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16. Chief Engineer (Yamuna), Department of Irrigation, Uttar Pradesh
17. The Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
18. Chief Administrator, Haryana Shaheri Vikas Pradhikaran, Sector 6, Panchkula, Haryana
19. The Director, Urban Local Body, Bays No.11-14, Sector 4, Panchkula, Haryana
20. The Engineer-in-Chief, Public Health Engineering Department, Bay No. 13-18, Sector 4, Panchkula, 134112, Haryana
21. The Engineer-in-Chief, Irrigation and Water Resources Department, Haryana Sector 5, Panchkula
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23. Principal Secretary, Department of Environment, U.P., Room No. 601, Babu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.
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Copy for kind information:

1. PPS to Secretary, 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. PS to ED (Project/ Finance), NMCG

Minutes of the 11th meeting of the re-constituted Principal Committee held on 06.04.2021 through Video Conferencing in compliance to the directions of Hon'ble NGT in the matter OA No. 06 of 2012

The 11th meeting of the re-constituted Principal Committee (Yamuna) constituted by Hon'ble NGT in the matter OA No. 06 of 2012 was held through video conferencing on 06.04.2021 from 03.00 PM onwards in Conference Room, NMCG under the Chairmanship of Secretary, Ministry of Jal Shakti. The list of participants present at the meeting is at *Annexure-I*.

II. Director General, NMCG welcomed all the participants and briefed about the scope of the Principal Committee and the actions taken previously by the Committee.

ED (Tech), NMCG informed that Delhi Development Authority (DDA) is implementing the project 'Restoration and Rejuvenation of Yamuna Flood Plain' in the O-zone area of River Yamuna, updated status of which shall be provided by DDA. Further, it was highlighted that although DDA is also taking action against defaulters for dumping in floodplains, however, complaints have been received at NMCG with regard various activities such as dumping of malba, excavation and illegal construction activities being carried out in the Yamuna Floodplain. Copy of complaints received are being forwarded to DDA for submitting responses, however the same remains awaited.

One compliant received from Yamuna Bank Kisan Morcha against contractor K.R. Anand related to dumping of malba, excavation and construction in the floodplain. In response to the compliant received, contractor K. R. Anand has informed that they are implementing the work on behalf of DDA for '*Restoration and Rejuvenation of Yamuna Flood Plain*' from Old Railway Bridge to ITO Barrage. Therefore, DDA has to ensure compliance to the directions of NGT.

Further, Shri Manoj Mishra, Convener, Yamuna Jiye Abhiyan has alleged that large scale dumping in floodplain of River Yamuna has been done by CPWD and PWD, Delhi. DDA needs to provide action taken in this regard. Further, it has also been highlighted that DDA plans to redraw the boundaries of Zone O (River Yamuna) in NCTD, DDA may provide their observations in this regard as well.

A compliant was also received with regard to dumping of malba by NCRTC in River Hindon due to which width of the river has drastically been reduced. Department of Irrigation, Uttar Pradesh may kindly review the issue and take necessary action in this regard.

Agenda 1: DDA's project 'Restoration and Rejuvenation of Yamuna Flood Plain'.

Principal Commissioner (Hort. & LS), DDA along with Additional Commissioner, DDA and Advisor (Yamuna), DDA attended the meeting.

Advisor (Yamuna), DDA through a presentation briefed about the status of the project. It was informed that the whole '*Restoration and Rejuvenation of Yamuna Flood Plain*' project has been divided into 10 different projects covering area from Wazirabad Barrage to Okhla Barrage, Delhi and all the 10 projects are at different stages of implementation.

- **Project – 1 (Total 197 hectare)** – known as ASITA EAST (from Old Railway Bridge to ITO Barrage, Eastern Bank). After removal of encroachments, 90 hectare of land which was with DDA have been developed with creation of wetland, plantation of riverine species, etc. For remaining 107 hectare of land, which is with Uttar Pradesh Government, tender has been awarded and the work is expected to be completed by October 2021.
- **Project – 2 (Total 100 hectare)** – named as Kalindi Aviral from Nizamuddin Bridge (Barapullah Drain) to DND on Western Bank. Work has been completed and the area has been developed. It was informed that the developed area is being hampered by the ongoing works being carried out by NCRTC for development of Delhi-Ghaziabad-Meerut, Regional Rapid Transport System (RRTS) corridor.
- **Project – 3 (Total 115 hectare)** – named as Kalindi Biodiversity Park (from DND to proposed Kalindi Bypass, Western Bank), the area is being developed by CEMDE and is expected to be completed by June 2021. For treatment of wastewater coming from 11 drains around the proposed area, Constructed Wetlands are being developed. Five number of Constructed Wetlands have been completed & started functioning (out of total nine and two have been added later). The works have been held up due to the start of the piling works by NHAI in this area for the construction of Kalindi Bypass. The works for the constructed wetlands would only be restarted once the piling is done by NHAI.

