

**JOINT COMMITTEE REPORT W.R.T. COMPLIANCE OF HON'BLE NGT ORDER IN
THE MATTER OF KANTHA VIBHAG YUVA KOLI SAMAJ V/S GUJARAT
POLLUTION CONTROL BOARD & ORS [OA NO. 32 OF 2020, WZ]**

1.0 Background

Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi (through video conferencing) passed an order in the matter of Kantha Vibhag Yuva Koli Samaj V/S Gujarat Pollution Control Board & Ors. [O.A. No. 32 of 2020, (WZ)] on 05th August, 2020 regarding irreversible damage caused to the fragile ecology of the Mindhola Creek due to illegal dumping of the untreated toxic effluent from a polyester resin plant of M/s Paras Enterprise. The subject matter is basically starts with procedural lapses by M/s Paras Enterprise to obtain mandatory statutory permissions i.e. Consent to Establish (CTE), Consent to Operate (CTO) from Gujarat Pollution Control Board (GPCB) and Environment Clearance (EC) from State Environment Impact Assessment Authority (SEIAA). Also, the Applicant mentions that M/s Paras Enterprise had carried-out production of polyester resin illegally and subsequently discharged untreated industrial toxic effluent into GIDC drain which flows into Mindhola Creek. Further, the Applicant mentions that the GPCB has imposed an arbitrary low environment damage compensation of ₹ Five Lacs without any scientific basis. Thereafter, Hon'ble NGT ordered for the following actions;

“We deem it just and proper to constitute a Committee consisting (i) Collector, Surat, (ii) Gujarat Coastal Zone Management Authority and (iii) Representative of Central Pollution Control Board (CPCB) and to direct them submit a factual and action taken report. Report be submitted within six weeks.”

2.0 Approach

In accordance with Hon'ble NGT order, a committee was constituted with the following members viz. Dr. Dhaval Patel, Collector & DM – Surat, Shri Kishore N Vaghamsi, Dy. Environmental Engineer – Gujarat Coastal Zone Management Authority (GCZMA) and Shri Nishchal C., Scientist 'D' – Central Pollution Control Board (CPCB), Regional Directorate (West), Vadodara. Upon receipt of confirmation of date regarding proposed

committee inspection from Collector & DM – Surat and subsequent to the communication with the representative of GCZMA it was mutually decided to carryout committee inspection on 04th September, 2020. Initially the committee members convened a meeting at Collectorate Office – Surat to discuss the implementation of the order passed by Hon’ble NGT in the said matter. The meeting was convened to address the points mentioned in the Hon’ble NGT order by collecting the preliminary information and chronology of events in the matter of M/s Paras Enterprise. Also, to assess the environmental compensation upon M/s Paras Enterprise. Subsequently, the committee members visited M/s Paras Enterprise and collected necessary information available with GPCB, Regional Office (RO) – Surat.

3.0 Mindhola River profile and industrial statistics of the area

Geographical location of Surat District is 21.0⁰ to 21.23⁰ N latitude and 72.38⁰ to 74.23⁰ E longitude. The main river in Surat is Tapi River, which flows through the northern part of Surat city. The runoff from this part naturally drains in to the Tapi River. Varacha creek and Chaparabhatha creek add its storm water into Tapi River. Whereas, Southern part of Surat city which drains its storm drainage through seven natural tributaries (creeks) viz. Mithi, Kankara, Khajod, Koyali, Bhedwad and Sonari into Mindhola River. These creeks reach ultimately to the Mindhola River and later confluences with Gulf of Khambhat, Arabian Sea. Also, other Creeks/Khadis viz. Baleshwar, Unn Khadi etc. reach ultimately to the Mindhola River and later confluences with Gulf of Khambhat, Arabian Sea.

