BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

M.A. No. 26/2019

IN

O.A. No. 325/2015

&

O.A. No. 496/2016

In The Matter of:-

Lt. Col. Sarvadaman Singh Oberoi — **Applicant(s)**

Vs.

Union of India & Ors. — **Respondent(s)**

&

Tribunal on its own motion — **Applicant(s)**

Vs.

Govt. of NCT of Delhi & Ors. — **Respondent(s)**

Index

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Dated: - 29.10.2020
Place: - Delhi

PART-A:

Consolidated Status Report on Restoration of Water Bodies

Submitted

in compliance to Hon'ble NGT order dated 01.06.2020 passed in O.A No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India (Uol) & Ors.

PART- A: Consolidated Status Report on Restoration of Water Bodies submitted in compliance to Hon'ble NGT order dated 01.06.2020 in O.A No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India (UoI) & Ors

1. Introduction

Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi vide order dated 10.5.2019 in M.A. No 26/2019 in O.A. No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India (UoI) & Ors. directed as follows: -

Para.13: *Thus to give effect to 'Precautionary' principle and 'Sustainable Development' principle, All the States and UTs to review the existing framework of restoration all the water bodies by preparing an appropriate action plan within three months and furnish to the CPCB. CPCB may examine all such plans and furnish its comments to this tribunal thereafter.*

Para.14: *The CPCB may prepare and place on its website guidelines in the matter of restoration of water bodies and in the light of above order, within one month.*

In compliance to the above Hon'ble NGT order CPCB prepared "Indicative Guidelines for Restoration of Water Bodies" and uploaded on CPCB website at https://cpcb.nic.in/NGTMC/Ind-Guidelines-RestWaterBodies-10062019.pdf . Also, an Expert Committee was constituted by CPCB vide order dated 20.08.2019 under the chairmanship of 'Member Secretary, CPCB'. Expert Committee comprises representative of Ministry of Environment Forest and Climate Change (MoEF&CC), Ministry of Jal Shakti (MoJS), Ministry of Housing and Urban Affairs (MoHUA) (not below the rank of Director), Professor A.K Gosain, Indian Institute of Delhi (IIT, Delhi), Professor C.R Babu, Emeritus Professor, Delhi University, Mrs. Divya Sinha, Sci. 'E'

and DH, UPC-I Division, CPCB as members and Divisional Head, WQM-I, Division, CPCB as 'Member Convenor' of the Expert Committee.

Based on the status report filed by CPCB on 09.10.2019, Hon'ble National Green Tribunal (NGT) in M.A. No 26/2019 in O.A. No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India & Ors passed order on 25.02.2020. Relevant portion of the directions passed by the Hon'ble NGT on 25.02.2020 in OA No. 325 of 2015 is reproduced below: -

Para.5: *Having regard to the significance of the issue and unsatisfactory response of the States as shown above, we direct that the information may be furnished by all the States/UTs by March 31, 2020 positively to the CPCB failing which the States will be liable to pay compensation at the rate of Rs. 1 lakh per month till information is furnished. Payment of compensation will be the responsibility of the Chief Secretaries of the respective States/UTs. Since, we are informed that plans for restoration furnished by some of the States run even up to ten years, we direct that the action plans should provide for commencement of the work by 01.04.2020 and conclusion by 31.03.2021. The CPCB will be at liberty to issue appropriate directions to all the States/UTs by for compliance. The Ministry of Jal Shakti is also at liberty to take further remedial action in the matter.*

As the response was received only from few States, in view of Covid-19 Pandemic and subsequent lockdown, States viz., Assam, Delhi, Kerala, Madhya Pradesh, Jammu & Kashmir, Manipur and Punjab have requested CPCB to grant additional time for submission of information as per the format circulated by CPCB, CPCB in its report filed on 22.05.2020 prayed for additional time of Six Months for filing the consolidated report before Hon'ble NGT for consideration. Hon'ble National Green Tribunal (NGT) has

considered the prayer of CPCB and passed order on 01.06.2020 in OA No. 325 of 2015. Relevant portion of the directions passed by the Hon'ble NGT on 01.06.2020 in OA No. 325 of 2015 is reproduced below:-

Para.5 (Page No-10): *Having regard to the fact situation noted above, we extend the time for the States to complete action in terms of order dated 25.02.2020 till 31.07.2020. The CPCB may thereafter file its report by 31.10.2020 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.*

Para .6: *However, we wish to add a further direction having bearing on the subject. We have already noted the significance of protection and restoration of water bodies for the environment. The protection of water bodies not only add to availability of water for different purposes, it also contributes to recharge of ground and maintaining e-flow in the rivers, is congenial to micro climate in sub-watersheds as well as enhancing the natural aesthetics. While the rain water harvesting is certainly important, harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of waterbodies takes place, excess flood/rain water can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The*

District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body.

Para.7: *Action taken in this regard may be compiled at State level and reports furnished to the Chief Secretaries of the States by the concerned District Magistrates. Consolidated report of the State may thereafter be forwarded to the CPCB preferably by 31.08.2020 and CPCB may cover this aspect also in its meeting.*

A copy of the Hon'ble NGT order dated 01.06.2020 is enclosed at **Annexure-A I.**

2. Actions taken by CPCB

Actions initiated by CPCB for ensuring compliance to Hon'ble NGT order dated 01.06.2020 is detailed below: -

2.1. CPCBs Initiatives

In pursuance to Hon'ble NGT order dated 01.06.2020, CPCB requested all the States/UTs to ensure compliance to Hon'ble NGT directions, vide CPCB letter dated 08.06.2020 (copy enclosed at **Annexure –A II)**. Further CPCB requested 17 States/UTs for submission of desired information as per the format circulated vide letter dated 6.03.2020 on or before 31.07.2020 in compliance to Hon'ble NGT order dated 25.02.2020 and also vide afore-said letter requested for submission of consolidated report on action *taken by the District Magistrates concerning restoration of at least one pond/water body in every village, apart from creation of any new pond/water body, on or before 31.08.2020 in compliance to Hon'ble NGT order dated 1.06.2020.*

As no response received by 31.08.2020, CPCB also sent a reminder to the States/UTs to submit consolidated report on action taken by the District Magistrates on compliance to Hon'ble NGT order dated 01.06.2020 passed in the afore-said matter, preferably on or before 05.10.2020 vide letter dated 25.09.2020. (copy enclosed at **Annexure –A III.**

CPCB vide letter dated 13.10.2020 (**Annexure –A IV**) requested all the SPCBs/PCCs to upload updated information relating to (i) action plan submitted for restoration of stagnant water bodies in compliance to Hon'ble NGT orders passed in O.A No 325/2015, and (ii) Status on installation of provision of rainwater harvesting systems to conserve groundwater resources in compliance to Hon'ble NGT orders passed in O.A No. 496/2016 on their website and provide web link to CPCB.

CPCB also organised 2nd meeting of the Expert Committee on 25.08.2020 through Video Conferencing to assess the status of actions initiated by the States/UTs regarding action plans for restoration of water bodies in compliance to Hon'ble NGT orders dated 10.5.2019, 25.02.2020 & 01.06.2020 passed in O. A. No 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India & Ors. 14 States viz. Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Telangana, Tripura and 5 UTs viz., Delhi, Dadra & Nagar Haveli & Daman & Diu, Jammu & Kashmir, Lakshadweep & Puducherry presented initiatives taken for ensuring compliance to Hon'ble NGT orders in the matter. The minutes of second Expert Committee meeting held on 25.08.2020 is annexed (**Annexure –A V)** and also uploaded at https://cpcb.nic.in/NGTMC/MOM2_325.pdf.

2.2 Initiatives of Ministry of Jal Shakti

In pursuance to Hon'ble NGT directions dated 26.02.2020 in M.A No. 26/2019 in O.A No. 325/2015, The Secretary, Ministry of Jal Shakti (MoJS) vide letter dated 17.06.2020

requested all the Chief Secretaries of States/UTs to submit the action plan along with expected time of restoration/rejuvenation directly to CPCB & CGWB for restoration of water bodies by 31.03.2021 (Copy of the letter is enclosed at Annexure-**A-VI**)

2.2. Response received from States/UTs

Till 20.10.2020, *24 States* viz., Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh and *04 UTs* viz., Daman & Diu, Delhi, Lakshadweep and Puducherry have provided information as per the format circulated by CPCB. Also, based on the information as received from the States/UTs, information has been compiled and same is given in subsequent paras.

2.3 Information received from the States/UTs regarding Action Plans for restoration of water bodies

2.3.1 Andhra Pradesh

Andhra Pradesh Pollution Control Board (APPCB) vide letter dated 22.05.2020 submitted that in Andhra Pradesh State, issues relating to water bodies is dealt with by Panchayati Raj and Rural Development Department (PR & RD), Municipal Administration & Urban Development (MA & UD) Department and Irrigation Department and is detailed in subsequent paras.

Water bodies dealt with by Panchayati Raj and Rural Development Department (PR & RD): As informed, 10,606 water bodies have been identified and 9,204 water bodies have been selected for restoration. 6,572 water bodies have been restored completely and at present, 768 water bodies are under restoration.

Water bodies dealt with by Municipal Administration & Urban Development (MA & UD) Department: As informed, a total of 866 water bodies have been located in 110 Urban Local Bodies (ULB) in the State of Andhra Pradesh. MA & UD selected 80 water bodies for restoration, 36 water bodies have been restored completely, 13 water bodies are under restoration.

Water bodies dealt with by Irrigation Department: A total of 41 medium irrigation tanks are located in the 10 districts of Andhra Pradesh. Irrigation Dept. has also provided a list of 1,658 minor irrigation tanks in the district of Anantapuram.

2.3.2. Arunachal Pradesh

Arunachal Pradesh State Pollution Control Board vide letter dated 21.05.2020 informed that letters have been written to 'The Director, Department of State Remote Sensing Agency' for Geo-tagging of all the lakes, ponds and other stagnant water bodies located in the State of Arunachal Pradesh. Also, informed that at present no pollution is observed in the lakes or ponds, therefore no such situation warranted for restoration of water bodies in the State of Arunachal Pradesh. However, Arunachal Pradesh State Pollution Control Board informed that management plans for 3 lakes are under submission by the Department of Environment & Forest, Itanagar.

Further, Arunachal Pradesh State Pollution Control Board vide letter dated 03.08.2020 submitted that no inventory of lakes and ponds have been carried out till date.

2.3.3. Assam

Environment and Forest Department, Government of Assam vide letter dated 23.09.2020 submitted incomplete information as per the format circulated by CPCB. Also, informed that Assam State has identified 17 lakes and 14 ponds. Information not

been provided relating to status on geo-tagging, allocated UIN for the identified water bodies and sources of pollution as well as other problems associated with water bodies in the State. As per the water quality data submitted for 17 lakes & 14 ponds, it was observed that 3 lakes & one pond are having BOD more than 3 mg/L and not complying to water quality criteria for outdoor bathing. Also, Assam State has not provided information relating to prioritised water bodies which require restoration as well as detailed action plans for restoration of polluted water bodies. Further, Assam State has requested that due to Covid-19 pandemic and the flood situation in the State, all the water bodies could not be surveyed in time and debarred the State to submit complete compliance report in time. However, the Government of Assam is trying exclusively to comply with the orders of Hon'ble NGT and submit report for remaining water bodies shortly.

2.3.4. Bihar

Based on the information collected from Rural Development Department, Government of Bihar, Bihar State Pollution Control Board (BSPCB) vide letter dated 15.05.2020 forwarded the collected information to 'Principal Secretary, Department of Environment, Forest & Climate Change, Government of Bihar' to submit the information to CPCB in compliance to Hon'ble NGT order passed in the matter. Till date no information has been received by CPCB from 'Principal Secretary, Department of Environment, Forest & Climate Change, Government of Bihar'. However, a copy of above information was forwarded by Bihar State Pollution Control Board (BSPCB) by e-mail to CPCB and the information indicated that in Bihar State has identified a total of 1,01,587 public water bodies which includes 50150 Ponds (21730 having area >1 acre and 28420 having <1 acre), 18601 Aahhar and 32836 Pyne for their rejuvenation in the State of Bihar covering all 38 districts. Out of the above, a total of 12867 water bodies have been

rejuvenated which includes 3963 ponds (156: >1 acre, 3807: <1 acre), 3338 aahhars and 5566 pynes. A total of 24075 water bodies are under rejuvenation which includes 8438 ponds (1056: >1acre and 7382:< 1 acre), 5562 aahhars and 10075 pynes. The remaining water bodies will be rejuvenated as per plan of Jal-Jeevan-Hariyali Abhiyan.

As per the Wetlands (Conservation and Management) Rules 2017 of Ministry of Environment, Forest & Climate Change, Government of India, the Government of Bihar has reconstituted the Bihar State Wetland Development Authority vide notification no. Vanyaprani - 16/2012-160 dated 31.01.2020. There are 133 wetlands in the State which have areas more than 100 hectares. In the first phase, 28 wetlands in 12 districts have been delineated with their respective Direct Zone of Influence. Wetlands Ecosystem Health Card for Baraila Wetland Complex and Kanwar Tal Wetland Complex has been prepared and same is in progress for the other wetlands. Awareness generation with public participation, students of school colleges, teachers and professors have been carried out across the State to make them understand the importance for wise use and safeguard of wetlands and its significance for Environment, Ecological Utility and Climate Change.