- **Project – 4 (Total 200 hectare)** – known as ASITA WEST (Old Railway Bridge to ITO Barrage, Western Bank). Work has been completed in 93 hectare of land, after removal of encroachment and the area has been developed. Work is in progress in remaining 107 hectare of land and is expected to be completed by July 2021.
- **Project – 5 (Total 116.25 hectare)** – from New Railway Line to Nizamuddin Bridge (both on Eastern & Western Bank). 18 hectare of land on Western Bank and 90 hectare on Eastern Bank is to be developed by DDA, tenders have been called and works shall start soon. A 4 m wide elevated boardwalk first of its kind is proposed in 90 hectare area as a pilot project for connecting to the river. Remaining 8.25 hectare on Western Bank is to be developed by CPWD as a part of New India Garden.
- **Project – 6 (Total 66 hectare)** – on Western Bank from Wazirabad Barrage to Old Railway Bridge. The area has been entrusted to INTACH by Hon'ble NGT as the area has a number of heritage structures. 16 hectare of land at Qudesia Ghat is being developed and completion is expected by September 2021. 13.6 hectare of land at Sur Ghat, 33 hectare at Eco-trail and 3.4 hectare at Yamuna Bazar are proposed to be developed.
- **Project – 7 (Total 236.5 hectare)** – named as Yamuna Vanasthali (from Wazirabad Barrage to ISBT Barrage, Eastern Bank), tenders have been called and the works are expected to be completed by September 2021. Adjoining area has been allotted for compensatory planation to various departments. Proposed activities in the area apart from planation of riverine species are restoration of the 9 existing depressions into waterbodies, greenway along the Pushta Road and ISBT Bridge comprising of kachha cycle tracks, walkways and public interactive spaces and pedestrian promenades connecting to the central water body and the River.
- **Project – 8 (Total 397.75 hectare)** – named as Mayur Nature Park (from Nizamuddin Bridge to DND Flyway, Eastern Bank), 235 hectare of land is with DDA and 162.75 hectare of land is with Uttar Pradesh Government. The scheme of the total area was prepared but during commencement of works at site, it was brought to the notice that approx. 100 Ha. area is de-notified and under private ownership. Process of demarcation is going on in

coordination with Revenue Department of GNCTD. Landscape proposal has to be re-worked accordingly.

- **Project – 9 (Total 30 hectare)** – Eco-tourism area (from Geeta colony to ITO Barrage, Western Bank). It was informed that the area falls outside 1 in 25 year floodplain. 13 Ha was allotted to DESU (now IPGCL) and 7.4 Ha was allotted to DTC on a temporary basis during Commonwealth Games 2010. These land areas are yet to be retrieved. Only 9.6 Ha of the remaining land is available with DDA at present for development and it is proposed to include River museum and other eco-tourism activities, for which experts in this field are being consulted. Revenue generated from this area is proposed to be utilized for maintenance and sustainability of the other areas. Principal Committee was requested to allow permission for development of river museum in the 30 hectare area, which is beyond 1 in 25 year floodplain of River Yamuna.
- **Project – 10 (Total 45 hectare)** – named as Hindon Sarovar (from Nizamuddin Bridge to DND, Eastern Bank). 15 hectare of land with DDA has been entrusted to CEMDE. Some portion of this area is to be de-notified that needs demarcation in coordination with Revenue Department of GNCT Delhi. 30 hectare of land is with Uttar Pradesh Government. The project comprises of creation of wetlands for treating water from the Hindon Canal. The mouth of these wetlands falls under the jurisdiction of UP Irrigation Department.

Further, it was reiterated that at 3 project sites, around 300 hectare of land belongs to Uttar Pradesh Government and it is estimated that 98 crores may be required, of which 10 crores have been provided by UP Government to DDA as first installment.