Mindhola is a state river flowing within state boundary of Gujarat and considerable part of its catchment is in southern part of Surat city area. The Mindhola River receives untreated domestic wastewater from Kanakpur-Kansad, Pardi area and Sachin GIDC through Unn Khadi as well as treated industrial effluent from common effluent treatment plants viz. M/s Sachin Infra Environment Ltd., M/s Globe Enviro Care Ltd., Also, treated effluent from two industries through Unn Khadi and M/s Gujarat Eco Textile Park, M/s New Palsana Industrial Co-Op Soc. Ltd., through Baleshwar Khadi. Apart from this, there are several other Creeks/Khadis receives treated domestic wastewater and

treated effluent from CETPs located within, outside Surat municipal corporation limits which directly confluences with with Gulf of Khambhat, Arabian Sea.

GPCB has Regional Office at Surat for pollution control enforcement activities in Surat District. The industries are spread over various parts of the District and mainly in GIDC Sachin, Palsana, Pandesara, Surat Apparel Park, Ichhapore-Bhatpore Kawas, Bardoli, Hazira-Mora, Khatodara, Olpad, Katargam etc.–Different category and scale wise breakup of industries in GIDC Sachin is depicted in the subsequent table and pie chart, bar graph.

Table-1: Different category and scale of industries in GIDC Sachin

Category	Small	Medium	Large	Total
Red	307	20	9	336
Orange	36	4	1	41
Green	39	5	1	45
Total	382	29	11	422

Source: GPCB, RO – Surat.

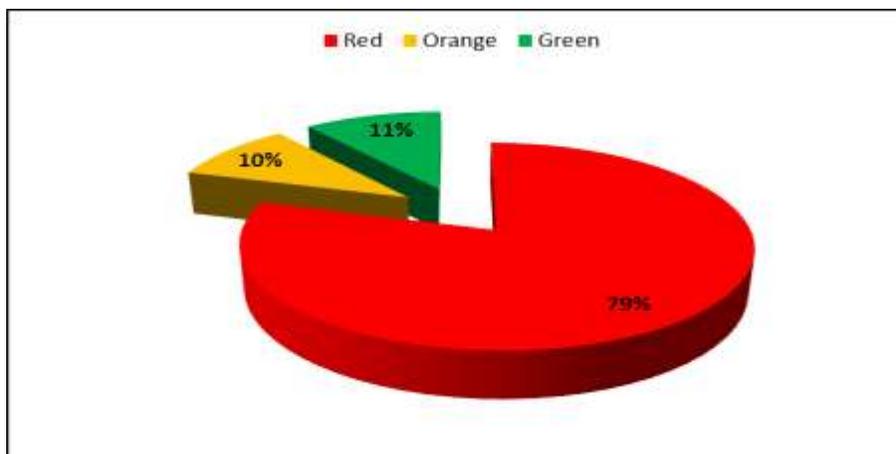


Figure-1: % distribution of industries in GIDC Sachin.

From the above statistics it is observed that GIDC Sachin accounts for majority of small scale industries i.e. 90% w.r.t. scale of operation and accounts for majority of red category industries i.e. 79.62% w.r.t. pollution potential (category of industries). It is gathered from GPCB that the industries generating effluent is connected with common effluent treatment plant (CETP) exclusively designed to handle the effluent from

chemical and textile sectors. The effluent generated from textile sector is being treated at M/s Sachin Infra Environment Ltd., and around 84 no. of industries are connected with the CETP. Similarly, the effluent generated from chemical sector is being treated at M/s Globe Enviro Care Ltd., and around 43 no. of industries are connected with the CETP. Further, around 30 no. of industries are Zero Liquid Discharge industries and rest of the industries is dry processing industries.