The Principal Secretary, Department of Environment, Forest & Climate Change vide letter no. 104, dated-06.12.2019 has requested the Department of Revenue and Land Reforms for demarcation and registration of all the Wetlands in the land record. The Principal Secretary, Department of Environment, Forest & Climate Change vide letter No. 105, dated-06.12.2019 has directed all District Magistrates for conservation and management of all Wetlands including demarcation and registration in revenue records, removing encroachment, ensuring that no solid or construction waste is dumped, no sewage is disposed and to ensure that the inlets and outlets of water bodies are not obstructed or narrowed.

2.3.5. Chhattisgarh

Department of Panchayat and Rural Development vide letter dated 02.06.2020 informed that during the year 2019-2020, 68,803 ponds have been selected for restoration and out of which 33,106 ponds have been restored under MGNREGA Scheme whereas 2,38,004 ponds have been restored during the financial year 2018-2019.

Further, Chhattisgarh Environment Conservation Board, Raipur vide letter dated 10.07.2020 informed that all the identified water bodies have been geo-tagged, allocated Unique Identification Number. Also, provided information relating to designated best use of identified water bodies such as Bathing /Washing, Aqua Culture (Fisheries), Irrigation. Provided information relating to physical condition of each water body suitability of each water body. Major problems associated with identified water bodies indicated as weeding and encroachments. Gap analysis has been carried out with regard to sewage, industrial effluent & waste management in the catchment of each water body.

- *Requisite additional measures proposed such as I&D of sewage/ industrial effluent from drains to the nearby treatment or upcoming facilities, public participation for cleaning of surroundings use in Garden near pond / lake, Tourism and others. Action plans for the water bodies are yet to be received.*

Also, the representative of Urban Administration & Development (UAD), Chhattisgarh presented before the Expert Committee constituted by CPCB in a meeting held on 25.08.2020 and informed that in compliance of Hon'ble NGT order, UAD, vide order dated 31st December 2019, constituted an Intra Departmental Committee for preparation of action plans for restoration of water bodies. Illustrative list of water bodies

has been sent to CPCB vide letter dated 10.07.2020. A total of 1,658 water bodies having area of 0.1 acre to 10 acres have been identified in the urban areas of Chhattisgarh under the ownership of Government (ULB Owned)-Municipality (1446), State Irrigation (54), Individual/ Group of Individual (59) and Private Body / Industry Owned (99). Designated Best Use of water bodies have been identified such as Bathing /Washing, Aqua Culture (Fisheries), Irrigation, Use in Garden near pond / lake, Tourism and others. All the identified water bodies have been geo-tagged. He also detailed about three case studies under taken by Chhattisgarh such as (a) Restoration of Waterbodies at Raipur Pilot Project-1 -Marine Drive-Telibandha (for more than 10 Lakh Population) at a total cost of Rs.17 Crore (b) Restoration of Waterbodies at Ambikapur Pilot Project-2 (for 1-10 Lakh Population)- 1. Runjhun Pond –AMC 2. Marine Drive-AMC and (c) Restoration of Waterbodies at Kumhari Pilot Project-3 (for less than 1 Lakh Population)- Bada Talab- Kumhari. Time linse proposed for restoration of water bodies is about 6 years depending on the priority.

2.3.6. Goa

Goa State Wetland Authority (GSWA) letter vide dated 04.05.2020 informed that Goa State Wetland Authority has entrusted the task to carry out the work of identification of the wetlands in the State of Goa to National Institute of Oceanography (NIO), Dona Paula and NIO has already commenced the work. Ground truthing and sampling of 35 water bodies identified by GSWA are considered as priority areas I for protection and conservation.

Bondvol Lake is selected as one amongst 130 wetlands in the country as a part of transformative ideas within the 100 days programme of the Government of India.

As per the information received from Goa State Pollution Control Board (GSPCB) vide letter dated 15.06.2020, the Goa State has identified 9 lakes out of which 4 lakes have been selected for restoration and all the identified lakes have been geo-tagged. Details regarding main causes of pollution in identified water bodies indicated as domestic organic waste. Based on 4 water quality monitoring stations, all 4 lakes are complying to primary water quality criteria for bathing, drinking water quality criteria after conventional treatment and water quality criteria for agriculture or fishing.

- *Proposed action plan for restoration of 4 lakes includes:*
  - Interception & Diversion of sewage or industrial effluent from drain to the nearby existing treatment plant or upcoming treatment plant
  - restoration of natural drains
  - silt control measures in natural drains contributing to inflow
  - inflow and outflow control provisions (with sluice gates as well),
  - strengthening of earthern embankment surrounding the lake with stone pitching
  - in-situ measures like de-silting, surface aeration, floating adoption of biological treatment options
  - recreational provisions, training and awareness programmes, public participation for cleaning of surroundings.
  - Estimated cost of restoration of lakes is Rs.13 Crore.
  - Time of completion of action plans is given as May, 2021. However, details with regard to implementing agencies are not provided.

2.3.7. Gujarat

Narmada Water Resources, Water Supply & Kalpsar Department, Government of Gujarat vide letter dated 30.05.2020, submitted that 44138 water bodies have been notified. Water bodies fall under the purview of Panchayat Department (25604), Revenue Department (12182), Water Resources Department (4413), and Urban Development Department (1939).

As per the information provided in the format circulated by CPCB, Gujarat State has identified 1939 Lakes and 42119 Ponds. Out of 156 Ponds selected for restoration, 3 ponds have been restored and 153 ponds are presently under restoration. Under the 6th Minor Irrigation Census, the process of geo-tagging is initiated and 80% field work has been completed. Information relating to sources of pollution, and other problems associated with the water bodies, water quality and type of pollution are awaited from GPCB. As informed, details of sewage management and industrial effluent management are awaited from Gujarat Urban Development Department, Government of Gujarat.

Assessment of water quality of all the identified water bodies, designated best use of identified water bodies, prioritization of polluted water bodies and action plans for restoration of identified water bodies are yet to be formulated and submitted by the Gujarat State.

2.3.8. Haryana

The Haryana Ponds and Waste Water Management Authority (HPWWMA) has been established under the obligation of an Act No. 33 of 2018 dated 23.10.2018 (notified dated 18.12.2018) for performing the functions as prescribed under section 6 of the Act

No. 33 of 2018, by the Haryana State Government. Haryana State also appointed District Pond Management Officers (DPMO) in 22 districts vide notification dated 20.09.2019 and also constituted District Level Consultation and Monitoring Committees vide order dated 02.11.2018 under the chairmanship of Hon'ble Minister-in-Charge, District Grievance Committee with other departments in Haryana as members.

The Haryana Ponds and Waste Water Management Authority (HPWWMA) vide letter dated 09.08.2019 informed that Haryana State has already allotted a Unique Identification No. (UID) to all the ponds. A software has been developed by the authority for collection and analysis of ponds data and also prepared Ponds Atlas. As per Ponds Atlas, the ponds have also been divided in various categories depending on their usage and present condition such as overflowing ponds, waste water ponds, irrigation ponds, pisciculture ponds, dry ponds and others are detailed on website at www.hpwwma.org.in.

Irrigation & Water Resources Department, Development & Panchayats Department, Department of Urban Local Bodies and Govt./Educational Institutes have been identified as executing agencies. HSPCB has been asked to analyse the samples of ponds water to ascertain the water quality and technology required for restoration/rejuvenation of ponds.

The Haryana Pond and Waste Water Management Authority vide letter dated 20.05.2020 informed that Haryana State has identified 3 lakes, 16,534 ponds, all of which are under the custody of Government of Haryana. 10,794 (3 lakes and 10,791 ponds) out of 16534 water bodies have been selected for restoration, 146 water bodies have been restored (1 lake and 145 ponds) while 189 (2 lakes and 187 ponds) water bodies are presently under restoration. All the water bodies have been

geo-tagged. Major causes of pollution in Stagnant water bodies in Haryana are (i) improper disposal of sewage, industrial effluent, and (ii) poor management of wastes like Municipal Solid Waste, plastic waste, Hazardous waste and C&D waste. Major problems associated with the identified water bodies are silting, weeding, encroachments, no provision of inflow or outflow control measures, poor embankment, poor watershed management in catchment, inadequate buffer zone.

- Main action plans proposed for restoration of water bodies are;
  - I & D of sewage/ Industrial effluent from drains to the nearby treatment or upcoming facilities
  - Restoration of natural drains
  - Silt control measures in natural drains contributing inflow
  - inflow and outflow flood control provisions (with sluice gates as well as constructed wetlands on u/s)
  - Strengthening of Earthen Embankment surrounding the pond or lake with stone revetment or pitching)
  - In-situ measures (like desilting, de-weeding, surface aeration, floating adoption of biological treatment option)
  - Buffer Zone and Development of Bio -diversity Park; Recreational Provision,
  - Training and Awareness Programme
  - Public Participation for Cleaning of surroundings, any other actions.

2.3.9. Himachal Pradesh

Himachal Pradesh State Wetlands Authority (HPSWA) vide letter dated 20.05.2020 informed that 6 lakes have been identified in HP State, all the identified water bodies are Government owned. 4 lakes have been selected for restoration and are presently

under restoration. Unique Identification Number has not been assigned for the identified 6 lakes. The main causes of pollution in identified water bodies are improper disposal of municipal solid waste and plastic waste. Main problems associated with the stagnant water bodies are silting and weeding. Based on the 11 water quality monitoring stations, one lake complying to primary water quality criteria for bathing, 3 lakes complying to drinking water quality criteria after conventional treatment and 2 lakes are complying to water quality criteria for agriculture or fishing.

Himachal Pradesh State Wetlands Authority (HPSWA) has identified major drains outfall into water bodies, assessed water quality of water bodies, detailed gap analysis with regard to sewage, industrial effluent and waste management has been carried out and assessed compliance to designated best use water quality criteria.

Authorities responsible for restoration of water bodies in the State are (i) HP State Pollution Control Board (HPSPCB), (ii) Rural Development and Urban Development Departments, (iii) Himachal Pradesh State Wetlands Authority (HPSWA), and (iv) HP Forest Department.

- *Actions proposed for the restoration of the identified water bodies are:*
  - Inventorization of industries/hotels of the catchment, regulation implementation (2020-21)- By HPSPCB.
  - Organisation of Swachhata Campaign near the lake and surrounding villages and urban areas (2021) by Rural Development and Urban Development Departments.
  - Preparation & Distribution of IEC material on the values of the lake (2021)- by HPSWA.

- Swachhata Campaign near the lake with Nagar panchayat (2020-21) -- by Rural Development and Urban Development Departments.
- Sensitization workshops/meetings for stakeholders (2020-21)- by HPSWA
- Afforestation (2020-21) -- By HP Forest Department.
- Soil Conservation measures (2020-21)—By HP Forest Department.
- Training and awareness activities (2020-21)-By HP Forest Department.
- Repair of path and perennial water resources (2020-21)-By HP Forest Department.

2.3.10. Jammu & Kashmir

Department of Forest, Environment & Ecology, Government of Jammu & Kashmir vide letter dated 22.08.2019, in J & K State, water bodies in the J & K State are under the administrative control of various departments like Housing and Urban Development (HAUD), Irrigation, Flood Control Department (IFCD), Urban Environmental Engineering Department (UEED), Forest Department (FD), Wildlife Protection Department (WLPD), Rural Development Department (RDD) etc. Prioritisation of water bodies;

Member Secretary, J & K Pollution Control Board during his presentation in II Meeting of Expert Committee held on 25.08.2020, informed that a Committee has been constituted to oversee the work by the J & K UT Government vide order No. 213-FST of 2019 dt. 12/07/2019. At present, 2815 no. of stagnant waterbodies have been identified and prioritized. Custodian Departments of Water Bodies are Forest Department (Ponds-32, Lakes-160), Wildlife (Ponds-8, Lakes-47), Soil & Water Conservation Department (Ponds-912, Lakes-3), Revenue/DC/AGRI (Ponds-1,182, Lake-1), Jammu MC (Ponds-61) and DERS/Revenue (Ponds-184, Lakes-225), Priority

–I Stagnant Water Bodies identified in the State are 222 i.e., Ponds-13, and Lakes-209, Available Budget for restoration of stagnant water bodies is Rs. 503.24 Cr and funds required is of Rs.37.23 Cr.

2.3.11. Jharkhand

Jharkhand State Pollution Control Board vide letter dated 19.05.2020 informed that in Jharkhand State, 282 Ponds have been identified out of which 277 are government owned (Urban Development and Housing Department, Jharkhand) while 6 ponds are private/ individual owned. 221 water bodies have been selected for restoration, 4 ponds have already restored and 6 are currently under restoration. Geo-tagging & allocation of UIN is still in progress. Major causes of pollution of water bodies is indicated as improper disposal of sewage. Other problems associated with the identified water bodies are Weeding/No Provision of inflow or outflow control measures/ Poor Embankment/Poor Watershed Management in the catchment. Information relating to water quality of all identified water bodies is not provided and neither gap analysis carryout with regard to sewage, industrial effluent and waste management in the catchment of identified water bodies.

- *Main action plans proposed for restoration of water bodies are*

  - I & D of sewage/ Industrial effluent from drains to the nearby treatment or upcoming facilities.
  - Restoration of natural drains.
  - Silt control measures in natural drains contributing inflow.
  - inflow and outflow flood control provisions (with sluice gates as well as constructed wetlands on u/s).

- Strengthening of Earthen Embankment surrounding the pond or lake with stone revetment or pitching).
- In-situ measures (like desilting, de-weeding, surface aeration, floating adoption of biological treatment option).
- Buffer Zone and Development of Bio -diversity Park.
- Recreational Provision.
- Training and Awareness Programme.
- Public Participation for Cleaning of surroundings, any other actions.

