386 MLD capacity STPs are proposed for which fund shall be made available by the State Government. It was also informed that a team of officials from NRCD, NMCG and CPCB had visited the State in March, 2020 and had suggested to revise the plan with regards to the River Arkavathi incorporating biomedical waste, industrial waste and hazardous waste management. The suggestions of the team are being incorporated in the Action Plans. Further, it was informed

that Karnataka has 26 CBMWTF for treatment of biomedical waste, 2 TSDF disposal sites and 10 incinerators for hazardous waste. Industries are largely complying with the norms. Major issue of pollution related to solid waste and sewage generation in the State shall be appropriately addressed. With regard to flood mitigation, it was informed that funds are being sought by the State Government.

Director General, NMCG raised concern over non-submission of any MPR by the State till date and directed the State to submit stretch-wise MPRs to NMCG regularly as per the format and suggested to include the updated status and completion timelines of all the on-going and proposed projects.

Senior Consultant, NMCG highlighted that a large chunk of pollution load into River Arkavathi (Priority III) is from River Vrishabhavathy which carries untreated sewage discharge of Bangalore city. This issue has not being covered in the Action Plan for this polluted river stretch and the same needs to be addressed by the State. This concern was also raised in the Task Team meeting of CPCB and was highlighted by the team which had visited Karnataka in March, 2020.

Principal Secretary, Environment & Forest Department, Karnataka informed that based on the recommendation of the CPCB and the team visit, Action Plan with regard to River Arkavathi is being revised and financial assistance for the same is also being worked upon. He promised to send the pending MPRs immediately, which will include the detailed status and project completion timelines of all the river stretches.

24. <u>Madhya Pradesh</u>

Principal Secretary, Environment & Public Health Engineering cum Mission Director, Jal Jeevan Mission, Madhya Pradesh informed that 22 river stretches have been identified in MP. Of this 3 rivers (Chambal, Khan, Kshipra) are in Priority I and need to be monitored closely. A team of officials of NRCD, NMCG and CPCB had visited the State and letter of Secretary, DoWR,RD&GR had been received along with recommendations and observations of the team. Status of the projects was informed:

Town	Sewage generation	Existing STP Capacity	Under-construction STP	Industrial
Indore River Khan	350 MLD	3 STPs of 335 MLD	5 STPs of 67 MLD and another 10 MLD by December 2020	

Ujjain River Kshipra	90 MLD	83 MLD (not working properly)	1 STP of 92.5 MLD by December 2021	
River Chambal	8 MLD Proposed to be treated by bio-remediation instead of STP			11.5 MLD CETP under-construction by January 2021

It was highlighted by Principal Secretary (Environment) that due to pandemic, which badly affected the towns of Indore and Ujjain, the construction activities in these towns could not be carried out from March to May 2020 and the works have slowly began to progress. Further with regard to River Chambal having 8 MLD of sewage load, it was informed that initially a STP of 16 MLD was proposed to be constructed at Nagda with a completion timeline of December 2023. However to contain the pollution load, as an interim measure, it is now proposed to the treat the water through insitu-bio-remediation. For this a team from Madhya Pradesh had planned to visit Delhi, wherein a bio-remediation based plant is working successfully, however due to COVID-19, the visit had been postponed and the same shall be convened after situation improves. Further, bioremediation is also proposed to be taken up at Mandideep, where STPs are under-construction and may take longer time for completion.

Director General NMCG suggested that the State may approach NEERI with regard to bioremediation projects. Further, it was suggested that it can be taken up as a temporary measure, as for 16 MLD projected sewage STP needs to be established eventually to address the pollution load.

On recommendations of Secretary, DoWR, RD&GR, Principal Secretary, Environment, MP agreed that for monitoring the performance of existing and under-construction STPs in the State through online system, a Plan at State level shall be devised, the status of which shall be updated in the next meeting of CMC.

25. <u>Jharkhand</u>

Principal Secretary, Forest, Environment & CC, Jharkhand along with Member Secretary, Pollution Control Board, Director SUDA and Chief Engineer, Water Resources attended the meeting. It was informed that 7 rivers stretches identified are in Priority IV and V. Action Plans are being revised based on the recommendations of CPCB. With regard to status of STPs, it was informed that 2 STPs are functional, 2 STPs are in progress and 3 STPs are to be

tendered by UDD, Jharkhand. With regard to the industrial pollution, it was informed that all industries have functional ETPs, there are 56 ETPs, 1 CETP is functional and 1 CETP is under-construction. 2 Bio-medical waste treatment plants are operational along 2 rivers in Jamshedpur and Dhanbad, and 1 hazardous waste management plant is functional at Jamshedpur.

Secretary, DoWR, RD&GR raised concern about non-submission of MPR by the State. It was directed to submit details in a proper format including details of sewage generation in State (total as well as town-wise), existing capacity of STP, gap in treatment capacity, percentage utilization of existing STP, number and status of projects under-construction or proposed along with completion timelines, details of industries such as number of industries, discharge from the industries, installation of ETPs and CETPs. Further, it was suggested that treated water should be re-used in industries and Jharkhand must work on framing its reuse of treated wastewater policy and must adopt the same.

26. <u>Odisha</u>

Principal Secretary, Housing & Urban Development Department, Director, Environment and Member Secretary, Odisha Pollution Control Board attended the meeting. It was informed that the Chief Secretary, Odisha has regular review meetings to monitor the interventions. Sewage treatment systems (sewer network and STP) have been taken up in 6 large Urban Local Bodies and in all other local bodies septage management plants are being taken up. 104 septage treatment plants are envisaged, out of which10 plants are already functioning successfully. Construction of septage management plant in 36 locations is going on. 40 MLD STP at Rourkela is to be commissioned in one month and work is in progress for house sewer connections. Works are in progress for establishment of 16 MLD STP at Cuttack and the same shall be completed within 7 months.

Secretary, DoWR, RD&GR highlighted that STP projects with sewerage networks are time consuming and have difficulties in implementation in comparison to interception and diversion projects.

27. <u>Rajasthan</u>

Secretary (Environment), Rajasthan along with Member Secretary, Rajasthan Pollution Control Board and Chief Engineer attended the meeting. It was informed that one river stretch falls under Priority I (Banas) and second in Priority V (Chambal). Action Plans are

being implemented by the State. However, as per the latest water quality of monitoring data, the rivers are achieving bathing water quality standards, i.e. BOD below 3mg/l in both monsoon and non-monsoon period.

Secretary, DoWR, RD&GR highlighted that as per the NGT hearing held on 22.06.2020, the State may approach CPCB with relevant data with regard to any change in priority of the rivers. Also the State needs to justify the details of steps taken by the State through which improvement in water quality has been achieved. Further, it was directed that the State may submit MPR to NMCG regularly as per the format attached at **Annexure-II**.

28. <u>Puducherry</u>

Secretary (Environment), Puducherry cum Chairperson, Puducherry Pollution Control Committee informed that one river (Arasalar) falls under Priority IV and the second river (Chunnambar) falls under Priority V. Action plans have been submitted to CPCB and the same have been approved. MPRs are being submitted regularly and meetings under Chief Secretary are being held regularly for compliance monitoring of the directions. Inventorization of industries in Chunnambar has been done and closure directions were issued to the polluting industries. With regard to solid waste management, it was informed that door to door collection of waste is being carried out. Bio-medical waste management is being carried out by single facility, which collects all the biomedical waste from hospitals.Two STPs of 3 MLD each at Villianur (for Chunnambar) and Karaikal (for Arasalar) are proposed, for which tenders have been floated on 23.01.2020 and the same shall be opened shortly. Villages along the rivers have become ODF (Open Defecation Free). Ground water is being regulated by Puducherry Groundwater Authority, 6 illegal tube wells in Puducherry and 2 tube wells in catchment area of Arasalar have been closed down. Bar screens have been installed on the drains leading to the river.

Director General, NMCG suggested that in the MPRs, completion timelines of the projects may be provided. Also, the exercise of maintaining the quality of the rivers or other water bodies in Puducherry should be an ongoing process.

29. <u>Uttar Pradesh</u>

Special Secretary, (Environment & Forest), Uttar Pradesh informed that there are 12 polluted river stretches. Action Plan for rivers in Priority I and III have been approved. Updated MPR for the month of May has been submitted recently. 324 drains are discharging in polluted

river stretches, of which 35 drains are tapped, 289 drains are partial tapped or untapped. Sewage generation is about 4292 MLD, of which 1956 MLD is being treated in 79 STPs, and there is a gap in treatment capacity of 1796 MLD. 47 STPs are proposed and further DPR is to be prepared for 675 MLD sewage generated. UPPCB carries out monthly monitoring of the 79 STPs, and it was found that 47 STPs are complying with the norms and 32 STPs were non-complying, Environmental Compensation have been imposed against the non-complying STPs.

Out of 47 proposed STPs, work is in progress for 26 STPs, of which 19 STPs are expected to be completed by March 2021, 4 STPs by October 2021 and 3 STPS by March 2022. 7 STPs are under tendering and DPRs have been prepared for 14 STPs.

With regard to industrial pollution, it was informed that 1665 industrial units are existing in the polluted river stretches, and a three tier monitoring system is in place for compliance. 386 units were found defaulting, 101 units have been closed, 87 units were issued show cause notices. Rs. 20 crore Environmental Compensation have been imposed on the defaulting units and Rs. 9 Crore has been recovered. 6 CETPs are existing in the catchment area, and all the CETPs are complying with the norms. The capacities of the tannery sector have been reduced.

With regard to maintaining the e-flow in the rivers, Irrigation Department UP, has given study to IIT Delhi for intra-State rivers and for inter-State rivers (Betwa, Yamuna). Irrigation Department, UP is awaiting notification from Ministry of Water Resources. Timeline for completion of the studies is December, 2020. With regards to notification and demarcation of floodplains, for intra-State rivers the timeline of 6 months has been proposed for survey works.

Only 26 % of municipal solid waste generated in UP is being treated. The State UDD has submitted a proposal for establishment of solid waste treatment facilities of 10,000 tonnes per day capacity with a completion timeline of March, 2021. Legacy wastes in Meerut and Noida have already been remediated. Further, work is in progress for remediation of legacy wastes in Agra and Noida. UDD UP has invited RFP for treatment of legacy waste in 10 major cities along the major stretch.

Biomedical waste generated in 16,000 HCFs is treated at 18 CBMWTFs in the State. Under Swatch Bharat Mission (Grahmin), 1.5 lakh soak pits have been constructed, waste stabilization ponds are being constructed in the villages and 9655 gram panchayats have

become solid and liquid waste free. This year 10.49 Crore seedling have been planted, Third Party monitoring survival of seedling is being done. Based on the regular water quality monitoring by UPPCB at 88 locations in these 12 polluted river stretches, the water quality at 55 locations have shown improvement.

Director General, NMCG informed that as NMCG is now also focussing on small river rejuvenation, rejuvenation of rivers like Varuna, Assi canal also be taken up, and communication in this regard is in process to Principal Secretary, Rural Development, UP.

Executive Director, Technical, NMCG suggested that the State should expedite the works related to preparation of DPRs.

30. <u>Uttarakhand</u>

Member Secretary, Uttarakhand Environment Protection Pollution Control Board and Project Director SMCG-UK attended the meeting. It was informed that 9 Action Plans for the rivers in Priority I and II have been approved. However, for Action Plans for Priority IV and V, CPCB has asked to revise timelines as per NGT directions. With regard to industrial pollution in rivers in Priority I and II, it was informed that CETP at Sitarganj and Pantnagar are complying with the norms. Rest of the industries are being regularly monitored. 1 CBTWF is operational in the catchment area. 1 TSDF at Roorkee is operational. 7 DPRs with regard to sewage management have been submitted to NMCG in April,2020 of which 3 DPRs have been returned by NMCG with observations. For bioremediation projects, DPRs have been prepared and submitted to NMCG for consideration. Solid waste collection has started in 6 municipalities and DPRs have been prepared for establishment of SLF and sent to MoHUA. Legacy wastes have been identified and finical assistance is being sought for treatment.

Director General, NMCG directed that the State may submit MPR to NMCG regularly as per the format attached at **Annexure-II**. Concerns were also raised with regards to water quality of River Ganga in the stretch Hardiwar to Sultanpur.

31. <u>West Bengal</u>

Principal Secretary (Environment) along with Principal Secretary(Water Resources), Principal Secretary(Urban Affairs), West Bengal and Member Secretary, West Bengal Pollution Control Board attended the meeting. It was informed that due to the severe damage caused by Cyclone Amphan in the State, the Task Team meeting of CPCB for approval of Action Plans related to Priority III to V could not be attended and also there is delay in

submission of MPRs. Works are in progress for the 2 rivers in Priority I and II. It was requested that CPCB may approve the Action Plan for 15 rivers in Priority III to V. It was informed that CPCB has asked the State to revise the Action Plans as per the timelines provided by NGT, however for projects not yet sanctioned or tendered, the State may not be able to achieve the timelines.

It was informed that 643 Ghats have been identified and placement of 1246 double-colored dustbins has been completed. Screens/ nets have been installed on 400 drains discharging into River Ganga. Total sewage generation for West Bengal is 2758 MLD and treatment capacity of 1778 MLD exists. Works related to STPs are assigned to three agencies in West Bengal, 36 STPs under KMDA, 15 STPs under KMC and 6 STPs under PHED. Most of the STPs are operational and few are under-renovation and partially operational.

Under KMDA, work is in progress for establishment of new 9 STPs, of which 4 STPs shall be completed by March 2021, 1 STP by September 2021 and 3 STP by August 2022. Further, non-operational STPs are being repaired and renovated, and are under tendering stage. Under KMC, 3 STPs are operational, 2 STPs are under repair (damaged due to Amphan), 3 STPs under construction shall be completed by March 2023, tenders for 3 more STPS have been floated and 3 STPs are under proposal stage. Under PHED, 4 STPs are operational and 2 STPs are under repair (damaged due to Amphan).

56 drains were identified for bioremediation works, as per the recommendations of CPCB. However, work on 55 drains cannot be taken up as they come under tidal zone of the river. Tendering of the one drain at Murshidabad is under process for phyto-remediation/bio-remediation. There are 48 GPIs operational in West Bengal, which have their individual ETPs and have online monitoring systems. Rejuvenation of water bodies is under-progress. 7 vendors take care of all biomedical waste in the State.

90% door to door collection of municipal waste is being carried out, 100% to be achieved by October, 2020. There is a 20MLD CETP in West Bengal for treating effluent generated from 335 no. of tanneries located at Calcutta Leather Complex at Bantala. Additional 4 modules of CETP of capacity 5MLD each (i.e. total capacity of 20 MLD) has been proposed within Leather Complex at Bantala. Further, based on the recommendations of CPCB, revision of Action Plan of Churni River is being done and the same shall be submitted to CPCB for approval shortly.

Director General, NMCG requested CPCB to consider the Action Plan submitted by the State with regard to 7 rivers in Priority III and IV. Further, it was suggested pending approval of Action Plan, the State may initiate implementation of the plans. With regard to the screens installed on the drains, it was suggested that screens may also be installed on drains discharging in rivers other than river Ganga and regular third party verification may be carried out. It was informed that NMCG is providing assistance to UP Government for inventorization and preparation of IMPs for improving the health of the wetlands in the catchment area of river Ganga and suggested that NMCG would support the West Bengal Government also, if the State Government is interested.

IV. ShriA. Sudhakar, Additional Director CPCB, informed that the States were directed to approach NGT in case of any relaxation where the completion timelines were not met as stipulated by NGT.. Further, it was informed that the States in the Task Team meeting were recommended to initiate implementation of Action plans, even if they were not approved by CPCB and are approved by State-RRC. However, it was highlighted that few Action Plans were observed to be not approved by State-RRC, which needs to be done prior to approval of CPCB. With regard to change in priority of rivers due to improvement in water quality, it was informed that for achieving outdoor bathing quality, not only BOD but 5 parameters, including Fecal Streptococci, needs to be monitored as per the notification of MoEF&CC, and these should be looked upon and strictly followed by RRC. A 2 year monitoring data with 5 parameters needs to be examined before any change in priority of river stretch is notified.

Senior Consultant, NMCG informed that the States were already told in the Task Team meetings that Action Plan for rivers in Priority V need no approval from CPCB and are to be implemented after approval of State level RRCs.

V. **While concluding the meeting, Director General, NMCG highlighted the following points:**

1. **States to regularly submit soft copies of the MPRs containing details of all the stretches to NMCG by 20th of every month. The States should clearly indicate status of each and every Action Plan and their sub-components along with expected completion timelines in their MPRs. The States to categorically inform progress made in each component with regard to the previous month. The MPR should include details of sewerage, industrial, solid waste, bio-medical,**

hazardous, groundwater, floodplain and e-flow management as per the format attached at Annexure-II.

2. **With regard to change in priority of the rivers, as per the remarks of Hon'ble NGT, any change have to be based on periodical data monitoring by CPCB and not on the data of State PCB. Therefore, CPCB has to take a final call in the matter.**

3. **CPCB to review and approve the remaining Action Plans submitted by the State with regard to the rivers falling under Priority III to V.**

4. **Considering the number of issues, a separate review meeting with the officials of Assam and Delhi to be taken within 15 days by NMCG.**

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Annexure-I

List of participants:

1. Shri U. P. Singh, Secretary, DoWR, RD&GR, Ministry of Jal Shakti – *in Chair*
2. Shri Rajiv Ranjan Mishra, Director General, NMCG cum Project Director, NRCD
3. Shri Ashok Kumar Singh, Executive Director (Project), NMCG
4. Shri D.P.Mathuria, Executive Director (Technical), NMCG
5. Shri Brijesh Sikka, Senior Consultant, NMCG
6. Shri. B.B. Barman, Advisor, NRCD
7. Shri A. Sudhakar, Scientist E & Divisional Head, WQM-I, CPCB
8. Shri S.K. Srivastava, Additional Director, NRCD
9. Shri S.K. Singh, Deputy Director, NRCD
10. Shri A.P. Singh, Scientist E, NRCD
11. Dr. Savita Madhvi Singh, Joint Director, NRCD
12. Shri Rajat Gupta, Senior Solid Waste Management Specialist, NMCG
13. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
14. Shri G K Murty, Team Leader, NMCG
15. Shri Deepinder Singh, Deputy Team Leader, NMCG
16. Dr. P.N.Rymbai, Scientist B, NRCD
17. Shri Manish Kumar, Sewage Treatment and Wastewater Expert, NMCG
18. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
19. Shri Rachit Andley, Project Manager, NMCG
20. Shri Vivek Raj, Scientist C, NMCG
21. Shri Avshesh Chauhan, Assistant System Analyst, NMCG
22. Ms. Nidhi Dwivedi, Project Officer Technical, NMCG
23. Shri Kumar Ajitabh, Project Officer Legal, NMCG
24. Shri. Meetpal Singh, Support Engineer, NMCG
25. Mrs. Ruby Raju, Project Engineer, NMCG

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Annexure-II

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/UTs

(Hon'ble NGT in the matter of OA No. 673/2018 dated 06.12.2019)

Sl.No.	**Activity to be monitored**	**Timeline**	**Submission of Progress by State/UT-Compliance Status**
1	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2020	
	commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31.03.2021	
5	Chief Secretaries may set up appropriate monitoring mechanism at State level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose.	22.01.2020 22.01.2020	
	• Monitoring at State level must take place	Fortnightly Commencing 21.12.2019	
6	Progress report may be furnished by the States/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB	Monthly (preferably before 20th of every month)	
6.1	Progress Report may be comprised of details along with completion timelines on: (i) Identification of polluting		

		sources including drains contributing to river pollution and action as per NGT order on insitu treatment		
	(ii)	<u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		
	(iii)	<u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status		
	(iv)	<u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		
	(v)	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;		
	(vi)	Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including		

	waste generated from hotels, ashrams, etc. (vii) Ground water regulation (viii) Adopting good irrigation practices, (ix) Protection and management of Flood Plain Zones (FPZ), (x) Rain water harvesting, (xi) Maintaining minimum environmental flow of river (xii) Plantation on both sides of the river (xiii) Setting up biodiversity parks on flood plains by removing encroachment		

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Legal/OA673/2018/NMCG/2019
National Mission for Clean Ganga
Department of Water Resources, River Development
& Ganga Rejuvenation, Ministry of Jal Shakti

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 6th August 2020

OFFICE MEMORANDUM

Subject: **Minutes of the 4th meeting of Central Monitoring Committee in the NGT Matter OA No.673 of 2018 held on 30.07.2020 at 10.00 AM**

A copy of Minutes of the 4th Meeting of Central Monitoring Committee in the NGT matter O.A. No. 673 of 2018 held through Video Conferencing on 30.07.2020 at 10.00 AM under the Chairmanship of Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti is forwarded herewith for information/ necessary action.

(D. P. Mathuria)
Executive Director-Technical, NMCG

Encl: As above.

To,

1. Chief Secretary, Government of Andhra Pradesh, Ist Block, A.P Secretariat Office, Velagapudi – 522503
2. Chief Secretary, Government of Assam, Block- C, 3rd Floor, Assam Sachivalaya, Dispur - 781006, Guwahati
3. Chief Secretary, Government of Bihar, Main Secretariat, Patna – 800015
4. Chief Secretary, Government of Chhattisgarh, Mahanadi Bhawan, Mantralaya, Naya, Raipur – 492002
5. Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa – 403521
6. Chief Secretary, Government of Gujarat, 1st Block, 5th Floor, Sachivalaya, Gandhinagar – 382010
7. Chief Secretary, Government of Haryana, 4th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh – 160019
8. Chief Secretary, Government of Himachal Pradesh, H P Secretariat, Shimla –171002
9. Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu -180001
10. Chief Secretary, Government of Jharkhand, 1st Floor, Project Building, Dhurwa, Ranchi-834004

11. Chief Secretary, Government of Karnataka, Room No. 320, 3rd Floor, Vidhana Soudha, Bengaluru -560001
12. Chief Secretary, Government of Kerala, Secretariat, Thiruvananthapuram -695001
13. Chief Secretary, Government of Madhya Pradesh, MP Mantralaya, Vallabh Bhavan, Bhopal – 462004
14. Chief Secretary, Government of Maharashtra, CS office main Building, Mantralaya, 6th floor, Madame Cama Road, Mumbai – 400032
15. Chief Secretary, Government of Manipur, South Block, Old Secretariat, Imphal – 795001
16. Chief Secretary, Government of Meghalaya, Main Secretariat Building, Room no 316, Shillong – 793001
17. Chief Secretary, Government of Mizoram, New Secretariat Complex, Aizwal – 796001
18. Chief Secretary, Government of Nagaland, Civil Secretariat, Kohima – 797004
19. Chief Secretary, Government of Odisha, General Administration Department, Odisha Secretariat, Bhubaneswar – 751001
20. Chief Secretary, Government of Punjab, Chandigarh – 160001
21. Chief Secretary, Government of Rajasthan, Secretariat, Jaipur – 302005
22. Chief Secretary, Government of Sikkim, New Secretariat, Gangtok – 737101
23. Chief Secretary, Government of Tamil Nadu, Secretariat, Chennai-600009
24. Chief Secretary, Government of Telangana, Block C, 3rd floor, Telangana Secretariat Khairatabad, Hyderabad, Telangana
25. Chief Secretary, Government of Tripura, New Secretariat Complex Secretariat – 799010, Agartala, West Tripura
26. Chief Secretary, Government of Uttar Pradesh, 1st floor, Room No. 110, Lal bahadur Sastri Bhawan, Uttar Pradesh Secretariat, Lucknow – 226001
27. Chief Secretary, Government of Uttarakhand, 4 Subhash Road, Uttarakhand, Secretariat Dehradun – 248001
28. Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325, Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah – 711102
29. Administrator, Daman & Diu and Dadra and Nagar Haveli, Secretariat, Moti, Daman -396220
30. Chief Secretary, Govt. of NCT of Delhi, Delhi Secretariat, IP Estate, New Delhi – 110002
31. Chief Secretary, Govt. of Puducherry, Main Building, Chief Secretariat, Puducherry-605001

Copy To:

1. Secretary, Department of Forest, Ecology & Environment, J&K, Room no. 2/33-34, Main Building, Civil Secretariat, J&K, Jammu.
2. Secretary, Department of Environment, Science and Technology Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001
3. Principal Secretary, MGSIPA Complex, Sector-26, adjacent Sacred Heart School, Chandigarh, 160019
4. Additional Chief Secretary to Govt. of Haryana, Environment Department of Environment & Climate Change, R.No. 108, 7th Floor, Main Secretariat Sec16, Chandigarh 160017
5. Principal Secretary, Department of Environment, U.P., Room No. 601, Bapu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.

6. Special Chief Secretary, Department of Environment, Forest, Science & technology, 4th Block, Ground Floor,Room No:268, A.P Secretariat Office, Velagapudi
7. Secretary, Department of Environment and Forest, H-Block, 2nd Floor Janata Bhawan, Dispur, Guwahati 781006, Assam
8. Principal Secretary, Department of Environment, Forest and Climate Change, Van Vibhag Rd, Nehru Nagar, Patliputra Colony, Patna, Bihar 800013
9. Additional Chief Secretary (Forests & Environment), Forests & Environment Department, Block 14, 8 th floor, Sachivalaya, Gandhinagar - 382 010 Gujarat.
10. Principal Secretary, Department of Environment, Room No. S-2/23, Mahanadi bhawan, Mantralaya, Nava Raipur, Atal Nagar, Raipur - 492001
11. Additional Chief Secretary to Government, Forest, Environment and Ecology, Department, Karnataka Government Secretariat, Room No. 447, 4th Floor, Gate no. 2, Multi-storey Building, Bangalore-560001.
12. Principal Secretary, Department of Environment, Room No. 406 4th Floor Annex II, Secretariat, Kerala Thiruvananthapuram, Kerala, PIN- 695001
13. Principal Secretary, Department of Housing and Environment, Government of Madhya Pradesh, Paryavaran Parisar, E- 5, Arera Colony, Bhopal, Madhya Pradesh, 462016
14. Principal Secretary, Environment Department, Maharashtra 15th Floor, New Administrative Building, Madam Cama Road, Mantralaya, Mumbai – 400032
15. Additional Secretary, Forests & Environment Deptt, Secretariat Building, North Range, Forest Colony, Khasi Hills, Shillong, Meghalaya 793001
16. Deputy Conservator of Forest (Headquarters) Environment, Forests & Climate Change Department Tuikhuahtlang, Aizawl Mizoram.
17. Principal Secretary, Department of Environment, Forest & Climate Change, New Secretariat, Kohima, Nagaland Tel.- 0370-2243025
18. Additional Chief Secretary, Department of Forest & Environment, Government of Odisha, Secretariat, Bhubaneswar-751001
19. Principal Secretary, Forest and Environment Department, Rajasthan 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur, Rajasthan 302004
20. Principal Secretary, Chief Project Director (SBFP-JICA), Forests, Environment & Wildlife Management Department, Government of Sikkim
21. Principal Secretary, Environment and Forest Department, Government of Tamil Nadu, Secretariat, Chennai- 600009.
22. Secretary, Department of Science, Technology & Environment, Vigyan Prajukti O Paribesh Bhawan, P.N. Complex, Gorkhabasti, Agartala,West Tripura, PIN-799006
23. Special. Chief Secretary, TSCOST, 4th Floor, Aranya Bhavan, Saifabad, Hyderabad, Telangana State, Pin – 500004
24. Deputy Conservator of Forests, (Territorial Division), Department of Environment & Forest Office of the Deputy Conservator of Forest, Daman, Fort Area, Post Office Moti Daman Daman & Diu (U.T.)
25. Deputy Conservator of Forests, (Territorial Division), Van Bhavan, Dadra and Nagar Haveli
26. Secretary, Department of Environment, Govt. of NCT of Delhi, 6th Floor, Delhi Secretariat, IP Estate, New Delhi 110002

27. Secretary, Environment & Forest, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Forth Floor, New Building Dehradun, Pin code-248001
28. Joint Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - Goa
29. Secretary, Environment, Office of Environment, Chief Secretariat, Goubert Avenue, Puducherry 605001
30. Principal Secretary, Department of Environment, 5th Floor, Pranisampad Bhawan, Block LB-II, Salt Lake, Sector III, Bidhannagar, Kolkata – 700 106
31. Additional Chief Secretary Forest, Environment & Climate Change Deptt., Nepal House, Doranda, Ranchi-834002, Jharkhand
32. Additional Chief Secretary, Forest and Environment Department, Government of Manipur, Secretariat, Imphal- 705001
33. The Member Secretary, Assam Pollution Control Board, Bamunimaidam, Guwahati – 781021
34. The Member Secretary, Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010
35. The Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 010
36. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Atal Nagar Dist- Raipur (C.G.) 492002
37. The Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
38. The Member Secretary, Daman, Diu & Dadra Nagar Haveli Pollution Control Committee, Office of the Deputy Conservator of Forests, Fort Area, Court Compound, Moti Daman, Daman – 396220
39. The Member Secretary, Goa State Pollution Control Board, 1st Floor, Dempo Tower, EDC Patto Plaza, Panaji, Goa-403 001
40. The Member Secretary, Gujarat Pollution Control Board Paryavan Bhavan, Sector 10- A, Gandhinagar – 382 043
41. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula-134109, Haryana
42. The Member Secretary, Himachal Pradesh Pollution Control Board, Him Parivesh, Phase-III, New Shimla, Himachal Pradesh 171009
43. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu, Jammu and Kashmir 180004
44. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar (J&K)
45. The Member Secretary, Jharkhand Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834004
46. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor, # 49, Church St., Bengaluru-560 001

47. The Member Secretary, Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O. Thiruvananthapuram - 695 004
48. The Member Secretary, Manipur Pollution Control Board, Lamphelpat, Imphal West D.C. Office Complex Imphal– 795004
49. The Member Secretary, Meghalaya Pollution Control Board Arden- Lumpyngngad Shillong: 793014
50. The Member Secretary, Nagaland Pollution Control Board, Signal Point, Dimapur Nagaland – 797112
51. The Member Secretary, Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal - 462 016, Madhya Pradesh
52. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022
53. The Member Secretary, Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl, Mizoram: 796001
54. The Member Secretary, Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar, Puducherry -600 005
55. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab 147001
56. The Member Secretary, Odisha Pollution Control Board, A-118, Nilakanta Nagar, Unit – VIII, Bhubaneshwar – 751012
57. The Member Secretary, Rajasthan Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur (Rajasthan) - 302 004
58. The Member Secretary, Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management Government of Sikkim, Deorali, Gangtok, - 737102
59. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad-500 018
60. The Member Secretary, Tripura Pollution Control Board, Vigyan Bhawan, Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban Agartala – 799006
61. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032
62. The Member Secretary, Uttarakhand Environmental Protection & Pollution Control Board, 29/20, Nemi Road, Dehradun, Uttarakhand – 248001
63. The Member Secretary, Uttar Pradesh Pollution Control Board, Building.No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010
64. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Kolkata - 700 106

Copy for kind information:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director NRCD
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032

4. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
5. PS to ED (Project/ Finance), NMCG
6. Adviser, NRCD
7. Shri.S.K.Srivastava, Director, NRCD

Minutes of the 4th meeting of the Central Monitoring Committee held on 30.07.2020 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 4th meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through Video Conferencing with the States on 30.07.2020 at 10.00 AM in Conference Room, NMCG under the Chairmanship of Secretary, DoWR, RD & GR, Ministry of Jal Shakti. The list of participants of NMCG, NRCD and CPCB present at the meeting is at ***Annexure-I.***

II. Director General, NMCG welcomed all participants and informed that in compliance to the last meeting of the Committee, separate review meetings were taken by him with the States of Bihar, Delhi and North-eastern States of Assam, Manipur, Mizoram, Meghalaya and Nagaland. Further, internal review meetings were held with the officials of NMCG and NRCD based on the information submitted by the States. While the Monthly Progress Reports (MPRs) are being submitted by the States, however there is need to ensure regular submission and improvement in the quality of the reports.