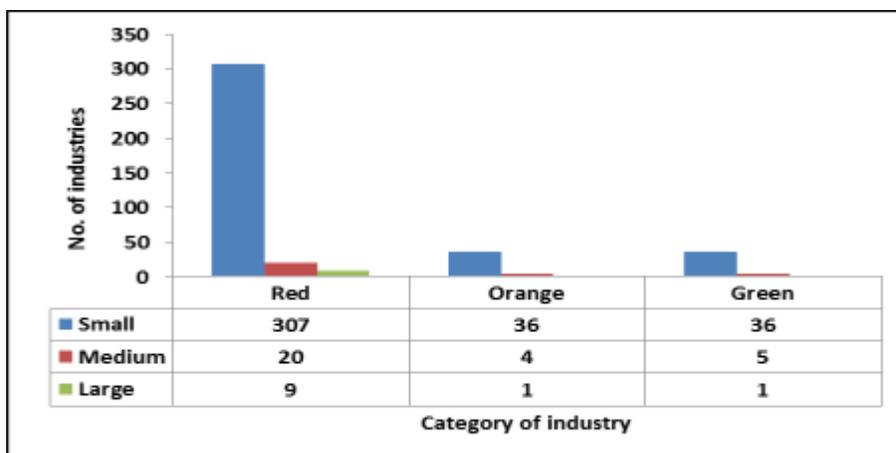


Figure-2: Distribution of scale of industries in GIDC Sachin.

4.0 About M/s Paras Enterprise

M/s Paras Enterprise (hereinafter referred as industry) is located at Plot No. 447, Road No.4, GIDC Sachin, Tal: Choryasi, Dist: Surat. The industry is engaged in manufacturing of saturated polyester resin. The main raw materials used in the manufacturing of saturated polyester resin are Solid anhydride (Iso phthalic acid, Terphalic acid), Glycol (Di-ethylene glycol/Polyethylene glycol/ Mono ethylene glycol/Di-propylene glycol) and Styrene monomer. The main process involved is poly condensation reaction and blending the polyester resin with the monomer. The manufacturing process involves the addition of solid anhydride and glycol into the esterification reactor and mass is heated up to 220⁰ C with the addition of inert nitrogen gas. The esterification is continued until a predetermined acid value, viscosity is reached and heating is stopped. The batch is transferred into blending kettle and cooled to 100⁰ C. In next stage, styrene monomer is added to adjust the viscosity; the batch is pumped through filter and further stored in storage tanks. Thereafter, it is crushed to make granules of polyester resin (saturated polyester resin).

5.0 Observations and findings

- During inspection, it was observed that the industry was closed permanently. Except the civil structure, all unit operation and process machineries were dismantled including boiler & its ancillary facilities.
- It is gathered from GPCB, RO – Surat that the industry had dismantled its all unit operation and process machineries after receipt of closure directions u/s 33-A of The Water (Prevention and Control of Pollution) Act, 1974 dated 23.07.2019 from GPCB. The progress of dismantling activities of unit operation and process machineries were also endorsed by officials of GPCB, RO – Surat during the surveillance direction follow-up inspection dated 18.11.2019.
- It is gathered from the records of GPCB, RO – Surat that the industry was operational illegally w.e.f. 06th February, 2014 to 14th August, 2019 and engaged in manufacturing of polyester resin without obtaining mandatory statutory permission i.e. CTE, CTO from GPCB and EC from SEIAA. The chronology of events in the matter of M/s Paras Enterprise is depicted in the below table-2.

Table-2: Chronology of events

Date of inspection by GPCB	Action taken by GPCB	Remarks
19.04.2014	No action has been taken against the industry.	The industry was inspected under routine surveillance inspection. Observed that industry was operational without obtaining CTE and EC.
31.05.2015, w.r.t. CTE application dated 04.05.2015 by the industry	Closure direction u/s 33-A of The Water (Prevention and Control of Pollution) Act, 1974 was issued to the industry on 13.07.2015. Also, CTE application was rejected by GPCB on 01.08.2015.	The industry had started manufacturing w.e.f. 06.02.2014 without obtaining CTE, CTO and EC. Also, during inspection industry was not in operation. Hence performance evaluation of emission control system couldn't be carried-out and accordingly consideration for grant of CTE application couldn't be processed by GPCB.
29.07.2015	Revocation of closure direction by GPCB on 12.08.2015 and also	The industry was inspected under surveillance direction follow-up