2.3.12. Karnataka

Karnataka State Pollution Control Board (KSPCB) vide letter dated 16.03.2020 submitted information collected from Bengaluru Water Supply & Sewerage Board (BWS&SB), Bengaluru Development Authority (BDA) & Cauvery Neeravari Nigama Limited (CNNL).

Bengaluru Water Supply & Sewerage Board (BWS & SB): As per information provided vide letter dated 7.12.2019, sources of sewage entry into Lakes located in 30 valley areas have been identified. Actions initiated for laying of sewer line to avoid entry of sewage into Lakes. Till date works under various stages i.e. tendering, award of tender/work under progress.

Bengaluru Development Authority (BDA): As per information provided vide letter dated 7.12.2019, there are 31 water bodies under the purview of BDA, out of which 11 water bodies have been rejuvenated during the past 5 years and at present 3 water bodies are under rejuvenation and another 14 lakes are yet to be rejuvenated. Proposed to handed over 28 Lakes to BBMP. All the water bodies have been located on Google

Map. Main action plans formulated for restoration of water bodies (viz.,Bellandur Lake & Varthur Lake) are (i) De-silting & de-weeding.

Cauvery Neeravari Nigama Limited (CNNL), submitted that 1627 water bodies have been identified, out of which 104 water bodies have been selected for restoration during the period 2014-2019 at a total cost of Rs.40.95 Crore.

Karnataka State Pollution Control Board (KSPCB) vide letter dated 06/07.10.2020 informed that in Karnataka State, there are 33,350 water bodies comprising of irrigation tanks, lakes & ponds with a water spread area greater than 0.2 acre. Information about these water bodies are captured as per the CPCB format (including details such as area, water depth, ownership of water body, UIN, details of habitat, inflow/outflow details, designated best use of water body, major drains outfall, physical conditions of the water body, gaps in sewage, industrial effluent & waste management in the catchment area of the water body, water quality of the water body for physico-chemical parameters, salinity, dissolved gases, heavy metals, & faecal coliform, action plans for restoration including implementing agency, timelines and estimated cost for restoration by developing a WebApp called "Tank Information System" TIS Abhiyan. (http://kgis.ksrsac.in/tis/Login.aspx.).

Stakeholder Departments of Karnataka such as Panchayat Raj Engineering Department (PRED), Directorate Of Municipal Administration (DMA), Minor irrigation (MI), water resource department (WRD), Forest Department (FDA), Karnataka Lake Conservation and Development Authority (KLCDA), Bruhat Bengaluru Mahanagara Palike (BBMP), Bengaluru Development Authority (BDA), Karnataka State Pollution Control Board (KSPCB), Revenue Department, Mahatma Gandhi National Rural

Employment Guarantee Act (CEO/MGNAREGA) and Watershed Development Department (WDD) have taken active part in the TIS Abhiyan to furnish the tank details.

A total of 33,350 tanks of the State have furnished five out of seventeen major parameters of NGT proforma (Location-X,Y, Area, Unique id, Habitat and Watershed Information). Information on 25557 Tanks are updated under TIS Abhiyan in coordination with Stakeholder Departments of Government of Karnataka. At least three water quality parameters such as pH, turbidity and total dissolved solids have been tested for 3,442 tanks and the details are updated on TIS. Faecal Coliform was tested for 2,386 tanks. 405 tanks show action plan for desilting and sewage management under various plans/proposals/schemes. Under Jalamrutha program, 31,473 tanks have been geotagged, of which 4,840 overlaid tanks are integrated with TIS for updating physical conditions (bund, sluice, waste weir, etc.,). Data of 173 tanks under BBMP ownership has been updated in TIS. Seventy three out of ninety four tanks showing substantial difference in the area compared with GIS area and area of tank registry.

Of the 33,350 tanks identified in Karnataka, majority of the tanks are in the rural area and mainly used for irrigation and domestic purpose. There are no industries, towns in the vicinity and there is no entry of sewage/effluent or dumping of solid waste. Thus the water-quality is within the acceptable limits. In such cases, the tanks are not monitored. The water quality of 3,442 out of the 33,350 water tank/bodies have been tested on the priority of pollution concern. Video conferences among stakeholder departments to discuss the action for water tank/body rejuvenation are regularly held and *preparation of the action plan for the prioritized lakes is in progress.*

2.3.13. Kerala

Kerala State Pollution Control Board (KPCB) vide letter dated 17.03.2020 informed that in Kerala State, 40,000 ponds were identified by Irrigation Design and Research Board (IDRB) for which Unique Identification Number has been marked. Kerala State Pollution Control Board, with GIS specialization, geo-tagged or marked all the ponds located in all the 14 districts of Kerala State. Field survey is envisaged with the participation of all concerned departments/ agencies and check whether they have been included in the already rejuvenated ponds/lakes by different departments. If it is not included, immediate action will be initiated to rejuvenate by incorporating the concerned departments. Proposal for constituting the field inspection team has been forwarded to the Government by KSPCB for approval. Expected time of completion is 31/12/2020.

- *Proposed Action plan includes:*
  - *(i) Collection of information relating to the water bodies by 30.10.2020*
  - *(ii) identification of designated best use of water bodies, assessment of water quality improvements by 31.07.2021*
  - *(iii) identification of source of pollution including detailed gap analysis by 31.07.2021*
  - *(iv) preparation of action plans by 31.08.2021*
  - *(v) de-siltation, de-weeding, biological control measures, stabilisation of earthern bunds and drainage channels, soil erosion control measures, protection of drainage basins, removal of encroachments by 30.05.2021*
  - *(vi) adoption of in-situ techniques for remediation of ponds, drainage basin management, sediment controls, creation of biodiversity parks, monitoring of implementation of action plans by 31.03.2022.*

Kerala State Pollution Control Board (KPCB) vide letter dated 17.03.2020 informed that ponds and tanks are the local sources of water in many villages of the Kerala State. Kerala acquire 18681 number of public ponds. Irrigation Department has been taking up renovation of ponds and water bodies in Kerala through de silting, repairing of sluices and constructing retaining structures, its inlet and outlet arrangements. Projects with financial support in the State budget are grouped in this category. Maintenance of projects and works taken up with budget support under lump sum provisions for routine works are not included in this category. Ponds are recognized as having at least basic functions such as irrigation, agriculture, water conservation, flood control and protection of ecology of the surrounding area. Renovation of ponds is proposed to improve ground water recharging and storage capacity, improvement in agricultural production, livestock, fisheries and human use.

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):- Renovation of traditional water bodies including desilting of irrigation tanks and other water bodies is a permissible activity under the MGNREGS Act. During the financial year 2018-19, about 16,354 works were undertaken and an amount of Rs.125.94 Crore has been expended. During the Financial Year 2019-20, about 12,426 works has been undertaken till now and an amount of Rs. 5.688 Crore is expended.

Ayyankali Urban Employment Guarantee Scheme (AUEGS) is being implemented successfully for the preservation of water bodies in Urban Local Bodies in Kerala . Under AUEGS, Urban Local Bodies are permitted to undertake the works like preservation of pond, renovation of canals , cleaning of water bodies , rain water harvesting, minor irrigation , gully plugging , rain water pit , well recharging etc.Under this scheme, 2005 ponds restored at aa cost of Rs.1203.84 Lakhs

Renovation of Ponds: -

The Corporation's new "Sahasra Sarovar Project" which means thousand pond renovation projects not only facilitates irrigation but also serve to the growing needs of fresh water preservation, ground water recharge, and moreover conserving the culture of the society. Many ponds as big as 14 acres or more were completed through this project. About 80 ponds are renovated and renovations of 30 ponds are in progress. All the ponds are well maintained after the completion of the project by the beneficiaries and local bodies through the Department of Agriculture.

Major Projects

1. Thrissur Ponnai Kole Development Project:- This is a three phased project spanning area 13500 hectare of kole fields of Thrissur and Malappuram district with an outlay of 22,000 lakh. Paddy cultivation has enhanced from the previous 3 to 4 t/ha to 7 to 8 t/ha through this project. This project will also conserve the Biodiversity of the kole, enhance the ground water availability and conservation of water.

2. Onattukara Drainage and flood protection :- Onattukara in Kuttanadu is a major rice producing area of Kerala. This project will benefit an area of 5,194 hectare and 5,400 farmers. Total outlay for the project is 22.18 Crore.

3. Improvement works of Nooradithodu Canal and Valiathodu:- The project will benefit an area of 4,560 hectare and the total outlay is 54.37 Crore, The project will improve the drainage facility of the area prevent flooding and increase ground water recharge.

KLDC has several project in major granaries of the state i.e. Kuttanad, Palakkad, Kole lands of Thrissur and Ponnani, Pokkali, Kaipad etc. In addition to this KLDC is executing projects in other major padasekharams in the state. The projects not only increase

agriculture production but also are useful for ground water recharge, water conservation, prevention of salt water instruction, flood control, pollution control and conserve the Biodiversity and Ecosystem.

THE KERALA STATE POLLUTION CONTROL BOARD

Study of hydrochemistry of Vembanad lake

The Kerala State Pollution Control Board conducted study of hydrochemistry of Vembanad lake through Cochin University of Science and Technology, Ernakulam under the plan scheme of the Board in 2017. Due to heavy floods & deluge occurred in several parts of Kerala from 13-16 August, 2018 study on impact of heavy flood on the environmental characteristics of Vembanad Backwaters was conducted through Department of Marine Biology, Microbiology & Biochemistry, Cochin University of Science and Technology, Ernakulam. Extensive sampling and analysis of various environmental parameters were done in selected locations in Vembanad Kol wetland extending from Alappuzha, Kottayam to Cochin area.

Sanitation Survey of Ashtamudi Lake

The Kerala State Pollution Control Board is conducting a sanitation survey of Ashtamudi Lake using a mobile application in co-operation with Kerala Remote Sensing environmental Centre (KSREC), Socio Economic Unit Foundation (SEUF) and concerned local bodies under the plan scheme of the Board in 2019. It is decided to conduct the survey of the area around 50 metres from lake, which includes houses, flats, establishments, manholes, drains joining the lake etc. It is envisaged that 5000 sources need to be surveyed in 11 Grama Panchayats and one Municipal Corporation. The data collection is proposed to be done with a mobile App developed by KSREC.

SEUF has submitted a proposal for conducting sanitation survey. SEUF was addressed to arrange training to surveyors and commence the sanitation survey of Ashtamudi Lake and to carry out the survey in time bound manner in consultation with the Board. Accordingly, SEUF has started preliminary steps for conducting the sanitation survey of Ashtamudi lake.

Also, as per the information received from Nedumangad Municipality, Kerala vide letter dated 19.05.2020, there are 19 ponds under their jurisdiction. 13 ponds owned by government and 6 ponds are owned by individuals. As on 19.05.2020, 6 out of 19 ponds have been restored and 13 ponds are under restoration. Major cause of pollution in water bodies is improper disposal of sewage and weeding or encroachments, poor embankments are the other problems associated with identified water bodies. Only one pond was monitored at 1 location and it was not complying with bathing water quality criteria as well as drinking water quality criteria. As informed by Nedumangad Municipality, Kiliyar mission has been initiated through mass public participation. Main action plan involves creation of boundary, installation of survey stones, cleaning mission, prevention of littering activities as well as flood control measures.

2.3.14. Madhya Pradesh

Madhya Pradesh Pollution Control Board (MPPCB) vide letter dated 05.10.2020 submitted that report of Government of Madhya Pradesh regarding the polluted ponds & lakes in the various districts of Madhya Pradesh. In compliance to Hon'ble NGT order dated 01.06.2020, the information that has been gathered using States IT resources is based on mapping of satellite imageries, around 66438 water bodies have been identified. Unique identification numbers (UIN) have been assigned to each water body including geo tagging. According to these preliminary IT enabled information, the water

covered area of the State by lakes /ponds / reservoirs comes out to be 5,55,824.985 hectares i.e. 5558.24 sq km, which is about 1.8 % of the total geographical area of the State. However, the data needs field verification, which is yet to be done. The process for it is initiated. It is a time and resource consuming task requiring dedicated man power. The enormity of the task is such that it may extend up to a couple of years. It is submitted that the most of the water bodies ponds / lakes which may be polluted are comparatively big and urban in nature. It is submitted that small water bodies like RWH structures, small ponds situated in the villages and remote locations as well as the water bodies created by WRD mainly for the purpose of agriculture and irrigation are by and large not polluted. However, the field investigations which are contemplated in view of the information gathered with IT intervention will further provide factual information, but the exercise will take time.

That as per the directives of the Hon'ble Supreme Court of India, in WP (Civil) No. 230 of 2001 in the matter of MK Balakrishnan and Ors. Vs Union of India, MoEF&CC vide its letter F.No.K-l30l2l 14i20l4-NRCD dated 17-02-17 desired the inventory of wetlands > 2.25 hectares to be provided. Accordingly, a list of 15552 wetlands have been filtered from the list of the 66438 probable water bodies. The physical verification of this information is also being conducted.

The State has also formed State Wetland Authority as per the provisions of the Wetlands (Conservation & Management) Rules, 2017 on 02-01-2018. It is further mentioned that the State Government undertakes the beautification, pollution prevention, up-gradation, augmentation and protection works of the prominent water bodies of the State from time to time. *The Environmental Planning and Coordination Organisation (EPCO) under the Department of Environment, also functions as MP State Wetland Authority and promotes & supervises these works.* The Environmental

Planning and Coordination Organisation (EPCO) is presently undertaking works of up-gradation and pollution prevention of 7 major water bodies, namely Madhav Sagar, Sankhya Sagar and Jadhav Sagar in district Shivpuri; Sindh Sagar in district Ashok Nagar; Bhoj wetland in district Bhopal; Sirpur wetland in district Indore and Amrit Sagar in district Ratlam. It is also submitted that the State constantly keeps liaison with the MoEF&CC which has already identified 2I wetlands of the State in the indicative list for Phase 2 program for conservation. In that list the State has further added 99 more wetlands and an inclusive list of 120 wetlands of the State has been provided to MoEF& CC on 16-07-2020 for the phase 2 program of wetland rejuvenation.