Secretary, DoWR,RD&GR, Ministry of Jal Shakti highlighted that based on the Quarterly Report of the Central Monitoring Committee and hearing held on 22.06.2020, Hon'ble NGT has passed directions for compliance by the States in the matter vide order dated 29.06.2020. The States were directed to review the order, take necessary action and submit action taken status to NMCG. As directed by NGT, every State/UT in the first instance must ensure that at least one polluted river stretch in each category is restored so as to meet all water quality standards up to bathing level. This may serve as a model for restoring the remaining stretches. With regard to the MPR, it was suggested that incremental progress made every month against each activity needs to be indicated stretch-wise. It was informed that the status of major sources of pollution, i.e. sewage and industrial wastewater, and its management shall be reviewed in this meeting and other important aspects such as solid waste, ground water, floodplains and e-flow management as well as development of green cover shall be reviewed in subsequent meetings of the Committee. It was informed that all 31 States/UTs have been allotted to officials in NMCG and NRCD. These officials had visited a few States in February and March 2020, and shall visit the remaining States after normalization of the situation. During the internal meetings, it was understood that reliable data with regards to basic status of the State for sewage and industrial management is not available. Therefore, it has been directed that State wise dossier containing data of the overall State as well as the

polluted river stretches (including population, estimated sewage generation, no. of water polluting industries, industrial discharge, status of ETPs and CETPs, number and capacity of installed ETPs, no. of member units of CETPs) needs to be prepared. Details of all the STPs & CETPs in the State and polluted river stretches needs to be updated as under:

- Existing STP/CETP – town, location, sewage and industrial effluent generation, capacity created, capacity utilization, date of commissioning, technology, responsible agency, compliance status based on input and output parameters.
- Under-construction STP/ CETP - town, location, sewage and industrial effluent generation, capacity and nature of scheme (Sewerage or I&D), status of physical progress and its percentage, likely date of completion and technology. For I&D projects, number of drains proposed to be tapped and no. of drains tapped.
- Proposed STP/CETP - town, location, sewage and industrial effluent generation, capacity, status of the project (DPR preparation, whether project has been sanctioned, funding details), whether tendered or not, if tendered status of award, if not tendered then likely date of tendering, likely date of completion, funding details, etc.

It was suggested that the States should consider developing proper monitoring mechanism for the ensuring compliance of the operational STPs and CETPs. It was informed that a Webinar on 'Faecal Sludge & Septage Management' was held on 22.07.2020, wherein most of the States had participated and it was suggested that States may also explore other feasible and cost-effective alternatives to STPs, for which technical assistance may be sought from Urban Development Department, Odisha, Centre for Science and Environment and NMCG. Further, it was suggested that States may take up STP projects on Hybrid Annuity Model, wherein the developer is paid 40% of the capital cost till commissioning of the plant and balance 60% of the capital cost along with interest and O&M over the concession period of 15 years is paid on equivalent quarterly installments subjected to performance of the plant as per the design parameters. The States were also suggested to explore options such as being taken up in Kanpur of One City-One Operator, wherein one agency is responsible for all sewage infrastructure for a particular city, including construction, operation and maintenance of the new plants and up-gradation, operation and maintenance of the existing plants in the city.

With regard to the approval of Action Plan for Priority III and IV, Scientist E, CPCB informed that revised action plans duly approved by the State RRC are awaited from Chhattisgarh, Jharkhand and Uttarakhand. After submission, the same are proposed to be reviewed by mid-August, 2020.

III. Subsequently, State-wise discussions held are as follows:

Executive Director (Technical), NMCG through a presentation briefed about the status of sewage and industrial pollution and management in the States, as per the information submitted in MPR and dossiers.

1. **Haryana**

Additional Chief Secretary (Environment), Haryana informed that compliance is being monitored for all the 14 points as directed by Hon'ble NGT and the same is being regularly reviewed by Chief Secretary of Haryana. Hon'ble NGT in its recent order has passed directions for monitoring of both the polluted river stretches (River Ghaggar and Yamuna) in the State by the already constituted Ghaggar Review Monitoring Committee. A meeting of the Committee was held recently and the progress of action taken was being closely monitored.

Based on the presentation made by ED (Tech), NMCG, State was requested to provide details of capacity utilization of each existing STP, revised timelines for under construction STPs (as works in many projects were still in progress even after completion of the expected timelines), status of 10 proposed STPs and CETPs and capacity of the installed ETPs. Further, as the completion timeline for a few proposed projects were extending till the year 2024, the State was directed to re-look into the matter and expedite the process.

Secretary, DoWR,D&GR directed the State to put in efforts to make non-operating STPs functional, expedite the construction of proposed STPs and provide updated details as per the observations made above.

2. **Kerala**

Based on the presentation made by ED (Tech), NMCG, the State was requested to provide details of capacity utilization of each existing STP, location and capacity of proposed STPs/ FSSTPs, confirmation with regard to the capacity of STPs proposed along River Keecheri, details of sewage management proposed for Priority V rivers, if any. With regards to the status of industrial pollution, details of no. of water polluting industries along the river stretches, industrial discharge, status of ETPs installed (number and capacity), compliance and capacity, location, no. of member units connected to the existing and proposed CETPs is to be provided. Further, the State was requested to provide consolidated MPR duly signed by

the concerned senior official in pdf format to NMCG, instead of submitting details in several different word and excel files.

3. <u>Punjab</u>

Based on the presentation by ED (Tech), NMCG, State was requested to provide the details of capacity, location, operational status and utilization capacity of each existing STP, status and percentage of progress made against under-construction STPs, status of DPR preparation and likely date of completion for proposed STP. With regards to industrial pollution, number of water polluting industries, industrial discharge, status of installed ETPs along the river stretches is to be provided.

Principal Secretary (Science, Technology & Environment), Punjab informed that 2 stretches (Beas and Kali Ben) under Priority – IV and V respectively have achieved category 'B' status as per the latest water quality reports. 88 new STPs are being setup (75 new and 13 up-gradation) which are in different stages. Out of these, 16 are under construction and 1 has been completed. The details shall be provided in the MPRs submitted. For Ludhiana, 2 new STPs of 225 MLD and 50 MLD capacity are under tendering stage (tenders opening date was informed to be 21.08.2020). Further, 2 existing STPs are being upgraded. It was further informed that OCEMS has been installed in 102 out of 120 ETPs and 62 existing STPs. All new ETPs are being installed with OCEMS.

Secretary, DoWR, RD & GR raised the issue of problem of land availability for construction of 15 new STPs along the polluted river stretches. The pollution issue due to Buddha Nala was highlighted and concern was raised about non-completion of 2 under construction CETPs of 50 MLD (August, 2019) and 40 MLD CETPs (March, 2020) for which earlier proposed timelines have been exhausted.

Additional Chief Secretary (Local Bodies), Punjab informed that out of 15 land acquisition issues, 6 disputes have been resolved and remaining 9 shall be sorted out at an early date.

Chief Secretary, Punjab informed that the Chairman, 15th Finance Commission has given 'in-principle' approval for part funding of Buddha Nala project in Ludhiana. In addition, Chief Minister, Punjab has written a letter to Chairman, 15th Finance Commission regarding the same and Chief Secretary, Punjab further requested Rajasthan also to endorse this issue. It was further informed that the State has requested Hon'ble NGT that the environmental compensation amounting to Rs.50 crore levied by Hon'ble NGT on the State may be utilized

towards completion of Budha Nala and surrounding projects and requested Secretary, DoWR, RD & GR also to take up the matter with Hon'ble NGT.

For Satluj river, additional treatment capacity for next 15 years is estimated as 476 MLD, against which work for 275 MLD for Budha Nala has been tendered, work has been allotted for the 50 MLD STP at Jalandhar, and for the remaining 150 MLD generated from small towns, it is proposed to adopt bubble technology in association with IIT Ropar.

4. <u>Assam</u>

ED (Tech), NMCG through presentation informed that the MPR submitted by State is sketchy and does not include much information, and details for stretches in priority III to V have not been provided. As per the MPR submitted in February 2020, it has been reported that 4 STPs are proposed in Guwahati. However, progress made so far has not been reported in the subsequent MPRs. State was directed to urgently provide the status of the proposed projects and information with regards to the remaining stretches.

Secretary DoWR, RD & GR indicated that there are many stretches which have been identified as polluted river stretches, but the State Government has been contending that from the latest monitoring data, it is seen that many of these stretches are now not polluted. Many of these polluted stretches also do not require STP. The categorization has been done by CPCB based on the data provided by the State. If CPCB is satisfied with the present water quality data, then Hon'ble NGT doesn't have any issue, as per his discussion with Hon'ble Chairman, NGT. State Government should, therefore, satisfy CPCB that these stretches are no longer polluted.

Principal Secretary (Environment), Assam informed that 10 STPs are proposed to be constructed along the polluted river stretches. For preparation of DPRs for the STPs, consultants shall be hired and DPRs shall be prepared within 6 months. The work is proposed to be awarded by 1st week of January, 2021. Further, the matter of change in number of polluted river stretches, Chief Secretary, Assam shall be communicating to CPCB and Hon'ble NGT. MPR with relevant information regarding remaining stretches and the status of projects proposed in the State shall be submitted shortly.

Principal Secretary (Guwahati Development Department), Assam informed that land has been identified for construction of STP along the river stretches of Borosola. The project for Bharalu stretch is proposed to be funded under JICA and GDD is now proposing to revise the scope of work by co-treatment of faecal sludge and STP. State also indicated that till the STP

is constructed, bio-remediation shall be done from the State funds. She further requested NMCG to share details on Johkasou technology for sewage treatment.

Principal Secretary (Urban Development Department), Assam informed that DPRs are under preparation for Tejpur, Nagaon, Silchar & Jorhat towns along 5 polluted river stretches and work is expected to start from January, 2021.

Secretary, DoWR, RD & GR emphasized to have an agency for preparation of DPRs and completion of the STPs in a timely manner, as a lot of time has already lapsed.

5. <u>Delhi</u>

Secretary, DoWR, RD & GR raised concern over the extension of timeline of all the projects being implemented in Delhi. Interceptor Sewer Projects (ISP) and establishment of STPs at Coronation Pillar, which were previously expected to be completed by 2017/ 2018 have now been revised to 2021. Projects under JICA for rehabilitation of STPs at Rithala, Kondli and Okhla, which were approved in 2011, are expected to be completed by 2022-23. More than one year time has passed, but the process for obtaining tree cutting permission by DJB from the State Forest Department has still not been completed.

Member Drainage, DJB informed that 99% progress had been achieved and only minor works are remaining in ISP, which they are finding difficult to complete in the absence of lack of manpower due to the pandemic. Similarly, for Coronation Pillar, delay is due to limited manpower and funding issues. Delhi Jal Board is aggressively pursuing with State Forest Department for obtaining permission for tree cutting and is ensuring that work with regards to STPs at Rithala, Kondli and Okhla is not affected due to the issue.

Secretary, DoWR, RD & GR highlighted that during the visit to the locations at which ISP has been implemented in the city, it has been observed that the actual treatment is much lesser than that reported by the State, as many of the ISP are linked with the on-going STPs. State Government needs to expedite the work and to look into the issues delaying the project.

6. <u>Gujarat</u>

Based on the presentation made by ED (Tech), NMCG, State was requested to provide details of capacity utilization and location of each existing STP, details of STPs with I&D or sewerage network along with status of house sewer network connections for under-construction STPs, and status of DPR preparation, tendering, sanctioning, likely date of completion for the proposed projects. With regards to the status of industrial pollution, details

of industrial discharge, number and capacity of installed ETPs, compliance and capacity, location, no. of member units connected to the existing and proposed CETPs is to be provided.

Secretary, DoWR, RD & GR highlighted that in the State a number of STPs are under-construction and a number of proposed STPs have land acquisition issues. 155 MLD STP at Sabarmati was earlier expected to be completed by May, 2020 but is now expected to be completed only by December, 2020.

The representative from Gujarat Pollution Control Board informed that land issues have been sorted out for 9 STPs. Land issues are to be resolved for 34 STPs, most of which are related to the projects under Tapi Suddikaran Yojana. For resolving the issues, a High Level meeting has been convened and it is expected to sort out the issue shortly.

Secretary, DoWR, RD & GR directed the State to provide updated status of all the projects, action taken to resolve the land issues and revised completion timelines for the projects. Further, Director General, NMCG-cum-Project Director, NRCD was requested to convene a separate meeting with the State to review the action taken by the State to resolve the issues.

7. <u>Telangana</u>

Based on the presentation made by ED (Tech), NMCG, State was requested to confirm the details of capacity utilization of existing STP and to provide details of location, capacity and likely date of completion of each STP proposed. Further, updated status of the proposed projects, such as tendered/ sanctioned/ work awarded is to be provided in the MPR. With regards to the under-construction CETP, capacity, location and percentage of progress is to be provided.

Secretary, DoWR, RD & GR raised concern that no progress has been reported in the proposed projects in the MPR, and it seems that only DPRs have been prepared for abatement of pollution in the stretches.

Principal Secretary (Environment and Forest), Telangana informed that 1130 MLD of sewage is left untreated in Hyderabad, for which DPR has been prepared for 13 STPs with sewer network and 9 STPs with I&D for Musi & Nakkavagu. It is proposed to implement the projects on Hybrid Annuity Model, which is currently under tendering. 20% of funding is to be released by State Finance Department, which is being delayed due to current pandemic situation. I&D with STP projects shall be completed within 2 years and sewer network with STP projects shall be completed within 3 years. As an interim measure, an elaborate program

of construction of FSSTPs is being taken up in the State. It was informed that land issues for STPs in Hyderabad have been resolved. A request has been made by the State to CPCB to change the priority of River Maneru from priority III to V and River Karakavagu from priority III to IV, and detailed information in this regard has been submitted.

Managing Director, Hyderabad Metropolitan Board informed that along Musi River, 2 STPs of 35 MLD have been constructed within last 2 months, the same are under-trial and shall be functional within 15 days. It was informed that 4 FSSTPs have been commissioned, 7 FSSTPs are under construction and 85 vehicles have been deployed.

Secretary, DoWR, RD & GR highlighted that pollution abatement for Hyderabad needs to be regularly monitored, which is the main source of pollution for River Musi.

8. <u>Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura</u>

Director General, NMCG informed that a review meeting under his Chairmanship was held on 23.07.2020 with the States of Manipur, Mizoram, Meghalaya & Nagaland. Officials from Sikkim could not attend the meeting due to lockdown in the State. Discussions held in the review meeting were briefed:

- It was informed that in Mizoram, 9 polluted river stretches have been identified, one 10 MLD STP is existing at Aizawal, however the same is yet to be made operational, due to non-completion of sewer line connections. It was recommended that as reported 60% of the household connections have been made, the State should take action to partially utilize the existing STP. For the remaining stretches, it was suggested that FSSTP model may be adopted by the State as an alternative to STP.
- With regard to Manipur, it was informed that Imphal city falls in the catchment area of two rivers Nabul (Priority – II) and Imphal (Priority – V). A 27 MLD STP at Imphal is operational, which is treating 8 MLD of sewage, as only 30 % of house sewer connections have been made. The State was directed to put in efforts to increase the utilization capacity of the STP. For 17 MLD STP under NRCP, tender has been awarded and was directed to expedite the project. It was also suggested that NIT Silchar can be approached for technical assistance for the projects.
- With regard to Meghalaya, it was informed a 4 MLD STP is proposed for Shillong. However, as per the reports sewage generation of 49 MLD has been estimated for the city. Therefore, the State was recommended to explore alternate technologies such as FSSTPs. It is learnt that the State is already constructing a 115 KLD Septage

Management Plant at Shillong. State was directed to re-confirm the status of sewage generation in the whole of State, which was reported to be 400 MLD.

- With regard to Nagaland, it was informed that a NRCP project of 25.43 MLD STP with sewer network for Dimapur is going on for more than 10 years. The issue with regard to sewer network connections was directed to be resolved at the earliest. Septage management plants of 30 KLD and 90 KLD are proposed at Dimapur and Kohima. Status of the projects needs to be provided by the State in the MPRs.
- The project sanctioned under NRCP for Sikkim needs to be expedited.

Secretary, DoWR, RD&GR directed that the States need to expedite the progress of the on-going projects, including 8 MLD STP at Tripura. Further, it was suggested that a separate meeting with the States may be again taken by Director General, NMCG to review the progress made.

9. <u>Maharashtra</u>

Member Secretary, Maharashtra Pollution Control Board (MPCB), informed that out of total sewage generation of 9758 MLD in the State, treatment capacity exists for 3532 MLD. For the sewage quantum of 4214 MLD, treatment capacity is being created, and/or up-gradation of existing STPs (mainly in MCGM areas) has been taken up. In case of sewage generation of 2728.65 MLD in the catchment areas of identified polluted river stretches, it was mentioned that treatment capacity exists for 1961.40 MLD. Accordingly, for gap in sewage treatment of 1026.26 MLD, STPs with the total capacity of 1317.16 MLD are proposed.

Further, it was informed that 36 STPs of total 621 MLD capacity are proposed to be constructed along the polluted river stretches under Priority-I&II, out of which STPs of 158.36 MLD capacity were in different stages of implementation and are likely to be completed by December, 2020. DPR for STPs of 100 MLD capacity is under tendering and DPRs were under preparation for STPs of 282 MLD capacity. Total gap in sewage treatment for all the 53 identified polluted river stretches is proposed to be addressed by December, 2023. FSSTPs have been installed at 52 Nagar Panchayats, including 12 plants along polluted river stretches.

The State of Maharashtra has already approached Hon'ble Supreme Court to extend time lines for completion of STPs. Hon'ble Court vide order dated 14th February, 2020 has granted stay to the impugned order dated 8th April, 2019 of NGT in OA No.673 of 2018.

Secretary, DoWR, RD&GR suggested that as a large number of STPs are under construction in the State, the physical and financial progress of the STPs in terms of percentage needs to be regularly monitored. Further, a number of STPs are in proposal stage, for which details in terms of receipt of tender, award of work, approval of DPR by the concerned authority, mobilization of funds needs to be provided. Maharashtra being an industrial state, it was directed that CETPs and individual ETPs needs to monitored regularly and efforts needs to be put in to place a proper monitoring mechanism.

10. <u>Tamil Nadu</u>

Additional Chief Secretary (Environment), Tamil Nadu informed that online mechanism for monitoring of STPs is in progress and the same shall be put in place within 15-20 days. In Tamil Nadu, to improve the flow in the non-perennial rivers, a comprehensive plan is being prepared and status shall be submitted. For all the industrial towns on the banks of polluted river stretches, CETPs are operational and are monitored regularly for compliance. Request has been made to CPCB for delisting two rivers Bhavani (Priority IV) and Tamirabarani (Priority V) and change in priority of River Cauvery (from Priority I to IV).

Secretary, DoWR, RD&GR informed that work for pollution abatement for the rivers needs to be continued, even with change in priority. The efforts of the State were appreciated for taking up measures to increase the flow in rivers and for developing online mechanism for monitoring STPs and CETPs. Work of under-construction STPs at Salem and Tirunelvi and 2 CETPs was directed to be expedited.

11. <u>Andhra Pradesh</u>

Based on the presentation made by ED (Tech), NMCG, State was requested to confirm the data related to state profile and provide details of utilization capacity of the existing STPs, details of STP with sewer network and I&D, progress and status of house sewer connections for STPS under construction, status of DPR – preparation/ tendered/ sanctioned along completion timelines for proposed projects. State was directed to provide incremental progress made in subsequent MPRs and action proposed for balance gap in treatment capacity of 166 MLD along the polluted river stretches. Details of effluent generation from the industries, capacity of the installed ETP and its compliance status also needs to be provided.

Special Secretary (Urban Development) Andhra Pradesh informed that 456.6 MLD of sewage is generated along the river stretches, against which treatment capacity of 162 MLD exists, with

capacity utilization of 90%. Work is in progress for 2 MLD and 10 MLD at Kurnool (River Tungabhadra), 10 MLD plant is under construction at Nandyal (River Kundu) with land issues having been sorted out, 10 MLD is under construction at Srikakulam (River Nagavali) and is expected to be completed by May, 2021. Land issues have also been sorted out for 5 MLD STP at Rajamundry (River Godavari) and work is about to begin. 20 MLD STP is under construction at Vijaywada (River Krishna) with 80% work complete. Further, a STP of 8.84 MLD at Tadapallei is proposed for which land is to be identified and DPR shall be sanctioned shortly.

Director General, NMCG highlighted that the State needs to submit details of action proposed for gap in treatment capacity of 166 MLD.

12. <u>Rajasthan</u>

Senior Solid Waste Management Specialist, NMCG informed that the 1st MPR from the State was received only on 29.07.2020 and briefed about the status of sewage management in the State. It was informed that the State generates sewage of 1400 MLD, for which treatment capacity of 966 MLD exists (58 STPs). However, the utilization capacity of the existing STPs is less than 25%. Jaipur has treatment capacity of 422 MLD with utilization capacity of 160 MLD only. While 62 STPs of 388 MLD are under construction, there is still a gap in treatment capacity of 300 MLD. With regards to 2 polluted river stretches, it was informed that the water quality of Banas river (Priority III) is affected by discharge of water from the nearby dams (especially Nevta Dam carrying sewage of River Dravyawati). Along the stretch of Chambal River (Priority V), Kota town generates 316 MLD of sewage, against which treatment capacity of only 50 MLD exists with a utilization capacity of 35 MLD. Further, 2 STPs of 55 MLD and 6 MLD are under construction. No plan for treatment of remaining gap is proposed. DPR for STP of 4 MLD at Keshoraipatan (no treatment plant existing) has been prepared.

Secretary, DoWR, RD&GR directed the State to take necessary actions for increasing the capacity utilization of the existing STPs and suggested that all the rivers in the State should be monitored regularly and mitigation measures be taken to improve their water quality. The State is required to urgently submit action proposed for bridging the gap in treatment capacity, reason for low utilization capacity of the existing STPs and steps being taken to increase the utilization capacity of the existing STPs.

Principal Secretary (Forest & Environment) Rajasthan informed that as per latest water quality, 2 identified river stretches have BOD level below 3 mg/l. Further, suggestions made shall be considered and action will be taken for reviving the remaining rivers. With regard to 30 MLD STP project funded by NMCG at Kota, it was informed that STP has been constructed (non-functional) and work is in progress for house sewer connections.

13. Bihar

Secretary, DoWR,RD&GR highlighted that a number of STP projects are under construction, most of which are being delayed due to road cutting, urban floods and pandemic. Concern was raised inordinate delay in approval of projects/ tenders by the concerned Boards of State Government, even for the projects which are funded by Central Government. Tendering and award of work for the proposed STPs are consuming too much time and efforts needs to be put in place to avoid unnecessary delays in the on-going and proposed projects.

Principal Secretary (Environment & Forests), Bihar initiated the discussion and briefed about the status of various projects. Secretary (Urban Development Department), Bihar informed that for 22 towns along River Ganga, 34 STPs are proposed and are in various stages of implementation. For remaining 5 river stretches, DPR is under preparation by NEERI. In Bihar, the Boards have a structure and have modalities for approval of tenders within a specified financial limit, above which the projects are to be approved by the Executive Committee. The State is taking necessary steps to avoid delays in on-going projects.

Secretary, DoWR,RD&GR informed that State needs to tie up funding for remaining polluted river stretches themselves as the funds allotted under Namami Gange has already being sanctioned for projects in main stem of River Ganga.

14. Madhya Pradesh

Based on the presentation made by ED (Tech), NMCG, State is to provide location and utilization capacity for the existing STPs, details of STP with I&D/ sewer network along with status of house sewer connections for under-construction STPs and details of location, status of DPR, likely date of completion for proposed STP projects. With regard to industrial pollution, details of capacity, location, number of member industries of the proposed and existing CETP along with progress made needs to be provided. State also needs to provide details of number of wastewater generating industries, effluent generation from the industries, number and capacity of installed ETPs along the catchment area of the polluted river stretches.

Secretary, DoWR,RD&GR highlighted that status of sewage and industrial pollution for the whole State is required. During the visit of official to the on-going STPs at Gwalior and Bhopal, the quality of construction was found to be extremely poor. Cities like Indore have adequate treatment capacity and efforts are to be put in by the State for optimum utilization of the existing capacities.

Principal Secretary (Environment), MP agreed to provide status with regard to queries raised against the quality issues in on-going STPs. It was informed that the on-going projects have been delayed by about 6 months due to the pandemic. Monitoring mechanism is being deployed to monitor the progress of the on-going STP projects and the quality of the treated water from the existing STPs. Further, it was informed that tender has been opened for 3 MLD STP at Mandideep (River Betwa) and work shall be awarded shortly. DPR has also been sanctioned for 16 MLD STP at Nagda (River Chambal) and tenders have been floated.

15. <u>Chhattisgarh</u>

Senior Environmental Specialist, NMCG briefed about the status of sewage and industrial pollution and management measures adopted in Chhattisgarh. It was informed that the State generates 600 MLD of sewage, against which 3 STPs of 73.1 MLD are existing with utilization capacity of only 6 MLD, as the work of sewer network and house hold connections are in progress. 6 STPs of 620 MLD have been proposed for the State. The State needs to provide details of I&D or sewer network with STP and to confirm the estimated completion timelines of the on-going projects. Status of DPR preparation for proposed STPs along with likely date of completion is to be provided. With regard to the industrial pollution, details of effluent generated by the industries and capacity of the installed ETPs needs to be provided.

Senior Consultant, NMCG informed that revised Action Plans duly approved by State RRC for river stretches in Priority III to IV are still to be submitted in CPCB for approval.

Secretary, DoWR,RD&GR highlighted that the State needs to put in efforts for optimum utilization of the existing facilities and ensure the on-going projects are completed in a time bound manner.

Principal Secretary (Environment & Housing), Chhattisgarh informed that for the polluted river stretches, 12 STPs were identified, of which 6 are under construction. With regard to the under-utilization of STP at Bilaspur, it was informed that sewer network and house sewer connections are in progress and are expected to be completed within one year. Revised Action Plans shall be shortly submitted to CPCB. Treatment through Faceal sludge

management is being undertaken in 166 Urban Local Bodies. Further, it was informed that construction of STPs is being monitored at a senior level.

16. <u>Daman, Diu and Dadra Nagar Haveli (DDDNH)</u>

Based on the presentation made by ED (Tech), NMCG, State needs to provide status of sewer network and house sewer connections for under-construction STPs. Status of DPR along with likely date of completion for the proposed STP projects to be provided. With regard to industrial pollution, compliance status of the ETPs needs to be provided.

Secretary, DoWR, RD&GR raised concern over the low capacity utilization of 13 MLD STP at Silvassa.

Member Secretary, Pollution Control Board informed that for Diu, a 7 MLD is under tendering. Work is in progress for house sewer connections in Silvassa and the same is being expedited to increase the utilization capacity of the existing STP. Compliance monitoring of the existing STPs and ETPs with regard to discharge standards in Daman and DNH is being regularly carried out. Major hotels/ resorts in Daman, DNH and Diu have installed individual STPs and monitoring of these STPs are also being done. Small hotels have constructed septic tank for treatment of sewage.

17. <u>Himachal Pradesh</u>

Based on the presentation made by ED (Tech), NMCG, State needs to provide utilization capacity for the existing STPs and details of status of DPR and likely date of completion for proposed STP projects. With regard to industrial pollution, stretch wise details of number of industries and expected timeline for proposed CETP are to be provided.

Director (Technical), NMCG informed that as per the latest water quality data of the polluted river stretches, BOD is observed to be less than 3 mg/l. The State PCB is carrying out regular monitoring of the industries to ensure compliance and work related to sewer network connections are also under-progress.

Secretary, DoWR, RD&GR highlighted that the industries operational in the State needs to be monitored regularly by the State Pollution Board and works with regards to the proposed CETP needs to be expedited.

Member Secretary, HP PCB, informed that 4 CETPs are proposed in the State and the industries are strictly monitored by the Board. All projects are adequately funded and most of the works have been awarded.