Agenda 2: Discussion with regard action taken with regard to dumping in Yamuna floodplains

Advisor (Yamuna), DDA informed that to keep a check on illegal dumping on floodplains, DDA has installed 81 cameras at 27 different locations and had deployed 125 security guards. Further, more cameras are being installed as and when required. Round the clock vigilance at various vulnerable locations like at Garhi Mandu Village entry points, Usmanpur Village, Near Signature

Bridge and Old Railway Bridge etc. of entry/exit to the floodplains. Challans are also being imposed on defaulting vehicles for dumping in floodplain. Details provided are as below:

Year	No. of challans	Total amount of challans (Rs.)	Total amount recovered (Rs.)
2021	71	11,20,000/-	NIL
2020	54	20,30,000/-	1,50,000/-
2019	186	86,95,000/-	16,85,000/-
2018	1	50,000/-	NIL

Further, it was informed that DDA is removing dumped malba from the floodplain, as and when information is received. DDA has also removed malba dumped by NHAI at Mayur Vihar near Nizamuddin Bridge.

Secretary, Ministry of Jal Shakti appreciated the work being done by DDA and directed that in such cases, DDA should impose challans on the Contractors/ NHAI for illegal dumping in floodplains, instead of fining just the vehicles responsible for dumping. Further, it was suggested that Experts members of the Principal Committee along with DDA and other members of Principal Committee should visit the sites wherein ongoing works of NHAI and NCRTC is under progress to verify whether these agencies are adhering to the conditions with which the projects were initially recommended and may submit report. Based on such recommendations, Principal Committee will further decide the action to be taken.

Prof. A.K.Gosain informed that as per the directions of Hon'ble NGT in its judgement dated 13.01.2015, it was mentioned that all the proposed activities in the River Front Development project of DDA now been projected cannot be undertaken, especially the construction activities. DDA was allowed to carry out rejuvenation of water bodies and biodiversity parks, which should not hinder with the flow of the river during flooding and should not impact any person, if present in the area, during flooding. However, based on the discussions held with regard to the projects, it infers that some construction have been taken place or proposed to be taken, which may not viable and may wash out during flooding, may require annual maintenance and may also promote Pakka construction on the floodplain. Further, it was requested that copy of proposal or the presentation should be sent through mail in advance for consideration, as the meetings are

now being conducted online and due technical glitches, there may arise difficulty in understanding and appreciating the proposals.

Principal Commissioner (Hort. & LS), DDA responded that no construction is being carried out by DDA on floodplain, only plantation of riverine species, kaccha paths and depressed surfaces are being developed as water bodies. The proposed River Museum is beyond 1 in 25 year floodplain of River Yamuna.

Prof. A.K.Gosain informed that area beyond embankment may not necessarily be noted as 1 in 25 year floodplain boundary. The proposed area needs to be verified and vetted before any construction takes place.

Director General, NMCG advised that DDA should submit a detailed proposal for development of River Museum in Eco-tourism area to Principal Committee and the Experts of the Committee for consideration.

On enquiry by ED (Tech) NMCG, Advisor (Yamuna), DDA informed that DDA has marked 1 in 25 year floodplain using bollards and flag posts and informed that only Kaccha construction has been done.

Prof. C.R.Babu informed that he has been involved with DDA for restoration of floodplains and to a large extent, no construction activity has been carried out by DDA. However the proposed activities at Eco-tourism area need to be examined. Further, it was highlighted that downstream of DND Flyover, there are 90 Dhobi Ghats, which are generating and discharging large amount of washing effluent into the wetlands. This issue was brought to the notice of DPCC, however, DPCC responded that as the area comes under the jurisdiction of DDA, therefore DDA should impose fines on these Dhobi Ghats. As DDA is not the regulatory authority for imposing fines on illegal discharge, therefore the issue remains unsolved, strict action needs to be taken as the area is in active floodplain wetland, receiving good amount of floodwaters. It was also informed that many of the wetlands downstream of DND Flyover are being used for dumping. These dumped areas are being used as parking and then are being used for construction of pakka building in the middle of wetland. Similarly, many of the wetlands are being encroached upon and DDA is finding it difficult to remove the encroachments even with the help of police. These three issues - discharge from Dhobi Ghat, floodplain dumps and then construction of pakka buildings on the

dumped area is causing a lot of trouble in implementing the Kalindi Biodiversity Park project, therefore it was suggested that NGT may be apprised of these troubles and assistance may be sought for removing the hindrances for implementation of the project. It was also suggested that green way development on either side of the river would also help in rejuvenating the river. It was also indicated that the Expert Committee had previously recommended Hon'ble NGT that a River Policy needs to be developed, which was agreed upon by NGT as well, this needs to be taken up on priority for improving the health and maintaining the quality of river Yamuna.