The Environmental Planning and Coordination Organisation (EPCO) provided information as per the format circulated by CPCB and informed that 10 lakes have been identified and all 10 lakes have been selected for restoration. Five lakes have been restored and five lakes are undergoing restoration. As informed, all 10 lakes are Government owned. Major causes of pollution are identified as irnproper disposal of sewage & municipal solid waste. Other problems associated with the identified water bodies are silting, weeding, poor embankment, encroachments & poor watershed management in Catchment. There are 22 water quality monitoring stations covering Madhav Sagar, Sankhya Sagar , Jadhav Sagar in district Shivpuri; Sindh Sagar in district Ashok Nagar; Bhoj wetland in district Bhopal; Sirpur wetland in district Indore and Amrit Sagar in district Ratlam. Based on water quality monitoring, Madhav Sagar, Sankhya Sagar lakes & Bhoj wetland are complying to drinking water quality criteria after conventional treatment, while Sindh Sagar and Amrit Sagar are complying to primary water quality criteria for bathing whereas Jadhav Sagar and Sirpur wetland are complying to designated best use criteria for agriculture/fishing criteria.

The Core activities planned as a part of restoration of seven lakes are :-

1. Sewer networking
2. Sewage Treatment Plant
3. De-weeding (in Jadhavsagar, Karbala area, nalla flowing through the town and chandpatha),
4. De-silting (20 cm of bottom layer of Jadhav Sagar as well as its peripheral areas)
5. Catchment Area Treatment,
6. Lake front development for the stretch-I & II (area around Baradari, Jadhav sagar & Karbala),
7. Bathing Ghats,
8. Low cost sanitatior/Toilet blocks
9. Chain link fencing
10. Floating fountain for aeration and beautification purposes,
11. Monitoring of water quality,
12. Public Participation and awareness campaigns

Additional measures proposed as a part of some lakes in Madhya Pradesh are gabion structures, creation of buffer zone through afforestation, development of island as bird habitat, promotion of aquaculture, bund strengthening, channelization of main inflow channel, construction & repairing work of old ghats/visharjan kunds/boundary wall, desilting, of watch towers, monitoring of water quality, interpretation centre, providing and installation of fiber-glass reinforced plastic (F.R.P) hut and supply of equipment for Jeevan Rakshak Dal, procurement and installation of Garbage Mild Stone Containers capacity 1.10 cum, Modern Syntax dustbin, providing and fixing decorative lights , monitoring of upper lake by Modern Technology of remote sensing, mechanical

dredging, construction of slops/pitching using stones for slope protection in the peripheral areas of the lake whereas required based on survey, diversion of nallah re-establishment of connection and renovation, construction of in-situ wetlands wastewater treatment system in major drains, peripheral sanitation, water supply (community toilet blocks complete with submersible pumps, overhead tank including electrical connection, transmission, substation etc.) & solid waste management (bins, basic tools, collection of wastes and its transfer to the existing disposal site, weed harvester and research studies. Total Project Cost is Rs. 3.83 Crore for restoration of 7 lakes namely (i) Shivpuri Lakes - Madhav Sagar, Sankhya Sagar & Jadhav Sagar- Implementing agency: Public Health & Engineering Department, Shivpuri and non-core works by Municipal Council, Shivpuri; (ii) Sindh Sagar- Implementing agency : Municipal Council, Esagarh,District Ashoknagar, ; Sirpur wetland - implementing agency : Municipal Council, Indore; (iii) Bhoj wetland- implementing agency :Municipal Corporation Bhopal, (iv) Amrit Sagar - implementing agency : Municipal Corporation, Ratlam. Expected Timelines for completion is 2020- 2022

As submitted above, the water bodies of the State are by far not polluted. The water bodies / ponds which lie in urban areas have been found to be polluted to some extent, and the water bodies in the hinter land are not affected with pollution. Most of the districts have reported that the waterbodies lying in the district are not polluted. However, a few water bodies in seven districts have been found polluted mainly due to ingress of sewage and MSW. The information pertaining to seven districts, namely Agar Malwa, Balaghat, Bhopal, Dhar, Jabalpur, Ratlam & Sagar. Details are given in the table in subsequent para.

District	Type of Water Body		Ownership of Identified Water Bodies (Indicate No. of Water Bodies)		Total No. of Water Bodies Selected for Restoration		Total No. of Water Bodies restored so far		Total No. of Water Bodies presently under restoration		Action plans proposed
	Lakes	Ponds	Govt.	Private/ Individual	Lakes	Ponds	Lakes	Ponds	Lakes	Ponds	
Agar Malwa	01	-	Yes	-	01	-	01	--	-	-	No
Balaghat	-	06	Yes	-	-	02	-	-	-	-	N/A (Incomplete information)
Bhopal	04	05	Yes	-	04	05	-	-	02	-	Yes
Jabalpur	-	36	27	09	-	13	-	07	-	-	N/A
Ratlam	-	01	Yes	-	01	-	-	-	-	-	Yes
Sagar	01	-	Yes	-	-	-	-	-	-	-	Yes
Dhar	01	-	Yes	-	01	-	-	-	-	-	Yes

2.3.15. Maharashtra

Maharashtra State Pollution Control Board vide e-mail dated 31.03.2020 informed that in order to revive, restore and rehabilitate the traditional water bodies, the Government of India launched a Scheme for Repair, Renovation and Restoration (RRR) of water bodies, under which funds were made available for irrigation. The Ministry of Environment, Forest and Climate Change is implementing a Centrally Sponsored Scheme of National Plan for Conservation of Aquatic Eco-systems (NPCA) since February, 2013 for conservation and management of identified lakes and wetlands in the country in a holistic and integrated manner. Under the scheme financial assistance is provided to the State Governments for undertaking various activities for conservation of wetlands and lakes, which also include a small component of lake front development and beautification, especially in urban lakes.

Further, informed that Maharashtra State has identified 354 water bodies including ponds, lakes, dams, reservoirs etc. and all the water bodies are government owned. Geo-tagging is yet to be done. These lakes and ponds are used for a variety of purposes

like irrigation, pisciculture, drinking and in some cases for household activities also. But due to its continuous use and in some cases, especially in urban areas, dumping of debris, the quality of the ponds and lakes has deteriorated. There has also been a shrinking of size due to encroachments and construction purposes. A framework has been developed categorizing by the level of interventions required for prioritization

- Action plan for restoration of stagnant water bodies includes:
  - **Recognition of water bodies**- In this phase, the information like name of the lake/pond, location, address (Khasra No./ Plot No./ Survey No. in which the water body is located), Latitude and Longitude and all geographical data is identified using Google Maps, MRSAC (geomapping) and secondary data. This data is also acquired with reference to the toposheets and the data received from the 383 Urban Local Bodies (ULBs). The location of each lake is marked on the toposheets with the help of GIS software as well as marked on Google Earth. By analysis of the data is found out that there are more than 350 lakes in Maharashtra state however only those falling in territory of Urban Local bodies are considered in this study. The data has been received from 103 Urban Local Bodies for total 91 lakes/ water bodies. Most of the ULBs don't have any water body pertaining to their jurisdiction. The identified lakes/ponds/ water bodies are marked on Google Map. MPCB has collected geographical details, hydrological description and catchment description of the water bodies from ULBs. The total number of water bodies in the state is around 354 including ponds, lakes, dams, reservoirs etc.
  - **Restoration of water bodies**- Based on the data received from Urban Local bodies regarding water bodies for required parameter of 'designated best use' MPCB has formulated different strategies for restoration of these water

bodies as per its feasible implementation. The proposed River/Lake/Water Bodies restoration frame work for Maharashtra shall consist of following Steps;

- ✓ Building environment and setting up restoration team
- ✓ Preparation of Restoration plan / Detailed Project Report for individual water body
- ✓ Feasibility of Treatment
- ✓ Monitoring to review timely progress, effectiveness of the projects and maintenance
- ✓ Identification of other associated issues which requires attention as a part of restoration of pond or lake
- ✓ Protection of restored water bodies

The Measures proposed are creation of Buffer Zone, control of liquid waste, control of solid waste, de-silting and dredging, slope stabilization and also other techniques include-Introducing aquatic animals and plants that eat or compete with waterweeds shall be done , Removal of encroachments in the drainage channels shall be carried out periodically to facilitates enhancement in aeration naturally in the water body, Provision of properly designed 'spill way' with a provision of controlled gates shall be done for smooth flow of excess water or run off during monsoon and to control flood situation. Removal all blockades at inlet or outlets shall be done to avoid stagnation or blockage of storm water.

- **Improvement of restored water bodies** includes adoption of In-situ techniques for remediation of ponds or lakes, Physical treatment approaches, Chemical treatment approaches, In-situ techniques by

development of Ecosystem in the Moat, using biological techniques; constructing a Healthy Food Web in the core lake, Green or Buffer Zone, Lake front area development.

- **Sustenance of rejuvenated water bodies** includes revenue generating activities, maintenance, generating public awareness and sensitization, lake monitoring program, landscape management and encouraging participation of local public.

2.3.16. Manipur

Directorate of Environment and Climate Change, Government of Manipur vide letter dated 27.05.2020 submitted that Manipur State has identified 18 water bodies (Lakes-4 & Ponds- 14). As informed, Environment & Climate Change, Water Resources Department, Public Health & Engineering Department, Trade, Commerce and Industries, Manipur Pollution Control Board and Loktak Development Authority are the concerned Departments dealing with the restoration of water bodies in Manipur State.

All water bodies are under the custody of Government of Manipur. All the identified water bodies have been geo-tagged and only 5 water bodies have been allocated Unique Identification Number (UIN). Major causes of pollution in identified water bodies are (i) Domestic Sewage and (ii) Municipal Solid Waste. The other problem associated with the Rural Ponds are (i) Silting, (ii) Weeding, (iii) Encroachments, (iv) Unregulated Inflow and Outflow, (v) Poor Watershed Management and (vi) Poor Embankment. All the 4 lakes and 14 ponds are being monitored under NWMP. Based on the water quality analysis results, none are complying to BOD parameter (> 3 mg/L) prescribed under primary water quality criteria for bathing. The designated best use of the identified water bodies is indicated as irrigation, drinking, aqua-culture and protected bio-diversity.

Also informed that The Water Resources Department, Government of Manipur is implementing the RRR scheme for the Lamphelpat, Waithoupat and Irong Nalla (upper & Lower) at an estimate cost of Rs.65 Crore. The scheme when completed will restore water storage capacity of 6.281 MCM and created an irrigation potential of 1046.50 Ha. However, detailed action plans are not provided for restoration of all the identified water bodies.

2.3.17. Meghalaya

Meghalaya State Pollution Control Board vide letter dated 29.05.2020 informed that Meghalaya State has identified 2 lakes namely Umiam Lake & Ward's Lake. Geo-tagging yet to be done. Wards Lake, Shillong is under the custody of Government of Meghalaya and the lake is used only for aquaculture, fish breeding, tourism and recreational activities. Lake is fed by only spring water and there is no any discharges of sewage and waste, however there is high amount of organic detritus (leaves, flowers, dead plants & fish feeds). The water from the lake is neither used for water supply nor for bathing. Swimming is strictly prohibited. The lake is used only for recreational purposes (boating and aquaculture). As per water quality monitoring carried out under NWMP, lake water quality is fit for propagation of wildlife and fisheries. Umiam Lake is an artificial lake created in the year 1965 presently is under the custody of Government of Meghalaya (Meghalaya Energy Corporation Limited). Geo-tagging not yet done and the Umiam lake is used only for aquaculture, fish breeding, tourism and recreational activities. Major source of pollution in Umiam Lake is mainly discharge of untreated sewage, and other liquid, solid & plastic waste emanating from Shillong Urban Agglomeration also contribute to pollution.

- Proposed action plans for restoration of Ward's lake includes activities such as
  - Industrial pollution control (implementation by Meghalaya SPCB),
  - Regulated boating and recreational activities (implementation by Tourism department)
  - Bio Remediation (implementation by the Department of Fisheries), &
  - Awareness Program (implementation by the Department of Forest and Environment).
- *Proposed action plans for restoration of Umiam lake include*

  a) Institution and Governance measures such as (i) Establishment of an Umiam Reservoir Management Cell to coordinate Management Plan Implementation, (ii) Notification under the Wetlands (Conservation and Management) Rules, 2017 to provide statutory backup to management interventions (iii) Demarcation of Wetland Boundary (iv) Development of GIS based Decision Support System (iv) Capacity Development (v) Community participation and outreach (vi) Research (vii) Monitoring and evaluation.

  b) Water quality management aspects such as (i) Prevention of discharge of untreated sewage, industrial and plastic waste emanating from Shillong UA, (ii) Short term measures such as Biological reclamation of Wah Umkhrah and Umshyrpi, installation of plastic traps, (iii) Long term measures such as installation of decentralised STPs at major sewage outfall in Umkhrah and Umshyrpi Streams, installation and operation of faecal sludge collection and treatment facilities, prevention of discharge of spent oil, grease and other waste from vehicle repair and service centres, installation of grease and oil traps, shifting of vehicle repairs and service centres located on or near banks of the Wah Umkhrah and the Wah Umshyrpi streams, prevention of discharge if untreated leachate emanating from

Mawiong Landfill (iv) Short term measures such as collection and biological reclamation of leachate, high density plantation of broad-leaved native species (iv) Long term measures such as Shifting of Mawiong Landfill to a suitable alternate site, reclamation/treatment of legacy waste available at Umiam Solid waste processing centre cum landfill, Prevention of discharge of untreated solid and liquid waste originating from Ryndang briew view point (v) Control of siltation includes measures like protection of existing forest in the catchment, afforestation of catchment, control of forest fires, Jhum cultivation, promotion of sustainable and scientific agricultural practises, construction of check dams, regulation of dumping of C&D waste in the catchment, regulation of mining in catchment, stabilisation of hill slopes, (vi) Promotion of sustainable eco-tourism measures such as development of islands, planting of ornamental flowering plants on periphery of the reservoir, development of Lum Nehru Park, Installation of a water fountain, ornamental night illumination of the park, provision of canopy walls, establishment of interpretation centre cum museum, promotion of water sports and (vii) Fishery resource development. Total estimated budget is about Rs. 4 Crore (including 10% state share).