	issued CTE to the industry on 07.10.2015, which is valid up to 03.05.2020.	inspection. Observed that industry was not in operation and had applied for CTE on 04.05.2015 and EC on 21.08.2014.
09.07.2019	Closure direction u/s 33-A of The Water (Prevention and Control of Pollution) Act, 1974 was issued to the industry on 23.07.2019. Also, directed to deposit the environment damage compensation cost of ₹ 5 Lacs. In continuation to the closure directions issued to the industry, GPCB also served legal notice to the industry on 19.10.2019 to show-cause within 15 days from the receipt of legal notice.	The industry was inspected w.r.t. public complaint. Observed that the industry was operational without CC&A and EC. Rain water contaminated with raw materials was flowing into GIDC storm water drain. Also, unsolicited underground pipeline leading to GIDC storm water drain was observed. Further, GPCB appraised the complainant on 08.11.2019 regarding the action taken against the industry.
18.11.2019	Revocation of closure direction by GPCB on 31.01.2020.	Based on the undertaking & action taken reply including deposition of environment damage cost of ₹ 5 Lacs by the industry on 11.11.2019 to GPCB, the industry was inspected under surveillance direction follow-up inspection. Observed that the industry was not in operation, electricity and water supply was disconnected. The industry had dismantled it's all unit operation and process machineries except civil structure.
20.08.2020	Surveillance inspection by GPCB, RO – Surat on 20.08.2020. Based on observations & findings, appraised present status of the industry to GPCB, Gandhinagar.	The industry was inspected w.r.t. communication from GPCB, Gandhinagar in the Hon'ble NGT matter OA no. 32 of 2020. Observed that the industry was closed permanently and not in operation. Except the civil structure, all unit operation and process machineries were dismantled including boiler & its ancillary facilities.

- It is gathered from the records of GPCB, RO – Surat that the industry made an application on 21.08.2014 to SEIAA for grant of EC under 5 (f) i.e. synthetic organic chemicals category (B1 project). Subsequently, the State Expert Appraisal Committee (SEAC) in its vide letter dated 27.11.2014 had called the industry for meeting and accordingly the industry made a presentation before SEAC on even dated 05.12.2014 and 19.08.2015. Thereafter, SEAC communicated in its vide letter dated 22.04.2016 to the industry for seeking

further information and for subsequent consideration of grant/rejection of EC. However, it is gathered that the industry neither communicated nor submitted desired information to SEAC and hence EC application of the industry was rejected. Further, it is gathered that the industry didn't submit the fresh application to SEIAA for grant of EC.

- It is gathered that the Mindhola River receives untreated domestic wastewater from Kanakpur-Kansad, Pardi area and Sachin GIDC through Unn Khadi as well as treated industrial effluent from common effluent treatment plants (CETPs) viz. M/s Sachin Infra Environment Ltd., (textile cluster), M/s Globe Enviro Care Ltd., (chemical cluster) through Unn Khadi. Also, treated effluent from two industries viz. M/s Colortex Industries Pvt. Ltd., and M/s CTX Lifescience Pvt. Ltd., through Unn Khadi.

The individual outlets of treated effluent from two CETPs and two industries are later commonly conveyed in a closed conveyance system (app. 5 Km length) and discharged into Unn Khadi, downstream of GIDC Sachin. The Unn Khadi later confluences with the Mindhola River.

- Further, Mindhola River receives treated industrial effluent from two CETPs viz. M/s Gujarat Eco Textile Park (textile cluster) and M/s New Palsana Industrial Co-Op Soc. Ltd., (textile cluster) through Baleshwar Khadi. The Baleshwar Khadi later confluences with the Mindhola River (upstream of Unn Khadi confluence point).
- The present issue has been raised due to the unauthorized discharge of untreated effluent from the industry and subsequent damage to the Mindhola River. Hence, in compliance of Hon'ble NGT order the committee had focused towards the issue pertaining to specific aspects of the industry i.e. to verify the compliance status of statutory permissions and calculation of environmental compensation based on CPCB formula.