After detailed deliberations on Agenda 1 and 2, Principal Committee recommended that an Inspection team may be constituted within a month, comprising of members from the Principal Committee, DDA, DPCC, NMCG etc. for carrying out inspections and submitting report to the Principal Committee for discussion in the next meeting. The Inspection Committee may carry out the following activities:

- i. To visit the sites wherein ongoing works of NHAI and NCRTC are under progress to verify whether these agencies are adhering to the conditions with which the projects were initially recommended. And if any damage is being caused by their activities the Inspection Committee to suggest measures that can be adopted by these agencies to minimize/ neutralize the effect of damage and restore the floodplains.
- ii. To review the proposal of DDA with regard to the Project 9 in Eco-tourism area and to verify and recommend whether such activities can be permitted in the proposed location.
- iii. With regard to the issue of dumping of malba in floodplain, although a number of measures have been taken up by DDA, however as reported to the Principal Committee, the measures seems to be inadequate to manage the issue, therefore Inspection Team may also visit the site and suggest measures, if any, that can be taken to address the issue.
- iv. Before approaching NGT with regard to removing the illegal encroachments from the floodplain/ wetlands, the Inspection Team to visit the sites to verify the status and extent of encroachment and recommend the measures that can be adopted to remove the encroachments and to prevent such encroachments in future.

Agenda 3: Review of projects under Mailey se Nirmal Yamuna Phase-I & II, YAP-III, ISP, Coronation Pillar STP and status of drains out falling into River Yamuna.

Member Drainage, Delhi Jal Board (DJB) informed that 35 STPs are operational in Delhi, which are complying with their design norms. However of these, 8 STPs of 70 MGD are achieving the BOD level of 10 mg/l in the treated effluent, 11 STPs of 289 MGD are under upgradation to achieve the norms of BOD of 10 mg/l in their treated water by December 2022 and in remaining 16 STPs methods such as coagulation, increased aeration etc are being introduced to improve the quality of treated water. Further, new STPs are proposed to be constructed at 56 locations, for which land is yet to be allotted by DDA/ local bodies/ Delhi Revenue Department.

With regard to YAP-III projects, it was informed that the progress is going on well and shall be completed by December 2022, as informed previously in the Central Monitoring Committee meeting held on 04.03.2021. With regard to Interceptor Sewerage Project (ISP), it was informed that physical work of ISP has been completed and out of 242 MGD, 170 MGD of untreated water is being treated in the existing STPs and remaining flow shall be treated after completion of the ongoing YAP-III STPs projects at Rithala, Kondli and Okhla. With regard to the 70 MGD STP at Coronation pillar, it was informed that around 50% of the STP (35 MGD) has been made operational in March 2021 and the STP is proposed to be fully operational by June 2021.

With regard to the 18 drains out falling into River Yamuna, it was informed that 13 drains have already been completely trapped. 2 major drains - Najafgarh and Shahdara drains cannot be trapped directly, therefore, smaller drains discharging into these 2 major drains have been trapped through ISP and are being treated. Of the balance 3 drains, Maharani Bagh drain has been partially trapped to the extent of 9-10 MLD flow and the balance 15 MLD flow will be trapped in the Batla House Sewerage System by 31.12.2021. For trapping the flow from Mori Gate drain (9 MLD) and Barapullah Drain (30 MGD), construction of STPs at the mouth of these two drains is proposed, for which letter for allotment of land has been received from DDA, however due to excessively high cost of land, DDA is being requested to provide land at free of cost/ at nominal rate. As per directions of Hon'ble NGT, Integrated Drain Management Cell (IDMC) has been constituted on 17.03.2020 under the Chairmanship of Chief Secretary of Delhi for remediation and management of all drains of Delhi with representatives of all Drain owning

Agencies (DoA). In-situ Bio/Phyto-remediation of waste water in drains is being dealt with under IDMC and is under planning stage.

Director General, NMCG directed State to ensure that the ongoing STP projects are completed timely as per the proposed completion timeline. Further, it was informed that officials from NMCG shall be visiting the plants under construction as well those under operation shortly.