18. Goa

Based on the presentation made by ED (Tech), NMCG, State needs to provide details of STPs town-wise as well as stretch-wise. Further, it was suggested to provide status of house sewer connections with regard to the on-going projects and status of proposed STPs. It was highlighted that details of STPs provided in the MPR of May 2020 was not readable. The State needs to provide details of action proposed for bridging the gap in sewage treatment capacity of 35.2 MLD.

Secretary (Environment), Goa informed that many villages in Goa have adopted conventional septic tanks to ensure abatement of pollution. Projects for 73 MLD STPs are under-construction and expected to be completed by December, 2020 or January, 2021. MPR for June, 2020 has been submitted. A request was made to delist River Talpona (Priority IV) based on the latest water quality data. It was also informed that Chief Secretary, Goa is regularly monitoring the progress.

Secretary, DoWR, RD&GR suggested that the on-going and proposed projects need to be expedited and gap in treatment capacity needs to be reviewed and appropriate action needs to be taken.

19. Jammu & Kashmir

Based on the presentation made by ED (Tech), NMCG, State needs to provide installed capacity and utilization capacity for the existing STPs. With regard to industrial pollution, stretch wise details of number of industries, effluent generation, status of ETPs and status of CETPs needs to be provided.

Secretary, DoWR, RD&GR pointed out that there is a huge gap in sewage generation and existing treatment capacity and utilization capacity of the existing STPs is low. State needs to inform action being taken or proposed to address the issue.

Member Secretary, JKPCB informed that the BOD & COD levels in 9 polluted river stretches were observed to have improved during the lockdown period. However, the quality has declined after removal of lockdown. Further, it was informed that the tenders for bio-remediation in the rivers have been floated during the last month.

Director General, NMCG requested State officials to explore the possibilities of going for septage management for smaller towns along Jhelum river rather than propose STPs of smaller capacities. It was further directed that a separate meeting may be held separately to review the status of projects in J&K.

Member Secretary, JKPCB further informed that along river Tawi in Jammu, 30 MLD STP is operational, 10 MLD STP is under refurbishment and a 27 MLD STP is under trial run. Secretary, DoWR, RD&GR directed immediate action for completing the new STPs and for improving the capacity utilization of the existing STPs in Jammu, so that the untreated sewage does not continue to pollute the river.

20. <u>Jharkhand</u>

Senior Environmental Specialist, NMCG briefed about the status of sewage and industrial pollution management measures adopted in Jharkhand. It was informed that the State generates 700 MLD of sewage, against which 131 MLD capacity STPs are existing with utilization capacity of only 75 MLD. STPs of 600 MLD have been proposed for the State, of which STPs of 97 MLD are under-construction and DPR is under-preparation for 503 MLD. Along the polluted river stretches, sewage generation is 397 MLD, against which 495 MLD STPs are proposed. State was directed to provide details of quantity of effluent generated and capacity of installed ETPs.

For pollution abatement of Damodar, 2 DPR (Dhanbad & Phusro) have been submitted to NMCG and 1 DPR (Ramgarh) is under-preparation. NEERI visited 8 ULBs of Jharkhand and proposed insitu treatment of sewage, funding for which is being sorted out.

Secretary, DoWR, RD&GR highlighted that the gap in sewage generation and treatment capacity is very huge. Financial assistance from NMCG may be difficult for all the projects and State should explore other sources of funding, especially for the industrial towns. It was also suggested that adoption of alternate treatment technologies may also be explored.

21. <u>Odisha</u>

Based on the presentation made by ED (Tech), NMCG, State needs to provide details of town-wise and stretch-wise septage management undertaken in the entire State. Quantity of industrial effluent generated, number and capacity of installed ETPs also needs to be provided.

Principal Secretary (H&UDD), Odisha informed that due to pandemic, progress with regard to the Sambhalpur sewer network project has been delayed and State is trying to expedite the project. Rourkela sewer network and STP is likely to be completed by September 2020. Similarly, efforts are being made to ramp up the sewer network and STP projects in Cuttack and Bhubaneswar. Further, it was informed that FSTPs are under different stages of implementation in nearly 40 towns in the State and for monitoring the progress a State Septage Division has been created. It was informed that as many as 90 drains were identified in 114 ULBs for the treatment. Treatment of few drains in Bhubaneswar using RENEU technology (developed by IIT Mumbai & NEERI) is being taken up to understand the quality of treatment. In the meantime, pilot project based on DEWATS technology has been constructed at Kalinganagar, Bhubaneswar and is under trial stage. In all 140 urban local bodies, steel screens are being installed on major drains for solid waste management. In case of industrial effluent management, it was informed that 22 industries have either resorted to ZLD or are discharging effluent after meeting the prescribed standards.

Secretary, DoWR, RD&GR appreciated sewage management in the State through low cost FSSTPs, and desired for the said model to be replicated in other parts of the country. In order to ensure proper functioning of STPs with maximum possible capacity utilization, he insisted for expediting sewer networks to be put in place and also to provide house service connections simultaneously.

22. <u>Puducherry</u>

ED (Tech), NMCG briefed about the status of sewage and industrial pollution management measures adopted in Puducherry.

Director General, NMCG highlighted the huge gap in treatment capacity and utilization capacity in Puducherry and also directed to expedite the progress of the 2 STPs proposed.

Secretary (Environment)-cum-Chairman, Puducherry Pollution Control Committee (PPCC) informed that the estimated capacity of 155 MLD for Puducherry (as per CPCB reports) includes sewage generation from rural areas, for which separate soak pits have been constructed. Therefore, estimated sewage generation comes around to 84 MLD for the urban areas. It was informed that for the polluted river stretches, 2 STPs of 3 MLD each are under tendering and it is being proposed to complete the projects within one year. For increasing the capacity utilization of the existing STPs, steps are being taken by the Government.

23. Uttar Pradesh

Member Secretary, UPPCB informed that 14 DPRs are yet to be sanctioned along the polluted river stretches of UP. Chief Secretary, Uttar Pradesh has recently done a detailed monitoring and it is expected that these pending DPRs will be sanctioned.

Director General, NMCG informed that during the last CMC meeting, the detailed information w.r.t. NGT order was shared by the State. Further, a review meeting is proposed to be held during the next week wherein the details of projects shall be discussed. It was also suggested that other sources of funding may be explored by the State for the DPRs.

With regard to rejuvenation of small rivers, Member Secretary, UPPCB informed that prior to monsoon lot of work has been done under MNREGA. About 1042 Kms. along 20 small rivers (which are tributaries of polluted river stretches) have been de-silted prior to monsoon and about 3500 Kms. is proposed to be de-silted post monsoon. About 30 Kms. of Varuna river stretch around Varanasi & Bhadoi have been cleared resulting in increasing the e-flow in the river. Approximately 907 ponds & 557 small streams joining these rivers have also been cleaned under the MNREGA.

Director General, NMCG acknowledged the efforts of State towards rejuvenation of small rivers and requested this information may also be shared with respective District Magistrates of 57 districts, which may be helpful for them.

24. West Bengal

Based on the presentation made by ED (Tech), NMCG, State was requested to provide the details of capacity, location, percentage of progress made, details of I&D and sewer network for under construction projects. Similarly, status, capacity and location need to be provided for proposed projects. With regard to industrial pollution, progress made and likely date of completion of the on-going 20 MLD CETP along river Vindhadhar was required.

On enquiry by Director General, NMCG, Principal Secretary (Environment) West Bengal informed that toward wetland conservation, management plan for East Kolkata wetlands is under finalization. It was further informed that the area under wetlands in East Kolkata has increased due to dredging of large canals over last 6-8 years resulting in more water flow from city into the wetlands.

Director General, NMCG further requested the State to take up the project for inventorization and preparation of integrated management plan for wetlands on both sides of river Ganga in the width of 5-10 kms from the river.

Principal Secretary (Environment), West Bengal, further informed that the plan for 7 polluted river stretches in Priority III to IV has been conditionally approved by CPCB task team during the meeting held on 10.07.2020. The same has been communicated to the respective implementing agencies for necessary action. The work in Priority - I and II river stretches are in advanced stages. The plan for Priority - V (8 rivers) has been approved by RRC and work is going in all these 8 river stretches. As per water quality report of June 2020, the BOD has reduced and is observed to be below 3 mg/l in some stretches. However, Faecal Coliform levels are still high and steps for reducing it below 500 MPN have also been initiated. It was further informed that as per NGT order, State has identified Karola river in Jalpaigudi district as a model river.

For Rajiv Nagar dump site (2nd largest dump site in the State), State has recently commissioned Faecal Sludge management facility of 30 KLD capacity and one more plant of 30 KLD capacity is under construction and will be ready by March 2021. State requested NMCG to help them in providing technical assistance for selection of remediation technology of 22 large drains falling into river Ganga. It was also informed that a massive afforestation program amounting to Rs. 2.5 Crore, to cater the damages caused by the cyclone, has been launched.

25. <u>Karnataka</u>

Principal Secretary (Environment) Karnataka informed that 1st MPR from the State for the month of June, 2020 has been submitted on 29.07.2020 and the State will ensure that MPRs are sent regularly in future. It was informed that total existing capacity in the State is 2036 MLD. The capacity utilization of these STPs has increased due to Interception and Diversion works and it was reported that the efficiency has increased to 93.5%. 317 MLD capacity of STPs are proposed against the gap between total sewage generation and existing capacities. The treated effluent from Bengaluru is sent through conduit to rural areas to recharge the rural water bodies and for irrigation purposes. With respect to industrial data, it was informed that there more than 108000 industries out of which 3189 have ETPs which are treating and utilizing most of the treated waste water within premises. Smaller industries are connected to

10 CETPs of cumulative capacity of 7.3 MLD. 4 more CETPs are proposed, out of which 2 are under construction and for the remaining 2 tenders have been floated.

Senior Consultant, NMCG stated that a major portion of pollution in Arkavati river is coming from river Vrishabhavathy, which carries nearly 1/3rd of sewage of Bengaluru town, and suggested that the action plan for Arkavati river should also include the plan for tackling this major source of pollution.

State informed that out of 629 MLD (upto 2050) sewage estimated for Vrishabhavathy river, 150 MLD STP is functional and for the remaining STPs either the tenders have been called or works are under progress. BWSSB has confirmed that all these will be completed by 2022.

Director General, NMCG pointed out that in spite of repeated reminders the State Government is not submitting the MPR regularly. He requested the State Government to expedite submission of the same.

26. <u>Uttarakhand</u>

Discussions on Uttarakhand started. However, it could not be completed due to connectivity issues. It was noted that Uttarakhand is reviewed periodically and a separate meeting shall be taken by Director General, NMCG to review the progress of works in the State.

IV. While concluding the meeting, Director General, NMCG highlighted that the presentation made in the meeting shall be shared with the States for information and for submission of remaining information by the States with regard to polluted river stretches as well as for the entire State. The States were directed to submit complete and reliable information in order to have meaningful review of the progress made. Other aspects related to solid waste management, biomedical waste, ground water regulation, rain water harvesting, e-flow and floodplain management as per directions of NGT shall be taken up in subsequent meetings of the Committee.

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List of participants: **Annexure-I**

1. Shri U. P. Singh, Secretary, DoWR, RD&GR, Ministry of Jal Shakti – *in Chair*
2. Shri Rajiv Ranjan Mishra, Director General, NMCG cum Project Director, NRCD
3. Shri D.P.Mathuria, Executive Director (Technical), NMCG
4. Shri Brijesh Sikka, Senior Consultant, NMCG
5. Shri. B.B. Barman, Advisor, NRCD
6. Dr. Pravin Kumar, Director Technical, NMCG
7. Shri A. Sudhakar, Scientist E, CPCB
8. Shri Ishwer Singh, Consultant (Legal) NMCG
9. Shri S.K. Srivastava, Director, NRCD
10. Shri S.K. Singh, Deputy Director, NRCD
11. Shri A.P. Singh, Scientist E, NRCD
12. Dr. Sabita Madhvi Singh, Joint Director, NRCD
13. Shri Rajat Gupta, Senior Solid Waste Management Specialist, NMCG
14. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
15. Shri G K Murty, Team Leader, NMCG
16. Shri Deepinder Singh, Deputy Team Leader, NMCG
17. Dr. P.N.Rymbai, Scientist B, NRCD
18. Shri Manish Kumar, Sewage Treatment and Wastewater Expert, NMCG
19. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
20. Shri Rachit Andley, Project Manager, NMCG
21. Shri Vivek Raj, Scientist C, NMCG
22. Shri Avshesh Chauhan, Assistant System Analyst, NMCG
23. Ms. Nidhi Dwivedi, Project Officer Technical, NMCG
24. Shri Kumar Ajitabh, Project Officer Legal, NMCG
25. Shri. Meetpal Singh, Support Engineer, NMCG
26. Mrs. Ruby Raju, Project Engineer, NMCG
27. Shri Neeraj Gahlawat, Project Officer Technical, NMCG
28. Mrs. Kritika Kaushik, Project Officer Technical, NMCG
29. Shri Kallol Choudhary, Industrial Process Expert, NMCG
30. Shri Manish Kumar Bhandari, Solid Waste Management Expert, NMCG
31. Shri Rishabh Choudhary, Support Engineer, NMCG

Annexure-II

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/UTs

(Hon'ble NGT in the matter of OA No. 673/2018 dated 06.12.2019)

Sl.No.	**Activity to be monitored**	**Timeline**	**Submission of Progress by State/UT-Compliance Status**
1	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2020	
	commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31.03.2021	
3	Chief Secretaries may set up appropriate monitoring mechanism at State level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose.	22.01.2020 22.01.2020	
	• Monitoring at State level must take place	Fortnightly Commencing 21.12.2019	
4	Progress report may be furnished by the States/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB	Monthly (preferably before 20th of every month)	
4.1	Progress Report may be comprised of details along with completion timelines on: (i) Identification of polluting		

		sources including drains contributing to river pollution and action as per NGT order on insitu treatment		
	(ii)	<u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		
	(iii)	<u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status		
	(iv)	<u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		
	(v)	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;		
	(vi)	Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including		

	waste generated from hotels, ashrams, etc. (vii) Ground water regulation (viii) Adopting good irrigation practices, (ix) Protection and management of Flood Plain Zones (FPZ), (x) Rain water harvesting, (xi) Maintaining minimum environmental flow of river (xii) Plantation on both sides of the river (xiii) Setting up biodiversity parks on flood plains by removing encroachment		

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Legal/OA673/2018/NMCG/2019
National Mission for Clean Ganga
Department of Water Resources, River Development
& Ganga Rejuvenation, Ministry of Jal Shakti

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 8th September 2020

OFFICE MEMORANDUM

Subject: **Minutes of the 5th meeting of Central Monitoring Committee in the NGT Matter OA No.673 of 2018 held on 31.08.2020 from 10.00 AM on-wards**

A copy of Minutes of the 5th Meeting of Central Monitoring Committee in the NGT matter O.A. No. 673 of 2018 held through Video Conferencing on 31.08.2020 from 10.00 AM on-wards, under the Chairmanship of Secretary, Ministry of Jal Shakti is forwarded herewith for information/ necessary action.

(D. P. Mathuria) 08.9.2020
Executive Director-Technical, NMCG

Encl: As above.

To,

1. Chief Secretary, Government of Andhra Pradesh, I st Block, A.P Secretariat Office, Velagapudi – 522503
2. Chief Secretary, Government of Assam, Block- C, 3rd Floor, Assam Sachivalaya, Dispur - 781006, Guwahati
3. Chief Secretary, Government of Bihar, Main Secretariat, Patna – 800015
4. Chief Secretary, Government of Chhattisgarh, Mahanadi Bhawan, Mantralaya, Naya, Raipur – 492002
5. Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa – 403521
6. Chief Secretary, Government of Gujarat, 1st Block, 5th Floor, Sachivalaya, Gandhinagar – 382010
7. Chief Secretary, Government of Haryana, 4th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh – 160019
8. Chief Secretary, Government of Himachal Pradesh, H P Secretariat, Shimla –171002
9. Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu -180001
10. Chief Secretary, Government of Jharkhand, 1st Floor, Project Building, Dhurwa, Ranchi-834004

11. Chief Secretary, Government of Karnataka, Room No. 320, 3rd Floor, Vidhana Soudha, Bengaluru -560001
12. Chief Secretary, Government of Kerala, Secretariat, Thiruvananthapuram -695001
13. Chief Secretary, Government of Madhya Pradesh, MP Mantralaya, Vallabh Bhavan, Bhopal – 462004
14. Chief Secretary, Government of Maharashtra, CS office main Building, Mantralaya, 6th floor, Madame Cama Road, Mumbai – 400032
15. Chief Secretary, Government of Manipur, South Block, Old Secretariat, Imphal – 795001
16. Chief Secretary, Government of Meghalaya, Main Secretariat Building, Room no 316, Shillong – 793001
17. Chief Secretary, Government of Mizoram, New Secretariat Complex, Aizwal – 796001
18. Chief Secretary, Government of Nagaland, Civil Secretariat, Kohima – 797004
19. Chief Secretary, Government of Odisha, General Administration Department, Odisha Secretariat, Bhubaneswar – 751001
20. Chief Secretary, Government of Punjab, Chandigarh – 160001
21. Chief Secretary, Government of Rajasthan, Secretariat, Jaipur – 302005
22. Chief Secretary, Government of Sikkim, New Secretariat, Gangtok – 737101
23. Chief Secretary, Government of Tamil Nadu, Secretariat, Chennai-600009
24. Chief Secretary, Government of Telangana, Block C, 3rd floor, Telangana Secretariat Khairatabad, Hyderabad, Telangana
25. Chief Secretary, Government of Tripura, New Secretariat Complex Secretariat – 799010, Agartala, West Tripura
26. Chief Secretary, Government of Uttar Pradesh, 1st floor, Room No. 110, Lal bahadur Sastri Bhawan, Uttar Pradesh Secretariat, Lucknow – 226001
27. Chief Secretary, Government of Uttarakhand, 4 Subhash Road, Uttarakhand, Secretariat Dehradun – 248001
28. Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325, Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah – 711102
29. Administrator, Daman & Diu and Dadra and Nagar Haveli, Secretariat, Moti, Daman -396220
30. Chief Secretary, Govt. of NCT of Delhi, Delhi Secretariat, IP Estate, New Delhi – 110002
31. Chief Secretary, Govt. of Puducherry, Main Building, Chief Secretariat, Puducherry-605001

Copy To:

1. Secretary, Department of Forest, Ecology & Environment, J&K, Room no. 2/33-34, Main Building, Civil Secretariat, J&K, Jammu.
2. Secretary, Department of Environment, Science and Technology Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001
3. Principal Secretary, MGSIPA Complex, Sector-26, adjacent Sacred Heart School, Chandigarh, 160019
4. Additional Chief Secretary to Govt. of Haryana, Environment Department of Environment & Climate Change, R.No. 108, 7th Floor, Main Secretariat Sec16, Chandigarh 160017
5. Principal Secretary, Department of Environment, U.P., Room No. 601, Bapu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.

6. Special Chief Secretary, Department of Environment, Forest, Science & technology, 4th Block, Ground Floor,Room No:268, A.P Secretariat Office, Velagapudi
7. Secretary, Department of Environment and Forest, H-Block, 2nd Floor Janata Bhawan, Dispur, Guwahati 781006, Assam
8. Principal Secretary, Department of Environment, Forest and Climate Change, Van Vibhag Rd, Nehru Nagar, Patliputra Colony, Patna, Bihar 800013
9. Additional Chief Secretary (Forests & Environment), Forests & Environment Department, Block 14, 8 th floor, Sachivalaya, Gandhinagar - 382 010 Gujarat.
10. Principal Secretary, Department of Environment, Room No. S-2/23, Mahanadi bhawan, Mantralaya, Nava Raipur, Atal Nagar, Raipur - 492001
11. Additional Chief Secretary to Government, Forest, Environment and Ecology, Department, Karnataka Government Secretariat, Room No. 447, 4th Floor, Gate no. 2, Multi-storey Building, Bangalore-560001.
12. Principal Secretary, Department of Environment, Room No. 406 4th Floor Annex II, Secretariat, Kerala Thiruvananthapuram, Kerala, PIN- 695001
13. Principal Secretary, Department of Housing and Environment, Government of Madhya Pradesh, Paryavaran Parisar, E- 5, Arera Colony, Bhopal, Madhya Pradesh, 462016
14. Principal Secretary, Environment Department, Maharashtra 15th Floor, New Administrative Building, Madam Cama Road, Mantralaya, Mumbai – 400032
15. Additional Secretary, Forests & Environment Deptt, Secretariat Building, North Range, Forest Colony, Khasi Hills, Shillong, Meghalaya 793001
16. Deputy Conservator of Forest (Headquarters) Environment, Forests & Climate Change Department Tuikhuahtlang, Aizawl Mizoram.
17. Principal Secretary, Department of Environment, Forest & Climate Change, New Secretariat, Kohima, Nagaland Tel.- 0370-2243025
18. Additional Chief Secretary, State Silvicultural garden, Khandagiri, Bhubaneswar, Odisha 751003
19. Principal Secretary, Forest and Environment Department, Rajasthan 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur, Rajasthan 302004
20. Principal Secretary, Chief Project Director (SBFP-JICA), Forests, Environment & Wildlife Management Department, Government of Sikkim
21. Principal Secretary, Namakkal Kavignar Maaligai, Fort St. George, Chennai 600 009
22. Secretary, Department of Science, Technology & Environment, Vigyan Prajukti O Paribesh Bhawan, P.N. Complex, Gorkhabasti, Agartala,West Tripura, PIN-799006
23. Special. Chief Secretary, TSCOST, 4th Floor, Aranya Bhavan, Saifabad, Hyderabad, Telangana State, Pin – 500004
24. Deputy Conservator of Forests, (Territorial Division), Department of Environment & Forest Office of the Deputy Conservator of Forest, Daman, Fort Area, Post Office Moti Daman Daman & Diu (U.T.)
25. Deputy Conservator of Forests, (Territorial Division), Van Bhavan, Dadra and Nagar Haveli
26. Secretary, Department of Environment, Govt. of NCT of Delhi, 6th Floor, Delhi Secretariat, IP Estate, New Delhi 110002

27. Secretary, Environment & Forest, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Forth Floor, New Building Dehradun, Pin code-248001
28. Joint Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - Goa
29. Secretary, Environment, Office of Environment, Chief Secretariat, Goubert Avenue, Puducherry 605001
30. Principal Secretary, Department of Environment, 5th Floor, Pranisampad Bhawan, Block LB-II, Salt Lake, Sector III, Bidhannagar, Kolkata – 700 106
31. Additional Chief Secretary Forest, Environment & Climate Change Deptt., Nepal House, Doranda, Ranchi-834002, Jharkhand
32. Additional Chief Secretary, Forest and Environment Department, Government of Manipur, Secretariat, Imphal- 705001
33. The Member Secretary, Assam Pollution Control Board, Bamunimaidam, Guwahati – 781021
34. The Member Secretary, Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010
35. The Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 010
36. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Atal Nagar Dist- Raipur (C.G.) 492002
37. The Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
38. The Member Secretary, Daman, Diu & Dadra Nagar Haveli Pollution Control Committee, Office of the Deputy Conservator of Forests, Fort Area, Court Compound, Moti Daman, Daman – 396220
39. The Member Secretary, Goa State Pollution Control Board, 1st Floor, Dempo Tower, EDC Patto Plaza, Panaji, Goa-403 001
40. The Member Secretary, Gujarat Pollution Control Board Paryavan Bhavan, Sector 10- A, Gandhinagar – 382 043
41. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula-134109, Haryana
42. The Member Secretary, Himachal Pradesh Pollution Control Board, Him Parivesh, Phase-III, New Shimla, Himachal Pradesh 171009
43. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu, Jammu and Kashmir 180004
44. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar (J&K)
45. The Member Secretary, Jharkhand Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834004
46. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor, # 49, Church St., Bengaluru-560 001

47. The Member Secretary, Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O. Thiruvananthapuram - 695 004
48. The Member Secretary, Manipur Pollution Control Board, Lamphelpat, Imphal West D.C. Office Complex Imphal– 795004
49. The Member Secretary, Meghalaya Pollution Control Board Arden- Lumpyngngad Shillong: 793014
50. The Member Secretary, Nagaland Pollution Control Board, Signal Point, Dimapur Nagaland – 797112
51. The Member Secretary, Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal - 462 016, Madhya Pradesh
52. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022
53. The Member Secretary, Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl, Mizoram: 796001
54. The Member Secretary, Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar, Puducherry -600 005
55. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab 147001
56. The Member Secretary, Odisha Pollution Control Board, A-118, Nilakanta Nagar, Unit – VIII, Bhubaneshwar – 751012
57. The Member Secretary, Rajasthan Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur (Rajasthan) - 302 004
58. The Member Secretary, Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management Government of Sikkim, Deorali, Gangtok, - 737102
59. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad-500 018
60. The Member Secretary, Tripura Pollution Control Board, Vigyan Bhawan, Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban Agartala – 799006
61. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032
62. The Member Secretary, Uttarakhand Environmental Protection & Pollution Control Board, 29/20, Nemi Road, Dehradun, Uttarakhand – 248001
63. The Member Secretary, Uttar Pradesh Pollution Control Board, Building.No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010
64. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Kolkata - 700 106

Copy for kind information:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director NRCD
3. Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032

4. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
5. PS to ED (/Project/ Finance), NMCG
6. Adviser, NRCD

Minutes of the 5th meeting of the Central Monitoring Committee held on 31.08.2020 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 5th meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through Video Conferencing with the States on 31.08.2020 from 10.00 AM onwards in Conference Room, NMCG under the Chairmanship of Secretary, Ministry of Jal Shakti. The list of participants of NMCG, NRCD and CPCB present at the meeting is at ***Annexure-I.***

II. Director General, NMCG welcomed all participants and informed that in compliance to the last meeting of the Committee, separate review meetings were taken by him with the States of Andhra Pradesh, Gujarat, Jammu & Kashmir, Karnataka, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim and Telangana.

Secretary, Ministry of Jal Shakti in his opening remarks mentioned that it is understood that due to current pandemic situation, work is still affected in many of the States and financial constraints are arising in sanctioning and implementation of projects. However, it was highlighted that for a number of works such as survey work, preparing DPR, tender documents, tendering, etc., large amount of funds may not be required initially. Further, it was informed that considering the information collected in the Ministry of Jal Shakti (NMCG/ NRCD), it is seen that large number of STPs constructed are either under-utilized or are non-operational. These issues have been highlighted at the highest level of the State. Therefore, States were suggested to carry out conditional assessment of the existing STPs in order to get a clear picture of the operational status of STPs, their capacity utilization, issues of underutilization of the plant, quality of effluent, compliance to discharge norms & degree of treatment being done.

It was stressed that as per the directions of NGT orders, the water quality of rivers identified as non-polluted should not deteriorate. Therefore, basic information of each State is being compiled for proper monitoring of sewage and industrial management. It was informed that through DO letters, details of Hybrid Annuity Model based PPP projects, One City One Operator as well as Faecal Sludge Management concepts have been communicated to the Chief Secretaries of the States/UTs. Further, if required, a one-day Conference/ webinar can also be convened online to disseminate more information to the 31 States/UTs. DO letters highlighting State-specific issues have also been communicated to the Chief Secretaries of States/ UTs.

Secretary, Ministry of Jal Shakti also highlighted that for CMC meetings, representation from only Pollution Control Board will not suffice and officials responsible for management of sewage should also attend the meeting to provide proper details.

ED (Tech), NMCG informed that as per recent NGT order, States/ UTs may adopt one polluted stretch and rejuvenate it, which can serve as a model for other polluted stretches. Therefore, each State must submit details of the stretch identified for adoption as a model.

III. Subsequently, State-wise discussions held are as follows:

Executive Director (Technical), NMCG through a presentation briefed about the status of sewage and industrial pollution and management in the States, as per the information submitted in MPR and dossiers.

1. **Kerala**

Director General, NMCG raised concern over the sewage treatment capacity gap of 107 MLD STP existing in Thiruvanthapuram (Karamana river) and the slow implementation of 5 MLD STP (with expected completion date of December, 2020), which is presently having only physical progress of 40%. Further, he requested the State to provide status of proposals/ DPRs for the other river stretches, as work seemed to be at very initial stages as per the MPR of July, 2020.

ED (Tech), NMCG also informed that as per the MPRs submitted by the State, for most of the polluted river stretches, there seems to be no concrete planning. Against approx. 200 MLD of gap in sewage treatment, projects/proposals have been prepared for only 50 MLD capacity. For Karmana river, timeline for detailed engineering report has not been indicated. As the under-construction or proposed projects may not be able to achieve the NGT timeline of March 2021, the State may inform NGT accordingly.

Member Secretary, Kerala Pollution Control Board informed that the works related to sewer line connection is pending and hence the 107 MLD STP is presently operational at 65-70% capacity only. However, due to topographical difficulty, work of sewer line laying is getting affected and State Government is taking actions to shift some residences downstream of River Karamana. It was also informed that in view of implementation of action plan in Karamana River, BOD levels were observed to have reduced from 30 mg/l to 9 mg/l as per the latest monitoring reports. With regard to remaining 20 river stretches, it was informed that as per the latest reports, 15 river stretches now have BOD < 3 mg/l and for the remaining 5 stretches, while action is being taken, the work is progressing slowly due to pandemic.

Secretary, Ministry of Jal Shakti reiterated that for CMC meetings, representation from only Pollution Control Board will not suffice and Principal Secretary level officials responsible for

management of sewage should attend the meeting to provide requisite details. He also stated that even after 6 months, many projects are still in proposal stage and details such as location and capacity of STP/ FSTP are still not decided in many projects. The polluted river stretches were identified based on the monitoring data provided by the State Pollution Control Board, and improvement in water quality can be achieved only after commissioning of projects and not just by implementation of the projects. As water quality data for a month or two may not be able to show a clear picture of the exact water quality of the rivers, it should be monitored for longer period of time. Therefore, proper supporting documents, including steps taken by the State should be submitted to CPCB for justification in change in water quality.