2.3.18. Mizoram

Mizoram State Pollution Control Board, vide letter dated 12.05.2020 informed that Government of Mizoram has notified Irrigation and Water Resources Department, Govt. of Mizoram as the nodal department for rejuvenation of water bodies in Mizoram State vide Notification No-A.46012/1/2019/GAD dated 27.02.2020. As informed, Mizoram State has identified 40 water bodies (Lakes-9 & Ponds- 31). Five lakes &12 ponds are under the custody of Government of Mizoram while remaining belong to private/ individuals. Total number of water bodies selected for restoration is being determined.

All the identified water bodies have been geo-tagged. The designated best use of water bodies is identified as Tourism & Pisciculture. Action plans are not yet prepared.

2.3.19. Nagaland

Nagaland Pollution Control Board vide letter dated 31.07.2020 informed that Nagaland State has identified 10 water bodies (Reservoir -1, Lake- 1 & Ponds- 8), out of which 4 are under the custody of Government of Nagaland (3 ponds & 1 reservoir) while one lake and 5 ponds belong to private/ individuals. As informed, Public Health Engineering Department, Nagaland Pollution Control Board and Dimapur Municipal Corporation (DMC) are the concerned departments and responsible for restoration of water bodies in the state.

Two Ponds have been selected for restoration and are under restoration. Geo-tagging is not yet done. The major causes of pollution are determined as (i) siltation and (ii) growth of weeds whereas the other problems associated with the water bodies are observed as (i) encroachment, (ii) no provision of inflow or outflow control measures, (iii) poor embankment and (iv) no adequate buffer zones.

As informed, water quality of ponds is monitored at 2 locations under NWMP. Compliance to the primary water quality criteria for outdoor bathing or designated best use parameters was not verified. Due to hilly terrain, the number of water bodies are also less in the state. The designated use of water body is indicated as Aqua Culture/Tourism. Also, observed that no sewage, industrial effluent and solid waste is disposed into the water bodies.

- Proposed action plans for restoration of lake Raj Pukhuri, and Padumpukhuri, Dimapur includes additional measures such as:

- de-weeding
- surface aeration,
- training and awareness programmes &
- public participation for cleaning of surroundings.

Also, estimated time target for implementation of proposed action plans for restoration of lakes namely Raj Pukhuri, and Padumpukhuri is 31.03.2022 at a total cost of Rs.32 Lakhs (Rs.16 Lakhs each).

2.3.20. Odisha

State Pollution Control Board, Odisha vide letter dated 14.05.2020 informed that Orissa Wetland Development Authority constituted under the Chairmanship of the Additional Chief Secretary, Forest and Environment Department in Govt. of Odisha for responsible for protection, conservation, restoration, regeneration and integrated development of the wetlands.

Further, Pollution Control Board Odisha vide letter No 416 dated 11.03.2020 communicated to Forest & Environment Department, Government of Odisha to submit the action plans for restoration of wetlands as per the prescribed format to CPCB by 31.03.2020. Vide afore-said letter dated 14.05.2020, Odisha informed that 3 lakes (viz., Chilika-Brackish Water Lake, Anshupa, Tampara) are monitored at 7 locations under NWMP and all 3 lakes are complying to the water quality criteria for agriculture or fishing. Also, 8 ponds (viz., Bindusagar, Bhubaneshwar; Narendra Pokhari, Puri; Markanda Pokhari , Puri; Indradyumna, Puri; Swetagnag, Puri; Parvatisagar, Puri; Raniguda, Angul; Jagannathsagar, Jeypore) are monitored at 11 locations and all monitored locations are complying to water quality criteria for agriculture or fishing.

As per information received vide letter dated 14.07.2020 from Office of the Engineer In-chief, Water Resources, Bhubaneshwar, Odisha informed that the State has identified one Lake, 8 Ponds and 2 Reservoirs under its jurisdiction. 1 Lake is already restored, while 1 Lake and 1 Pond is selected for restoration. All the water bodies are geo-tagged. The designated best use of these water bodies is for irrigation, fishing and tourism. The action points include activities like desilting, dewatering, preventing inflow of drainage water, deepening of bed etc. The proposed time of completion is given as March, 2022.

2.3.21. Punjab

Directorate of Environment and Climate Change (DECC), Department. of Science, Technology & Environment, Government of Punjab vide e-mail dated 31.07.2020 informed that in Punjab State, there are 15466 ponds in rural areas and 249 ponds in urban arears having area of 23,988 Acres (0.19% of TGA). 243 out of 15,466 in rural areas and 2 out 249 ponds in urban areas are having treatment facilities. 795 ponds are used for irrigation and 6001 ponds can be used for irrigation. Action Plan for restoration of ponds (having size of > 0.5 acres), submitted to CPCB on 31.03.2020 and Consolidated & Pond wise information in prescribed formats, submitted to CPCB, on 31.07.2020.

As informed, Department of Rural Development & Panchayats (DRDP), Department of Local Government, Punjab Pollution Control Board (PPCB) and Directorate of Environment and Climate Change (DECC), Department. of Science, Technology & Environment (DSTE), Government of Punjab are the concerned departments responsible for restoration of water bodies in Punjab State. All the identified water bodies have been geo-tagged. Main reasons for pollution in water bodies in rural ponds is solid waste and whereas in urban areas it is improper disposal of sewage. Other

problems associated with rural ponds is silting, weeding, encroachments, poor embankments, while in case of urban ponds is silting, weeding and no provision of inflow or outflow control measures.

The Government of Punjab has launched Mission Tandarust Punjab to make Punjab a healthy state with healthy people by ensuring the quality of air, water, food and a good living Environment. Around 12000 village ponds were cleaned under a special campaign of Mission Tandarust, Punjab in June, 2019 with a view to improve the village hygiene.

During December,2018- January,2019, samples collected from 110 village ponds were analysed for pH, TSS, BOD and COD and analyse results were observed in the order of pH (7.1 -9.1), TSS (13-2152 mg/L), BOD (9-460 mg/L) and COD (30-1208 mg/L). However, PPCB has not categorised or prioritised the identified polluted water bodies based on the designated best use and its compliance. It was also reported that no industrial effluent is discharged in any of the ponds in Punjab State.

Based on recommendations of the Technical Committee, 4 technological options of waste stabilisation ponds (WSP) in various combination with Reed Bed Technology, Facultative Aerated Lagoon and Karnal Technology along with their capital cost (Rs. 20-25 Lacs for villages with 1000 population), O&M cost and area requirements for the treatment of wastewater in villages have been prescribed. These technologies after their successful demonstration will be replicated in the remaining villages of the State.

Punjab State proposes restoration of 15466 rural ponds at a total cost of Rs. 4987.58 Crore and 249 urban ponds at a total cost of Rs.3399.19 Crore. Concerned local and urban bodies are the implementing agencies. Water Regulation & Development

Authority, Biodiversity Management Committee will be involved in restoration of stagnant water bodies in the State of Punjab.

2.3.22. Rajasthan

Rajasthan State Pollution Control Board vide letter dated 27.05.2020 informed that the nodal department for restoration of water bodies in the state is Water Resources Department, Government of Rajasthan and requested to seek the desired information directly from the concerned department. No information has been received from Rajasthan State as per the format circulated by CPCB.

Director cum Joint Secretary, Environment Department, Government of Rajasthan vide e.-mail dated 31.08.2020 informed that during the last 2 years, 12127 ponds have been selected for restoration under MGNREGA, 1963 ponds have been restored and 6348 ponds are undergoing restoration.

2.3.23. Sikkim

As per information received from State Pollution Control Board, Sikkim vide letter dated 19.06.2020, Sikkim State has identified 4 lakes and all are under the custody of Government of Sikkim. Three lakes are currently under restoration and one lake is restored. UIN of identified lakes not yet done but GPS co-ordinates recorded. As informed, major cause of pollution in lakes is due to substantial plastic pollution from the defence settlements whereas siltation due to catchment degradation and construction of roads by Border Roads Organisation (BRO) is the other problem associated with the identified lakes. None of the water bodies are monitored.

Lake Tamzey is a pristine lake having co-ordinates 88°46'137.5S"E , 27°25'54.76"N located at high altitude 3952 m having an area of 8.86 ha. This lake is under the

ownership of Forest & Environment Department, Government of Sikkim is a protected biodiversity and small streams. In the catchment of this lake no human habitation as well as no industries are located. However, there are defence establishments within catchment area. It is a snow fed lake and the flora and fauna of the place is limited to alpine species like snow leopard, Himalayan black bear, tahr, blue sheep and migratory birds. No action proposed by the state.

Lake Gurudongmar is a pristine lake having co-ordinates 88°42'27.5" E, 27°2'1.22" N located at high altitude 5425 m & is having an area of 108.81 ha. This lake is under the ownership of Forest & Environment Department and is protected for its biodiversity. It is a glacier fed lake and the catchment area is covered with sparse vegetation comprising of dwarf Rhododendron species, primulas etc. The area is a good habitat for high altitude rare and endangered animals like Kyang, Blue Sheep, Marmot, Snow Leopard, Tibetan Snow cock etc. Water quality of the lake is not assessed & no action proposed by the state. *The details of other lakes/ponds could not be included as the provided information was not legible.*

2.3.24. Tamil Nadu

Chief Secretary, Tamil Nadu Government vide letter dated 26.05.2020 requested time up to September 2020 for submission of information as per the format circulated by CPCB.

Tamil Nadu Pollution Control Board vide e-mail dated 30.05.2020 informed that in Tamil Nadu State, 14,341 water bodies are under the custody of Public Works Department (PWD) in 32 Districts in TN. During the last five years 4,718 water bodies have been restored at a total cost of Rs.1308.49 Lakhs under various schemes such as Repair, Renovation and Restoration (RRR), Tamil Nadu Irrigation Agriculture Modernization

Project (TNIAMP) Phase I, Kudimaramath, De-silting of water bodies for city water supply, De-silting of reservoirs, De-silting by NGO, traditional water bodies and National Bank For Agriculture & Rural Development (NABARD) aided schemes. Restoration work of 1,717 water bodies is under progress at an estimated cost of Rs. 445.3 Crore. 29440 out of 63,732 encroachments have been removed during the last five years in 32 districts by the PWD. Water Quality assessment of Tanks is under progress and same has been taken up as per Government order GO(MS) No 124/PW/W2/dt 27/08/2019. As informed, 229 Tanks in 29 districts has been prioritized and identified as polluted by PWD and Environment Department.

Further the Public Works Department planned to restore/renovate 906 tanks at an estimated cost of Rs. 649.55 Crore under TNIAMP (phase II), 89 tanks at an estimated cost of Rs. 49.31 Crore under RRR , 3 tanks at an estimated cost of Rs. 12 Crore under Environmental Protection and Renewable Energy Development Fund and one tank at an estimated cost of Rs. 9.86 crore under the Tamil Nadu Investment Programme (TNIPP Phase-II).

The agencies are supplying Clay, Silt, Savudu & Gravel available in tanks, reservoirs and other water bodies to the public, farmers and Potters and thereby increasing the capacity of tanks. The Amendment to Rule 12(2) and 12 (2-A) (a) of the Tamil Nadu Minor Minerals Concession Rules, 1959 on 27.04.2017 made by Industries Department allow potters, public and farmers of Tamil Nadu (except Chennai, Kancheepuram and Thiruvallur Districts) to take clay, silt, savudu and gravel from beds of tanks, channels and reservoirs at free of cost, for pottery, domestic and agricultural purposes. By this, original capacity of the water bodies is being restored. The quantity of silt and clay proposed to be removed for agricultural purpose shall not exceed 75 cubic metre per acre (185 cubic metre per hectare) for wet lands and 90 cubic metre per acre (222 cubic

metre per hectare) for dry lands, once in two years. The quantity of earth, savudu and gravel for domestic purposes shall not exceed 30 cubic metre. The quantity of clay proposed to be removed for pottery shall not exceed 60 cubic meter. 72.867 M.Cum of vandal earth has been issued to 6,49,059 beneficiaries throughout Tamil Nadu. Out of this, 16.272 Million Cubic Meter (MCM) of vandal earth has been issued to 1,18,215 beneficiaries through Water Resources Department.

Details of restoration of tanks under taken by Water Resources Department (WRD) Wing of Public Works Department (PWD) are detailed in subsequent paras.