- At this juncture it is worth to mention that the Mindhola River not only gets polluted by the discharge of then M/s Paras Enterprise but also due to the discharge from various point and non-point sources as mentioned in earlier paragraphs of this report. Hence the committee collected the relevant information pertaining to river action plan of Mindhola River. *The action plan prepared by "River Rejuvenation Committee (RRC)" which was constituted on 29th November, 2018 by Forest and Environment Department, Govt. of Gujarat for the execution of River action plan of the Gujarat in compliance of Hon'ble NGT order OA no. 673 of 2018 ("More River Stretches are now Critically Polluted).* Further, the committee made an attempt to correlate the salient features and present status of river action plan for Mindhola River for rejuvenation of polluted river stretch. The salient features and present status of action plan for Mindhola River is depicted below.

"It is gathered from the River action plan submitted by GPCB in the matter of Mindhola River that the identified polluted river stretch of 10 Km flows along Sachin GIDC. The identified stretch receives untreated domestic wastewater from Kanakpur-Kansad, Pardi area and Sachin GIDC. It is estimated app. 1.6 MLD of domestic wastewater generation from the areas and the gap in generation & treatment is 1.6 MLD. In the identified stretch there is no discharge of industrial effluent from GIDC or notified area. As on date, it is gathered that two Sewage Treatment Plants (STPs) of 2 MLD capacity each are proposed at different location in the notified Sachin GIDC area. The land acquisition is completed and detailed project report for commissioning of STPs is submitted to their department for further needful and to expedite the commissioning of STPs".

- It is gathered from the CTE issued to M/s Paras Enterprise that there is no scope for generation and discharge of process effluent from the process, ancillary activities. Hence, the industry has to adhere to zero liquid discharge condition. However, it is gathered from GPCB inspection report that there was discharge of wastewater i.e. rain water contaminated with the raw materials was observed and

the analysis result of sample collected shows COD: 4077 mg/L. Also, the industry has provided unsolicited underground pipeline provision which was leading towards GIDC storm water drain and ultimately to Mindhola River.

- At this juncture it is worth to mention that the industry while applying for CTE, supplemented the information regarding manufacturing process; in that the industry has mentioned the recovery of unreacted glycol (collected in the form of condensate) and recycling in the manufacturing through dehydration process. Further, to substantiate the justification which was supplemented by the industry while applying CTE; the committee referred an EIA report of similar nature of industry, wherein it was observed that the project proponent had mentioned that *“...the water is continuously separated from reactor and collected into the distillate tank. Then water is sent to ETP for further treatment of water...”* The extract taken from the EIA report is provided for kind reference and given in the hyperlink below.

http://environmentclearance.nic.in/writereaddata/FormB/EC/EIA_EMP/031120185Q6CDSI2EIAAsiaticCompositeR01.pdf Page no. 50.

- Further, it is worth to mention that the possible sources of generation of wastewater (lesser quantity) are from wash water resulting from washing of raw material, finished product drums, reactors and ancillary activities. Also, if the raw material storage drums stored openly; during rainy season there is possibility of carryover rain water contaminated with the openly stored raw materials (as it was observed and endorsed by GPCB, RO – Surat during their inspection on 09.07.2019). Hence, in the past the possibilities of undue discharge of wastewater generated from said sources into the GIDC storm water drain can't be ruled out.
- Some of the photographs taken during committee inspection are provided at **Annexure-I** of this report.