2. <u>Punjab</u>

ED (Tech), NMCG informed that the State Government in the latest MPR of July, 2020 has submitted details of location, capacity and likely date of completion of on-going and proposed STP projects. State has also informed that out of 13 STPs under rehabilitation/ up-gradation, work of 1 completed. Further, 26 STPs are under construction, land issues are being sorted out for 7 STPs and 49 STPs are in tendering and proposal stage. However, percentage progress made with regard to on-going STP projects and details of capacity, operational status and capacity utilization of the existing STPs have not been provided. Out of the 75 new projects and 13 upgradation projects (total 88 projects) planned for the river stretches, 11 projects having 88 MLD capacity are due for completion in March 2021, 25 projects having 356.45 MLD capacity shall be completed by March 2022, 32 STPs of 278.75 MLD capacity are likely to be completed by March 2023 and 20 STPs of 333.10 MLD capacity are likely to be completed by December 2023. Rehabilitation of 25 MLD STP at Kapurthala has been completed, work has been allotted for 100 MLD and 50 MLD STP at Jalandhar, 5 MLD STP at Longowal & 12 MLD STP at Nabha. Land issue has been sorted out for 4 MLD at Sultanpur and 3 MLD at Mallanwala.

With regards to 2 on-going CETPs for cluster of dyeing industries in Ludhiana, the progress reported was quite slow. Similarly, progress on STPs for 3 dairy complexes at Ludhiana contributing pollution in Budha Nalla has not been mentioned in the MPR. Regarding in-situ remediation projects, work for Sirhind Choe (District Patiala), with the demonstration of Constructing Wet Land Technology has been completed and results analysis would be completed before 31.03.2021 for replication of technology in State in phased manner. Similalry, in-situ remediation of Bhulana drain by Nano Bubble Technology on pilot basis is under progress, while that at WSP based STP at Bhulath has been upgraded by adding Nano Bubble Technology on 26.07.2020 and results are expected by 15.10.2020. The work on

piloting low cost eco-friendly on 500 KLD STP for Banur, based on modified constructed wetland approach has been awarded and due for completion by 31.12.20. A solar aerator has been installed in maturation pond of WSP based STP Malout to improve water quality of STP. These all efforts would be replicated further in State.

Secretary, Ministry of Jal Shakti requested the State to provide details of the existing STPs, including their utilization capacity and quality of treatment. MPR submitted by State should have incremental progress made during the month with regard to the on-going projects and status of DPRs for proposed projects. These details will be helpful for the State as well for monitoring the progress and identifying the gap in treatment. The issue of pollution in Budha Nalla at Ludhiana was again raised. He inquired from the State representatives about the progress made for allotment of tenders for proposed STPs in Ludhiana. Concern was also raised against the slow physical progress of the 2 CETPs of 40 and 50 MLD being constructed for dyeing industries in Ludhiana.

Principal Secretary (Science, Technology & Environment) Punjab informed that in the MPRs details regarding location and completion date of the on-going and proposed STPs have been provided. However, State will provide additional details from next MPR onwards. With regard to Budha Nallah, it was informed that the last date for receiving tenders for STPs of 275 MLD capacity in Ludhiana was 21st August, 2020. However, due to some unavoidable reasons it has been extended to 8th September, 2020. Further, it was informed that the State Government has taken a decision to shift the dairies from its present location to some other location. It was informed that there is a gap of 456 MLD in treatment of sewage from towns located along other polluted river stretches. For this, STPs having total capacity of 193 MLD are under construction, STPs having capacity of 47 MLD are under tender stage and DPRs are under preparation for STPs having total 92 MLD capacity. With regard to the 2 CETPs at Ludhiana, it was informed that funds have now been released by the State and Central Government and the CETPs are likely to be completed by December, 2020.

3. <u>Gujarat</u>

Director General, NMCG informed that during the review meeting held with Gujarat under his Chairmanship in August'2020, it was observed that for a substantial number of projects, land issues are yet to be sorted by the State. Further, it was informed by the State that a High Level Committee has been constituted to resolve the issue soon.

ED (Tech), NMCG informed that for a sewage generation of 3765 MLD, State has adequate existing STP capacity of 3378 MLD and 2743 MLD capacity STP projects are either under-construction or under planning. Incremental progress is not being reported in the MPR. Out of

65 STPs proposed & ongoing, 34 STPs are having land issues and are presently not being taken up. Existing STPs of 840 MLD capacity in Priority I & II rivers are non-compliant and State wants to upgrade these STPs. Deep-sea disposal pipeline project for addressing the industrial effluent management needs to be expedited. With regard to bio-remediation projects, no information has been provided in the MPRs. Not much progress has been achieved with regard to expansion of existing CETPs and installation of new CETP projects. However, State had informed that no new industry shall be given consent to operate until completion of these CETP projects.

Member Secretary, Gujarat Pollution Control Board informed that Chief Secretary shall be chairing a meeting on 10th September, 2020 with the concerned departments to resolve the issue pertaining to land for construction of STPs.

Chief Engineer & General Manager (Technical), GUDM informed that land identified for 13 STPs under Tapi Suddhikaran project (GUDA and SMC areas) is government land and the issues are expected to be resolved soon. Further, tendering process have been initiated for these projects and as soon as the land is acquired, work shall commence. With regard to up-gradation of STPs, details shall be provided.

Secretary, Ministry of Jal Shakti raised concern over the land issues with regard to the STPs, which are pending since past 6 months and not much progress has been made by the State. It was directed that the State Government must resolve issues at the earliest. Further, it was suggested to take up the deep sea disposal pipeline project as an agenda with the Chief Secretary in the meeting scheduled on 10th September, 2020.

With regard to the deep-sea disposal pipeline project, Deputy CEE, Gujarat Pollution Control Board informed that DPR has been finalized, but the offshore disposal point is to be decided which depends on the finalization of norms by CPCB. Scientist-E, CPCB informed that as he was not aware of the proposal and further details would be obtained for early disposal of the issue.

4. <u>Maharashtra</u>

Secretary, Ministry of Jal Shakti pointed out that Maharashtra has the highest capacity of existing STPs of 7746 MLD, against sewage generation of 9757 MLD. However, utilization of these STPs remains only 4013 MLD (51%). State also has the highest number of polluted river stretches (53) identified for rejuvenation. Therefore, action needs to be taken to increase the utilization capacity of the existing STPs and action taken report should be furnished expeditiously.

ED (Tech), NMCG presented the status of sewerage and industrial management in the State and polluted river stretches. Further, it was informed that there is some change in data observed in MPR with regard to the total sewage generation for polluted river stretches. It was earlier being reported as 2728.65 MLD, whereas in Annexure-I of the latest MPR submitted for July, 2020, total sewage generation is indicated as 3243.15 MLD. Accordingly, data related to gap in treatment also stands changed. Similarly, previously it was informed that STPs of 1317.16 MLD capacity are proposed, but now it is submitted that STPs of 1564.46 MLD capacity are proposed. This may be reviewed by the State and details of any additional STP capacity proposed may be highlighted in the MPR. Further, incremental progress has not been reported in the MPR. DPRs are under-preparation or yet to be prepared for many of the ULBs, which have proposed small capacity of STPs. With regard to the STPs proposed and under-construction, physical progress has not been provided in the MPR. Out of the 138 STPs existing in the State, 8 STPs of 250 MLD are non-operational and 21 STPs are found to be non-compliant.

Work is yet to be started for project sanctioned long back under NRCP for abatement of pollution for rivers Mula, Mutha and Mula-Mutha (Priority-I & II) for installation of 11 STPs of total 396 MLD capacity, which is being funded by JICA. The likely date of completion of the projects is indicated to be 2023, which needs to be expedited. Further, State was directed to elaborate on the details of Stay Order received from Supreme Court vide order dated 14th February 2020. With regard to the industrial effluent management, it was informed that recently NGT has imposed fine of Rs.160 crore as environmental compensation for the damage caused by 102 industrial units and CETP (25 MLD) operator in Tarapur MIDC of Palghar. Further, it was suggested that the State may regularly monitor the projects, which are due for completion in December 2020, in order to adhere to the timeline.

Member Secretary, Maharashtra Pollution Control Board (MPCB) informed that 77 STPs of around 1300 MLD have been proposed for polluted river stretches. Out of which, 15 STPs of 245.76 MLD capacity are under construction and STPs of 80.1 MLD are likely to be commissioned by April, 2021. Tendering for 11 STPs of 423.5 MLD capacity got delayed and the process has been initiated. Administrative approval pending for 14 STPs of 205.5 MLD capacity is being pursued. Technical sanctioning for 5 STPs of 101.5 MLD is also being looked into. Further, it was informed that completion timeline of the projects for Mula-Mutha River (Pune) and Mithi River (Mumbai) was extending up to 2023 and 2024 respectively, against the NGT timeline of March 2021 and performance guarantee of Rs.15 crores was to be submitted. As the State was not in position to submit the amount, therefore

the State had approached Supreme Court to seek relaxation. Supreme Court vide order dated 14th February, 2020 had put a stay on the entire order of NGT dated 8th April, 2019.

Secretary, Ministry of Jal Shakti raised concern over the delay in Mula-Mutha river project. Further, it was directed that from next CMC meeting, concerned officials responsible for management of sewage should also attend the meeting to provide complete status of proposed projects. MPCB being the regulatory body was directed to look into the matter regarding non-operational and non-complying STPs in the State and also take appropriate action against the defaulting units including ascertaining the reasons for sub-optimal performance of existing STPs.

Director General, NMCG informed that the Mula-Mutha river conservation project, which is literally stalled for quite sometime, was recently reviewed with the Municipal Commissioner, Pune. Further, it was informed that a meeting was held on 11th March, 2020 between Hon'ble Minister for Jal Shakti and Hon'ble Minister for MoEF&CC to resolve the impasse. As per the decisions taken during these meetings, repackaging of different components (13 nos.) into one or two packages is being worked out by Pune Municipal Corporation (PMC) with the assistance of Project Management Consultants for sending to NRCD & JICA. PMC is also required to conclude the bidding process for Package-4 and seek concurrence of JICA. Any proposal in this regard, however, is yet to be submitted by PMC to NRCD & JICA, and has been inordinately delayed. This needs to be expedited by the State Government/PMC.

5. <u>Manipur</u>

ED (Tech), NMCG presented the status of sewerage and industrial management in the State and polluted river stretches. It was informed that as per the latest MPR submitted by State, no progress has been reported and status remains the same as previous month. Further, percentage progress made for on-going projects has not been provided. Even after implementation of the projects, a gap of 21 MLD remains, for which no action has been proposed by the State. Action being taken with regard to rivers identified in Priority-V also needs to be provided by the State.

Secretary, Ministry of Jal Shakti raised concern over the delay in on-going 17 MLD STP project in Imphal sanctioned under NRCD and the completion timeline of the project provided as April, 2022. Further, it was suggested to take up alternate treatment of sewage to contain the pollution in various rivers in the State.

Director General, NMCG directed that the work relating to household connections needs to be expedited as only 3000 households have been connected, out of total 12,000 households,

due to which capacity utilization of the existing 27 MLD STP remains low at only 8 MLD. Further, it was informed that in the review meeting held under his Chairmanship, it was suggested that the State may review and take up projects on Faecal Sludge Management or any other alternate treatment technology, as the proposed sewer network with 49 MLD STP project shall take long time duration to complete.

Additional Chief Secretary (Forest & Environment), Manipur informed that due to complete lockdown imposed in the State in view of Covid-19 pandemic, the progress of work has been severely affected and the utilization capacity of the STP still remains as 8 MLD. It is proposed to achieve 100% household connections by December, 2020. With regard to the 17 MLD STP, it was informed that land has been recently acquired, purchase orders for pipes have been placed and civil works will commence in 10 days. With regard to the proposed 49 MLD STP, it was informed that DPR has been prepared and the proposal has been submitted to DEA. With regard to the suggestion made by Secretary, Ministry of Jal Shakti and Director General, NMCG, the State shall review the project of 49 MLD STP for alternate treatment and shall submit details for seeking financial support by NRCD, either fully or partially.
With regard to gap of treatment of 21 MLD, it was informed that DPRs are under-preparation for 4.3 MLD STP and 16.75 MLD treatment of sewage by phyto-remediation.

6. <u>Tamil Nadu</u>

ED (Tech), NMCG presented the status of sewerage and industrial management in the State and polluted river stretches. It was informed that 56 STPs of 1484.42 MLD capacity are existing in the State against 6362 MLD of sewage generation and only 798.34 MLD (50%) capacity is being utilized. Further, it informed that status of proposed STPs and FSTPs in State, including details such as DPR preparation, approval, award of tender, designated nodal agency, treatment technology along with firm completion timelines needs to be provided. With regard to the existing 56 STPs in the State, details of capacity utilization, designated nodal agency, treatment technology, reuse of treated effluent, year of construction, compliance status etc. needs to be provided by the State. Efforts being made for enhancing the utilization capacity of the existing STPs also need to be provided. Latest status with regards to the 8 proposed CETPs in the State to be provided.

Additional Chief Secretary (Environment), Tamil Nadu informed that details of STPs, FSTPs, CETPs, ETPs and industrial units will be provided for the State as well as the priority river stretches after consultation with TNPCB. Further, it was informed that State has already developed beta version app for monitoring the STPs and are also working towards capacity utilization of the existing STPs.

Secretary, Ministry of Jal Shakti appreciated the monitoring mechanism being developed by the State. Further, it was directed that efforts needs to be made for increasing the utilization capacity of the existing STPs, which will help in improving the water quality of the rivers, as not much water is available in the non-perennial rivers in the State for dilution.

7. <u>Odisha</u>

ED (Tech), NMCG informed that as per CPCB 2015 report, sewage generation in the State is estimated to be 1273 MLD, whereas, as per the information provided by the State in their dossier, it is reported to be 4200 MLD which includes sewage from rural areas also. 5 STPs of 91 MLD capacity are existing STPs in State, which are having capacity utilization of 70 MLD. STPs of 439.49 MLD are required, against which 10 STPs of 288 MLD are under construction in the State, with likely completion by March, 2021. Principal Secretary(H&UDD), Odisha had previously informed that FSTPs are planned for smaller towns as per the Odisha Urban Sanitation Policy-2017. Such FSTPs are either operational (12 nos.) or under different stages of implementation in nearly 40 towns in the State. However, as per the information provided by SPCB, in the State 6 FSTPs (Puri, Bhubaneswar, Cuttack, Sambalpur, Rourkela, Behrampur) have been commissioned so far and two are under construction (Baripada, Balasore). Information regarding identified drains (18 nos) discharging into polluted river stretches and the status of in-situ remediation for these drains, need to be provided.

Secretary, Ministry of Jal Shakti observed that the figure of sewage generation of 4200 MLD seems to be not realistic and asked the State Government to reconcile and confirm the same. Further, amount of sewage being treated by STP and FSTP needs to be provided separately. Similarly, progress made in on-going and proposed projects of STP and FSTP to be provided separately. State was directed to expedite the on-going STP and sewer network projects at Bhubaneswar, Cuttack, Sambalpur, Rourkela.

Project Director, Odisha Water Supply & Sewerage Board informed that as per urban population of the State, approximate sewage generation would be around 700 MLD. This shall be rectified. STPs of 315 MLD capacity are being built at Bhubaneswar, Cuttack, Sambalpur and Rourkela. STP and sewer network at Rourkela shall be completed by December, 2020 and remaining projects shall be completed by March, 2021. Total 92 Faecal Sludge Treatment Plants (FSTPs) with total capacity of 1700 KLD are planned to cover 114 ULBs in the State. Out of it, 10 FSTPs of total capacity 440 KLD have been commissioned so far, mainly in main urban centres and made operational. In case of 41 FSTPs, Letters of

Agreement (LoA) have been issued, tendering is in progress for 29 FSTPs (likely completion by December, 2020 – March, 2021) and tenders are to be invited for 11 plants.

8. <u>Goa</u>

ED (Tech), NMCG informed that the sewage generation for the State is estimated to be 165 MLD (as per CPCB report 2015), against which 9 STPs of 78.35 MLD capacity are existing with utilization of around 46.6 MLD (60%). No CETP is operational in the State. With regard to the existing STPs, compliance status needs to be provided. With regard to the ongoing and proposed STPs, status and physical progress achieved needs to be indicated in the MPR. As per the details provided in May 2020 MPR, installed capacity of STPs in the State is 74.7 MLD, however the same has now been reported to be 78.35 MLD, which needs to be reconciled town wise and confirmed. 6 STPs of total capacity 36.3 MLD are reportedly under construction and 3 STPs of 38 MLD are proposed. In order to bridge the treatment gap of 16 MLD (165 MLD - 151.85 MLD), State needs to provide firm action plan to be implemented in a prescribed time frame.

Secretary, Ministry of Jal Shakti emphasized on increasing capacity utilization of existing STPs in the State, and also to expedite progress of under construction and proposed STPs along with sewer network and the house service connections.

With regard to low utilization capacity of the STPs, Secretary (Environment), Goa informed that STPs existing in the State were commissioned in 2016-17 and were planned according to the design period of 30 years. Further, after completion of sewerage network at 6 locations - Ponda, Mapusa, Baga, Porvorim, Colva, Calangute, etc., the capacity utilization shall increase. Plans for 16 MLD STP shall be submitted by the State Government.

9. <u>Haryana</u>

Director (Technical), NMCG informed that the MPR for the month of July, 2020 has still not yet received from the State. However, a report has been submitted by the State, wherein status of the on-going and proposed projects have been provided on 29th August, 2020. He also informed that the revised timelines for River Ghaggar need to be provided.

Secretary, Ministry of Jal Shakti highlighted that in Haryana, except for Faridabad, other towns have sufficient existing capacity of STPs. However, optimum utilization of the existing STPs and CETPs and the quality of treatment remains a concern. State was directed to provide plans to improve capacity utilization of the existing STPS and CETPs, and improve the quality of treatment, so that the same is reflected in the water quality of the drains and rivers in the State.

Member Secretary, Haryana Pollution Control Board informed that MPR for July, 2020 shall be submitted shortly. Further, it was informed that non-tapping of all the sewage being generated is the reason for under-utilization of the STPs. Out of the 1790 kms. of sewer lines to be laid, 265 kms. of sewer lines have presently been laid. After completion of the sewer connections, capacity utilization of the STPs shall improve and the water quality in drains and river shall also improve. Timelines for these works were requested.

10. <u>Mizoram</u>

ED (Tech), NMCG informed that due to complete lockdown in the State to contain the spread of COVID-19, MPR for July, 2020 has still not been submitted by the State. Hence the status remains the same as previous month.

Secretary (Irrigation & Water Resources), Mizoram informed that they propose to put bio-digesters in place for management of liquid waste in the State. Efforts are also being put in to operationalise already existing 10 MLD STP at Aizawl by September, 2020 and no other STP is being proposed to be taken up in the State.

11. <u>Uttarakhand</u>

Director Technical, NMCG informed that 9 river stretches have been identified in the State as polluted river stretches. River Ganga, downstream of Haridwar to Uttarakhand border has been categorized as Priority IV. However, after commissioning of the 68 MLD STP at Hardiwar, the water quality in the river stretch has been improved. With regards to Suswa river (Priority–I), project is under implementation and for remaining river stretches, DPRs are yet to be approved.

Further, it was informed that MPR for the month of July, 2020 has been received from the State. However, the quality of MPR is very poor, as the same MPR submitted for May and June, 2020 have been replicated and now submitted, hence no progress has been reported by the State in the latest MPRs.

With regard to the industrial pollution, ED (Tech) NMCG informed that the progress remains same as May 2020. Work regarding connections of industries to the existing CETPs needs to expedited and completed. Further, status of 3 CETPs proposed at Kashipur and Sitarganj needs to be provided.

Senior Consultant, NMCG informed that revised Action Plans duly approved by State RRC for Priority III and IV polluted river stretches need to be submitted by the State to CPCB at the earliest, as the next meeting of the Task Team to consider these proposals is scheduled to be held on 4th September, 2020.

Secretary, Ministry of Jal Shakti highlighted that huge amount of funds have been sanctioned in Uttarakhand for abatement of pollution of river Ganga. For remaining river stretches, State Government may look for other funding from other sources including that for bio-remediation works and cost effective solutions may be explored. With regards to industrial pollution, polluting industries should be liable to pay as per 'polluter pay principle' and it is their responsibility to construct, operate and maintain the CETP. State needs to ensure that the industries are connected to the CETPs and no untreated waste is being discharged into the drains and rivers. State Government was directed to submit incremental increase in progress in the MPRs and missing details needs to be provided. Further, it was directed that State should submit revised Action Plans for Priority III and IV polluted river stretches to CPCB at the earliest and efforts need to be made by the State Government for implementation of these Action Plans.

Chief Secretary, Uttarakhand informed that in 8 rivers, except River Ganga, 19 drains are to be tapped and 51.02 MLD of sewage needs to be treated, for which DPRs have been prepared for construction of 7 STPs and have been submitted to NMCG. Further, as an interim measure these drains are proposed to be treated through bio-remediation, for which DPRs have been submitted to NMCG. As State Government has limited funds available, it was requested that Rs. 240 crores be sanctioned for these projects. Issues raised for industrial management shall be considered and appropriate actions will be taken. With regard to MPR, it was committed that the quality shall be improved and updated MPR shall be submitted in a weeks' time.

Secretary, Ministry of Jal Shakti while reiterating that State needs to find alternative source of funding for bioremediation works requested Director General, NMCG to look into the DPR submitted by the State and after reviewing the proposal, appropriate intimation may be communicated to the State.

12. <u>West Bengal</u>

Director (Technical), NMCG informed that 17 river stretches have been identified in the State as polluted river stretches. A 24 MLD STP is under-construction along River Vindhadhar, with a completion timeline of June 2020, for which the State needs to provide updated status. Further, status of 170 MLD STP proposed at Ghusighata needs to be provided. Progress made and likely completion timeline is to be provided for 20 MLD CETP under construction by KMC in catchment area of River Vindhadhar. DPR preparation and timelines for completion of STP projects along River Mahananda seems to be too long and it is not very sure whether the State would be able to complete the projects as per the timeline proposed. Details such as capacity, location, capacity utilization, % of physical progress may be provided as highlighted in the presentation. State needs to provide reasons for non-operation of 1 STP under PHED along river

Ganga stretch and action proposed by the State to make the STP functional. Work orders have been issued for 4 rivers (Dwarakeshwar, Kaljani, Karola & Silabati) for installation of primary treatment and for 4 rivers (Kansi, Jalangi, Mayurkashi & Rupnarayan) the proposals are under tendering.

Secretary, Ministry of Jal Shakti highlighted that there is delay in implementation of a number of sanctioned STP projects under Namami Gange in the State and some of the projects are being revised even after issuing of administrative approval. State was directed to provide status of existing STPs and to expedite the on-going and proposed projects. Further, the on-going rehabilitation works of the STPs were also suggested to be expedited in order to increase the treatment capacity.

Principal Secretary (Environment), West Bengal agreed to provide details as highlighted. Further, it was informed that the plans for 7 polluted river stretches in Priority III to IV have been conditionally approved by CPCB Task Team during the meeting held on 10.07.2020 and the recommendations are being taken into account for implementation. With regards to the 17 polluted river stretches, it was informed that there is a gap in treatment capacity of 1418 MLD, for which proposals are under different stages of implementation. Likely completion timeline of STPs projects, river stretch-wise, will be provided in the next MPR. Some projects may exceed the NGT timeline of March, 2021 and the State has started paying the Environmental Compensation as per the directions of NGT and shall continue until targets are met. It was informed that 4 modules of CETP is already functional at Leather complex along River Vindhadhar and is treating the entire waste being generated in the complex. State Pollution Control Board has fined 150 industries and EC has been collected from the defaulting units. With regard to illegal sand mining activities in the catchment area of Subarnarekha River, meetings have been held with the District Collector. However, due to pandemic and flooding of the areas, survey works in the riverbed could not be taken up and the same shall be completed by November, 2020.

Further, with regard to DO letter communicated to Chief Secretary from the Ministry of Jal Shakti regarding leveraging money from MNREGA to panchayats and State Rural Development Department for re- excavation and excavation of ponds, tributaries, canals, thals and surface water schemes, it was informed that the works have been initiated in the State. Under Jal Tirth Programme, the Water Resources Department has completed 1010 schemes for rain water harvesting, 300 kms. of canals in Sunderbans has been re-excavated, which will provide more drainage and better irrigation potential. A tributary of River Ganga, River Bhairab, for which a scheme has been prepared and proposed by District Collector at local level, implementation has

begun and shall be completed within 3 years. After completion of the projects, it will create additional water potential of 14 million cubic metres utilisable for irrigation. This includes excavation of 2230 ponds, de-siltation of main river, canals and river channels and plantation along river stretch.

Secretary, Ministry of Jal Shakti appreciated the works being carried out by various Departments in the State and directed to provide details of the schemes being carried out separately to the Ministry. Further, it was suggested that rejuvenation of small rivers are important to increase the quantity of flow in the main rivers.

13. <u>Uttar Pradesh</u>

Secretary, Ministry of Jal Shakti informed that as per the NGT order in the matter OA No. 200 of 2014, separate review meetings needs to be held with the Ganga States quarterly. Therefore, accordingly separate meetings shall be convened with the States.

Senior Solid Waste Management Specialist, NMCG informed that the last MPR from the State was received on 29th July, 2020 and after that no MPR has been received from the State. However, State Dossier was received from the State on 20th August 2020. Change in figures has been observed between July,2020 MPR and the State dossier submitted by State. Incremental progress needs to be provided by the State, including % of physical progress achieved in on-going projects. As per the Dossier, 11 STPs of 216 MLD are found to be non-operational in the State and 22 STPs of 497 MLD are not complying with discharge standards. Land issue is yet to be resolved for Moradabad Phase-2 project. There is no progress on projects under tendering/ DPR preparation and progress on projects under construction needs to be expedited.

ED (Tech) NMCG informed that for tributaries of River Ganga– Saryu, Rapti, Kali and Gomti, projects are yet to be sanctioned.

Secretary, Ministry of Jal Shakti raised concern over the non-operation of 11 STPs and non-compliance of 22 existing STPs in the State as conditional assessment of STPs have been done for UP. Issues with regard to slow progress in tendering of projects was highlighted, which also causes delay in implementation of projects.

Principal Secretary (Environment & Forest) Uttar Pradesh informed that information highlighted has been noted and the same shall be submitted shortly.

Managing Director, UP Jal Nigam informed that out of the 66 STPs under UP Jal Nigam, STPs at Banda and Loni are non-operational. Work has been sanctioned for Banda and shall commence soon and the proposal is at advanced stage for Loni, for which tender has been invited. STP projects at Pratapgarh and Ballia have not been completed and have not been included in the list.

Further, it was informed that 3 locations namely - Pragyaraj, Mathura, Ghaziabad at which STPs are non-compliant are being rehabilitated. With regard to tendering of projects, it was informed that financial bid shall be opened for Lucknow within 2-3 days, for Mirzapur-Ghazipur tenders shall be opened within a week, for Bareilly request has been made for preparation of tender document by NMCG and land issue has been sorted out, for Agra & Meerut the tender document is yet to be received from World Bank. For STP project at Fathepur-Fathegarh, comments have been communicated by UP Jal Nigam to SMCG-UP. Incremental progress shall be reflected in the MPRs.

Secretary, Ministry of Jal Shakti informed that the State Dossier submitted by the State shall be shared with MD, UP Jal Nigam. Further, the State was directed to provide details of action proposed or taken, to make the non-functional STPs functional, and resolving the issues of non-compliance of the STPs.

14. <u>Rajasthan</u>

Senior Solid Waste Management Specialist, NMCG informed that while MPR for July, 2020 has been received, the State Dossier has not yet been received from the State. It was informed that 1712 MLD of sewage is being generated from 192 ULBs, sewage treatment capacity of 996 MLD (73 STPs) exists in the State, 67 STPs of 358 MLD are under-construction and 10 STPs of 28 MLD are proposed. 46 existing STPs are being monitored, of which 19 are complying and 27 are non-complying. Poor STP capacity utilization of 43% is observed. With regard to industrial management, it was informed that 10,797 industries are operational, which generates 470 MLD of effluent & 1287 industries are having ETPs. There are 15 CETPs of 162 MLD existing in the State, of which 13 are operational and 9 new CETPs are at construction or proposal stage. 'Kota Sewerage Project' sanctioned way back in Oct'2008 has not yet been completed. 43% of the targeted 15.5 lakh house service connections are yet to be provided. It was also informed that earlier 300 MLD of sewage generation was reported for Kota, which has now been reduced to 160 MLD. Earlier the sewage generation was calculated based on the water supply, but now it is being calculated based on 135 LPCD standard as per CPHEEO norms.

Secretary, Ministry of Jal Shakti raised concern over the poor utilization capacity of the existing STPs, delay in household connections and non-compliance of the existing STPs and CETPs. State was directed to provide action taken or proposed for resolving the issues of non-compliance of the existing infrastructure and monitoring mechanism adopted by the State for monitoring the performance of STPs and CETPs. Further, plan for bridging the gap in treatment capacity is to be provided. State was also directed to rectify the figures provided by them. The issues in the State have been indicated in the DO letter communicated to Chief Secretary.

Additional Chief Engineer, LSG informed that progress with regard to sewer network connections is lagging due to which the utilization capacity of STPs is low, and the State is trying to expedite the works in order to increase the capacity utilization.

15. Madhya Pradesh

Director (Technical), NMCG informed that status of only 22 river stretches have been provided by the State and details of all the STPs and CETPs in the State have not been provided. There are many on-going STP projects which are yet to be completed. Water quality data for River Chambal is found to be poor, BOD is being reported to be 34 mg/l at Nagda town and 120 mg/l at Tal. In River Kahn, BOD is being reported to be 15 mg/l. Land issue needs to be resolved for 6 STPs proposed to be constructed in the catchment area of Bichia river.