Kudimaramath Scheme

The Government of Tamil Nadu revived the traditional Kudimaramath works from the year 2016-2017 to restore the Water bodies through user communities. These works include maintenance in supply channels, canals, tanks, shutters, strengthening and reconstruction of surplus weirs, sluices, etc. In Kudimaramath, works are entrusted to Farmers" Organizations / Council / Ayacutdars / Group of Ayacutdars on nomination basis for execution; 10% of the estimate cost is borne by the Farmers" Organizations / Council / Ayacutdars / Group of Ayacutdars in the form of labour or material or cash. To overcome the difficulties in mobilising funds required to commence the works 50 and make some significant initial progress, the Government have accorded approval to make an advance payment of 15% of the contract value to the Farmers" Organisations or Farmers" Councils or Ayacutdars or group of Ayacutdars, who have been nominated to carry out the works under Kudimaramath. Kudimaramath works are estimated to cost Rs.500.00 Crore in the year 2020-2021.

Repair, Renovation and Restoration (RRR) of water bodies directly linked to agriculture under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

Repair, Renovation and Restoration (RRR) is a Centre-State shared scheme under PMKSY. As per new guidelines of PMKSY, the funding pattern between Centre and State is 60:40 for drought prone areas and for non-drought prone areas the funding pattern is 25:75. This scheme involves the components such as (i) Standardisation of tank bund to standards, (ii) Desilting the tank bed to restore the storage capacity, (iii) Reconstruction / Improvements to sluices and surplus arrangements, (iv) Desilting and strengthening of feeder channel to ensure supply to tanks.

During Phase I and II (2014-15), 104 tanks renovated at a cost of Rs.54.32 Crore. In Phase III (2017-18), 49 tanks sanctioned at an estimated cost of Rs.23.43 crore in Dharmapuri, Tiruvannamalai, Vellore and Virudhunagar Districts. Works completed in 49 tanks. In Phase IV (2019-20), 89 tanks to be renovated at a cost of Rs.49.31 Crore in Sivagangai, Ramanathapuram, Virudhunagar, Krishnagiri, Dharmapuri, Coimbatore and Tiruppur Districts. In Phase V, 10 tanks are to be renovated at a cost of Rs.35.86 crore in Dindigul and Vellore Districts. Proposal is under the consideration of Government of India.

Desilting of Dams / Water bodies

To restore the water bodies to its original capacities desilting is very essential. Desilting of Water bodies are to be carried out by considering various aspects such as hydraulics of the water bodies, study of silt / sediment and its properties, cqlculation of Quantum of silt, suitable process for removal of silt, access to the water bodies for removal of silt, demand for silt / sediment etc., Desilting of major water bodies is a new attempt in Tamil Nadu and it has been decided to undertake the preliminary process for desilting of

Vaigai Reservoir, Pechipparai Reservoir, Mettur Reservoir, Amaravathy Reservoir and Srivaikundam Anicut on pilot basis.

Tamil Nadu Irrigated Agriculture Modernization Project (TN IAMP)

Tamil Nadu Irrigated Agriculture Modernisation Project was planned for implementation in 66 sub basins to benefit an extent of 5.43 lakh hectare over a period of 7 years starting from 2017 with an outlay of Rs.2,962 Crore. This is the follow on project of the successfully completed Irrigated Agriculture Modernisation and Water Bodies Restoration and Management Project. The Project is implemented by Water Resources Department and 6 line Departments in coordination with Tamil Nadu Agriculture University, Tamil Nadu Veterinary and Animal Sciences University and Tamil Nadu Fisheries University. Under this Project, it is proposed to take up rehabilitation of 4,778 tanks, Construction of Recharge wells in water spread area of tanks. The works are proposed to be taken up in four phases. Under Rehabilitation of Flood Affected Tanks and Irrigation Channels scheme, 59 tanks have been rehabilitated.

ECO-RESTORATION OF WATER BODIES

Environmental preservation would encompass conservation of ground water, rivers, other water bodies, conservation of the zoological and botanical diversity, protection of soil and other natural formation etc. Eco-restoration activities are carried out by Water Resources Department from the year 2014-2015. Projects are sanctioned by Environmental Management Agency of Tamil Nadu under Environmental Protection and Renewable Energy Development Fund.

Eco - Restoration of Sarkarperiapalayam Eri in Avinashi Taluk of Tiruppur District, Korattur,Ambattur and Madhavaram Tank in Thiruvallur District and Paruthipattu Lake

in Avadi near Greater Chennai at an estimated cost of Rs.93.75 crore were completed. Administrative Sanction has been accorded for Revival of Chitlapakkam Tank in Tambaram Taluk of Chengalpattu District for an amount of Rs.25.00 crore, Eco-Restoration of Odathurai Tank in Bhavani Taluk of Erode District for an amount of Rs.3.20 crore and Eco-Restoration of Adambakkam, Perumbakkam and Vengaivasal tanks in Chengalpattu District for an amount of Rs.12.00 Crore.

As per the G.O.Ms.No.(4D) No.4 PW(T2)D dated.14.05.2018 the Government as allotted Rs.9.81 Crores for the work of Eco-Restoration and Protection of Peerkankaranai Tank in Tambaram Taluk of Kanchipuram District under the Tamilnadu Investment Programme (TNIPP Phase-II) . Hence, the estimate for the above work is prepared and Technically Sanctioned and is in progress. At present 52% of the works has been completed.

Tamil Nadu Pollution Control Board vide e-mail dated 27.05.2020, forwarded information provided by Director of Town Panchayats. As informed, there are 2,366 ponds under the custody of Director of Town Panchayats out of which 1,317 ponds have been selected for restoration, 1268 ponds have been restored while 49 ponds are under restoration. As informed,60% ponds have been geo-tagged, major causes for pollution in identified water bodies is improper disposal of sewage and industrial effluents, whereas the other problem associated with identified water bodies is silting, weeding, encroachments, no provision for inflow or outflow control measures, poor embankments and poor watershed management in the catchment area. Water quality assessment of water bodies could not be continued due to Covid-19 pandemic, moreover some of the ponds are dry at present. 1049 ponds have been proposed for restoration at a total cost of Rs.180.21 Crore in a period of 3 years for carrying out

various activities such as deepening, inlet and outlet provision, bund formation, fencing/tow wall, retaining wall, revetment, footpath.

2.3.25. Telangana

Telangana State Pollution Control Board vide letter dated 29.07.2020 has informed that stagnant water bodies fall under the jurisdiction of Hyderabad Municipal Water Supply & Sewerage Board (HMWS&SB), Irrigation & CAD Department (I& CAD) and Hyderabad Metropolitan Development Authority (HMDA (L&P)).

As informed, 46531 water bodies (ponds & lakes) have been identified and all water bodies under the custody of Telangana Government. As informed, 21,436 out of 27,631 water bodies have been restored and 6,195 water bodies are presently under restoration. Details are given in the table below.

Department	Total No. of lakes	Name of the programme	Sanctioned programmes	No. of programmes completed	Ongoing / under process
Minor Irrigation Dept.	46,531	1. Mission Kakatiya (MK) (A)	27,625	21,436	6,189
	166	Corporate Social Responsibility (B)	6	0	6
Grand total:	46,697	A+B	27,631	21,436	6,195

44,672 lakes are geo-tagged, 1240 lakes geo-tagged and are at approval stage, 619 lakes yet to be geo-tagged. Based on the inlet sources of the lakes, a total of 416 lakes are identified as polluted and 279 lakes restoration were taken up under Mission Kakatiya. The major sources of pollution are improper disposal of sewage, waste like municipal solid waste, plastic waste, construction & demolition waste. Other problems associated with the water bodies are silting and poor embankment. All the lakes are

categorized as fit for best designated use for irrigation purpose. A total of 235 water bodies are monitored under NWMP, out of which 13 are complying to Class B , 42 are complying to Class D, 128 are complying to Class E designated best use classification suggested by CPCB and 52 are observed to be are dry.

Water bodies taken up under Mission Kakatiya, main activities for restoration includes de-siltation, bund strengthening, feeder channels, sluice repairs, weir repair, irrigation channels.

Based on the detailed gap analysis, actions proposed as a part of restoration of water bodies (which includes rivers) is detailed in the table below

Sewage Management					
Total sewage inflow into the water body (in MLD)	**Existing Sewage Treatment Capacity (in MLD)**	**Gap in sewage treatment (in MLD)**	**Proposed No. of Treatment Facilities**	**Proposed Sewage Treatment Capacity (in MLD)**	**Implementing Agency, Estimated Cost and Time lines for completion**
2453 total state sewage	858	1595	98	1629.4	6994.51 Cr MA&UD
Industrial Effluent Management					
Total Industrial Effluent Inflow into the water body (in MLD)	**Existing Industrial Effluent Treatment Capacity (both captive and CETPs) (in MLD)**	**Gap in Industrial Effluent Treatment (in MLD)**	**Proposed No. of Treatment Facilities**	**Proposed Treatment Capacity (in MLD)**	**Implementing Agency, Estimated Cost and Time lines for completion**
Nil	2193 Industries 603MLD 593 MLD through Captive ETP and 6.24 MLD through CETP	Nil	01 CETP High TDS-	480 KLD	TSIIC, One year

Waste Management					
Type of waste	**Quantity of Waste Generation in the catchment area (TPD)**	**No. of Treatment and disposal Facilities and Capacity in the catchment area (in TPD)**	**Gap in Treatment and Disposal of Waste in the catchment area (in TPD)**	**Proposed No. of Facilities and their (in TPD)**	**Implementing Agency, Estimated Cost and Time lines for completion**
MSW*	8993	1 Integrated SWM facility with 6500 TPD capacity	2493	Setting up of processing facilities under progress	--
HW*	3,51,992 TPA	One TSDF with incineration, 3 Alternative fuel and raw material facility, Co-processing in cement plants and recyling	Nil	Nil	NA
BMW*	20.47	11 CBMWTFs	Nil	Nil	NA
C & D*	1500 TPD Approx in GHMC area	1 No. 750 TPD	750 TPD	1 No proposed with capacity 750 TPD	GHMC One year
Plastic*	500 TPD which is part of MSW	1 Integrated SWM facility with 6500 TPD capacity	--	--	--

Monitoring Tool:- A website is developed for Mission Kakatiya to track the progress of works online and proposed to effect the payments duly linking the Bill Monitoring System with this website.

2.3.26. Tripura

Tripura State Pollution Control Board vide letter dated 26.05.2020 informed that ULBs/ Urban Development Department, Department of Science Technology & Environment (DSTE), Tripura State Pollution Control Board (TSPCB), Horticulture & Forest Department, District Administration are responsible for restoration of water bodies in Tripura State. As informed, 180 Ponds have been identified and all ponds fall under the purview of Government of Tripura. Thirty Ponds have been selected for restoration while 26 pond are currently under restoration. All the waterbodies have been geo-tagged. The major causes of pollution are (i) improper disposal of sewage (ii) municipal solid waste (iii) plastic waste and (iv) construction & demolition waste whereas the other problems associated with the water bodies are (i) silting (ii) weeding (iii) poor embankment and (iv) disposal of various kinds of waste. The designated use of water body is Pisciculture, irrigation, bathing, domestic use. As per assessment of water quality of 180 identified ponds by Tripura State Pollution Control Board, 124 ponds were found to be complying to primary water quality criteria for bathing.

Sl. No.	Action plan for Restoration water bodies of Tripura	Implementing Agency	Time Line
I.	**Restoration Phase**		
(a)	Maintenance of bank of water body by increasing the height of bank of water bodies following the Statutory guideline issued by the Government of Tripura	ULBs/ Urban Development Department	December, 2020

Sl. No.	Action plan for Restoration water bodies of Tripura	Implementing Agency	Time Line
(b)	Prevention of the water flow from entering into the water bodies including the prohibition of agricultural runoff - carrying fertilizers, pesticides/ insecticides / herbicides and other pollutants into water bodies such as lakes, rivers, ponds). The usual effect of this type of pollution consists of algae growing in affected water bodies.	ULBs/ Urban Development Department	December, 2020
(c)	De-siltation and de-weeding activity of water body, if required	ULBs/ Urban Development Department	December, 2020
(d)	Identification of buffer zone and its development and maintenance	ULBs/ Urban Development Department (If required DSTE/ TSPCB may consulted for technical guidance)	December, 2020
(e)	Greenery development in and around the Water bodies, if required	ULBs/ Urban Development Department (if required Horticulture & Forest Department may consulted for technical guidance)	March, 2021
(f)	Proper disposal of waste arising from de-silting and de-weeding of water body	ULBs/ Urban Development Department	March, 2021
(g)	Strict vigilance to be made to check any kind of industrial effluent or drains meeting any water body	ULBs/ Urban Development Department	Continuous activity
II	**Protection phase**		
(a)	Prohibition of dumping of municipal Solid, plastic, bio-medical waste and other wastes particularly in water bodies by providing adequate dustbins	ULBs/ Urban Development Department	December, 2020
(b)	Enforcement of laws and imposition of penalty/ EC	ULBs/ Urban Development	Continuous Activity

Sl. No.	Action plan for Restoration water bodies of Tripura	Implementing Agency	Time Line
		Department/ District Administration/ TSPCB	
(c)	Generation of mass awareness to conserve water bodies involving local NGOs and Eco Clubs	ULBs/ TSPCB	Continuous Activity
III	**Improvement phase (adaptation of in-situ techniques for remediation of ponds or lakes)**		
(a)	Physical treatment approaches-Aeration (Surface or Diffused): installation of fountain/aerator, if required	ULBs/ Urban Development Department/ District Administration	Continuous activity
(b)	Other **in-situ techniques**, if required: a. **Aquatic plants**: water hyacinth, water lettuce, pond weed, duckweed, typhagrass b. **Aquatic animal**: introduction of snails and shellfish etc. c. **Biological techniques**: use of enzyme, hydroponic technique, floating treatment wet lands (FTW) using water hyacinth	ULBs/ Urban Development Department/ District Administration	Continuous activity
IV	**Sustenance Phase**		
(a)	Monitoring of implementation of action plan.	Urban Development Department/ District Administration	Continuous activity
(b)	Checking encroachments in the Buffer Zone	ULBs/ Urban Development Department/ District Administration	Continuous activity
(c)	Assessment of Water Quality of the water bodies to check the pollution load	TSPCB	Half yearly basis

2.3.27 Uttar Pradesh

As per information received from Forest Department, Auraiya, Government of Uttar Pradesh vide letter dated 31.08.2020 submitted information to UP Pollution Control Board, 508 ponds have been identified out of which 484 are owned by Forest Department, Auraiya, Government of Uttar Pradesh and 24 ponds belongs to private/individuals. As informed, all the identified ponds have been selected for restoration and geo-tagged. Major causes of pollution in identified ponds are dumping of domestic sewage, solid waste, washing and bathing of animals in rural areas and in urban areas main causes of pollution in ponds due to improper disposal of municipal sewage and solid waste. Water quality of all the identified ponds not been provided however, it was informed that all the identified 508 ponds are complying to designated best use water quality criteria for agriculture/fishing. UP State Wetland Authority has already restored 84 ponds and surroundings of 424 ponds are being cleaned through public participation.