Further, Member- Drainage, DJB informed that of the 597 MGD of sewage treatment plant existing in Delhi about 90 MGD of treated water is being used within Delhi by various agencies like MCDs, DDA, DTC, CPWD, PPCL, PWD and other private users for irrigation, industrial, horticulture & commercial purposes. 267 MGD of treated water is mandatorily released from Delhi as per the water sharing arrangement of 1994 among the riparian state of U.P, Haryana, Rajasthan and Delhi. Also, DJB has secured permission from Upper Yamuna River Board (UYRB) for use of 70 MGD treated effluent from Coronation Pillar STP (shall be treated up to tertiary treatment) for release in upstream of Palla, which can be lifted at Wazirabad as raw water source through the river channel, this project shall be commissioned by December 2022. DJB has embarked on various ambitious projects of creating artificial water bodies using the treated effluents. These artificial water bodies will utilize total of about 46 MGD of treated effluent on completion by December 2022 in a phased manner. Further, Delhi Jal Board has also submitted a detailed proposal to UYRB for the substitution of 20 MGD irrigation component of Delhi with treated effluent at Auchandi and Jaunti Regulator with Haryana, in lieu of same amount of raw water through the CLC/DSB canal system to Delhi. The matter is being vigorously pursued and project will be completed in 18 months-time after the approval by UYRB.

ED (Tech) NMCG highlighted that as per the submissions made by Delhi in their Monthly Progress Reports to the Ministry, there is a gap of 123 MGD in sewage treatment capacity. However, as per the recent affidavit submitted by Central Pollution Control Board (CPCB) in WP (Civil) no 01 of 2021 in Hon'ble Supreme Court, there exists gap of around 569 MGD in sewage treatment capacity. The State may verify the same before submitting information.

Prof. C.R.Babu informed that large amount of untreated sewage is being discharged into river Yamuna from unauthorized colonies and individual households, which is not being accounted by Delhi Jal Board. It was highlighted that around 2000 MLD of untreated sewage from unauthorized colonies enters river Yamuna through downstream of DND Flyover up to Okhla Barrage.

Prof. A.K.Gosain added that Delhi Jal Board should prepare a sketch on GIS platform of all the drains that are being tapped, flow at these drains and amount of water that is being treated in order to have water balance details. On top of water being supplied by DJB, residents of Delhi are utilizing water from other sources as well. It was suggested that creation of information on a GIS framework will help the Principal Committee to understand the implementation of various actions as well as to create better opportunity for monitoring and evaluation of the NGT order of January 13, 2015. Such a framework shall enable capturing all the information on the present status of water supply, sewage generation and sewage treatment in space and time. A detailed database can be designed that shall be able to capture all the desired entities required not only to provide the information in an understandable manner but also allow analysis of various kind to create evidence of successful implementation of various projects that are under progress. Even the monitoring of the progress of various projects and the reasons behind missing timelines can also be captured effectively for help in monitoring. Such a framework can be designed based on discussions with various stakeholders at different stages of design so as to enhance the applicability of such framework.

Director General, NMCG agreed on the suggestions made by Prof.A.K.Gosain and suggested that DJB may provide details in form of flow diagrams, photographs etc. as the Principal Committee is looking at bigger picture for management of sewage in Delhi.

Agenda 4: Status of Industrial Pollution and CETPs in Delhi

ED (Tech) NMCG highlighted that there are 1516 water polluting industries/units and all these have installed captive ETPs. Total waste water generation from industries is estimated as 36 MLD and 13 CETPs with total capacity of 212.3 MLD is existing in Delhi. Hazardous waste generation from industries is 6.86 TPD, which is being 100% treated. However, it has been

informed by the State that as per the monitoring carried out by DPCC in February 2021, out of 13 CETPs, only 2 CETPs have been reported to be compliant and remaining 11 CETPS are non-compliant. These CETPs have been reported to be non-compliant since almost 2 years. Further, in the latest report submitted by State in March 2021, timelines for upgradation of these 13 CETPs have been provided, wherein it is proposed that short term improvement in the CETPs are expected by August, 2021. The works of upgradation of the CETPs are expected to be completed earliest by July 2023 and latest by February 2024. Further, it was informed that NMCG had issued directions dated 16.8.2018 and DPCC also issued similar directions dated 16.11.2018 for optimum utilization of the CETPs, reuse of treated water in industries, for rejuvenation of water bodies in vicinity and installation of flowmeters in individual industry units as well as inlet and outlet of CETP. DPCC issued following directions under section 33 (A) of the water act on 05.06.2020:

- i. To CETP societies wherein Bawana and Narela CETP societies/ operators were asked to lay the pipeline network in the Industrial Area(s) connected to CETP to supply the treated wastewater to its member industries for reuse in their processes by 30.08.2020
- ii. Submission of Action Plan by end June 2020 to comply with the direction (i) above.
- iii. To ensure that the unit shall discharge not even a single drop of industrial effluent into the drain from 1st September 2020.
- iv. Excess treated wastewater to be utilized in other non-potable purposes.
- v. In case of failure to comply with the directions at Sl. Nos. (i) and (ii), Environmental Compensation of Rs. 5 lakhs per week to be imposed.

ED (Tech) NMCG informed that no action has been taken by the industries due to various reasons and have expressed their inabilities. It was also highlighted that in the last meeting of CMC held on 04.03.2021, none of the CETPs were reported to be compliant and Secretary, Ministry of Jal Shakti had directed that the State must ensure compliance of the CETPs to environmental norms or may take coercive action against them.

Chief Engineer, Delhi State Industrial and Infrastructure Development Corporation Ltd. (DSIIDC) informed that the 13 CETPs have been provided to Societies for operation & maintenance purposes and these CETPs are non-complying with one or two parameters. Further,

it was informed that there is no Treatment, Storage, and Disposal Facilities (TSDF) available in Delhi for management and treatment of hazardous waste from the industries due to which the parameters of the CETPs cannot be enhanced. The work for development of TSDF has begun and landfill facilities shall be completed by June, 2021. Therefore, it is proposed that as a short term plan for upgrading the CETPs, all the sludge from the CETPs shall be transported to the landfill sites and cleaning of the CETPs shall be done by August 2021. Further, it was informed that DPCC has issued show cause notices to the Societies.

Secretary, Ministry of Jal Shakti expressed serious concern over the non-compliance of the CETPs pending since past two years and dissatisfaction over the pace of progress made by the State in making efforts to make these CETPs compliant. It was noted that over last two years, the CETPs compliance have been found wanting and there is no business for industrial CETPS to remain violative of environmental laws. The timeline proposed by the State Government in ensuring compliance of these CETPs was too long and dilatory. It was, therefore, directed that State Government may either make these CETPs compliant in short term within a period of three months or shut these CETPs along with the member industrial units. State Government was directed to ensure compliance of these directions immediately and furnish an action taken report thereof.

Agenda 5: Review of Haryana reach of Yamuna, STP/ CETP projects (implementation of action Plan), status of drains and river water quality.

ED (Tech) NMCG informed that around 1013.75 MLD of sewage is generated along river Yamuna and 58 STPs of 1064.7 MLD are existing, however sub-optimal utilization of the STPs exist. As reported by the State in MPR submitted for the month of February 2021, out of 58 STPs along the catchment area of river Yamuna, 9 STPs have been reported as non-complying. There are 3473 industries existing along river and all have ETPs installed. 121.11 MLD of industrial effluent is generated and 814 industries are connected to the CETPs. There are 14 CETPs of 161.5 MLD and all reported to be complying. However, during the recent joint inspection of Kondli CETP in Sonipat by officials of NMCG along with HSPCB, it was observed that there was a drastic drop in the values of effluent parameters between the aeration tank unit and the

secondary clarifier, indicating a potential of dilution in the clarifier unit. Further, 2 CETP of 9 MLD are under-construction and 6 CETPs of 155.5 MLD are proposed. The major issue in State remains that in spite of adequate amount of STPs in the State, the drains in the State remain to have septic conditions. Further, recommendations were made by Minister of State, Jal Shakti after their visit in 2018 and 2020 that the drains adjacent to the sub-optimally utilised STPs can be intercepted and can be treated in these STPs such as at Panipat, Yamunanagar (Radaur Road). However, the State has recently reported that the drains at Panipat cannot be treated in the STPs due to presence of industrial influent in the drains.

Director-Technical NMCG added that Panipat has STPs of 90 MLD and these are treating around 45 MLD of sewage only and about 45 MLD of sewage is getting discharge into the drains, without treatment. Similarly, in Sonipat, STPs of 60 MLD exists, however 10 MLD of sewage is being treated, rest is going into drains without treatment.