Secretary, Ministry of Jal Shakti directed that details of sewerage and industrial management for the entire State need to be provided. Further, status with regards to under-construction STPs at Gwalior and Bhopal, wherein issues with regard to the defects in construction as highlighted in the previous meeting of the CMC, were sought.

Additional Chief Secretary (Environment) Madhya Pradesh informed that details as highlighted are being collected and shall be provided in the next MPR. Due to pandemic and floods in the State, not much progress has been achieved in the on-going projects, however efforts are being made by the State for improving the utilization capacity of the existing STPs. Further, it was informed that out of the 524 MLD of sewage being treated in the State, 85 MLD of treated water is being used for irrigation purpose.

Engineer-in-Chief (Urban Development Department), Madhya Pradesh informed that physical verification of the two STPs at Bhopal and Gwalior was carried out and the construction quality of the STPs were found to satisfactory and commissioning of these STPs shall commence from next month.

Secretary, Ministry of Jal Shakti directed ENC(UD), Madhya Pradesh and Director (Technical), NMCG to discuss the issues observed related to deficiency in projects during the site visit to the two STPs. Further, for better utilization/ re-use of treated water, it was suggested that the State may develop a policy for utilization of treated water as has been done by State of Gujarat.

16. Meghalaya

ED (Tech), NMCG informed that Director General, NMCG had taken a separate review meeting with the State on 25th August, 2020. It was informed that 400 MLD of sewage generation for the State was found to be high, State is yet to verify the same. For rivers Umkhrah & Umshyrpi, a 115 KLD septage management plant is under construction at

Shillong, which should have been completed by now but has achieved only 30% progress. 7 STPs of varying capacity from 0.3 to 1.2 MLD are planned along the catchment area of River Myntdu. Further, State Government is planning to implement a large number of Faecal Sludge Management Plants across the State.

Secretary, Ministry of Jal Shakti highlighted that proper monitoring mechanism should be developed by the State for monitoring the collection, transportation and treatment of the sludge generated from the FSTPs. Further, concern was raised that for a large city of Shillong, no STP has been planned or set up.

Secretary (Urban Affairs), Meghalaya informed that 400 MLD of sewage is generated in the entire State including rural areas. However, only 87.91 MLD of sewage is generated from the urban areas. In all the industries, ETPs have been installed and the effluents are treated. The 115 KLD septage plant for Shillong is expected to be completed with 3 months. For 50 KLD plant at Polo Market, permission for consent to operate is being sought from State Pollution Control Board. With regard to the STPs proposed for River Myntdu, State is thinking of adopting Faecal Sludge Management Plants instead. For the remaining polluted stretches, it was informed that nalah in-situ treatment system is being proposed to be adopted, for which IIT Bombay and NEERI has been consulted and DPR is under-preparation.

17. <u>Karnataka</u>

ED (Tech) NMCG informed that total sewage generation in the State is 4292 MLD, for which 109 STPs of 2227.5 MLD are existing, which are being utilized at only 48.5 % capacity and another 317 MLD of STPs are proposed. With regards to the polluted river stretches, it was informed that 623.67 MLD capacity of STPs are existing, having utilization capacity of 84 % and STPs of 150 MLD are under construction.

Member Secretary, Karnataka Pollution Control Board informed that subsequent to the review meeting taken by Director General, NMCG on 21st August 2020, information has been submitted by the State. Further, it was informed that total sewage generation in the State is 3356 MLD, out of this sewage treatment exists for 2561 MLD and a gap of 795 MLD exists. Capacity utilization of STP remains at 66.53%. Short term and long term plans have been developed by the State to improve the capacity utilization of the existing STPs. Further, it was informed that out of 890 MLD of wastewater treated in Bangalore, 550 MLD treated water is being reused. For bridging the gap in treatment capacity of 795 MLD, 137 STPs and FSTPs with treatment capacity of 1091 MLD are proposed. STP and FSTP wise details shall be provided by the State. With regard to the 17 polluted river stretches, it was informed that 939 MLD of sewage is being generated,

treatment exists for 645 MLD. There is a gap of 295 MLD in treatment capacity, for which 27 STPs of 108 MLD are under consideration for outside Bangalore area.

Director General, NMCG directed that the updated information may be submitted and after reviewing the information, separate meeting if required shall be convened.

18. Jharkhand

Senior Environmental Specialist, NMCG presented the status of sewerage and industrial management in the State and polluted river stretches. It was informed that as per latest MPR, a STP and sewerage network scheme of 16 MLD STP and 14.4. kms. sewers is under construction for Ranchi under Smart City scheme, which makes the total capacity of STPs proposed (including on-going) for Jharkhand as 616 MLD. Of the 7 polluted river stretches, rivers Sankh, Konkar and Nalkari do not have any ULB. State also needs to provide quantity of effluent generation from the industries. Further, it was informed that the bidding process for the left over job of another STP (37 MLD) and 192 km of sewer network has been completed and 3 bids received. The funding line for the remaining project proposals in Ranchi (232 MLD, 8 SPS, 590km of network), Jamshedpur (24 MLD, 148km network and 2 SPS) and Mango (43 MLD and 175km) are yet to be tied up. 3 proposals, namely I&D and STP works in Phusro, Dhanbad and Ramgarh has been proposed to NMCG.

Secretary, Ministry of Jal Shakti highlighted that installed STP capacity for the State is very low and a large number of STPs are in proposal stage. Capacity utilization of the existing STPs is also 66% only.

Principal Secretary (Environment), Jharkhand informed that a proposal for bio-remediation was sent to Ministry of Jal Shakti for preparing DPR on bio-remediation. State Government has now initiated measures on their own after discussion with NEERI for suitable bioremediation activities, which shall be completed in near future. A 3.5 MLD CETP is under construction at Ranchi and is 80% complete. Third Party Assessment of the rivers Sankh, Konkar and Nalkari is going on and after evaluation, details would be submitted for de-listing the river stretches as these river stretches are achieving the bathing water quality standards. At Jamshedpur, 45 MLD has been constructed by JUSCO, which was not accounted earlier and shall be incorporated. Similarly, State Drinking Water Sanitation has created ETP for treatment for sewage and industrial waste and the details shall be submitted. Revised Action Plan for Priority III & IV rivers shall be submitted to CPCB within a week. Catchment area treatment of the river stretches is being done.

Secretary, Ministry of Jal Shakti highlighted that Jharkhand being a mineral rich state has many large industries and industrial townships. Hence, State Government should seek support

from these industries to put up STPs as part of their Corporate Social Responsibility. For example, in Jamshedpur most of the treatment measures are established by Tata Steel or JUSCo. Similar approach should be taken up in other important towns as well. The abatement of pollution in the polluted stretches shall be the State's responsibility, irrespective of financial support from NMCG.

19. <u>Bihar</u>

Senior Environmental Specialist, NMCG informed that quality of MPR has been improved from the previous versions and in this MPR the progress in project from the previous MPR has been reflected. During the previous review meeting it has been mentioned to NMCG that Beur STP is completed and trial run started, while in MPR it is still been reported as 99%. The same may be reconciled. The target date to complete the ongoing schemes has been shown in most of the cases as December 2020. This appears not to be a realistic target. It is, therefore, requested that realistic target dates shall only be provided in future MPRs. From the MPR, it is seen that the DPR preparation work for the other polluted stretches has not yet been completed. In case of Punpun river, the tender process for the Fatuha town has been cancelled. From the MPR, it is noted that State authorities have retendered the sewerage schemes in Danapur and Phulwarishariff. Similarly, the DPR preparation for the 3 towns namely Dighwara, Teghra and Manihari (under FSSM scheme) are yet to be completed by the State authorities. Bio-remediation projects have been tendered, four bids have been received.

Secretary, Ministry of Jal Shakti highlighted that physical work progress has been affected in the State due to pandemic, flooding, issues with regard to excavation of roads etc. in monsoon, and due to upcoming assembly elections soon model code of conduct shall be imposed. However, while new projects would be difficult, State should meanwhile focus on finishing the work for sanctioned projects which do not require any permission, and work for revision of DPRs should be expedited.

Member Secretary, Bihar Pollution Control Board informed that with regard to the bio-remediation, financial tenders have been opened and work shall be awarded shortly. In compliance to the NGT directions, in phase-1, River Sikrahna stretch has been identified for rejuvenation and which should serve as model for other river stretches and work shall commence immediately after monsoon.

20. Telangana

ED (Tech), NMCG presented status of sewerage and industrial management in the State and polluted river stretches. It was informed that most of the projects are under proposal stage in the State.

Director General, NMCG informed that review meeting under his Chairmanship was held with the State on 21st August 2020, wherein the issue of gap in treatment capacity in Hyderabad was conveyed to the State. It was informed that existing treatment capacity in Hyderabad is optimally utilized. For Musi River, projects are being planned under HAM PPP mode. Faceal Sludge Management is also being considered.

Managing Director, Metro Water Board, Hyderabad informed that since last quarter, 34.5 MLD capacity STPs have been operationalized in Hyderabad. With proper sewerage connections and management of all the 22 STPs in River Musi by one operator, the STPs capacity is being fully utilized. For River Musi, DPR for 1259 MLD capacity STP at Hyderabad has been submitted to State Govt. for sanction under HAM model. Land has been procured for all the 31 STPs. MD inform that one or two packages would also be summited to NRCD for support. Outside the core area of Hyderabad, co-treatment of fecal sludge has been adopted since these areas do not have sewer network. 6 FSTPs have been started and 20 million litres have been treated so far. This has led to improvement of 180 lakes around the area. Further, as an interim measure, 6 more FSTPs has been proposed, of which 1 FSTP is under construction and DPRs has been prepared for 5 FSTPs, which are to be tendered by September 2020 and the works shall be completed in 3 months. With regard to bio-remediation, it was informed that 5 drains were given to NEERI, DPR for one drain has been submitted and another 4 DPRs are yet to be submitted. Work on these works shall be awarded shortly.

21. Nagaland:

Secretary, Ministry of Jal Shakti raised concern over the much delayed ongoing project for construction of 25.43 MLD STP with sewer network at Dimapur sanctioned under NRCP. State was directed to provide details of abatement measures being planned for Kohima.

Director General, NMCG informed that State is planning for Faecal Sludge Treatment Plant for the State and a 90 KLD plant is already operational at Kohima.

Member Secretary, Nagaland Pollution Control Board (NPCB) informed that efforts are being put in to make the 25.43 MLD STP operational by December, 2020.

22. <u>Assam</u>

ED (Tech) NMCG informed that MPRs are not being submitted by the Nodal Department within the stipulated time frame. MPRs have been received for February, March & May 2020 only, and are awaited for June & July, 2020. It was informed that the present sewage generation in the State is about 703 MLD, against which no treatment capacity is available. He further informed that in Guwahati four polluted stretches are located which is under the jurisdiction of Guwahati Development Department (GDD) and the rest of the polluted stretches are located in other towns which are under the jurisdiction of Urban Development Department (UDD), Assam. He informed that issues with the State are preparation of DPRs, grounding of projects and arrangement of funds to implement these projects.

Principal Secretary (Environment & Forests), Assam informed that the progress report for July, 2020 has already been sent to the Ministry as well as CPCB on 14th August, 2020 by the State Govt. In the MPR of July, 2020, the timeline for construction of STPs as well as status of all the other verticals have been provided.

Principal Secretary, GDD informed that considerable progress has been made by GDD in implementation of the directions of Hon'ble NGT. It was informed that under the JICA assisted project, it is proposed to construct the STPs for pollution abatement of Bharalu river, Silsako Beel & Borosola Beel, for which a loan agreement was signed by the State Govt. with JICA in 2015. However, recently it was informed that Govt. of Japan has given its in-principle approval to close this project due to no progress. In this regard, a meeting was held with Embassy of Japan & JICA wherein representative of MEA and DEA were also present. In the meeting it was assured to the officials of Japanese Embassy and JICA that the State Govt. is taking all necessary measures such as consultation with the stake holders, identification of the requisite land and its transfer to Guwahati Jal Board from Revenue Department to ensure that project is implemented smoothly. Further, it was informed that GDD has identified 14 parcels of land for construction of decentralized STPs which also include fecal sludge management as well as construction of packaged STPs wherever laying of sewer lines are not possible. It was also informed that GDD is going to organize public consultation and awareness meetings from 1st September, 2020 to sensitize the general public about the project. Principal Secretary, GDD informed that most probably within a week time the Department will get clearance from Embassy of Japan to go ahead on the project.

Principal Secretary (UDD), Assam informed that there are 5 towns under jurisdiction of UDD and a consultant has already been appointed for DPR preparation. Land for STPs at Mangaldoe and Naogaon has been allotted to the Department and land for STP at Tezpur has

been identified. He informed that work for preparation of DPR got delayed as some officials of Department got infected with Covid-19. He assured that the DPR preparation shall be completed expeditiously.

Secretary, Ministry of Jal Shakti highlighted that State needs to take urgent action on identification of land for STP, SPS etc., preparation of DPRs and funding arrangement needs to be sorted out.

ED (Tech), NMCG suggested that the obstruction in Bharalu river needs to be removed in order to ensure additional flow in the river till commissioning of the project. Principal Secretary, GDD informed that the area is obstructed due to illegal encroachments in the area and the Department is working on it. Its status would be intimated shortly.

23. <u>Himachal Pradesh</u>

Director Technical, NMCG informed that the MPR submitted by the State covers all the aspects, including providing incremental progress since last month. 3 new STPs have been commissioned during the last month. The only issue is that the MPR focuses mainly on details of sewage generation regarding polluted river stretches rather than the entire State. Further, as per the monitoring data provided by the State in the MPR, river Markanda could not be monitored as the source was found to be dry, which needs to be verified. The State was directed to look into the matter and was suggested to take up rejuvenation of small rivers.

Secretary, Ministry of Jal Shakti appreciated the efforts of State in providing all the relevant required information in the MPR and further requested the State to indicate progress of entire State. It was also indicated that all the details of industrial treatment in the State should be indicated in the MPR, which was also requested during the last meeting.

Member Secretary, Himachal Pradesh Pollution Control Board informed that with regard to industrial effluent management, they are framing new inspection and sampling frequency for industries located in polluted river stretches, to ensure better surveillance, stringent monitoring and no disposal of untreated effluents in the rivers.

Secretary, Ministry of Jal Shakti indicated that State should not only restrict its monitoring of pollution by industries in polluted river stretches, but also for the entire State. Further, State should ensure completion of proposed/ on-going CETPs in the State.

Principal Secretary (Environment) Himachal Pradesh informed that the progress is being regularly monitored by Chief Secretary.

ED (Tech) NMCG indicated that no proposal with regards to the 16 MLD gap in sewage treatment capacity has been indicated in the MPR, and the same may be provided.

24. Jammu & Kashmir

ED (Tech), NMCG informed that a separate review meeting was held with the State under the Chairmanship of Director General, NMCG and the State has informed that the 970 MLD of sewage was generated in the State. 11 STPs of 126.80 MLD are existing in the State, with a utilization capacity of 80.70 MLD. With regard to the 7 polluted river stretches, it was informed that total sewage generation is 152 MLD, against which 71 MLD of sewage treatment capacity is existing with capacity utilization of around 29 MLD, and STPs of 74.20 MLD capacity are proposed. The major issues of the State were highlighted such as underutilization of the existing STPs in Jammu, DPRs still under preparation for STPs, mobilization of funds yet to be tied up, etc. It was also informed that incremental progress is not being reported in the MPRs.

Secretary, Ministry of Jal Shakti raised concern over low utilization capacity of the existing STP in Jammu town. Further, he directed the State to provide action taken or proposed for optimal utilization of the STPs and also compliance of these STPs.

Superintending Engineer, Urban Environmental Engineer Department informed that presently treatment capacity of 67 MLD is existing in Jammu for pollution abatement of Tawi river, which is having utilization capacity of 27 MLD. Further a STP of 4 MLD capacity is under construction. Out of 12,845 connections, 6076 connections have been completed and work is in progress for connecting the remaining. In addition, a proposal for construction of 10 MLD STP capacity for treatment of discharge from 13 Nallahs has been submitted to Ministry of Urban Development for funding from JICA. Work for refurbishment of 10 existing MLD STP in Jammu shall be taken up shortly.

Secretary, Ministry of Jal Shakti suggested that instead of installing small capacity STPs, State could explore alternate sewage treatment options that can be easily installed in lesser time. Further, NRCD was directed to look whether any small project, as proposed by the State, can be funded under NRCP.

25. Andhra Pradesh

ED (Tech), NMCG informed that a separate review meeting was held with the State under the Chairmanship of Director General, NMCG and the State has informed that the 1384.0 MLD (urban population) of sewage was generated in the State. 515.45 MLD STP capacity is existing in the State and there is a gap in treatment capacity of 868.55 MLD. Details of number of existing STPs, compliance status and capacity utilization of each STP needs to be provided by the State. Details and progress of house sewer connections needs to be provided for on-going projects. MPR has been received for July, 2020 and incremental progress has

been reported. With regard to the 5 polluted river stretches, it was informed that total sewage generation is 302 MLD, 11 STPs of 162.40 MLD capacity is existing, capacity utilization of these STPs are around 57 MLD. Change in data has been observed with regard to the sewage generation in the polluted river stretches as per the information provided in the previous meetings of CMC.

Secretary, Ministry of Jal Shakti raised concern over gap in treatment capacity of 868.55 MLD existing for the whole State and State was directed to take appropriate action to tackle the issue.

State representative informed that 129 ULBs are there in the State, wherein survey for requirement of UGD scheme with STP is being carried out and accordingly new schemes are being proposed and taken up. At present, 34 ULBs having more than 1 lakh population are being taken up in Phase-I. Timelines and details of action plan shall be submitted. With regard to the polluted river stretches, land issues have been resolved and construction work has been started.

Director General, NMCG informed that in the review meeting held under his Chairmanship, State was directed to provide details of industries existing such as capacity, industrial discharge, number and capacity of ETPs installed.

Adviser, NRCD informed that post the review meeting of Director General, NMCG with the State on 21st August 2020, detailed discussion with regards the Rajahmudary project was held with State officials and details shall be submitted.

26. <u>Delhi</u>

Director (Technical), NMCG presented the status of sewerage and industrial management in Delhi. It was indicated that daily updates on STP capacity utilization are being provided by the State. There are 13 CETPs existing in the State with a total capacity of 213 MLD, against which only 45 MLD is being treated i.e. capacity utilization is around 20-22% only. Further, details regarding individual capacity utilization, industries becoming green etc. are not being provided in the MPR. It was further informed that out of 13 CETPs, only 11 have been monitored during last month, and 7 CETPs were found to be non-complying. In addition, there are 11 more industrial clusters which do not have any installed CETP. Regarding progress of STPs, during the last month there was very slow progress for even those projects where there are no issues such as land issue/ tree cutting permission, etc. It was further informed that there is data discrepancy within various departments of DJB with regards to amount of sewage tapped under the interceptor sewer project.

ED (Tech), NMCG informed that the issue of CETP is going on since past 2 years. DPCC had informed that for up-gradation of the CETPs and to increase the utilization capacity of the CETPs, NEERI had been engaged for providing consultancy and studies are going in. However, no progress has been reported in this regard.

Member Drainage, Delhi Jal Board requested for a joint inspection, by officials of NMCG, DJB and Third Party Inspection agency, post monsoon, to ensure that there is no data discrepancy towards how much sewage is being tapped.

Secretary, Ministry of Jal Shakti raised concern over the poor management of industrial pollution in Delhi even after construction of CETPs of 213 MLD and poor utilization of the existing CETP infrastructure. Further, it was directed that issues with regard to the on-going STPs projects and ISP may be resolved at the earliest, and the projects may be expedited. NMCG was directed to conduct the inspection post monsoon.

27. <u>Chhattisgarh</u>

Senior Environmental Specialist, NMCG informed that the waste water generation in Chhatishgarh is 600 MLD, whereas at present installed capacity is only 73.1 MLD in 3 STPs. 2 STPs are installed at Bilaspur of 71 MLD capacity (15 MLD at Chillati and 54 MLD at Domohani) and 1 STP of 2.1 MLD is at Kawardah. The STP at Bilaspur currently receives around 4.5 MLD sewage load leading to very low utilization (6% only). The main reason for such low utilization is the ongoing works in the sewer network, SPS and house connection which are expected to be completed by June, 2021 only. In the Kawardah STP, the utilization is much better as 1.5 MLD sewage load is coming against installed capacity of 2.1 MLD (i.e. 71%). It was further informed that in the current MPR the State authorities have started reporting the progress in the ongoing STP works like in Raigarh, Raipur etc. which when compared to the previous MPR, some progress can be observed. Stretch wise treatment of industrial effluent has been provided along with generation and treatment of waste water and it has been shown that at present there is no such treatment gap. However, ETP wise installed treatment capacity needs to be provided. Further, State Authorities have informed that in all the 166 ULBs in Chhatishgarh, FSTP scheme have been developed and in all the ULBs along the polluted river stretch the FSTP is already installed and working. However, location of FSTP for a specific river stretch along with co-treatment facility provided with which STP is required to be provided.

Secretary, Ministry of Jal Shakti informed that laying of sewer network and house sewer connections takes a lot of time due to which sewage does not reach the STP, and the STPs lie idle or remain under-utilized for a long duration of time.

State representative informed that work is in progress for laying of sewer network and house sewer connections in Bilaspur, which is expected to be completed within one year and shall increase the utilization capacity of the STP. Further, efforts are being put in to complete the works of 4 STPs at Raipur by June 2021. Similarly, works for remaining STPs are also being expedited to achieve the time target proposed by the State in the recent MPR.

28. <u>Sikkim</u>

ED (Tech), NMCG presented that the State generates sewage of 28 MLD (as per the CPCB report 2015), against which 6 STPs of 19.5 MLD are existing in the State, which are being utilized at 16.89 MLD capacity. It was informed that 3 STPs of 6.25 MLD are under construction and 2 STPs of 5.33 MLD are proposed. There are no CETPs in the State. The issue of delayed implementation of the project sanctioned under NRCP about 2 years back for pollution abatement of river Rani Chu at Gangtok Zone-III was raised. Further, it was informed that STPs at Melli (0.5 MLD), Rangpo (1.40 MLD) and Gangtok Zone-II (1.60 MLD) are almost complete, but commissioning is delayed due to fund constraints and other minor issues which needs to be resolved immediately. The work on proposed STPs at Namchi (3.63 MLD), Jorthang (1.70 MLD) are held up due to land issues. This needs to be sorted out urgently by the State Government. He also requested State Govt. to provide the time line with milestones to complete the ongoing and proposed works.

Principal Secretary (Environment & Forest), Sikkim informed that the estimated sewage generation in the State is about 47.68 MLD and existing treatment capacity is 19.02 MLD, so there is a gap of about 28 MLD in sewage treatment. Capacity utilization of existing STPs is about 17 MLD. 5 STPs having total treatment capacity of 11.58 MLD are under construction and 5 more STPs having total treatment capacity of 6 MLD are proposed. It was further informed that the State is preparing DPR for STPs in North Sikkim and West Sikkim, where no STPs are existing at present for bridging the gap in treatment. With regards to industrial pollution management, it was informed that there are 64 industries in the State and all are equipped with the ETPs which are fully functional. Sikkim also has 47 Pharma units and there are also equipped with the ETPs and OCEMS system is in place.

Secretary, Ministry of Jal Shakti appreciated the State's effort in managing the existing STPs which shows about 89% capacity utilization. Further, he suggested that cost effective alternate treatment options can be explored for treatment of sewage.

29. Tripura

ED (Tech), NMCG presented that the State generates sewage of 175 MLD (CPCB report 2015), against which 1 STP of 8 MLD (Agartala) and 1 FSTP of 74 KLD is existing in the State. The 8 MLD STP is being utilized at 2 MLD capacity only. It was informed that work order has been issued for another 8 MLD STP at Akhuaura ICP, Agartala. MPR submitted in July 2020 has reported incremental progress made by the State. All ULBs have been directed by the State to adopt bio-remediation and construct low cost FSTPs for improving the water quality in rivers. Further, finalization of technical specifications/tender documents for installation of 15 Faecal Sludge Treatment Plants of 600 KLD capacity for 15 ULBs is going on and is proposed to be completed shortly. In case of three STPs proposed, viz. 4 MLD at Bishalgarh, 8 MLD at Udaipur, 8 MLD at middle point between Dharmanagar and Kailasahar, for which DPRs were reported to be under preparation, the State Government was requested to provide details in terms of approval of DPRs, receipt of tenders, award of work, nodal agency, mobilization of funds, etc. As per the earlier MPR, in-situ bio-remediation was to be implemented in pilot mode in Agartala town, for which RFP was reported to be under preparation. No further progress was noted in this regard, except identification of major drains requiring the said in-situ treatment.

Secretary, Ministry of Jal Shakti raised concern over the poor utilization of the existing STP and directed State to expedite implementation of the 8 MLD STP proposed at Akhuaura ICP.

Member Secretary, Tripura Pollution Control Board clarified that both the above STPs shall suffice the sewage treatment for Agartala town and effectively address pollution problems in the identified stretch of river Haora. It was informed that finalization of technical specifications/tender documents are in progress for 15 FSTPs, and shall be completed shortly. With regard to phyto-remediation, tender will be invited shortly. There are 179 industries in the catchment area of the rivers, for which 18 ETPs and 4 CETPs are existing. Further, it was informed that as per water quality monitoring carried out during recent periods, identified river stretches are found to be no more polluted. Accordingly, the State is in process of requesting CPCB for their deletion from the list of polluted river stretches.

Director General, NMCG informed that the status shall be discussed in a separate review meeting with the State under his Chairmanship.

30. Daman, Diu & Dadra Nagar Haveli

ED (Tech), NMCG presented the status of sewerage and industrial management in the UT as well as the polluted river stretches. Issue of underutilization of the 13 MLD STP at Silvasa

was raised, which is due to pending house sewer connections, and work on the proposed 16 MLD STP at Nani Daman is to be started expeditiously.

Member Secretary, Pollution Control Committee (PCC), Daman & Dadra Nagar Haveli, informed that 78% of the work of household connections has been completed and work is in progress. With regards to 16 MLD STP, it was informed that the project is proposed under World Bank ENCORE projects. Approval of the project and fund release is awaited. With regard to standalone modular STPs in gram panchayats, it was informed that 4 gram panchayats have been identified in Daman, for which DPR is under preparation and are expected to be completed by 31st March, 2021. Further, it was informed that 95 industries in Daman and 165 in Dadra Nagar Haveli are having individual ETPs and are complying to the CPCB standards.

31. <u>Puducherry</u>

ED (Tech), NMCG presented status of sewerage and industrial management in the UT as well as the polluted river stretches. It was informed that as per the MPR of July 2020, tender has been opened and technical evaluation is under process for 3 MLD STP proposed at Karaikal and the 3 MLD STP proposed at Villianur is under tendering. Both the projects are likely to be completed by June, 2021.

Secretary, Ministry of Jal Shakti raised concern over the poor utilization of the existing STPs in the UT.

Chairman, Puducherry Pollution Control Committee (PCC), informed that the poor utilization of existing STPs is due to delay in house connections works, which are affected by COVID-19 pandemic and these are expected to be complete by March, 2021. Further, it was also informed that no industrial waste is being discharged into the rivers in the UT and insitu remediation of drains is being carried out. Chief Engineer informed that 60% household connections have been completed and balance works shall be completed.

Secretary, Ministry of Jal Shakti concluded the meeting and again requested States/UTs to take up the recommendations made in the beginning of the Session.

The meeting ended with thanks to the Chair.