2.3.28. Uttarakhand

As per information received from Uttarakhand Pollution Control Board vide letter dated 21.05.2020, the Board has requested Uttarakhand Lake Development Authority, Nainital to take necessary action for ensuring compliance to Hon'ble NGT orders passed in O.A No. 325/2015. However, no information has been received by CPCB from Uttarakhand Lake Development Authority, Nainital.

2.3.29. West Bengal

As per information received from Department of Environment, West Bengal & West Bengal Pollution Control Board vide e-mail dated 25.05.2020 requested CPCB to

consider the initial plans submitted vide e-mail dated 01.10.2019 by West Bengal Pollution Control Board. The State has constituted a State Level committee for Restoration of Water Bodies & prepared the initial action plan for restoration of water bodies. The state has not submitted the information as per the format circulated by CPCB. However, initial action plan for restoration of water bodies proposed by West Bengal is detailed in subsequent paras.

Data from State Level Committee for Restoration of Water Bodies is incomplete due to the paucity of time, priority was given to data obtained from the Department of Fisheries and Urban and Rural Local Bodies. The Committee sought further extension of the date of submission. State Government is embarking upon the task of Minor Irrigation Census as mandated by the Ministry of Water Sources, Government of India in October 2019 and the opportunity to identify all the waterbodies in course of the census may be fully utilised to prepare detailed an exhaustive inventory of the waterbodies which would help prepare detailed plans for restoration and conservation of waterbodies. Hence, for the urban areas the deadline requested was 31 December 2019 while the complexity of the problem and a large number of Waterbodies in the rural areas needed time till 31 March 2020 to assimilate quality data.

The Committee reiterates its commitment to follow the directions of the Honourable Tribunal and pleaded that State Government may be given time up to 30 April 2020 to submit the compiled data. This action plan has identified zero tolerance to further encroachments of a single waterbody of the state, whatever be the ownership pattern-state or private.

Major action points with specific tasks for specific departments and agencies considered responsible for taking part in activities for restoration and conservation of water bodies in the State of West Bengal are detailed below:-

- ✓ To ensure no further encroachment of waterbodies in the state (responsibility of respective custodian)
- ✓ Creation of information system regarding the water resource (Water Resource Investigation & Development Department; Department of Science & Technology; Department of Fisheries)
- ✓ Public access to water environmental information (Water Resource Investigation & Development Department; Department of Science & Technology)
- ✓ Policy on state control over water resources (policy to be formulated by the WRIDD in consultation with the Environment Department)
- ✓ Ensure wise/sustainable use of water resource (all custodians with active facilitation and awareness generation by the district administration and the urban/ rural local bodies)
- ✓ Public participation in environmental planning and decision making (the district administration and the urban/ rural local bodies)
- ✓ Responsibility of the business sector that utilises water for profit (State Pollution Control Board/ Environment Department to formulate pol icy/ guidelines)
- ➢ *The action plan has been envisaged in five phases with identification of responsible agencies, with specific timelines for the agencies.*

Recognition Phase: - About 15,000 such waterbodies have been identified including the threats through a quick survey. The list will be ready by end of this year through complete survey.

Restoration Phase:- Restoration of any waterbody should be considered only based on the needs and its utilities. General steps to be followed for restoration of water bodies include (i) Assessment of water quality of the selected waterbody; (ii) Need for restoration of the waterbody, (iii) Identification of sources of pollution, quantification and making detailed gap analysis

Protection Phase, Improvement Phase, and Sustenance Phase of waterbodies will be planned and implemented after taking into account the progress in the works according to the first two phases- Recognition, and Restoration.

2.3.30. Andaman & Nicobar (UT)

Andaman & Nicobar Pollution Control Committee (A & N PCC) vide letter dated 09.07.2020 submitted summary report received from the Port Blair Municipal Council & Andaman Public Works Department. As per the information provided, 37 water bodies (ponds, ring wells, bore wells, reservoir & weir) have been identified. The designated best use of the water body is for drinking purpose. As informed, no sewage discharge into any of the water bodies and condition of all the water bodies observed to be good and therefore, no action is required for restoration of identified water bodies in the Andaman & Nicobar.

2.3.31. Daman & Diu (UT)

As per the information received from Pollution Control Committee, Daman and Diu vide letters dated 29.07.2020 and 04.08.2020, information provided as per the format circulated by CPCB. Daman Municipal Council, District Panchayat, Daman are the concerned authorities dealing with the restoration of stagnant water bodies in the UT. In Daman and Diu, one lake and 5 ponds have been identified. All six bodies are under

the custody of Daman and Diu UT Administration and Geo-tagging is not done. As informed, there is no discharge of sewage or industrial effluent into the pond or lakes. Weeding is the major problem associated with the identified pond and lakes. Also, none of the water bodies are monitored to assess the status of water quality. However, additional measures suggested in case of Bhitwadi Dhobi Pond, Damanwada Panchayat; Moti Vankad Pond, Bhimpore Panchayat, Daman; Jani Vankad Pond, Bhimpore Panchayat, Daman; Ramkund Pond, Daman; Palatara Pond, Patlara Panchayat, Daman which include: -

- *deepening & beautification work is carried out by District Panchayat, Daman and Timelines for Completion –By December 2021.*
- *Public participation for cleaning surrounding is carriedout during various Swacch Bharat Mission-Gramin Campaigns*

2.3.32. Delhi

Office of the Wetland Authority, Department of Environment, Government of NCT of Delhi, New Delhi vide letter dated 22.05.2020 informed that information pertaining to water bodies called by Hon'ble NGT could not be collected on account of the Pandemic leading to the imposition of Lockdown and all water body owing agencies/ Departments had to divert their manpower and resources for emergency medical duties. However, certain information has been collected, compiled and submitted to CPCB are detailed in subsequent paras.

As informed by The Wetland Authority vide letter dated 22.05.2020, there are 49 ponds which are under the jurisdiction of Delhi Development Authority (DDA) & Horticulture Department and all 49 ponds have been selected for restoration and 4 ponds have already been restored. These ponds are primarily used for horticulture irrigation of parks

& recreation purposes. Also, 32 ponds are primarily being used for rainwater harvesting and recharging of groundwater. Most of the ponds which are wet throughout the year are supported by polluted local drains. Action plans have been prepared to treat the drain sewage by installing STPs as per parameters fixed by Hon'ble NGT. Eight ponds of Horticulture Department have been handed over to DJB for rejuvenation. Unique Identification Number (UIN) for all the ponds have been provided by DDA. Sources of pollution have been identified. There are 55 ponds under the jurisdiction of Block Development Officer (BDO) (North & North West), 38 ponds under the jurisdiction of BDO (South West), 3 ponds under the jurisdiction of EDMC, 21 ponds under the jurisdiction of SDMC, 6 ponds under the jurisdiction of North MCD, 10 ponds under the jurisdiction of ASI & 6 ponds are under the jurisdiction of Delhi Jal Board (DJB) and not all the water bodies are geo-tagged as well as assessed for its water quality based on the designated best use.

Proposed action plans for restoration of water bodies includes

(i) installation of STPs, (ii) Fencing/Railing/ Beautification/Boundary wall repairs, (iii) fencing to prevent encroachment under progress, (iv) Demarcation of Land, (v) To act on Domestic waste/ Plastic waste/Municipal waste, (vi) De-siltation & de-weeding to maintain the depth of Pond, Biological & Chemical treatment of Ponds, (vii) Restoration of natural drains like Silt control measures in natural drains, (viii) outflow and outflow flood control provision, (ix) Earthen embankment around the pond, (x) Public Participation for Cleaning of surroundings, (xi) Maintaining a buffer distance, (xii) fence of at least 6' high to avoid entry of people or throwing of garbage, (xiii) greenery in development in the 1 m space including plantation of perennial plants (xiv) Training and Awareness Programme for local people, (xiv) Installation of Bench and instruction

Board, (xv) Restoration of Natural drains, (xvi) Earthen embankment surrounding the pond, (xvii) Training to the staff for maintaining the water body.

2.3.33. Lakshadweep (UT)

Lakshadweep Pollution Control Committee vide letter dated 21.03.2020 informed that there is no natural surface water body in the UT of Lakshadweep. The available sources of limited groundwater which is tapped using man made wells or ponds (big wells) & used for the purpose of bathing, washing etc. These rectangular or square shaped manmade wells are considered as pond in the islands. The length of these ponds varies from 5 to 30 m and the breadth from 0.5 to 1.5 m. These ponds are protected by cement bricks or stone/boulder packing.

The UT Administration is taking steps to prevent the contamination these wells/ponds (ground water) by way of installation of bio-toilet/bio-digester initially 100% in Kavaratti and then in all the islands. Geotagging is not done, but latitude and longitude details of all the water bodies are provided. Improper disposal of sewage is the chance of faecal contamination of artificial ponds. Other problem associated with the artificial ponds is damages to the protection walls. The UT has identified 297 Ponds (manmade dug wells for outdoor bathing) present in the territory, wherein the total water bodies restored are 59 and total number of water bodies presently under restoration are 238. Prepared action plans for rejuvenation of 238 ponds. As per Lakshadweep PCC, the water quality of dug wells is complying to the designated best use criteria. However, the restoration of artificial ponds includes activities such as cleaning and maintenance/construction of protecting walls.

The Rejuvenation work will be carried out through Village Dweep Panjayath in 2 phases as detailed below:

- 92 Number of artificial ponds proposed for rejuvenation in Phase I (start from April 2020 completion by September 2020)
- 146 Number of artificial ponds proposed for rejuvenation in Phase II (start from September 2020 completion by March 2021)

2.3.34 Puducherry

Puducherry Pollution Control Committee (PPCC) vide e.mail dated 21.05.2020, informed that Puducherry UT has identified 927 water bodies (i.e., Lakes- 84 & Ponds-843). All the lakes are under the custody of Public Works Department, Puducherry while all the ponds are under the custody of Commune Panchayats. As informed, 547 water bodies (34 Lakes & 513 Ponds) have been selected for restoration and 321 water bodies (19 Lakes & 302 Ponds) have already been restored while 43 water bodies (15 lakes & 28 ponds) are currently under restoration. All the water bodies are geo-tagged and allocated Unique Identification Number. It was informed that there are no polluted tanks in Puducherry region. The major causes of pollution in the identified water bodies are (i) improper disposal of sewage and (ii) dumping of solid waste whereas the other problem associated with the water bodies are (i) Silting, (ii) weeding, (iii) encroachments, (iv) no provision of inflow or outflow control measures, (v) poor embankment & (vi) poor watershed in catchment. The designated use of water body is recharge of ground water and tourism.

Action plan containing methodology and time frame for restoration of all the Tanks and Ponds has been prepared by DST&E and submitted to CPCB on 03.12.2019. Detail Project Report for Rejuvenation of 25 Tanks and 32 village ponds has been prepared under

NAFCC Scheme of MoEF&CC, GoI and it is under implementation. For other tanks and ponds Detail Project Report is under preparation by the PWD and Local Bodies.

Puducherry Pollution Control Committee (PPCC) vide e-mail dated 21.05.2020 also submitted that in UT of Puducherry, the irrigation water channels and tanks are under the custody of Irrigation Division of the Public Works Department and the village ponds lie with the respective Municipalities and Commune Panchayats under the Local Administration Department. The conservation, restoration and maintenance of the tanks and ponds are executed by the agencies besides, the District Rural Development Authority also executes works related to desilting of ponds and channels under MGNREGA.

The details of the various projects implemented by the Government of Puducherry on restoration of the Tanks and Ponds are detailed below.

- *Tank Rehabilitation Project-Puducherry (TRPP) (1998-2004)*

The task of rehabilitation of tanks was taken up by the Government of Puducherry under Tank Rehabilitation Project, Puducherry (TRPP) with the financial assistance of European Union in the year 1998 which lasted for 6 years till 2004. Under this project, all the 84 numbers of tanks located in Puducherry have been desilted and their water holding capacity has been increased from 46 MCM to 75 MCM which has given a good impact in the ground water regime of Puducherry. The rehabilitation project involved desilting of tanks and cleaning the feeder, irrigation and drainage canals to restore optimum capacity and maintaining steady supply of water for irrigation purposes. The project also prevented inundation and flooding of villages at times of incessant rain and diminished the reliance of agricultural activities on ground water resources.