6.0 Environmental compensation

The base formula taken as per para 6 of the order of Hon'ble NGT in the O.A. No. 593/2017 (Paryavaran Suraksha Samiti & Anr. Vs Union of India & Ors.) dated 19.02.2019. As given in the order, the Environmental Compensation (EC) is based on the following formula.

$$EC = (PI \times N \times R \times S \times LF)$$

Where,

EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (₹) for EC

S = Factor for scale of operation

LF = Location factor

Accordingly, the joint committee computed environmental compensation based on above formula on an account of non-compliances w.r.t. procedural lapses by the industry to obtain mandatory statutory permissions i.e. CTE, CTO and EC from the regulatory agency and authority.

PI = Pollution Index of industrial sector

The average pollution index of 80 was taken as Environmental Compensation for the unit (as the unit falls under red category of industry based on CTE issued by GPCB).

N = Number of days of violation took place for which violation took place is the period between the day of violation observed and the day of compliance verified by CPCB/SPCB.

R = A factor in Rupees (₹) which is a minimum of 100 to a maximum of 500. R is considered as ₹250, as the Environmental Compensation in case of violation.

S = Factor for scale of operation.

For small S = 0.5, For medium S = 1 and larger unit S = 1.5

LF = Location factor,

It is based on the population of the city/town and location of the industrial unit on the location of the industrial unit. For the industrial unit located within municipal boundary or up to 10 km distance from the municipal boundary of the city/town, different LF maybe used. LF of 1.25 is used as the industry is located within the municipal boundary and population as per Census, 2011 is 4.46 million (Population 1 to < 5 million, LF is 1.25).

Actual days of pollution (determination of number of days of noncompliance (N):

The inspection day when industry found to be non-compliance taken as the start day for N calculation (in the environmental compensation calculation) and day of inspection when they found to be compliance assumed as the last day of non-compliance, as per the formula given above. In the present case, it was observed that there are many practical limitations to apply the above formula. Since, the above formula can be used to calculate environment compensation when there is non-compliances w.r.t. discharge standards/violation of directions. Whereas, in the present matter it is evident from the inspection reports of GPCB, RO – Surat that the industry was operational illegally without obtaining necessary statutory permissions viz. CTE, CTO, EC from concerned regulatory agency and authority.

The committee is of the opinion that the industry is accountable for paying environmental compensation. Since, the industry had started manufacturing activity without obtaining necessary statutory permissions and thereby violating the provisions under; The Water (Prevention and Control of Pollution) Act, 1974; The Air (Prevention and Control of Pollution) Act, 1981; The Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 and Environment Impact Assessment Notification, 2006. Further, it is also evident from the inspection reports of GPCB, RO – Surat that the industry was engaged in unauthorized discharge of wastewater and also had a provision of unsolicited flexible pipeline for undue discharge of wastewater into GIDC storm water drain.

The present committee referred the report on *“Damage Assessment of River Damanganga, Cost of Restoration, Accountability & Liabilities of Defaulting Industries & CETP, Vapi, Gujarat”*. Wherein, the expert committee which was formed as per order Hon’ble NGT, PB, New Delhi in OA no. 95 of 2018 (*Aryavart Foundation vs. M/s. Vapi Green Enviro Ltd. (CETP, Vapi) & Ors*) had also calculated environmental compensation up on few industries based on the non-compliances w.r.t. various provisions of environment statutes. Hence by considering the chronology of facts and available supporting record in respect of calculation of environmental compensation as

applicable in the present matter, the committee decided to calculate environmental compensation up on the industry based on the non-compliances w.r.t. various provisions of environment statutes. Further, the following findings are delineated to calculate the no. of days of non-compliance.