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Annexure-I

List of participants:

1. Shri U. P. Singh, Secretary, Ministry of Jal Shakti – *in Chair*
2. Shri Rajiv Ranjan Mishra, Director General, NMCG cum Project Director, NRCD
3. Shri D.P.Mathuria, Executive Director (Technical), NMCG
4. Shri Brijesh Sikka, Senior Consultant, NMCG
5. Shri. B.B. Barman, Advisor, NRCD
6. Dr. Pravin Kumar, Director Technical, NMCG
7. Shri A. Sudhakar, Scientist E, CPCB
8. Shri Ishwer Singh, Consultant (Legal) NMCG
9. Shri S.K. Srivastava, Director, NRCD
10. Shri S.K. Singh, Deputy Director, NRCD
11. Shri A.P. Singh, Scientist E, NRCD
12. Dr. Sabita Madhvi Singh, Joint Director, NRCD
13. Shri Rajat Gupta, Senior Solid Waste Management Specialist, NMCG
14. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
15. Shri G K Murty, Team Leader, NMCG
16. Shri Deepinder Singh, Deputy Team Leader, NMCG
17. Dr. P.N.Rymbai, Scientist B, NRCD
18. Shri Manish Kumar, Sewage Treatment and Wastewater Expert, NMCG
19. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
20. Shri Rachit Andley, Project Manager, NMCG
21. Shri Avshesh Chauhan, Assistant System Analyst, NMCG
22. Ms. Nidhi Dwivedi, Project Officer Technical, NMCG
23. Shri Kumar Ajitabh, Project Officer Legal, NMCG
24. Shri. Meetpal Singh, Support Engineer, NMCG
25. Mrs. Ruby Raju, Project Engineer, NMCG
26. Shri Neeraj Gahlawat, Project Officer Technical, NMCG
27. Mrs. Kritika Kaushik, Project Officer Technical, NMCG
28. Shri Kallol Choudhary, Industrial Process Expert, NMCG
29. Shri Manish Kumar Bhandari, Solid Waste Management Expert, NMCG
30. Shri Rishabh Choudhary, Support Engineer, NMCG

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ANNEXURE-III

STATE-WISE DETAILS OF ON-GOING PROJECTS

State	On-going project details	Completion Timeline
Andhra Pradesh	2 STPs of 20 MLD capacity at Jakkampudi. (80%)	March-2021
	2 MLD STP (35%) at Kurnool.	May 2021
	10 MLD STP at Srikakulam under progress (42%)	May 2021
	Work started for 10 MLD STP	December 2021
	Work started for 10 MLD STP at Nandyala	December 2021
	Work to begin for 5 MLD STP in Rajahmundry	December 2021
Bihar	Karmalichak sewerage network – 60%	December 2020
	Saidpur STP & Adjoining Network (60 MLD)-93%	January 2021
	Pahari STP (60 MLD) – 55%	February 2021
	Sonepur I&D and STP (3.50 MLD) - 20 %	March 2021
	Pahari Sewerage Network Zone IV – 67%	May 21
	Sultanganj I&D and STP (10 MLD) – 33 %	June 2021
	Barh I&D and STP (11 MLD) – 43 %	June 2021
	Naugachhia I&D and STP (9 MLD) – 20%	June 21
	Mokama I&D and STP(8 MLD) -16%	June 2021
	Beur Sewerage Network – 68.94%	October 2021
	Maner I&D and STP (6.50 MLD)	December 2021
	Bakhtiyarpur I&D and STP (10 MLD)	December 2021
	Chhapra I&D and STP (32 MLD) - 5%	December 2021
	Saidpur Sewerage Network – 48.6%	January 2022
	Pahari Sewerage Network Zone V – 41.89%	April 22
	Begusarai STP and Sewer Network (17 MLD)–14%	June 2022
	Digha STP and Sewerage Scheme (100 MLD)	December 2022
	Kankarbagh STP and Sewerage Scheme (50 MLD)	December 2022
Chhattisgarh	6 MLD STP at Raipur (70%)	June 2021
	75MLD STP at Raipur (40%)	June 2021

	35 MLD at Raipur STP (40%)	June 2021
	90 MLD at Raipur STP (40%)	June 2021
	25 MLD at Banjipali (10%)	June 2021
	7 MLD at Badhe Atarmuda (2%)	June 2021
Daman, Diu And Dadra Nagar Haveli	Work in progress for connections of household sewer lines for Moti Daman. Work in progress for connecting remaining households in Silvassa	March 2021
Delhi	70 MGD Coronation Phase I, II, III (75%)	March 2021
	10 MGD Yamuna Vihar Phase II	March 2022
	10 MGD Kondli Phase I (37.83%)	December 2022
	10 MGD Kondli Phase III (37.83%)	December 2022
	25 MGD Kondli Phase II by (37.83%)	December 2022
	40 MGD Rithala Phase I (27.5%)	December 2022
	124 MGD Okhla Phase I, II, III, IV (13.96%)	June 2023
Goa	2 MLD STP in final stage of commissioning	December 2020
	15 MLD STP (80%)	December 2020
	5.4 MLD- final stage of commissioning	December 2020
Gujarat	23.5 MLD STP at Jetur (75%)	October 2020
	100 MLD STP (67%)	December 2020
	155 MLD STP (75%).	December 2020
	Expansion of 100 MLD at Bhesan (85%)	December 2020
	13.70 MLD at Dahod Nagar Palika (67.5%).	February 2021
	60 MLD STP with network at Kapurai (64%).	March 2021
	14 MLD at Vapi Namdha (35%)	March 2021
	Connection of network for 53 MLD STP at Gavier	March 2021
	Expansion of 162 MLD at Bhatar (50%).	March 2021
	4.60 MLD at Zalod Nagar Palika (59%).	March 2021
	Expansion of 155 MLD at Signpore (70%).	June 2021
	5.2 MLD at Kheda (4%)	November 2021
	7.5 MLD at Sayaji garden (24%).	December 2021
	50 MLD STP with network at Channi (8%).	December 2021
	Work started for 43.24 MLD – SUDA (0.3%)	March 2022
Haryana	0.75 MLD at Kot (98%)	October 2020

	0.5 MLD at Khagesara & Toka (95%)	September 2020
	0.5 MLD at Nangal & Allipur (95%)	September 2020
	0.75 MLD at Khatoli (60%)	March 2021
	0.75 MLD at Sukhdarshanapur (75%)	October 2020
	8 MLD at Village Dabra (82%)	December 2020
	12 MLD at Ambala (15%)	June 2021
	12 MLD at Ambala (15%)	June 2021
	8 MLD at Bhuna (80%)	December 2020
	1 MLD at Baliawas (60%)	July 2020
	1 MLD at Sarai Alawardi (95%)	August 2020
	1 MLD at Gadoli Kalan (90%)	August 2020
	50 MLD at Karnal (100%)	Sept 2020
	8 MLD at Karnal (58%) by 30.10.2020	October 2020
	10 MLD at Rohtak (80%) by 31.12.2020	December 2020
	20 MLD at Karnal (60%) by 31.12.2020	December 2020
	2 MLD at Mohmadpur Jharsa (50%) by 31.12.2020	December 2020
	1 MLD at Darbaripur (70%) by 31.12.2020	December 2020
	7.5 MLD at Faridabad (82%) by 31.12.2020	December 2020
	0.75 MLD at Billa (50%) by 31.12.2020.	December 2020
	5 MLD at Ambala (85%) by 31.12.2020.	December 2020
	10 MLD at Babyal (16%)	March 2021
	7.5 MLD at Shahpur Machhonda (6%)	March 2021
	12 MLD at Rohtak (17%)	March 2021
	3 MLD at Murthal	June 2021
	10 MLD at Kithwari (29%)	June 2021
	15 MLD at Palwal (40 %)	June 2021
	2.5 MLD at Palwal (39%)	June 2021
	15 MLD at Sonepat (10%)	June 2021
	1.5 MLD at Saketri	June 2021
	10 MLD at Faridabad (2%)	July 2021
	7.5 MLD at Sirsa	December 2021
	10 MLD at Jajzgarh	December 2021

	10 MLD at Rohtak	December 2021
	15 MLD at Rohtak	March 2022
	1 MLD at Bandwari (5%)	March 2022
	30 MLD at Faridabad	June 2022
	7.5 MLD at Sirsa by 30.06.2023	June 2023
Himachal Pradesh	2 STPs of 1 MLD each and sewer lines in Parwanoo (33%)	December 2020
Jammu & Kashmir	4 MLD STP at Belicharana (80%)	
	Work to begin for 3 STPs of 8 MLD, 4 MLD and 1.60 MLD capacity	
Jharkhand	34 MLD at Adityapur	May 2021
	16 MLD STP with 14.44 km at Ranchi	December 2021
	37 MLD STP (42%) - Contracted terminated and tendering floated for remaining works.	December 2021
Karnataka	Works under progress for 1 MLD STP at Ujjanipura and UGD	
	5.13 MLD STP at Purle Village and UGD works under progress.	
	Work order in progress for laying sewage network & construction of 2.5 MLD STP.	March 2021
	Dandeli CMC STP work is under progress.	March 2023
Kerala	5 MLD STP at Medical college (40%)	Dec 2020
	2 STPs of 3 MLD at Medical college	
	50 KLD at Bus Stand (90%)	
	10 KLD STP for Kalamassery - 80%	
Madhya Pradesh	7 MLD at Hukmakhedi (90%)	December 2020
	35 MLD at Azad Nagar (80%)	December 2020
	11 MLD at Nahar Bhandara (85%)	December 2020
	6 MLD at Radha Swami (85%)	December 2020
	10 MLD at Harisidhi (80%)	December 2020
	22.5 MLD at Jatra pura (90%)	December 2020
	21 STP MLD (90%)	December 2020
	92.5 MLD at Suvasra village (60%)	December 2021
	9.5 MLD at Bansal hospital (10%).	December 2021
	4.5 MLD at Char imli (70%)	December 2021
	32 MLD at Sun Khedi (80%)	December 2021

	20.5 MLD at Misrod (10%)	December 2021
	8 STPs of 37 MLD	December 2021
	7.5 MLD at Madhav Nagar (25%)	December 2021
	6 MLD at Katay Ghat (30%)	December 2021
	11 MLD at Kuthla Ghat (15%)	December 2021
	17.6 MLD (90%)	December 2021
	4.7 MLD (90%)	December 2021
	3 STPs of 24.5 MLD	December 2021
Maharashtra	8 MLD STP at Greater Mumbai	November 2020
	2 STPs of 37 MLD at Akola	December 2020
	22.50 MLD STP at Sangli Miraj	December 2020
	2 STPs of 13MLD at Hingnaghat	January 2021
	4 MLD STP at Alandi	March 2021
	2 STPs of 11.5 MLD at Islampur	March 2021
	9 MLD STP at Pachora	March 2021
	2 STPs of 10 MLD at Kolhapur	March 2021
	2 STPs of 57 MLD at Dhule	March 2021
	21 MLD STP at Kalyan-Dombivali	May 2021
	35 MLD STP at Beed	July 2021
	48 MLD STP at Jalgaon	August 2021
	8 MLD STP at Ulhasnagar	August 2021
	11.5 MLD STP at Gadchiroli	October 2021
	2 STPs of 16 MLD at Ballarpur	October 2021
	22 MLD STP at Kulgaon Badlapur	December 2021
	32 MLD STP at sewer network at Nashik (for future)	March 2022
	3 MLD STP at Khalapur	March 2022
	12 MLD STP at Pimpri-Chinchwad	April 2022
Manipur	17 MLD for 72 drains at Imphal	April 2022
Mizoram	10 MLD at Aizawl (98%) & sewer network (70%)	December 2020
Nagaland	Sewer lines being laid for 25.43 MLD STP at Dimapur (47%)	March 2021
Odisha	56 MLD STP at Meherpalli - 48%	March 2021

	28 MLD STP at Basuaghai - 26%	March 2021
	43.5 MLD STP at Kochilaput - 62%	March 2021
	8.5 MLD STP at Paikarapur - 36%	March 2021
	16 MLD STP at Cuttak - 91%	March 2021
	40 MLD STP at Sambalpur - 91%	March 2021
	40 MLD STP at Rourkela - 95%	March 2021
Punjab	18 MLD STP at Ferozepur	December 2020
	6 MLD STP at Jaito	December 2020
	1.3 MLD STP at Goindwal Sahib	December 2020
	6 MLD STP at Kotakpura	March 2021
	8 MLD STP at Kotakpura	March 2021
	4 MLD STP at Baghapurana	March 2021
	2 MLD STP at Boha	March 2021
	15 MLD STP at Shermajra	April 2021
	1 MLD STP at Guru Har Sahai	June 2021
	4 MLD STP at Guru Har Sahai	June 2021
	2 MLD STP at FP, Pathankot	September 2021
	2 MLD STP at FP,Goindwal Sahib	September 2021
	5 MLD STP at Sirhind	September 2021
	4 MLD STP at Bahadurgarh	September 2021
	6 MLD STP at Patiala	October 2021
	15 MLD STP at Muktsar Sahib	December 2021
	2 MLD STP at Hariana	December 2021
	5 MLD STP at Dhuri	December 2021
	4 MLD STP at Sangrur	December 2021
	3 MLD STP at Bassi Pathana	December 2021
	0.2 MLD STP at Bassi Pathana	December 2021
	2 MLD STP at Sirhind	December 2021
	4 MLD STP at Sirhind	December 2021
	0.3 MLD at Gholumajra (Lalru)	December 2021
	0.3 MLD STP at Chaundheri & Samalheri	December 2021
	0.15 MLD STP at Lalru	December 2021

	3 MLD STP at Rahon	December 2021
Rajasthan	2 STPs of 40 and 15 MLD at Kota	2022
Sikkim	1.60 MLD STP and sewer system for Gangtok Zone II	December 2020
	1.40 MLD STP at Rangpo	December 2020
Tamil Nadu	2 STPs of 5.21 MLD at Sathyamangalam	June 2020
	8.65 MLD STP Mettupalayam	March 2021
	Under Ground Sewerage schemes at Tirunelveli	December 2021
Tripura	8 MLD STP at Akhaura.	
Uttar Pradesh	10 MLD at Budhana	March, 2022
	22 MLD at Muzaffarnagar	March, 2022
	32.50 MLD at Muzaffarnagar	March, 2022
	30 MLD at Hapur	December 2021
	20 MLD at Modinagar	July, 2021
	40 MLD at Bulandshahr	July, 2021
	30 MLD at Mathura	April, 2021
	21 MLD at Etawah	September 2021
	42 MLD at Prayagraj	April, 2022
	67 MLD at Firozabad	
	10 MLD at Sultanpur	December 2021
	2 MLD at Sultanpur	December 2021
	5 MLD at Sultanpur	December 2021
	30 MLD at Jaunpur	December 2021
	120 MLD at GH Canal	
	30 MLD at Panka, Kanpur	April, 2022
	15 MLD at City Jal Drain	April, 2022
	5 MLD at Shukklaganj	April, 2022
	16 MLD at Jhunsi	April, 2022
	14 MLD at Prayagraj	April, 2022
	50 MLD at Ramana	December 2020
	10 MLD at Ramnagar, Varanasi	June, 2021
	25 MLD at Moradabad	September

		2022
	35 MLD at Bareilly	
	26 MLD at Jhansi	
	18 MLD STP and sewer network at Raebareli	
West Bengal	24 MLD STP in River Vindhadhari	June 2020
	4 STPs in River Ganga Halishahr – 16 MLD Budge Budge – 9.30 MLD Barrackpore – 6 MLD Barrackpore – 18 MLD	December 2020
	4 STPs non-functional and under renovation in River Ganga 22.6 MLD Capacity (Titagarh, Naihati, Khardah & Garulia)	March 2021
	Sewer Network 90% completed & STP - 7% in the River Dwarka	May 2021
	2 STPs non-functional and under renovation in River Ganga 23.6 MLD (Naihati & Panihati)	June 2021
	1 STP in River Ganga Kanchrapara – 18 MLD	November 2021

ANNEXURE-IV

STPs IN TENDERING AND WORK TO BE AWARDED

State	Details of the project	Status of the projects	Completion Timeline of STP
Assam			
Bihar	Fathua I&D with STP	Tendering	December 2021
	Phulwarishariff I&D and STP	Re-tendered	December 2021
	Danapur I&D and STP	Re-tendered	December 2021
	Khagaria I&D and STP	Tendering	December 2021
	Kahalgaon I&D and STP	Tendering	June 2022
	Bhagalpur I&D and STP	Tendering	June 2022
	Barahiya I&D and STP	Tendering	June 2022
	Munger STP &Sewer Network	Tendering	December 2022
	Hajipur STP &Sewer Network	Re-tendered	December 2022
Goa	8 MLD STP		
	15 MLD STP		
	2 STPs of 15 MLD		
Gujarat	5.2 MLD STP at Karjan Nagar Palika	Tendering awarded	December 2021
	25 MLD at Dafnala	Tender approved Land issue being sorted.	March 2022
	60 MLD at Kotarpur	Tender approved	March 2022
	14 MLD at Ankleshwar	Tendering	April 2022
	37 STPs of 30.43 MLD proposed under Tapi Suddhikaran Yojana	Work awarded for 1 STP. Tender to be invited subject to land possession issues.	December 2021 - December 2022
Haryana	2 MLD at Gurugram	Sanctioned	September 2021
	0.5 MLD at Gurugram	Sanctioned	September 2021
	80 MLD at Faridabad	Tendered	December 2021
	100 MLD at Faridabad	Tendered	December 2021
	100 MLD at Gurugram	Sanctioned	December 2022
	25 MLD at Gurugram	Sanctioned	December 2022
	20 MLD at Gurugram	Sanctioned	December 2021

Himachal Pradesh	2 MLD STP at Panthagati.	Work to be awarded	March 2021
	Expansion of existing STP and new STP proposed at Manali. Upgradation of Existing STP and New STPs at Mandi		
Jharkhand	I&D with 15 MLD STP	DPR Approved	
Kerala	6 MLD STP at Kothi and 7 MLD STP at Avikkal	Tendering	
	100 KLD STP at Ramavarmapuram, Thrissur	Tendered	
	360 KLD STP at General Hospital, Thrissur in AMRUT	Tendering	
	Sewerage scheme at Vanchikulam -2.5 MLD plant	Re-tendering	
Maharashtra	8.8 MLD STP at Paithan	Tendering	March 2022
	11 STPs of 396 MLD Pune	Tendering	2023
	2 STPs of 72 MLD at Latur	Work to be Awarded	-
Puducherry	3 MLD STP at Karaikal	Tender opened and technical evaluation under process	June 2021
	3 MLD STP at Villianur	Tendering	June 2021
Punjab	3 MLD STP at Bhadson	Tendering	March 2022
	12 MLD STP at Nabha	Tendering	March 2022
	0.5 MLD STP at Banur (Bassi Isse Khan)	Tendering	March 2022
	2 MLD STP at Mirpur, Derabassi	Tendering	April 2022
	2 MLD STP at Issapur, Derabassi	Tendering	April 2022
	1 MLD STP at Dappar , Lalru	Tendering	April 2022
	50 MLD STP at Balloke	Tendering	April 2022
	50 MLD STP at Pholriwal	Tendering	June 2022
	4 MLD STP at Balachaur	Tendering	June 2022
	3 MLD STP at Garhshankar	Tendering	June 2022
	2 MLD STP at Kiratpur Sahib	Tendering	June 2022
	1 MLD STP at Maluka	Tendering	June 2022

	2 MLD STP at Arniwala	Tendering	June 2022
	7 MLD STP at Raikot	Tendering	June 2022
	4 MLD STP at Kartarpur	Tendering	June 2022
	5.5 MLD STP at Sujanpur	Tendering	June 2022
	2 MLD STP at Cheema	Tendering	June 2022
	3 MLD STP at Rawal & Colonies	Tendering	June 2022
	5 MLD STP at Longowal	Tendering	June 2022
	2 MLD STP at Ghanaur	Tendering	June 2022
	3 MLD STP at Amloh	Tendering	June 2022
	15 MLD STP at Basti Peer Dad	Tendering	August 2022
	4 MLD STP at Sanour	Tendering	September 2022
	0.15 MLD STP at Banur (Fauji Colony)	Tendering	September 2022
	1.4 MLD STP at Sultanpur Lodhi	Tendering	September 2022
	1 MLD STP at Sultanpur Lodhi	Tendering	September 2022
	2.5 MLD STP at Dhilwan	Tendering	September 2022
	225 MLD STP at Jamalpur	Tendering	October 2022
Uttar Pradesh	220 MLD at Meerut	Tendering	
	177.6 MLD at Agra	Tendering	
	40 MLD at Daultganj	Tendering	
	4 STPs of 63 MLD at Barielly	Tendering	
West Bengal	I&D with 3 STPs of 11.8 MLD capacity at Ranaghat	Re-tendering	31.12.2023
	3 STP under HAM in the catchment area of River Ganga	Final closure of concessionaire awaited.	
	1 new STP at Mahestala under HAM.	Tendering	

STP PROJECTS AWAITING SANCTIONING OF THE DPR

State	Details of the project	Status of the projects	Completion Timeline
Andhra Pradesh	STPs of 78 MLD at Kurnool for the year 2035.	Administrative sanction awaited	
	2 STPs of 4 MLD at Mantralayam.	Administrative sanction awaited	
	STPs of 26 MLD for 2035 year.	Administrative sanction awaited	
	UGD with additional STP capacity of 35.77 MLD & up-gradation of existing 30 MLD STP.	Technical appraisal completed.	
	UGD for 2035 demand & up-gradation of 2 STPs of 20 MLD.	DPR prepared	
	UGD for 2035 demand with an additional STP capacity of 12 MLD.	DPR prepared	
Bihar	Dighwara I&D and STP	DPR yet to be approved	December 2021
	Teghra I&D and STP	DPR yet to be approved	December 2021
	Manihari I&D and STP	DPR yet to be approved	December 2021
	Jamalpur I&D and STP	DPR yet to be approved	December 2021
Chhattisgarh	4 STPs of 37.3 MLD	DPR prepared	June 2023
	2.8 MLD STP at Simga	DPR prepared	June 2023
	35 MLD STP at Korba	Approval Pending with NTPC	March 2024
Daman, Diu And Dadra Nagar Haveli	16 MLD STP and 4.5 km vaccum sewer network at Nani Daman.	Approval from MoEF & CC and release of fund under ENCORE project is awaited.	
Delhi	14 (7+7) STPs in Najafgarh Drainage Zone.	Funding for 7 STPs being sought	
Gujarat	12.1 MLD STP at Wadhwan	Design and Drawing approval in process	March 2022
	83MLD STP at Atladara	DPR under approval	December 2022
	100 MLD STP with network at	DPR under	December

	Tarsali.	scrutiny	2022
	29.53 MLD at Vapi Chandor	DPR being revised	September 2022
	10 MLD by Vapi Notified Area	DPR submitted	March 2022
	15 MLD by Vapi Notified Area Authority	DPR submitted	March 2022
	2 STPs of 2 MLD each capacity	Land allotment under approval.	
Jammu & Kashmir	5 MLD STP	DPR submitted	
	3.0 MLD STP	DPR submitted	
	5.10 MLD STP	DPR submitted	
	10 MLD STP	DPR submitted	
Jharkhand	I&D with 144 MLD STP	DPR under TPA	
	I&D with 40 MLD STP	DPR submitted	
Karnataka	2.5 MLD STP and house to house connection to sewer networks, missing links.	DPR prepared	December 2021
	29 MLD STP at Hassan & 7 MLD	DPR submitted	
	4 STPs of 9.26 MLD	DPR submitted	March 2021
	4 MLD STP and providing sewage network for new extension.	DPR submitted	
	1.4 MLD STP at Srirangapatna	DPR submitted	March 2021
	Laying additional sewer lines and 1.72 STP MLD	DPR submitted	
	6.82 MLD STP at Lingsugur- Tq, Raichur	Approval awaited	
	5 MLD STP at Deodurga, Raichur Dist	Approval awaited	
	4.30 MLD STP at Belagavi District	DPR submitted	December 2021
	3.88 MLD STP at Belagavi District	DPR submitted	December 2021
	4.37 MLD STP at Belagavi District	DPR submitted	December 2021
	2.61 MLD STP at Belagavi District	DPR submitted	December 2021
	3.2 MLD STP at Belagavi	DPR submitted	December 2021
Kerala	350 KLD STP at Athani and 500 KLD STP at Ottupara.	DPR submitted	
	STP at Adwaitha Ashramam	Technical sanction and Budget	

	submitted Suchithwa mission	allocation awaited	
Madhya Pradesh	16 MLD STP by Dec. 2023	yet to be sanctioned	
	2 STPs of 3 MLD at Mandideep		
	5 MLD STP		
	5 MLD STP		
	2.5 MLD STP		
Maharashtra	10 MLD STP at Nanded (for future)	DPR prepared	December 2021
	7 MLD STP at Bramhapuri	DPR submitted for approval	-
	15 MLD STP at Bhandara	Technical sanction awaited	March 2022
	7 MLD STP at Pauni	Technical sanction awaited	March 2022
	5.5 MLD STP at Ashta	DPR submitted for approval	-
	6 MLD STP at Wai	DPR submitted for approval	-
	17.50 MLD STP at Satara	DPR prepared	March 2022
	2 STPs of 28 MLD at Amravati	DPR submitted for approval	-
	6 STPs of 145 MLD at Vasai Virar	Revised DPR submitted	March 2022
Manipur	Sewerage project phase II for Imphal with 49 MLD STP.	DPR prepared	
Meghalaya	7 STPs of capacity varying from 0.3 to 1.2 MLD	Awaiting approval of the State Govt. for revised DPR.	
Telangana	31 STPs along with sewer lines with capacity of 1259 MLD.	DPRs prepared. Site identification completed.	2023
	9 STPs with 28.18 MLD.	DPR prepared	
	4 STPs of 16.10 MLD.	DPR prepared	2023
	21 STPs with 140.5 MLD.	DPR prepared	
	7 STPs with 27.5 MLD.	DPR prepared	
Uttarakhand	I&D with 2 STPs of 2.3 MLD	DPR submitted	
	I&D with 2 STPs of 0.5 MLD	DPR submitted	
Uttar Pradesh	93.5 MLD at Saharanpur	Yet to be sanctioned	
	50 MLD at Hapur	Yet to be	

		sanctioned	
	64 MLD at Bharwara	Yet to be sanctioned	
	80 MLD at Bijnaur	Yet to be sanctioned	
	22 MLD at Ghaila	Yet to be sanctioned	
	2 MLD at Raebareli	Yet to be sanctioned	
	2 MLD at Chunar	Yet to be sanctioned	
	40 MLD at Moradabad	Yet to be sanctioned	
	34 MLD at Moradabad	Yet to be sanctioned	
	3 STPs of 168 MLD at Gorakhpur	Yet to be sanctioned	
	2 STPs of 35 MLD	Yet to be sanctioned	
West Bengal	2 STPs at Hooghly and North Barrackpore	DPR submitted	

STP PROJECTS IN PROPOSAL STAGE

State	Details of the project	Status of the projects	Completion Timeline
Assam		Preparation of DPRs for STPs is under Assam Urban Water supply and Sewage Board.	
Bihar	Raxual I&D and STP	DPR under preparation	2021
	Jogbani I&D and STP	DPR under preparation	2021
	Harinagr I&D and STP	DPR under preparation	2021
	Narkatiaganj I&D and STP	DPR under preparation	2021
	Khagaul I&D and STP	DPR under preparation	2021
Delhi	42 decentralized STPs at various locations.		
Haryana	5 MLD at Ambala	Proposal Stage considering the future demands	
	1 MLD at Ambala		
	8 MLD at Panchukla		

	5 MLD at Jind		
	5 MLD at Hisar		
	10 MLD at Hisar		
	5 MLD at Hisar		
	10 MLD at Ambal		
	5 MLD at Ambala		
Jammu & Kashmir	2 STPs of 4.5 & 1.3 MLD	DPR formulated	
	3.50 MLD STP	PFR submitted	
	10 MLD STP at Anantnag.	DPR under preparation	
	3 MLD STP at Bijbehara.	DPR under preparation	
	2.7 MLD STP at Pampore.	DPR under preparation	
	1.6 MLD STP at Awantipora.	DPR under preparation	
	2.9 MLD	PFR submitted	
Jharkhand	29 MLD STP	Proposal stage	
	Ranchi – 36 MLD STP	Proposal stage	
	Jamshedpur – 24 MLD STP	Proposal stage	
	Mango – 33 MLD STP	Proposal stage	
Karnataka	13.5 MLD STP	Identification of consultant for preparing DPR is in progress.	
	0.75 MLD STP at Bagalkot District	DPR under preparation	
	3.25 MLD STP and UGC		
	0.75 MLD STP	DPR under preparation	
	2 STPs of 4.36 MLD	Proposal	
Kerala	additional STP at Trivandrum	A detailed engineering report for engaging consultant prepared	
	Primary STP & Septage Treatment Plant at Pattambi.	Proposal submitted	
	Common STP of 500 MLD to cater the entire city–Wadakkanchery Municipality	Identified land and soil test is ongoing	
	STP and FSTP at Irinjalakkuda.	Invited tenders for preparation of DPR	
	10 KLD STP at Fish market Perumba	DPR under preparation	
Maharashtra	2 STPs of 5 MLD at Gangakhed	DPR to be prepared	

	2 STPs of 5 MLD at Roha	Proposed	March 2022
	5 MLD STP at Pandharpur (for future)	DPR under preparation	December 2021
	2 STPs of 8 MLD at Phaltan	DPR under preparation	-
	15 MLD STP at Pimpri-Chinchwad	DPR under preparation	April 2022
	5.5 MLD STP at Rajaura	DPR under preparation	-
	8 MLD STP at Kanhan Pimpri	Proposal submitted	-
	12.5 MLD STP at Kamptee	Proposal submitted	-
	2 STPs of 1 MLD at Mouda	DPR under preparation	March 2022
	12.50 MLD STP at Bhusawal	Proposal submitted	-
	12.5 MLD STP at Solapur (for future)	Proposed	-
	2 STPs of 25 MLD at Chalisgaon	Proposal submitted	-
	3.70 MLD STP at Mahad	DPR under preparation	March 2022
	20 MLD STP at Ichalkaranji	Proposal	-
Punjab	17 MLD STP at Zirakpur	DPR under preparation	September 2022
	2 MLD STP at KothiPandita	DPR under preparation	December 2022
	1.2 MLD STP at Adarash Nagar	DPR under preparation	December 2022
	4 MLD STP at Talwara	DPR under preparation	December 2022
	6 MLD STP at Dhuri	DPR under preparation	December 2022
	11 MLD STP at Sangrur	DPR under preparation	December 2022
	1 MLD STP at Ferozepur	DPR under preparation	December 2022
	14 MLD STP at Faridkot	DPR under preparation	December 2022
	8 MLD STP at Patti	DPR under preparation	December 2023
	2 MLD STP at	DPR under preparation	December

	Barriwala		2023
	3 MLD STP at Bhagta Bhaike	DPR under preparation	December 2023
	4 MLD STP at Bhai Roopa	DPR under preparation	December 2023
	3 MLD STP at Kotha Guru	DPR under preparation	December 2023
	2 MLD STP at Mahilpur	DPR under preparation	December 2023
	3 MLD STP at Mallanwala	DPR under preparation	December 2023
	3 MLD STP at Mamdot	DPR under preparation	December 2023
	3 MLD STP at Mudki	DPR under preparation	December 2023
	3 MLD STP at Nihal Singh Wala	DPR under preparation	December 2023
	4 MLD STP at Nawanshahr	DPR under preparation	December 2023
	1.5 MLD STP at Lalru Mandi	DPR under preparation	December 2023
Rajasthan	1.5 MLD at Keshoriapatan	Proposal submitted	
	2.5 MLD at Keshoriapatan		
Sikkim	3.63 MLD at Namachi.	Affected by local issues.	
	1.7 MLD at Jorethang		
	STP installation in locations of Gyalshing, Soreng.	Survey and investigation is being conducted for feasibility	
	STP installation in locations of Mangan, Chungthang & Rabong.		
Tamil Nadu	"Nandhai Vazhi Cauvery Scheme"	DPR under preparation	
Telangana	12 STPs of 367.50 MLD are proposed.	Proposal stage	
	4 STP of 7.1 MLD.	DPR to be prepared	2023
	21 STPs with capacity 85.45 MLD.	DPR to be prepared	
	4 STPs with capacity 8.3 MLD.	DPR to be prepared	
Uttarakhand	2 MLD STP along Kichha	Project submitted	