Further, ED (Tech), NMCG highlighted that as reported by the State in its MPR submissions, there is Gap of 118.68 MLD in the installed treatment capacity at present in comparison to requirement i.e. sewage generation in some towns in catchment of river Yamuna i.e. Faridabad (107.7 MLD), Indri (0.38) and Palwal (10.6 MLD). However, as per the submission made by CPCB recently in Hon'ble Supreme Court, 408.99 MLD of untreated sewage is being discharged into the river. State may look into the matter.

Chief Engineer, PHED (Haryana) informed that gap in sewage treatment under the jurisdiction of PHED has been taken care of. With regard to sewage management in Panipat, it was informed that against STPs of 90 MLD installed capacity, 48 MLD is being now received. The recommendations made by the Ministry of Jal Shakti were considered and State had approached Jamia Millia Islamia, however, it was not advised to take up the Panipat drain for treatment in the STP.

Secretary, Ministry of Jal Shakti directed that the issues pertaining to Haryana may be taken up with the Chief Secretary, Haryana and an action take report may be obtained from the State Government.

Agenda 6: Review of UP reach of Yamuna in particular projects which aim to remediate pollution from Shahdara drain, Noida drain, Hindon river out falling into Yamuna.

Member Secretary, Uttar Pradesh Pollution Control Board informed that 2 drains - Sahibabad drain and Indirapuri drains have been identified to be discharging into Yamuna upstream of Okhla Barrage and Action Plan is being implemented to address the issue of pollution. 74 MLD of discharge from Sahibabad drain is being treated in 74 MLD STP at Indirapuram and for taking surplus 16 MLD of discharge from Sahibabad drain to the existing 56 MLD STP at Indirapuram, an intermediate sewage pumping station of 16 MLD has been installed. There are 8 STPs in Ghaziabad and 1 STP in Loni. Efforts are being put for efficient O&M of the STPs and all are reported to be complying with the standards. 5 STPs are being maintained under One City One Operator and rest 4 STPs are under GDA.

There are two types of industrial areas along these two drains – conforming and non-conforming. Along Sahibabad drain, there are 107 conforming industries, all of which have ETPs, these are being intensively monitored. 37 industries were found to be non-complying and against these strict action were taken. 25 of these industries have been issued closure notices and approximately 2.37 crore Environmental Compensation was imposed, of which 1.7 crore has been recovered. For non-conforming industries along Sahibabad drain, district level teams have been formed and 303 illegal industries were found, which have been directed to close down its operations and UPCL have been requested to cut their electricity. Further, State Government has updated the policy that high load electricity connections to be provided only after *Consent to Operate* is obtained from UPPCB. The COD load has been reported to be below 500 mg/l in Sahibabad drain. Along the Indirapuri drain, District Administration in 2019 closed 578 illegal industrial units and it has been monitored that COD load has been reduced in the drain and the results are being uploaded on portal regularly.

With regard to Noida drain, it was informed that Action plan is being implemented by Noida Authority. There exits 6 STPs of 231 MLD, which are receiving sewage of around 192-215 MLD. All are complying with the norms. Treated effluents of 5 STPs are being discharged into River Yamuna and treated water from 1 STP is being discharged into River Hindon. Further, STPs of 180 MLD are proposed to be constructed. Noida Authority is also monitoring the STPs

established by high-rise buildings. Project for treatment of Kondli drain using constructed wetland has commenced and is expected to be completed within 1.5 years. Further, it was informed that Rs.10 crore has been given to DDA for development of biodiversity in UP regions of River Yamuna from Wazirabad to Ohkla Barrage and remaining amount shall be credited after utilization of these funds. It was also indicated that with regard to removal of encroachment, Uttar Pradesh Government has suggested that Delhi Government may also remove encroachment from UP side of Yamuna Bank and assistance shall be provided by Uttar Pradesh Government.

Director General, NMCG highlighted that compliance of industries and CETPs along the catchment area of all the rivers in the State needs to be taken up on priority and strict action must be taken against the defaulters by UPPCB. Similarly, STPs in the State must be optimally utilized and should be complying with the norms. Further, State to ensure compliance to Solid Waste Management Rules and drains to have screens for sorting of solid waste.