As the industry was operational illegally without obtaining CTE, CTO and EC; the non-compliance was considered on 06th February, 2014 (starting date of illegal production activity) and to consider the last day of non-compliance/day of compliance, inspection has to be carried-out during subsequent course of any day of the year. Based on the available records with the GPCB, RO- Surat the last day of non-compliance was observed on 31st January, 2020 i.e. revocation of closure direction by GPCB (though last date of production was till 14th August, 2019). Hence a total day of non-compliance (N) is 2186 days. Based on consideration of above, the environmental compensation calculation is depicted as below.

$$EC = PI * N * R * S * LF$$

PI	N	R	S	LF	EC
80	2186	250	0.5	1.25	2,73,25,000

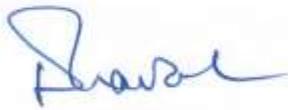
Based on above, the environmental compensation to be levied on the industry for non-compliances w.r.t. various provisions of environment statutes is worked-out to be ₹ 2,73,25,000/- (Rupees Two Crore Seventy Three Lac and Twenty Five Thousand Only).

7.0 Conclusion

It is a matter of fact on record that the industry was operational illegally and engaged in manufacturing of polyester resin w.e.f. 06th February, 2014 to 14th August, 2019 without obtaining necessary statutory permissions and thereby violated the provisions under; The Water (Prevention and Control of Pollution) Act, 1974; The Air (Prevention and Control of Pollution) Act, 1981; The Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 and Environment Impact Assessment Notification, 2006. Though zero liquid discharge condition was imposed by GPCB, the industry was engaged in unauthorized discharge of wastewater i.e. discharge of rain water contaminated with chemicals/drum washing wastewater and also had a provision of unsolicited flexible pipeline for undue discharge of wastewater into GIDC storm water drain leading to Mindhola River through Unn Khadi as per inspection report of GPCB.

Pollution of Mindhola River is not only due to the intermittent discharge of then M/s Paras Enterprise but also due to the discharge from various point and non-point sources i.e. untreated domestic wastewater from Kanakpur-Kansad, Pardi area and Sachin GIDC. It is estimated app. 1.6 MLD of untreated domestic wastewater discharge into Mindhola River through Unn Khadi. Further, Mindhola River receives treated industrial effluent from four common effluent treatment plants and treated effluent from two industries located within & outside the Surat municipal corporation through Unn Khadi, Baleswar Khadi respectively. It is worth to mention that the action plan is devised for Mindhola River and is separately being dealt by the Hon'ble NGT vide OA no. 673 of 2018 ("More River Stretches are now Critically Polluted). Wherein, River Rejuvenation Committee has been set up for the compliance of Hon'ble NGT directions and formulation, implementation of action plans for remediation and restoration of polluted river stretches. Presently, the Notified Sachin GIDC area is in progress towards commissioning of two sewage treatment plants of 2 MLD capacity each for treatment of untreated domestic wastewater generating from Kanakpur-Kansad, Pardi area and Sachin GIDC.

Since, the industry had dismantled its all unit operation and process machineries including boiler & its ancillary facilities in respect of closure direction issued by GPCB, the committee collected the records available with GPCB, RD – Surat for consideration and also to calculate the environmental compensation upon the industry. The industry was non-complied w.r.t. various provisions of environment statutes, under such circumstances; it is a clear violation and hence the industry is accountable for paying environmental compensation. Accordingly, the environmental compensation for non-compliances w.r.t. various provisions of environment statutes is worked-out to be ₹ 2,73,25,000/- (Rupees Two Crore Seventy Three Lac and Twenty Five Thousand Only). The environmental compensation amount may be recovered by GPCB and utilized for restoration of Mindhola River.



Dr. Dhaval Patel
Collector & DM – Surat



Shri Kishore N Vaghamshi
DEE – GCZMA



Shri Nishchal C.
Scientist 'D'
CPCB, RD (W), Vadodara

Annexure-I



Photograph-1: A view of closed status of M/s Paras Enterprise, GIDC Sachin.



Photograph-2: Remaining's of dismantled plant machineries of M/s Paras Enterprise, GIDC Sachin.

Contd./-



Photograph-3: Remaining's of dismantled plant machineries of M/s Paras Enterprise, GIDC Sachin.



Photograph-4: A view of Unn Khadi near Sachin GIDC, upstream of confluence point of River Mindhola.