	River		
	Along Kalyani River	DPR under preparation	
	9.5 MLD STP along River Pilakhar	Project submitted	
	2 MLD STP along River Nandhor	Project submitted	
	0.31 MLD STP along River Kosi	Project submitted	
West Bengal	70 MLD STP at Borobaro.	DPR under preparation	
	170 MLD STP at Ghusighata	Proposed	
	15 MLD STP-II & 24 MLD STP-III for covering Mahananda and Jorapani Fuleswari.	DPR is being modified	
	STP-I to cover the drains flowing into Mahananda River right bank.	Proposal held up due to land issues.	31.03.2022
	3 STPs at Rajpur-Sonarpur		2022.
	3 STPs - Tollay Nallah Rehabilitation Project		
	3 STPs - Garden Reach		
	224 MLD STP for river Damodar	LOA issued for preparation of DPR for the design period 2035	2022-2023
	2 MLD STP for Barakar river		

ANNEXURE-V

Status of Solid Waste Management

Name	State/ PRS	No. of ULBs	Current MSW Generation (TPD)	Processing Capacity (TPD)	No. of ULBs having Sanitary Landfill
Assam	State	76	320	99	NA
	PRS	NA	NA	NA	NA
Uttar Pradesh	State	652	17377	**Existing –** 12 Plants operation of 4615 TPD capacity; 20 Plants non-functional due to dispute (3355TPD) likely to be operated by March 2021 **In pipeline –** 37 major towns (3170 TPD, already sanctioned to completed by March 2021); 450 smaller ULBs generating <10PTD waste to have composting facility by September 2020	NA
	PRS	NA	NA	NA	NA
Uttarakhand	State	NA	NA	NA	NA
	PRS	11	810.7	**Existing** – NA (Collected – 805, Processed – 535 TPD, only exists in Haridwar and Dehradun) **Sanctioned** – Capacity NA; 3 Projects for 5 ULBs (Ramnagar, Sitarganj, and Kiccha, Lalkuwa, Rudrapur of Haldwani Cluster) **Proposed –** Capacity NA; For 4 ULBs (Kashipur, Bajpur, Sultanpur, and Doiwala)	NA
Rajasthan	State	193	6500	**Existing –** 887 **Under Pipeline -** 20 plants with total capacity of 2395 TPD. Expected to start by Dec 2020. **Under Tendering:** 762TPD	NA
	PRS	NA	NA	NA	NA
Sikkim	State	7	50	Existing – 51TPD (2 compost plants of 50 and 1 TPD capacity respectively) at Gangtok Municipal Corporation)	1 at Martam (Gangtok)
	PRS	NA	NA	NA	NA
DDDNH	UT/PRS	1	NA	**Existing** – 2 Nos. (100 and 150 TPD)	NA
Madhya Pradesh	State	378	7,980	**Existing** – 2935 TPD	44
	PRS	NA	NA	NA	NA
Manipur	State	NA	284.33	**Existing** – 177.91 TPD	NA
	PRS	NA	NA	NA	NA
Meghalaya	State	NA	NA	NA	NA
	PRS	NA	240.27	**Existing –** 23.72 TPD **Proposed** – 170 TPD Compost plant in Shilling	NA
Mizoram	State	NA	NA	NA	NA
	PRS	NA	9.8	NA	NA

Name	State/ PRS	No. of ULBs	Current MSW Generation (TPD)	Processing Capacity (TPD)	No. of ULBs having Sanitary Landfill
Nagaland	State	NA	NA	NA	NA
	PRS	NA	NA	NA	NA
Punjab	State	NA	4100	**Existing –** 2 Nos of 950 TPD (800 and 150 TPD)	NA
	PRS	NA	NA	NA	NA
Andhra Pradesh	State	NA	NA	NA	NA
	PRS	NA	416	**Existing**- 25 TPD **Proposed**- 225 TPD	NA
Kerala	State	1034 (including gram panchayats)	10,044	3494	NA
	PRS	NA	353.5	349	NA
Telangana	State	NA	NA	NA	NA
	PRS	236 (including gram panchayats)	NA	NA	NA
Puducherry	State	4		**Existing** - 1TPD Biomethanation plant, 1MT Bio Gas plant **Proposed** - DPR prepared for the SWM at an amount costing to Rs 331.44 Lakhs sent to MoHUA for Yaman Municipal area	
	PRS	NA	NA	NA	NA
Goa	State	NA	NA	**Existing:**150 **Proposed:** 700 TPD(100 +100+250+250)	NA
	PRS:	NA	NA	NA	NA
Himachal Pradesh	State	NA	NA	NA	NA
	PRS:	NA	164.2	**Existing** - 221.5 **Proposed** - 40 TPD	NA
Jammu & Kashmir	State	NA	NA	NA	NA
	PRS:	NA	NA	**Existing** - NA **Proposed** - 389TPD	NA
Maharashtra	State	378	23607	17420	NA
	PRS:	89	15873.5	8850.1	NA
Orissa	State	NA	2686	**Existing:**612 **Under Construction:** 190 **Proposed:** 875(550+110+215)	NA
	PRS:	NA	1571.89	Open Dumping Without processing	NA
Tripura	State	NA	NA	NA	NA
	PRS	NA	337.3	250	NA
Karnataka	State	277	11958	4984	NA
	PRS	43	5197	3148	NA
Tamilnadu	State	NA	NA	NA	NA
	PRS	18	1016	570.6 (not clear whether existing or existing +proposed)	NA
Gujarat	State	170	10149.65	8544.9	NA
	PRS	NA	6865.5	5379.8	NA

Name	State/ PRS	No. of ULBs	Current MSW Generation (TPD)	Processing Capacity (TPD)	No. of ULBs having Sanitary Landfill
Delhi	UT/PRS	5	11144	**Existing –** 3 WTE plants of 5250 TPD at Okhla, Ghazipur and Bawana + One Compost Plant at Okhla (200TPD). ~ 5734TPD is currently being treated. **Proposed-** 2 x 2000TPD W2E Plant to be commissioned by June 2022 + 21 decentralised compost plants (16+ TPD) and 6 small Biomethanation plants (30TPD)	1 at Bawana (NDMC)
Haryana	State	84	5568	**Existing** –2108TPD through 14 nos. Solid Waste Composting Facilities, 10 nos. Vermi Composting Facilities and 03 nos. RDF Facilities. **Proposed -** Entire State has been broadly divided into fourteen (14) clusters out of which four (4) will be Waste To Energy i.e., Faridabad, Rohtak, Sonepat, Ambala and 10 will be waste to Compost/RDF processing i.e., Jind, Hisar, Dabwali with Sirsa, Rewari, Panchkula, Bhiwani, Faruknagar, Yamuna Nagar, Punhana and Fatehabad (Capacity – Not Provided).	NA
	PRS	NA	NA	NA	NA
Bihar	State	142	2272	**Current Processing** – 1226TPD **Under Construction/Proposed -** Decentralised Compost Plants (<5TPD) 126 nos. in 79 ULBs. 67 MRFs in 50 ULB.	NIL
	PRS	NA	NA	NA	NA
Jharkhand	State	NA	NA	NA	NA
	PRS	NA	NA	NA	NA
West Bengal	State	127	NA	NA	NA
	PRS	NA	4933.6	**Existing -** 500.6 **Under Tendering** for 9 Ganga towns	NA

Status of Hazardous Waste & Plastic Waste Management

State Name	State/ PRS	No. of Industries generating Hazardous waste	Avg. Qty of Hazardous Waste Generated (TPD)	Treatment Capacity of all TSDFs within the Catchment (TPD)	Avg. Qty of Hazardous waste Processed (TPD)	Status of use of polybags (whether allowed/banned fully or partially)	Details of Initiatives to reduce/recuse/recycle Plastic
Assam	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Uttar Pradesh	State	NA	NA	NA	NA	Use of Polybags < 50micron thickness banned	• Out of 254402 TPA of plastic waste 105000 is being processed. • Implementation of EPR has been started. • Plastic waste processing/waste to oil facility of 2700TPA has been setup in Mathura
	PRS	NA	NA	NA	NA		NA
Uttarakhand	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Rajasthan	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Sikkim	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
DDDNH	UT/PRS	NA	NA	NA	NA	Banned	NA
Madhya Pradesh	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Manipur	State	NA	1.17	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Meghalaya	State	NA	NA	NA	NA	NA	NA
	PRS	NA	1.311	1.135	NA	NA	NA
Mizoram	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Nagaland	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Punjab	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Puddducherry	State	NA	NA	NA	NA	Banned	Resource Recovery Center at Kurumbapet. Single use Plastic has been banned in the U.T Plastic

State Name	State/ PRS	No. of Industries generating Hazardous waste	Avg. Qty of Hazardous Waste Generated (TPD)	Treatment Capacity of all TSDFs within the Catchment (TPD)	Avg. Qty of Hazardous waste Processed (TPD)	Status of use of polybags (whether allowed/banned fully or partially)	Details of Initiatives to reduce/recuse/recycle Plastic
	PRS	NA	NA	NA	NA		Registration is being issued to Plastic manufacturers, Recyclers, Brand Owners
Kerala	State	NA	NA	NA	NA	Complete ban on manufacturing, storage, transportation, and sale of single use plastic items.	NA
	PRS	NA	NA	NA	NA		
Goa	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Himachal Pradesh	State	NA	NA	NA	NA	NA	Buy Back Policies and EPR Implementation adopted by State
	PRS	976	21 (Solid) 106 LPD (from oily effluents)	All solid hazardous waste is being collected by M/s Shivalik Solid Waste Management Ltd (TSDF) and the same is further treated and landfilled at landfill site at Dhabota which has a capacity of 10 Lac MT All oily hazardous waste is being collected and stored at Common facility for	NA	NA	Buy Back Policies and EPR Implementation adopted by State

State Name	State/ PRS	No. of Industries generating Hazardous waste	Avg. Qty of Hazardous Waste Generated (TPD)	Treatment Capacity of all TSDFs within the Catchment (TPD)	Avg. Qty of Hazardous waste Processed (TPD)	Status of use of polybags (whether allowed/banned fully or partially)	Details of Initiatives to reduce/recuse/recycle Plastic
				collection and Storage at Nalagarh/ Authorized recycler			
Jammu & Kashmir	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Maharashtra	State	NA	NA	NA	NA	NA	NA
	PRS	NA	3021.6	3021.6	NA	NA	NA
Odisha	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Tripura	State	NA	NA	NA	NA	NA	NA
	PRS	NA	Nil	Nil	Nil	NA	NA
Karnataka	State	NA	NA	NA	NA	NA	NA
	PRS	650	55,851 (TPA)	2 TSDF + 6 Common incinerators	NA	NA	Plastic Waste generation - 1,62,519 TPA. No other details available
Tamilnadu	State	NA	NA	NA	NA	NA	NA
	PRS	NA	807.8	**Existing Capacity –** NA however 100% HW generated is being treated	807.8	Singleuse plastic irrespective of thickness is banned since Jan-2019	1364 tonnes has been seized and 663 lakhs has been collected.
Gujarat	State	NA	NA	10 TSDF of capacity more than 78.07 Lakh MT/Year	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
Delhi	UT/PRS	NA	NA	NA	NA	Banned	NA
Haryana	State	NA	NA	NA	NA	Banned	• No. of Plastic Waste Challan done – 4848 • 283.06 TPD out of total 525.121 TPD plastic waste is being processed. • 373 Material Recovery

State Name	State/ PRS	No. of Industries generating Hazardous waste	Avg. Qty of Hazardous Waste Generated (TPD)	Treatment Capacity of all TSDFs within the Catchment (TPD)	Avg. Qty of Hazardous waste Processed (TPD)	Status of use of polybags (whether allowed/banned fully or partially)	Details of Initiatives to reduce/recuse/recycle Plastic
							Facilities have been established. • 22 nos. Of Plastic Waste recyclers are registered.
	PRS	NA	NA	NA	NA		NA
Bihar	State	NA	NA	NA	NA	Banned	NA
	PRS	NA	NA	NA	NA		NA
Jharkhand	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA
West Bengal	State	NA	NA	NA	NA	NA	NA
	PRS	NA	NA	NA	NA	NA	NA

STATUS OF GROUND WATER AUGMENTATION, AFFORESTATION, FLOOD PLAIN AND E-FLOW MANAGEMENT AS PROVIDED BY THE STATES

1. Andhra Pradesh

Ground water regulation & water conservation:

Rain water harvesting structures are constructed in all Municipal Schools and Municipal and Govt. Buildings and municipal open spaces. Further the Town planning staffs are insisting for construction of rain water Harvesting structures in all Apartments

Protection and management of Flood Plain Zones (FPZ):

No erosion of flood plain or flood banks is observed. Encroachments are being removed in flood plain areas regularly.

Plantation activities and Setting up biodiversity parks:

Part of river stretches, Kurnool Municipal Corporation is implementing greenery and avenue plantation. The river bed plantation is proposed on both sides of the polluted river stretches with 10mt width.

2. Assam

Ground water regulation & water conservation:

The Assam Ground Water Control and Regulation Act, 2012 was passed on 14th May, 2012 and 'Assam State Ground Water Authority' was constituted under Section 3 of the 'AGWC & R Act 2012' with Secretary Irrigation Department as the Ex Officio Chairman and Director, Geology and Mining as Ex Officio Member Secretary. The State ground Water Authority to exercise points conferred on as per section 5 to 15 & 19 to 23 of the Act & also to perform functions assigned to the State Authority.
As the Assam State Authority is yet to be functional CGWB, NER is looking after matters related to Ground Water management and regulation for the State of Assam.

Provisions for rain water harvesting are incorporated in the Guwahati Building Byelaws and in the proposed Byelaws all the Urban Local Bodies of Assam also. Rain Water Harvesting is being carried out by the Departments of Soil Conservation Department and P&RD Departments by constructing RCC Check Dams, Construction of Farm, Ponds and Drainage, Channels, River Bank Protection etc.
Rain Water Harvesting in some Gaon Panchayat is being taken by P & RD Department by excavating and renovating the natural water bodies for catchment ponds for irrigation and agricultural needs.

Good irrigation practices such as Lift Irrigation Scheme, Deep Tube Well, Flow Irrigation scheme, LIS, FIS, DTW, Gully Control, RCC Check Dam, Drainage Channel Construction are adopted and promoted by Irrigation, Soil Conservation, P&RD Department in the state.

Protection and management of Flood Plain Zones (FPZ):

The Guwahati Metropolitan Development Authority has constructed guard/flood wall from Bhangagarh upto ASEB Colony. As regards Bharalu and Bahini river basin in Greater Guwahati area the following areas are vulnerable to water level in Bharalu and Bahini: Zoo-Road, Anil Nagar, Tarun Nagar, Nabin Nagar, Lachit Nagar areas etc. As the areas are thickly populated so the flood plain zone management is not feasible at this stage. Various protection and management measures like Spur Bandh, Guide Bandh Erosion protection and Plantation are adopted by P & RD Department and Water Resources Department also.

Maintaining minimum environmental flow of river:

It is contemplated to establish gauge discharge stations of Bahini/Bharalu river. Namely one at Hengrabari RCC bridge, one at Jonali RCC bridge and one at Santipur Sluice gate. Gauge reading are being taken regularly and records are kept in the concerned division.
Earlier an attempt was made to induct fresh water into Bahini river by diverting a part discharge of Basistha river through a sluice gate a Basistha Natun Bazaar area. A scheme was taken up having nomenclature, "Re-sectioning and regarding of river Bharalu, Mora Bharalu, Bahini, Basistha, Lakhimijan channel including re-opening of Bahini sluice gate at Natunbazaar', which was Administratively approved by the Secretary to the Govt. of Assam, Water Resources Department.

Plantation activities and Setting up biodiversity parks on flood plains:

Plantation is regularly being carried by Department of Forest on the side slopes of embankments and berms of rivers which help in checking erosion of embankments and river berms/edges. Environment & Forest Department is taking some proposal for plantation like 200 hectares plantation for protection of erosion at Bogi Beel near Dehing Mukh Reserve Forest. The State Govt. taking some schemes under MGNREGA.

The matter of encroachment in river Bharalu has been taken up by GMC with the D.C., Kamrup (M) and D.C., Kamrup(M) will sort out the matter very shortly.

3. Bihar

Ground water regulation & water conservation:

- State Government has initiated drives for recharging of ground water by providing roof top hair water harvesting structures and soak pits/ recharge pits near public well, hand pump and other water bodies under Jal Jeevan Haryali Abhiyan
- State Government of Bihar has notified The Bihar Ground Water (Regulation & Control of Development & Management) Act, 2006 for regulating and management of ground water.
- Conditions for providing roof top rain water harvesting structures in the building plan in an area of the 1000 Sqm or more while according approval for construction has been imposed.

- In order to enhance water use efficiency in water intensive crop, assistance is given for promotion of water saving tools/ technologies like sprinkler and drip irrigation, creation of farm ponds, efficient delivery and distribution system and adoption of agronomic practices like alternate row/ furrow irrigation, mulching, etc.
- Pradhan Mantri Krishi Sinchai Yojana also focuses on creating protective irrigation by harnessing rain water at micro level through 'Jal Sanchay' and 'Jal Sinchan' to insure 'Per Drop More Crop'.

Protection and management of Flood Plain Zones (FPZ):

The issue of demarcation of flood plain zone/buffer zone is not applicable in case of Bihar due to densely populated northern plain terrain and mostly embanked river.

Maintaining minimum environmental flow of river:

Water Resource Department has taken steps for installation of new gauge stations and making arrangements for the discharge measurement throughout the year. It hope that the data will be available from October 2020 onwards.

Plantation activities and Setting up biodiversity parks on flood plains:

Plantation is being done under Namami Gange Scheme and Krishi Road Map wherein the polluted river stretches will be prioritized.

- The Bihar state has successfully achieved the total tree cover target of 15% for the Phase-I of Bihar Agriculture Road Map. For the Phase-II of Bihar Agriculture Road Map for the period 2017-18 to 2021-22 a target of 17% total tree cover has to be achieved by 2022.
- A team from the State Government had visited Yamuna Biodiversity Park in Delhi and at present are exploring possibilities of developing the replication of the same in the State.

4. Chhatisgarh

Ground water regulation & water conservation:

- State Water Resource Department has proposed various structures on small and big nallahs of all the 146 blocks of the state for recharging ground water.
- Installation of rain water harvesting structure is under progress by industries and other establishments in the State. In addition, it has been decided to keep space (5% of total areas / minimum 05 plots) for rain water harvesting in future industrial areas.
- Drip irrigation / sprinkler irrigation under micro irrigation scheme have been increased in the past 3 years. Presently, 66.30 hectare area is covered by drip and 257.21 hectare area is covered by sprinkler system for different crops.

Protection and management of Flood Plain Zones (FPZ):

Identification of flood prone zones has been done by urban local bodies and plantation has also been done in co-ordination with forest department as per the direction of district administration.

Maintaining minimum environmental flow of river:

As per the MPR, Water Resource Department had prepared standard operating procedures (SOP) for the five rivers Seonath, Mahanadi, Kharun, Kelo and Hasdeo for maintaining e-flow in the rivers and the same is being followed.

Plantation activities and Setting up biodiversity parks on flood plains:

Plantation in 03 out of 05 been completed. Plantation in the remaining 02 stretches i.e. Sihawa to Aarang and Bemta to Simga will be done in next monsoon. total 286440 plants have been planted along the river stretches. Process of identification and removal of encroachment from the floodplain is under-progress. The process of complete removal of complete encroachment shall be completed before 31.03.2021.

5. Dadra Nagar Haveli &Daman Diu

Ground water regulation & water conservation:

- In industrial area, for extraction of groundwater all the industries were directed to obtain No Objection Certificate (NOC) from Central Ground Water Authority (CGWA).
- 7 Conventional rain water harvesting structures were built in Gram Panchayat. Rain water harvesting was implemented with 67 number of rooftop recharge of bore well and 33 Nos. of open wells in 14 Panchayats of Daman district. Rain water harvesting for 8 nos. of Borewell, 16 nos. of open well recharge and 02 nos. of rooftop through injection well system at Mandoni and Sindoni Panchayat installed under Jal Shakti Abhiyan
- 2 Ponds have been successfully recharged during Jal Shakti Abhiyan in 2019.
- All the upcoming industrial and construction projects shall be issued strict instruction for providing a suitable rainwater harvesting system to reduce dependency over ground water resource or to recharge the ground water table.
- Farm ponds have been created for ground water rejuvenation. Terrace cultivation in the undulating fields of DNH is likely follows.
- Farm ponds have been maintained to check and reduce runoff.
- Training programme for awareness on Jal Shakti Abhiyan and micro irrigation projects for farmers was conducted on 15th October, 2019.
- Silvassa Municipal Council (SMC) have constructed Rooftop rain water harvesting systems in 15 schools & 45 Govt. buildings in SMC area to recharge ground water table.
- Gram Panchayats have undertaken the Rain Water Harvesting / Recharge work under their respective Action Plan. All the government premises located in Panchayat areas are being implemented RWH systems in their premises.

Protection and management of Flood Plain Zones (FPZ):

8 check dams in the catchment area of Damanganga River and 3 percolation ponds have been constructed. - All the check dams constructed in the previous year are maintained.

Maintaining minimum environmental flow of river:

As per the MPR, minimum environmental flow for the river is maintained at various locations.

Plantation activities and Setting up biodiversity parks on flood plains:

- Tree plantations were carried out along the nallah and inlets in upstream area and along the river. - 36 Ha of Mangroves in Diu and 4lakh in Daman along Damanganga river near Moti Daman have been taken up. - Total 7500 nos. of trees are planted under Jal Shakti Abhiyan.
- 4 bio-diversity parks – Nakshatra Van, City Park, Precedent Garden and Butterfly Garden had been setup in the Damanganga River catchment area.

6. Delhi

Ground water regulation & water conservation:

- As per the MPR, for extraction of groundwater, all the industries were directed to obtain No Objection Certificate from Central Ground Water Authority.
- As per the MPR, Ground water extraction and management in NCT of Delhi is regulated as per the provisions of the Notification Dated 12.07.2010 issued by Environment Department, Govt. of NCT of Delhi.
- If the plot size of the building is more than 200 sq. meters, the permission to draw groundwater through bore / tube well is subject to the condition that the occupier or owner of the said plot or building shall install rain water harvesting system in such building. 5424 RWH system have been installed.
- For conservation of water, farmers are advised to adopt inter-cropping and multiple-cropping to get maximum returns per unit of area and per unit of time with optimum use of water, to grow crop which require less water, to adopt sprinkler and drip irrigation system to irrigate their crops, to use water, as per crop-wise prevailing package of practices and to conserve rain water, by adopting deep ploughing and bunding etc. of their fields.

Protection and management of Flood Plain Zones (FPZ):

- DDA has demolished 550 Nos. Jhuggis/chappers and an area of 5500 sqm has been freed from encroachment recently.
- In, all out of 1026 Jhuggis/structures existing on nearly 11.0 Acres of land in Okhla, Khijrabad and Jogabai 600 Jhuggis have been removed and 5.00 acres of land has been reclaimed, nearly 2.0 acres of land with 150 Jhuggis could not be removed due to stay by Courts. Balanced Jhuggis are proposed to be removed in due course.

- For monitoring of encroachments on vacant land using satellite imageries, MOU has been signed between ISRO and DDA.
- Demarcation of 1:25 years flood plain of river Yamuna from Wazirabad to Jaitpur on both banks is in progress and 90 % has been completed.
- Work for reinstallation of bollards along with Geo –reference was initiated / awarded to M/s M & G Associates on 29.08.2019.

Maintaining minimum environmental flow of river:

As per the MPR, to assess the minimum required environmental flow of river Yamuna for stretch between Hathinikund to Okhla, a comprehensive study has been assigned to National Institute of Hydrology (NIH), Roorkee by NMCG.

Plantation activities and Setting up biodiversity parks on flood plains:

- Department of Forests & Wildlife, GNCT of Delhi carried out plantation on Yamuna Flood Plains.
- Yamuna Biodiversity Park is existing and located in Jagatpur Khadar Yamuna Flood Plains in 9770 Hectares (upstream of Wazirabad).
- DDA is implementing the project Restoration and Rejuvenation of the floodplains of River Yamuna. The complete stretch of Zone – O falling under the jurisdiction of DDA, has been subdivided into 10 projects for the proper planning and execution.
- South Biodiversity Park is being developed in 115 hectares area in Yamuna Flood Plains near Kalindi Colony. The project has been awarded to CEMDE on 13.12.2019. Water hyacinth and *Alternanthera* have been removed from wetlands covering an area of 25 Hectare.
- A small stretch of 500 m long and 10 m wide stripe along the Ashram Road has been planted with 300 plants.
- Two nature trails - one trail from Ashram Road to DND Flyover has been made; both sides of this nature trail would be developed into a greenway.
- About 20 Hectare of elevated portion beneath the DND flyover has been processed for planting 15000 saplings of native trees.

7. Goa

Ground water regulation & water conservation:

- State of Goa declared entire Goa as Scheduled area. The Goa Ground Water Regulation Act, 2002and Rules, 2005 are in force and Ground Water Officers are appointed Taluka-wise.
- For better irrigation practices, the Goa Irrigation Act, 1973 is enforced. The Canal irrigation is partly handed-over to Water Users Association (WUA). The micro-irrigation aspects are being addressed. For maintaining the irrigation canal, structures, WRD has well networked offices. Also Goa Command Area Development (CAD) Act, 1997 & Rules, 1999 is adopted for the purpose.

- Rain Harvesting Policy is adopted since 2008 and for the purpose of encouragement among stakeholders, incentives are given to individual households / residential houses / residential complexes and apartment buildings. For commercial complexes and hospitality businesses as well as subsidies, *as fixed*, are granted only on a reimbursement basis.

Maintaining minimum environmental flow of river:

Water Resources Department (WRD) has informed that in all the rivers of Goa the demand water being a small percentage of the available yield, apparent e-flows were always maintained.

Protection and management of Flood Plain Zones (FPZ):

The matter pertaining to illegal encroachment, if any, is being addressed by District Collector / Revenue Department from time-to-time.

8. Gujarat

Ground water regulation & water conservation:

As per the MPR, draft bill titled "Conservation, Protection, Regulation and Management of Ground Water in Gujarat State" is in process.

To reduce demand of Ground water extraction and to promote treated waste water as an Economic Resource, Gujarat Government has framed Policy for Reuse of "Treated Wastewater TWW" by maximizing the collection and treatment of sewage generated and reusing the treated wastewater on a sustainable basis. Objectives of the revised action plan is to reuse 70% of treated wastewater (Sewage) by 2025 and 100% of treated wastewater (Sewage) by 2030.

Maintaining minimum environmental flow of river:

- As per the MPR, Tapi River – Approximately 1700 Cusecs water inflow in Tapi river from Kakrapur weir to Surat from small tributaries (Khadi) and during Dec to May additional average 339 Cusecs water flows from Kakrapur weir to maintain potable water.
- There is no existing storage dam on Mindhola river. But during winter and summer season water from command area of Uka-Karapar project flows during irrigation rotation period.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, 6.10 lakhs of plants are proposed to be planted on both sides of the polluted river stretches in the FY 2020-21. It is proposed to develop a Biodiversity park at Khari.

9. Haryana

Ground water regulation & water conservation:

- As per the MPR, for extraction of groundwater all the industries were directed to obtain No Objection Certificate from Central Ground Water Authority.

- On 31.10.2001, a notification regarding making roof rain water harvesting, conversation & Artificial recharge of ground water is compulsory in Govt. buildings/HSVP Buildings, including all the private houses/buildings to be constructed in Urban Estates, in future having roof top surface area in excess of 100 Sqm.
- To avoid exploitation of ground water, tertiary treated water is being used for irrigation/flushing purpose in some of Urban Estates of HSVP. Efforts are being made for its implementation in other Urban Estates also.
- Following schemes are being implemented by the State for reduce the fresh water demand in agriculture:
  a. Promotion of Crop Diversification in Haryana
  b. Climate resilience building in rural areas through crop residue management- for Haryana state for promotion of maize crop
  c. Installation of solar/ grid powered micro irrigation infrastructure on sewage treatment plants for utilizing treated water for Irrigation.
  d. Drip/Sprinkler irrigation sets through subsidies to farmers from the State Horticulture/Agriculture Departments
  e. Project of Recycle and Reuse of treated wastewater for irrigation purpose in Fatehabad, Hisar, Sirsa & Jind Districts of Haryana.

Protection and management of Flood Plain Zones (FPZ):

All construction activities on floodplain zone of both the rivers banned. Illegal encroachment of floodplain not allowed and is immediately removed.

Maintaining minimum environmental flow of river:

As per State, River Ghaggar is non-perennial, therefore maintaining e-flow not possible.

For River Yamuna, as per the MOU signed in 1994 between States of UP, Haryana, Rajasthan, Himachal Pradesh & NCT of Delhi, a minimum discharge of 352 cusec of water is released in River Yamuna from Hathnikund barrage.

Plantation activities and Setting up biodiversity parks on flood plains:

- As per the MPR, during the year 2018-2019, in 3 towns (Panchkula, Sirsa, Fatehabad) along River Ghaggar, 2853000 plants were planted over 3499 hectare of land. For the year 2019-20, 1728000 plants were proposed to be planted in 1883 hectare of land. 7 biodiversity parks of total 12611 acre are existing.

- During the year 2018-2019, in 6 towns (Yamuna Nagar, Karnal, Panipat, Sonipat, Faridabad, Palwal) along River Yamuna 3189000 plants were planted over 3556 hectare of land. For the year 2019-20, 3555000 plants were proposed to be planted in 4220 hectare of land. In 5 towns, 8 biodiversity parks of total 253 acre are existing.