Prof. A.A. Kazmi stated that a number of projects have been taken up along River Yamuna, therefore States may indicate the BOD level expected to be achieved in the river by the end of the year 2021. Further, States were directed to provide the data of Total Coliform and Fecal Coliform in the treated water which is being utilized for various purposes and suggested that States must analyze the parameters at the users end. With regard to sewage management in Noida, it was suggested that in order to reduce the BOD of the irrigation drains, authorities must focus on installation of pumping stations instead of constructing more STPs, as a lot of untreated sewage has been observed to be bypassed. Further, it was highlighted that a lot of industrial effluent is found in municipal drains in Haryana and Punjab and the CETPs are also not found to be functioning well. Ultimately, the mixed effluent is reaching the STPs and affecting the performance of the STPs, therefore policy decision must be taken by the State Government for treatment of industrial wastewater.

Director General, NMCG highlighted that in a recent meeting held at Vrindavan with regard to stretch of River Yamuna from Delhi to Mathura, it was suggested that a Special Monitoring Cell needs to be developed similar to one under operation at Kanpur, for closely monitoring the activities. State Government therefore may ensure development of a Special Monitoring Cell for

regular monitoring of all STPs, industrial activity, condition of drains, hazardous waste management, bio-medical waste management and dumping in the floodplains. The monitoring shall be carried out two to three times a week and report in the same to be provided to State government and Ministry of Jal Shakti/ NMCG.

Prof. A.K. Gosain highlighted that besides removing the malba/ solid waste from the floodplains of River Yamuna and keeping a vigil on the same, as per the directions of NGT, the State Government should also ensure that no dumping of solid waste takes place along the natural drains in Delhi. To assess the condition of the drains, Delhi Government may undertake drone survey of these natural drains in Delhi. Further, the status of tapped drain may also be verified using drone survey, which can then be shared with the members of Principal Committee.

Director General, NMCG appreciated the suggestions made by Prof.A.K.Gosain and recommended that such surveys can be done at least on some on the major drains to assess the present conditions.

Prof. C.R. Babu highlighted that untreated sewage from the drains from Noida/ Ghaziabad/Delhi/ Haryana can be seen discharging into the River Yamuna/ Hindon, not due to inefficiency of the STPs, however due to large amounts of untreated water from unauthorized areas, which enters the rivers, all along its course. This issue needs to be addressed by the State Pollution Control Board.

Director General, NMCG agreed to the issue highlighted by Prof. C.R. Babu and suggested that the issue of discharge of untreated sewage needs to be addressed by the State Government by properly quantifying the amount of discharge, mapping it and preparing Action Plan for abatement of pollution and closely monitoring its implementation.

Secretary, Ministry of Jal Shakti concluded the meeting and directed the States of Delhi, Haryana and Uttar Pradesh to take necessary actions on the recommendations made by the members of Principal Committee. The status of the Action Taken to be discussed in the next meeting of the Principal Committee.

The meeting ended with thanks to the Chair.

List of participants:

1. Shri Pankaj Kumar, Secretary, 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 (Projects), NMCG
4. Prof. A. K .Gosain, IIT Delhi, Expert Member
5. Prof. C.R.Babu, Delhi University, Expert Member
6. Prof. A. A.Kazmi, IIT Roorkee, Expert Member
7. Shri D.P.Mathuria, Executive Director (Technical), NMCG
8. Sh. Rajeev Tiwari (IFS), Principal Commissioner (Hort. & LS), DDA
9. Dr. Pravin Kumar, Director Technical, NMCG
10. Dr. K.S Jayachandran, Member Secretary, Delhi Pollution Control Committee
11. Secretary, Urban Development Department, Uttar Pradesh
12. Shri Ashish Tiwari, Member Secretary, Uttar Pradesh Pollution Control Board
13. Shri Mukesh Gupta, Chief Engineer, DSIIDC
14. Mrs. Poonam Dewan, Additional Commissioner (Landscape), DDA
15. Mrs. Savita Bhandari, Advisor (Yamuna), DDA
16. Shri. R.S. Negi Member (Drainage), Delhi Jal Board
17. Officers from Irrigation Department, Uttar Pradesh
18. Shri Sandeep Gupta, Senior Monitoring Expert, NMCG
19. Shri Kumar Ajitabh, Project Officer Legal, NMCG
20. Mrs. Ruby Raju, Project Engineer, NMCG
21. Dr. Anu Chetal, Scientist B, NMCG