10. Himachal Pradesh

Ground water regulation & water conservation:

- As per the MPR, Drilling of new bore wells for extraction of ground water in Himachal Pradesh has been stopped as per order of the Hon'ble High Court of Himachal Pradesh.
- The Himachal Pradesh Ground Water Regulation & Control of Development & Management Act is under formulation will be notified after approval from the Government.
- As per Town & Country Planning Act, 1977 (Act No. 12 of 1977), it is mandatory for all the commercial buildings to have roof top rain water harvesting system and recharging pit.
- The use of irrigation water in the fields is optimized by extension services offered by Horticulture and Agriculture Department by micro irrigation methods.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, No flood plain zones have been identified in the State till date.

Maintaining minimum environmental flow of river:

The RTWQMS along with Radar system for water quality monitoring and flow measurement, respectively, have been installed in river Markanda near village Ogli, Kala Amb town and river Kaushalya near village Kamli.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, total 2200 plants have been planted at Sukhna Nala at Parwanoo and 1600 plants have been planted at Kala Amb in river Markanda. Total 8800 plants have been planted along river Sirsa. Total 13200 plants have been planted in river Ashwani. Total 19,300 plants have been planted in River Beas. Total 3300 plants have been planted in Theog region in river Giri and In River Pabbar. Bio-diversity Park is proposed at Kala Amb and the work is in progress.

11. Jammu & Kashmir

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, Catchment Area treated with afforestation and soil conservation works by done in few stretches and being carried out in remaining stretches Forest Deptt. J&K under CAMPA.

12. Jharkhand

Ground water regulation & water conservation:

- Periodic assessment of 24 districts and 260 blocks of Jharkhand for ground water resources was conducted by Jharkhand in 2009, 2011, 2013 & 2017. As per report of CGWA, Dhanbad and Bermo are among the overexploited blocks, Patratu, Silli and Bermo are among semi critical blocks.

- CGWA is also preparing a policy for conservation of ground water with a robust institutional mechanism for surveillance and monitoring with a view to enhance the access to ground water for drinking purpose.
- Water Resource Department, Govt. of Jharkhand is framing Ground Water Development and Management (Control/ Regulation) Act which is under progress which shall be completed by 6 months and there after departments will complete the formalities for enactment of Ground Water Development and Management Control/Regulation) Act within One Year.
- Department of Agriculture is promoting and conducting workshops for the use of organic fertilizers. Promoting micro irrigation (drip & mini irrigation) system to save the quantity of water used during agriculture.
- Jharkhand Rain Water harvesting Regulation, 2017 Notified on 23.01.17 and implementation is ongoing. 54 nos. of RWH/ground water recharging structure have been constructed at Dhanbad by CGWB and 75 nos. of RGH structures have been constructed by the State Ground Water Directorate, Jharkhand. 214 nos. of water bodies has been sanctioned for Rs. 185.08 Cr. for restoration which is under progress and targeted to be completed by March, 2021.144 nos. of RWH structure has been sanctioned for Rs. 5.89 Cr. which is under progress.

Protection and management of Flood Plain Zones (FPZ):

- District Magistrate has been directed to ensure that no encroachments in the FPZ and necessary actions are taken. Protection and management of flood plain zone - RFP Circulated on 17.06.2019 consultant have been appointed by 15.09.2019 and complete assignment will be submitted by them up to 15/03/2020 but the assignment is pending due to COVID-19 Situation.

Maintaining minimum environmental flow of river:

- As per the RFP Circulated on 17.06.2019 consultant have been appointed by 15.09.2019 and complete assignment will be submitted by them upto 15/03/2020. Consultant have been hired for preparation of Action Plan and expected to complete the assignment within six months but due to COVID-19 condition the final report is not received. E-Flow determination/gauging: Installation of Real Time Data Acquisition System along with Data Center which is to be established at Ranchi for analysis and information. The same shall be completed by 2024. Regulation of flow from barrages: As majority of the rivers are non-perennial in nature, resulting in almost no flow in these rivers. In order to maintain the E-flow, installation of instruments across the barrages shall be completed by March 2024.

13. Karnataka

Ground water regulation & water conservation:

Drilling new bores are restricted in the notified areas and prior permission has to be taken by the authority. Registration of the drilling rigs has been made compulsory. All commercial users of ground water must take the permission/NOC from Govt of Karnataka (GoK). For the industries in the Polluted River Stretches (PRS) that are using the ground water for their industrial purpose, notice has been sent to take permission from the GoK. Rain water harvesting is made mandatory for new constructions.

Protection and management of Flood Plain Zones (FPZ):

The tahasildars of the concerned taluka have furnished replies that they are in the process of obtaining the details on encroachment of lands of flood plain and upon receipt of the same they would initiate further needful action.

Maintaining minimum environmental flow of river:

The Cauvery Neeravari Nigagam Ltd., is requested to submit the action plan as per MoEF & CC norms during monsoon seasons 30% of annual yield @ 75% dependability shall be require to be released in the D/S of each dam site for environment purpose & the same is yet to be submitted. However, the details of the same is incorporated and reviewed in the District Surveillance Committee within March 2021.

Plantation activities and Setting up biodiversity parks on flood plains:

The Forest Department has submitted action plan for plantation of saplings on the banks of polluted river stretch of Arkavathi which specifies the plantation of saplings and creation of eco park for that they have ear marked Rs.13.49 crores. This will be completed by them within time frame of March 2024.

14. Kerala

Ground water regulation & water conservation:

Provisions of roof top rain water harvesting in Government buildings, commercial buildings, hotels and Houses will be emphasized.

Plantation activities and Setting up biodiversity parks on flood plains:

Thick vegetation, paddy fields and coconut farms are present on both sides of the river Mogral and Uppala. Plantation works in progress along remaining river stretches.

96% of the work with regard to Bio-diversity park at Karamana II phase completed. Recovered 10.5 Acres of encroached land along River Keecheri, it is proposed to set up of bio-diversity Park.

15. Madhya Pradesh

Ground water regulation & water conservation:

As per the MPR, State claims to be regulating ground water, installing Rain water Harvesting systems and has adopted good irrigation practices. However, details of the same have not been provided.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, the work is under process at the level of Water Resource Department.

Maintaining minimum environmental flow of river:

As per the MPR, the State has informed that all the rivers are non- perennial hence maintaining of minimum environmental flow of river is difficult in present scenario.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, during 2019-20, around 2.9 lakhs plants were planted along the 6 polluted river stretches. Establishment of Biodiversity Park is proposed.

16. Maharashtra

In Maharashtra State Ground Water is regulated under Maharashtra Groundwater (Development and Management) Act, 2009. Groundwater Surveys and Development Agency (GSDA) is a Government of Maharashtra organization, concerned with groundwater surveys, exploration, assessment, monitoring, development, management and regulation of groundwater resources for irrigation, drinking and industrial needs. It also undertakes periodic ground water assessment in order to regulate the ground water use and guide ground water developmental activities on scientific basis. GSDA also works towards ensuring sustainability of ground water resources, on a long-term basis. It acts as a custodian, for the implementation of ground water legislation, within the State of Maharashtra.

RRC has already requested to Water Resource Dept, GoM for maintaining minimum E-flows and water shed management, plantation on both sides of the river and setting up of biodiversity parks. All concerned local bodies located along the riverbanks are mandated to implement Water shed management, rain water harvesting, Plantation at both sides of the river and setting up biodiversity parks in their jurisdiction.

17. Meghalaya

Ground water regulation & water conservation:

As per the MPR, provisions of roof top rain water harvesting have been incorporated in the bye laws and are being implemented. Rain water harvesting implemented for Schools and government buildings.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, there is no declared Floodplain zone. However, as per the Action Plan, notification with regard to floodplain zone is proposed to be notified within one year for Umkhrah and Umshypri Rivers.

Maintaining minimum environmental flow of river:

As per the MPR, all the rivers are perennial.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, a proposal for plantation on both sides of the river at 9 identified locations has been prepared and sent for approval. A botanical garden under the Forest and Environment Department is present within the catchment area of the river Umkhrah. A Park under the Forest and Environment Department is present within the catchment area of the river Umshyrpi.

18. Manipur

Maintaining minimum environmental flow of river:
Environmental flow of river has been maintained through afforestation at degraded catchment.

Protection and management of Flood Plain Zones (FPZ):
Protection and management of Flood Plain Zones (FPZ) has been enforced and removing all the illegal encroachers time to time by the Water Resources Department.

Plantation activities and Setting up biodiversity parks on flood plains:
Plantation on both sides of the river has been continuing time to time. No any biodiversity parks at river bank since not getting any land.

19. Mizoram

Ground water regulation & water conservation:

- In Mizoram, surface water serves as the main sources of water for drinking, domestic and industrial purposes. Ground water extraction is insignificant.
- Provisions are made by the concerned department, i.e Irrigation & Water resources Department to adopt good irrigation practices in the State. However, irrigation is not practiced in the polluted location of the Rivers.

- As per the Action Plan of the polluted rivers, Rainwater harvesting has been initiated. Survey for setting up of Rainwater harvesting System is underway by PHE Department, Govt. of Mizoram.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, there is no Flood Plain Zones in Mizoram as it is a hilly region.

Maintaining minimum environmental flow of river:

As per the MPR, E-flow assessment is proposed to be taken up by Irrigation and Water Resources Department, Govt. of Mizoram.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, some of the rivers already have Riverine Reserved Forests of about 800 metres on either side of the river banks which are well protected. However, for enhancing tree and vegetation coverage, afforestation activities in suitable catchment areas have been proposed and plantation drives initiated and about 10% of the proposed works has been completed so far.

20. <u>Nagaland</u>

Ground water regulation & water conservation:

- As per the MPR, Water Resources department under the State Plan carry out activity wherein wells are dug for ground water extraction. Sensitization programme for ground water is also under implementation.
- Water Resources Department has been carrying out activities under the Minor Irrigation Schemes wherein diversion, protection wall and line & unlined canals have been constructed under the Ministry of Water Resources.
- Rain water harvesting is very popular in the state, and it is available in almost every house.

Protection and management of Flood Plain Zones (FPZ)

As per the MPR, Dimapur Municipal Council will be implementing for the protection and management of Flood Plain Zones.

Maintaining minimum environmental flow of river

As per the MPR, Environment flow is being assessed by the Water Resources Department and is expected to be completed by June 2021.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, State proposes to develop green coverage/ parks adjacent to the banks of river Dhansiri, wherever feasible. The work is proposed to be completed by July 2020. Further, 10 community reserved forests existing (privately/community owned protected area) in Dimapur

district, which falls in the catchment area of the River Dhansiri with a total area of 23.025 Sq. km has been declared and notified.

21. Odisha

Ground water regulation & water conservation:

- The Odisha Ground Water (Regulation, Development and Management) Act 2011 has been formulated by the State Government.
- CWGB and District Level Evaluation Committee strictly control the groundwater abstraction by the industries.
- 300 and 6000 Rooftop Rainwater Harvesting Structure (RRHS) are proposed to be installed on government and private buildings respectively in the FY 2020-21.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, the proposal for construction of cross regulator at the off taking point Gangua Nalla to divert the entire flood discharge of Chandaka catchment to Kuakhia river has been approved.

Maintaining minimum environmental flow of river:

As per the MPR, minimum environmental flow for the river is maintained at various locations.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, 10,94,699 nos. of sapling and seedling have been planted during monsoon 2018 along the bank of the rivers, dam sites, barrage sites and canal sites, out of which 3,29,962 nos. of plants are alive.

22. Punjab

Ground water regulation & water conservation:

- Government of Punjab notified Punjab Water Regulation and Development Authority in June, 2020 for the management and regulation of water resources to ensure judicious, equitable and sustainable utilization of water.
- State has set up Directorate of Ground Water Management with the prime objective of conserving and managing water resources.
- Govt. of Punjab signed an agreement to formulate Water Conservation and Management Master Plan (WCMMP) for the State of Punjab by October, 2020.
- Good irrigation practice such as drip irrigation, sprinkler irrigation, laser leveling, etc are being adopted and promoted in the State by Department of Agriculture and Department of Soil and Water Conservation.
- Rain water harvesting is being carried out by Department of Soil and Water Conservation in Kandi area of Punjab by constructing check dams, rain water harvesting structures, silt

detention structures, stream bank protection, contour bunding, runoff check and drop structures etc.

- The State Government has made rainwater harvesting mandatory for all public and commercial establishments and all properties in plots covering more than 500 sq. m in urban areas.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, rivers are already channelized, therefore flood plain zoning is not technically feasible.

Maintaining minimum environmental flow of river:

As per the MPR, Minimum 15% of average lean season flow is being maintained in river Sutlej (640 cusecs) & Beas (370 cusec). There is no regulation point in the State for Ghaggar, which is not a perennial river.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, Plantation is regularly being carried by Department of Forest on the side slopes of embankments and berms of rivers which help in checking erosion of embankments and river berms/edges. Municipal Corporation, Ludhiana planted 4270 saplings of various plants including Shady, Medicinal, Fruit and Flowering trees at various sites across the catchment area of Budha Nallah.

Municipal Corporation, Ludhiana selected 6 sites for development of Biodiversity Parks at Ludhiana. Matter is being taken up with Department of Forest to explore the feasibility of using CAMPA funds for setting up of Bio-diversity parks and plantation purposes in the catchment areas of the rivers to enhance the biodiversity.

23. <u>Puducherry</u>

Ground water regulation & water conservation:

- As per the MPR, U.T of Puducherry prepared a Water Policy in 2016 to develop, conserve and manage the water resources in the region in a sustainable manner guided by the national perspective.
- The Puducherry Building By-laws and Zoning Regulations mandates the building owners to take effective measures for rain water harvesting and necessary conditions are incorporated in the Building permits. Rain water harvesting structures have been provided in all Government buildings.
- The Puducherry Ground Water Authority has been constituted under the Pondicherry Ground Water (Control & Regulatipn) Act, 2002 to effectively and efficiently control and regulate the extraction of groundwater in the Union Territory.

- In the present budget, a subsidy of Rs. 5000/- has been proposed for cultivation of Millets / Minor Millets which would help in reducing water usage. It is proposed to cover more area under precision farming.
- Attractive subsidy assistance is being extended to farmers for installation of Drip/ Sprinkler irrigation devices and laying underground pipelines for conveyance of irrigation water.

Protection and management of Flood Plain Zones (FPZ):

As per MPR, Flood protection scheme works has been included under Flood Management and Border Area Program for an amount of Rs.50 Crore in the proposal for the period from 2020-2025 for getting approval from Government.

Maintaining minimum environmental flow of river:

As per MPR, Prohibitory order imposed on lorries, vans, two wheelers, bullock carts and any similar load carrying vehicles in the floodplain in order to prevent illegal sand mining, which affects the e-flow in the rivers. Check dams have been constructed to regulate the flow.

Plantation activities and Setting up biodiversity parks on flood plains:

As per MPR, along the bank of river Arasalar, Forest Department has planted 7362 plants in the year 2019. Further, 4000 mangroves have been planted on the bank of Chunnambar river Proposal will be submitted by the Forest Department seeking fund for developing 25 acre of Mangrove plantation as Biodiversity Park in Karaikal.

24. <u>Rajasthan</u>

Ground water regulation & water conservation:

- As per the Action Plan, 171.53 Hectare area is covered by drip and 1949 Hectare area is covered by sprinkler system in Kota Area. 246.75 Hectare area is covered by drip and 112 Hectare area is covered by sprinkler system in Keshoraipatan, Area.
- 1172 water harvesting structures have been built in Jaipur district.
- Promoting drip and sprinkler irrigation system. Subsidy being given for installation of such system.
- RWH structures which had been constructed by WRD Department in Kota –Keshaoraipatan stretches have been handed over to Gram Panchayat. Maintenance of these structures is to be done by Panchayati Raj Department.

Protection and management of Flood Plain Zones (FPZ):

There is no flood prone zone in the area and therefore zoning has not been carried out. Construction activities close to river is being regulated.

Maintaining minimum environmental flow of river:

E-flow release system is in place at the Chambal Barrage. E-flow of 5000 cusec is released for 35 minutes from Kota Barrage every Monday during non-e-flow period only, i.e. all Mondays during January to onset of Monsoon.

Plantation activities and Setting up biodiversity parks on flood plains:

No Plantation taken on river sides. Planting activity taken in RIICO I/A and Kota. No Bio diversity park near river stretch.

25. SIKKIM

Ground water regulation & water conservation:

Few industries are extracting ground water in Rangit, Ranichu & Teesta river stretches. These units are required to obtain necessary permission from CGWA.

Protection and management of Flood Plain Zones (FPZ):

All areas fall in hilly terrain and no flood plain zone has been identified.

Maintaining minimum environmental flow of river:
As per the MPR, all Hydro Electric projects (HEPs) have been directed to install environmental flow meter. Accordingly, 7 HEPs have installed e-flow meter to maintain 15-20% flow of river.

Plantation activities and Setting up biodiversity parks on flood plains:

Information not provided in the Action Plan and MPR.

26. TAMIL NADU

Ground water regulation & water conservation:

- A comprehensive Ground Water (Management and Development) Act, to regulate and manage the extraction of Ground Water is under active consideration of the Government.
- Individual households & commercial buildings are being insisted to put up rain water harvesting structures within their premises.
- Tamil Nadu has 34 River Basins consisting of 127 Sub Basins. Under World Bank assisted Tamil Nadu Irrigated Agriculture Management Project (TNIAMP), Basin Management activities are under progress in River stretches of Thirumanimutharu and Thamirabarani. For other rivers stretches the same will be taken up in phased manner under TNIAMP.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, identification of FPZ areas has been completed in coordination with Revenue Department in River Sarabanga, River Thirumanimutharu, River Vasista and River Thamirabarani. For other rivers work is in progress.

Under the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act., 2007, identified encroachments are being evicted in coordination with Revenue Department. Moreover evictions

of encroachment and resettlement have been proposed in Nadanthai Vaazhi Cauvery Scheme also.

Maintaining minimum environmental flow of river:

As per the MPR, in Tamil Nadu, Cauvery is the major river and as per Cauvery Water Disputes Tribunal's Order, 2.5.TMC ft of water is released in the river to maintain E Flow. Flow is only in the rainy season in River Sarabanga, River Thirumanimutharu and River Vasista.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, Green belt is being developed continuously in the State by various departments under afforestation programmes. Further developments are also proposed under the "Nadanthai Vaazhi Cauvery Scheme" also. Tree planting on the banks of the river stretches along with the Forest Department will be completed before March 2021.

27. <u>Telangana</u>

Ground water regulation & water conservation:

Status provided in the MPR:

a. The WALTA Act has been adopted by the State of Telangana. As per rule 13 every individual or institution has to take a permission to dig a new bore well from Mandal WALTA Authority for Agriculture, Industries and Drinkingwater purposes
b. For industries, Groundwater Department will give the approvals for extraction of Groundwater by recommending new bore wells sites abiding WALTA rules.
c. Ground Water Department has identified (1358) Villages as Over exploited, considering Ground Water Estimation Resources assessment for the base year 2012-13
d. As per TSWALTA ACT, no extraction of Groundwater is permitted in Over Exploited villages for agriculture and Industrial except for drinking purpose.
e. Rain water harvesting theme park is developed at Road No.51, Jubilee Hills, Hyderabad.
f. The technical specifications for the RWH systems and recharge purposes and indicative list of available service provider information is placed in the website: "Hyderabadwater.gov.in"
g. The ground water department while issuing approval to industries for withdrawal of ground water is recommending to construct a suitable rain water harvest structure as one of the terms and conditions which has to be complied by the industry mandatorily.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, a Committee for notification of flood plain zone to collect data of past history of flooding and mitigating measures taken and for identification of new areas for flood mitigation has been formed and meeting was held in July 2020.

Plantation activities and Setting up biodiversity parks on flood plains:

As per the MPR, encroachments removed under Muslim jung Bridge & Salarjung bridge, and Nayapool bridge. Galvalume sheets erected to prevent further encroachments. Landscaping work at a stretch of 300 meters is completed near High Court rubber dam.

28. Tripura

Ground water regulation & water conservation:

- As per the MPR, directions have been issued to obtain the NOC from Central Ground Water Authority to all the Industrial units located in the catchment areas of the rivers. Many of the units have also submitted the declarations along with the NOC from Central Ground Water Authority.
- Generation of mass awareness to conserve water and also for good irrigation practices is being carried out by the farmers in the catchment areas of rivers.
- All the industries located in the catchment areas using ground water for industrial purpose have been directed to construct rain water harvesting plant and the compliance has been ensured.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, check dam has been installed to maintain the E-flow of the rivers. Regular monitoring is going on to check illegal encroachment.

Maintaining minimum environmental flow of river:

Tender has been invited for installation of digital e-flow meter to monitor the minimum discharge during lean period and records to be maintained monthly basis after installation.

Plantation activities and Setting up biodiversity parks on flood plains:

Extensive river side plantation has been carried out on both sides of the rivers.

29. Uttarakhand

Ground water regulation & water conservation:

No information submitted in MPR.

Protection and management of Flood Plain Zones (FPZ):

Out of 09 polluted river stretches, 05 stretches are not perennial hence no flood plain zoning is to be done. Out of remaining 04 stretches, River Ganga (Haridwar to Sultanpur) has been notified and remaining (Suswa,Kosi and Gola rivers) flood plain zoning work is taken up presently and work will be completed within 18 month after receiving administrative as well as financial approval.

Maintaining minimum environmental flow of river:
No information submitted in MPR.

Plantation activities and Setting up biodiversity parks on flood plains:

No information submitted in MPR.

30. <u>Uttar Pradesh</u>

Ground water regulation & water conservation:

- As per the MPR, State Government has notified The Uttar Pradesh Ground Water (Management and Regulation) Act, 2019 (UP Act No.-13 of 2019) dated 9th August 2019 for protecting, conserving, controlling and regulating ground water to ensure its sustainable management in the State, both quantitatively and qualitatively, especially in stressed rural and urban areas.
- As per Ground Water Resource Estimation 2017, out of 820 blocks of Uttar Pradesh, 82 blocks have been categorized as 'Over Exploitation', 47 as critical, 151 as semi critical, 540 safe. Out of 10 Urban Agglomerates, 9 have been categorized as 'Over Exploited' and 1 as 'Critical'.
- The 'Rajya Bhoojal Sanrakshan Mission' started from year 2017-18 to cover the works of different departments in problematic areas so as to get significant effect on Ground Water. It also proposes Roof Top Rain Water Harvesting.
- State has taken up rejuvenation of small rivers and streams in the State by way of desiltation of rivers, streams and ponds under MNREGA. Works in 20 rivers have been started.
- As per the Action Plan, following measures are proposed to be adopted by State as good irrigation practices:

a. Massive awareness programme is required in the State to make people aware about importance of precious resources and to prevent misuse of Ground Water.
b. Micro Irrigation Systems should be introduced in place of flood irrigation to save Ground Water and increase the productivity.
c. The crop pattern/ type should also change in problematic areas.
d. The whole state should be demarcated w.r.t Poor Ground Water Quality Zone.
e. A regulation is required for protecting, conserving and regulating ground water.
f. State Water Resource department has been directed by the RRC to adopt good irrigation practices, maintain e-flows, implement water shed management and rain water harvesting, develop green cover and biodiversity parks along the banks.

Protection and management of Flood Plain Zones (FPZ)

As per the MPR River stretch wise steps under taken by State Government is mentioned in below table:

Name of River	**Introduce pillars at suitable locations in the river flood plain for demarcation of the flood plain boundary for effective enforcement on eliminating incidences/ practices of waste disposal encroachment in the river bed**	
	Activity	**Timeline**
Hindon	50m from both banks will be declared as no construction/ no development zones	3 months
	Detail survey is being conducted by IIT Delhi	6 months
	Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department	9 months
Kali East/ Varuna/ Gomti/ Ramganga/ Sai	50m from both banks will be declared as no construction/ no development zone	3 months
	For detailed survey	6 months
	Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department	9 months
Yamuna	100m from both banks will be declared as no construction/ no development zones till the notification of the above purpose is issued based on studies	6 months
	Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department	9 months
Ganga	Detailed report of flood plain zone has been presented by Special Committee in O.A. 200/2014 to Hon'ble NGT	3 months
	Demarcation of flood plain zone will be made at suitable location as per Central Water Commission (CWC) report, will be made by fixing pillars at suitable locations	9 months
Betwa/ Ghaghra/ Rapti/ Saryu	100m from both banks will be declared as no construction/ no development zone	3 months
	For detailed survey	6 months
	Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department	9 months

Maintaining minimum environmental flow of river:

Details provided in the MPR are as below:

Name of River	**River Stretch**	**Possibility of maintaining E-flow**	**Timeline**
Perennial River Flow			
Hindon	Saharanpur to Ghaziabad	E-flow study will be carried by IIT Delhi or other agency	9 months
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	E-flow will be studied and decided by Central Water Commission	12 months

Name of River	River Stretch	Possibility of maintaining E-flow	Timeline
Ganga	Kannauj to Varanasi	E-flow from Kannauj to Unnao is maintained from Narora Barrage and Kanpur Barrage as per directions of Central Water Commission 24 cumec- Nov to May 48 cumec- June to Oct	-
		E-flow from Unnao to Varanasi will be studied and decided by Central Water Commission	
Ramganga	Moradabad to Kannauj	E-flow study will be carried out by IIT Delhi or other agency	9 months
Betwa	Hamirpur to Wagpura		
Ghaghra	Barhalganj to Deoria		
Rapti	Domingarh to Rajghat		
Saryu	Ayodhya to Elafatganj		
Non- perennial River Flow			
Kali Nadi East	Muzaffarnagar to Gulaothi	As these are non-perennial river, e-flow cannot be maintained	
Varuna	Rameshwar to Varanasi		
Gomti	Sitapur to Varanasi		
Sai	Unnao to Jaunpur		

Plantation activities and setting up of Bio-diversity parks:

As per the MPR, status of plantation activities undertaken and proposed:

River Stretch	No. of Sampling	
	Planted Year 2019-20	Proposed for 2020-21
Hindon	55.34	55.64
Kali	65.93	69.35
Varuna	25.62	14.79
Yamuna	175.68	252.00
Gomti	180.26	151.99
Ganga	183.24	226.39
Ramganga	77.28	68.97
Betwa	24.61	49.78

Ghaghara	39.72	26.22
Sai	77.20	71.36
Rapti	57.25	29.08
Saryu	35.29	34.13
Total	**997.42**	**1049.70**

As per the MPR, Uttar Pradesh has identified the sites for the development of Bio-diversity parks in 25 districts in the main stem of Ganga and 2 districts in Yamuna covering a total area of 3591.984 ha. The project proposals for development of Bio-diversity parks are prepared under the supervision of Prof. C R Babu, former Pro Vice Chancellor, University of Delhi/ Emeritus Professor, CEMDE/ Incharge, Yamuna Bio Diversity park and his scientific team.

31. West Bengal

Ground water regulation & water conservation:

- As per the MPR, groundwater in the area is regulated by SWID, GoWB.
- The installation of Water Meter with telemetry system at Industrial Tube Wells for monitoring of real-time GW withdrawal is in progress.
- Micro Irrigation with supplementary water management activities is under progress. Further, activities such as increasing water use efficiency through good irrigation practices, soil and water conservation, cultivation of low water demanding crops and propagation of eco-friendly agriculture is being undertaken.
- For installing RWH system, a project has been undertaken jointly by WBPCB and P& RD Dept. under MGNREGA.

Protection and management of Flood Plain Zones (FPZ):

As per the MPR, work for protection to the eroding right bank of the river Churni is in progress. Further, Protection to the left bank of River Ganga from Mangal Pandey ghat to Malancha Tourist lodge for a length of 135 metre including renovation of sluice under Barrackpore Municipality is in progress.

Maintaining minimum environmental flow of river:

River	Priority Level	Remarks
Mahananda	**II**	The stretch of the river is perennial and has flow round the year. Water in this stretch is used forfishing and abstraction for city supply after treatment and disinfection.
Churni	**III**	Hanskhali, Krishnaganj and Ranaghat - 0.5 KM bank protection work to prevent erosion of the right bank at Bapujinagar GP, Hanskhali Nadia which will help to maintain e-flow. Proposed timeline : 31-3-2021 (estimation stage)

River	Priority Level	Remarks
Dwarka	**III**	The river Dwarka has no freshwater up-stream flow. It receives runoff during monsoon and base flow is maintained from ground water pool during lean months.
Ganga	**III**	The river is a perennial river. The environmental flow is maintained through the release from Farakka barrage throughout the year.
Jalangi	**IV**	The river Kansi has freshwater supply from the Kangsabari Dam at Mukutmanipur as up-stream flow. It receives runoff during monsoon and base flow is maintained from ground water pool during lean months including the up-stream flow. The Kangsabati dam authority may be instructed to release sufficient water so that the ecological flow in this river is maintained even in the lean season of the year.
Kansi	**IV**	
Barakar	**V**	The river system Barakar-Damodar has freshwater up-stream flow from the reservoirs Maithon and Panchet respectively. Both rivers receive huge runoff during monsoon and base flow is maintained primarily from the reservoir discharge.
Dwarakeshwar	**V**	During the lean season, not much freshwater supply from upstream source. It receives runoff during monsoon and base flow is maintained from ground water pool during lean months including the up-stream flow
Kaljani	**V**	
Karola	**V**	
Mayurakshi	**V**	
Rupnarayan	**V**	The river Rupnarayan has sufficient freshwater supply from upstream source as well as tidal event. It receives runoff during monsoon and base flow is maintained from ground water pool and tidal flow during lean months including the up-stream flow.
Silabati	**V**	The river Silabati has no freshwater supply from upstream source. It receives runoff during monsoon and base flow is maintained from ground water pool during lean months including the up-stream flow
Teesta	**V**	The river Teesta has freshwater supply from upstream source. It receives runoff during monsoon and base flow is maintained from ground water pool during lean months including the up-stream flow.

Plantation activities and setting up of Bio-diversity parks:

- As per the MPR, Plantation has been done in a massive way on both sides of the river of River Churni and Dwarka. Work in progress or proposed in other river stretches.

- One biodiversity park called Eco-Park has already been developed in New Town, Kolkata area. Government of West Bengal is going to set up Biodiversity Park at every block from the next financial year.

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