The total project cost was Rs.34.73 Crore out of which the European Union extended Rs. 28.13 Crore while Puducherry government contributed Rs. 4.4 Crore and community stakeholders gave Rs.2.2 crore.

Integrated surface water management through rejuvenation of 25 tanks and 32 village ponds for Climate Change Adaptation in Puducherry Project (2016 to 2020):

The Ministry of Environment Forests and Climate Change, Govt. of India had sanctioned the project "Integrated surface water management through rejuvenation of 25 tanks and 32 village ponds for Climate Change Adaptation in Puducherry" on 30.03.2016 for an amount of Rs. 16.76 Crore. The project has following components - Rejuvenation of 25 irrigation tanks, Renovation of 32 village ponds, Capacity Building and Monitoring & Evaluation. The project duration is for a period of four years from April 2016 to April 2020.

- *Water Rich Puducherry Program (2017 onwards)*

Puducherry launched the „Water Rich Puducherry Program", in November 2017 which is an initiative to clean-up water canals and other water bodies and planting trees. As part of the initiative, "Water Rich Puducherry Team" was formed with officials from line departments to co-ordinate the various activities carried out under the program like cleaning of ponds, lakes, and canals and nearby public places, tree plantation and also encouraging the public to do the same as part of Swachh Bharat Abhiyan. Industries and institutes that consumed large quantity of water were encouraged to install rainwater harvesting structures and recharging ponds as a part of the program.

The Mission resulted in evolution of the Puducherry Water Rich Model for desilting the urban drains and rural canals with the cooperation of the general public and donor institutions. In this model, cleaning of water bodies and channels is linked to the nearest donor support from any industry or institution. The work was supervised by engineers of the Public Works Department (PWD). All contributors under this model were awarded Swachta Hi Sewa Awards by administration. The local communities were also encouraged to participate in the mission for shramdaan and monitoring of water bodies.

So far, 406 ponds have been rejuvenated and a stretch of 804 kms of irrigation channels have been desilted and cleaned in Puducherry and Karaikal districts as part of the Water Rich Puducherry Programme.

Based on the information received from the States/UTs, State-wise status on Ponds, Lakes and Restoration of Water Bodies, State-wise Status on Inventorisation, Geo-Tagging, UIN Allocation, Water Quality Assessment, Action Plans for Restoration of Water Bodies Pond compiled and presented at **Table 1** and **Table 2** below.

Table 1. State-wise Status on Ponds, Lakes and Restoration of Water Bodies

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Identified Water Bodies					Status on Restoration of Water Bodies		
			Lakes	Ponds	Tanks	Others (Pynes/ Aahars/ wells/ Reservoirs etc.)	Total No. of Water Bodies Identified	No. of Water Bodies Selected for Restoration	No. of Water Bodies Restored so far	No. of Water Bodies presently under Restoration
1	Andaman & Nicobar	No	-	-	-	-	37	-	-	-
2	Andhra Pradesh (Panchayati Raj and Rural Development Department ,Municipal Administration & Urban Development (MA & UD) Department, Municipal	No	-	-	1699	-	13171	9284	6608	781

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Identified Water Bodies					Status on Restoration of Water Bodies		
			Lakes	Ponds	Tanks	Others (Pynes/ Aahars/ wells/ Reservoirs etc.)	Total No. of Water Bodies Identified	No. of Water Bodies Selected for Restoration	No. of Water Bodies Restored so far	No. of Water Bodies presently under Restoration
	Administration & Urban Development (MA & UD) Department, Irrigation Department)									
3	Arunachal Pradesh	-	-	-	-	-	-	-	-	-
4	Assam	Yes	17	14	-	-	31	-	-	-
5	Bihar	Yes		50150		51437	101587		12867	24075
6	Chattisgarh (Department of Panchayat and Rural Development)	Yes	-	-	-	-	1658	68803	271110	-
7	Daman & Diu & Dadra & Nagar Haveli	Yes	1	5		-	6	-	-	-
8	Delhi	Yes	-	-	-	-	256	49	4	-
9	Goa	Yes	9	-	-	-	9	4	-	-
10	Gujarat	Yes	1939	42119	-	-	44058	156	3	153
11	Haryana	Yes	3	16534	-	-	16537	10794	146	189
12	Himachal Pradesh	Yes	6	-	-	-	6	4	-	4
13	Jammu & Kashmir	No	-	2815	-	-	1230	-	-	-
14	Jharkhand	Yes	-	282	-	-	282	221	4	6
15	Karnataka	Yes	-	-	-	-	33350	-	-	-
16	Kerala	Yes	-	40000	-	-	40000	-	-	-
17	Lakshadweep	Yes	-	297	-	-	297	-	59	238
18	Madhya Pradesh	Yes	-	-	-	-	66438	-	-	-
19	Maharashtra	Yes	-	-	-	-	354	-	-	-
20	Manipur	Yes	4	14	-	-	18	-	-	-
21	Meghalaya	Yes	2	-	-	-	2	1	-	-
22	Mizoram	Yes	9	31	-	-	40	-	-	-
23	Nagaland	Yes	1	8	-	1	10	2	-	2
24	Odisha	Yes	1	8	-	2	11	2	1	-
25	Punjab	Yes	-	15715	-	-	15715	600	310	290
26	Puducherry	Yes	84	843	-	-	927	547	321	43
27	Rajasthan	No	-	-	-	-	-	12127	1963	6348
28	Sikkim	Yes	4	-	-	-	4	4	1	3
29	Tamil Nadu (Public Works Department (PWD), Director of Town Panchayats)	Yes	-	-	-	-	15658	1317	5986	1766
30	Telangana	Yes	-	-	-	-	46531	27631	21436	6195
31	Tripura	Yes	-	180	-	-	180	30	-	26
32	Uttar Pradesh	Yes	-	508	-	-	508	504	84	424
33	Uttarakhand	No	-	-	-	-	-	-	-	-
34	West Bengal	No	-	-	-	-	15000	-	-	-
		Total	**2080**	**169523**	**1699**	**51440**	**413911**	**132080**	**320903**	**40543**

Table 2 State-wise Status on Inventorisation, Geo-Tagging, UIN Allocation, Water Quality Assessment, Action Plans for Restoration of Water Bodies Pond

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Inventory Status as Reported by States/ UTs	Status on Geotagging	Status on UIN Allocated	Status on Assessment of Water Quality of Water Bodies in the State	Prioritisation based on Designated Best Use Criteria or Bathing Criteria Compliance	Preparation & Submission of Action Plans	Proposed Timelines for Restoration	Water Bodies under the Custody of Concerned Authorities in the State/UT
1	Andaman & Nicobar	No	Yes	No	No	Not Provided	Not Provided	Not required as per A & N UT	Not Provided	*Port Blair Municipal Council & Andaman Public Works Department.*
2	Andhra Pradesh	No	Yes	Yes	No	No	No	No	Not Provided	*Panchayati Raj and Rural Development Department ,Irrigation Department, Municipal Administration & Urban Development (MA & UD) Department, Municipal Administration & Urban Development (MA & UD) Department,*
3	Arunachal Pradesh	No	No	No	No	No	No	Being prepared for 3 lakes	-	*Department of Environment & Forest*
4	Assam	Yes	Yes	No	No	Yes	No	No	-	*Environment and Forest Department, Government of Assam*
5	Bihar	No	Yes	Yes	No	No	No	No	-	*Environment and Forest Department , Minor Water Resources Department, Govt. of Bihar and Rural Development Department, Govt. of Bihar*
6	Chattisgarh	Yes	Yes	Yes	Yes	Not provided	Yes	Yes (Pilot Project)	-	*Department of Panchayat and Rural Development , Urban Administration and Development Department*
7	Daman & Diu & Dadra & Nagar Haveli	Yes	Yes	No	No	No	No	Yes	Not provided	*Daman Municipal Council, District Panchayat, Daman*

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Inventory Status as Reported by States/ UTs	Status on Geotagging	Status on UIN Allocated	Status on Assessment of Water Quality of Water Bodies in the State	Prioritisation based on Designated Best Use Criteria or Bathing Criteria Compliance	Preparation & Submission of Action Plans	Proposed Timelines for Restoration	Water Bodies under the Custody of Concerned Authorities in the State/UT
8	Delhi	Yes	Yes	Yes	No	No	No	Yes	-	*DDA, BDO/REV. (PANCHAYAT), EDMC, SDMC, NORTH MCD, DJB, PWD, CPWD, ASI, FOREST, DELHI ARCHAEOLOGICL DEPTT., DELHI WAKF BOARD, DUSIB, DSIIDC, JNU and IIT*
9	Goa	Yes	Yes	NO	Not provided	Yes	Yes	Yes	March 2021	*Goa State Wetland Authority (GSWA) ,Goa State Pollution Control Board (GSPCB) ,*
10	Gujarat	Yes	Yes	In Progress	No	No	No	No	-	*Panchayat Department , Revenue Department , Water Resources Department), and Urban Development Department)*
11	Haryana	Yes	Yes	Yes	Yes	Partial	Partial	Yes	2020-2024 (14 Ponds)	*The Haryana Ponds and Waste Water Management Authority (HPWWMA) , Irrigation & Water Resources Dept. Development & Panchayats Department of Urban Local Bodies and Govt./Educational Institutes*
12	Himachal Pradesh	Yes	Partial	No	No	Yes	Yes	Yes	2020-21	*Himachal Pradesh State Wetlands Authority (HPSWA), HPSPCB, RD & UD, H.P.Forest Department*
13	Jammu & Kashmir	No	Partial	No	No	No	No	No	-	*Forest Department, Wildlife, Soil & Water Conservation Department, Revenue Department, Jammu Municipal Corporation, DERS/Revenue*

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Inventory Status as Reported by States/ UTs	Status on Geotagging	Status on UIN Allocated	Status on Assessment of Water Quality of Water Bodies in the State	Prioritisation based on Designated Best Use Criteria or Bathing Criteria Compliance	Preparation & Submission of Action Plans	Proposed Timelines for Restoration	Water Bodies under the Custody of Concerned Authorities in the State/UT
14	Jharkhand	Yes	Yes	In progress	In progress	No	No	Yes	-	*Urban Development and Housing Department*
15	Karnataka	Yes	Yes	Yes	Yes	Partial	Partial	No	-	*Bengaluru Water Supply & Sewerage Board (BWS&SB), Bengaluru Development Authority (BDA) & Cauvery Neeravari Nigama Limited (CNNL).*
16	Kerala	Yes	Yes	Yes	Yes	Partial	No	Yes	30.03.2022	*Irrigation Design and Research Board (IDRB), Irrigation Design and Research Board (IDRB), ULBs*
17	Lakshadweep	Yes	Yes	No	No	Yes	Yes		September, 2020	-
18	Madhya Pradesh	Yes	Yes	Yes	Yes	Partial	Partial	Partial	2020-22	*The Environmental Planning and Coordination Organisation (EPCO)*
19	Maharashtra	Yes	No	Partial	No	No	No	Yes	-	*Water Resources Department, ULBs*
20	Manipur	Yes	Yes	Yes	Partial	Yes	Yes	No	-	*Environment & Climate Change, Water Resources Department, Public Health & Engineering Department, Trade, Commerce and Industries, Manipur Pollution Control Board and Loktak Development Authority*
21	Meghalaya	Yes	Yes	No	No	Yes	No	Yes	-	*Meghalaya SPCB, Tourism Department, Department of Fisheries, Department of Forest and Environment*
22	Mizoram	Yes	Yes	Yes	No	No	No	No	-	*Irrigation and Water Resources Department, Govt. of Mizoram*

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Inventory Status as Reported by States/ UTs	Status on Geotagging	Status on UIN Allocated	Status on Assessment of Water Quality of Water Bodies in the State	Prioritisation based on Designated Best Use Criteria or Bathing Criteria Compliance	Preparation & Submission of Action Plans	Proposed Timelines for Restoration	Water Bodies under the Custody of Concerned Authorities in the State/UT
23	Nagaland	Yes	Yes	No	No	No	No	Yes	31.03.2022	*Public Health Engineering Department, Nagaland Pollution Control Board and Dimapur Municipal Corporation*
24	Odisha	Yes	Yes	Yes	No	No	No	Yes	March,2022	*Orissa Wetland Development Authority ,Water Resources Department*
25	Punjab	Yes	Yes	Yes	Yes	No	No	Yes	-	*Department of Rural Development & Panchayats (DRDP), Department of Local Government, Punjab Pollution Control Board (PPCB) and Directorate of Environment and Climate Change (DECC), Department. of Science, Technology & Environment (DSTE), Government of Punjab*
26	Puducherry	Yes	Yes	Yes	Yes	No	No	Yes	-	*Irrigation Division of the Public Works Department and the village ponds lies with the respective Municipalities and Commune Panchayats under the Local Administration Department.*
27	Rajasthan	No	No	No	No	No	No	No	No	*Water Resources Department, Government of Rajasthan*
28	Sikkim	Yes	Yes	Yes	No	No	No	No	-	*Forest & Environment Department*
29	Tamil Nadu	Yes	-	-	-	-	--	-	-	*Public Works Department (PWD)*

S. No	Name of State/UT	Information submitted as per the format circulated by CPCB	Inventory Status as Reported by States/ UTs	Status on Geotagging	Status on UIN Allocated	Status on Assessment of Water Quality of Water Bodies in the State	Prioritisation based on Designated Best Use Criteria or Bathing Criteria Compliance	Preparation & Submission of Action Plans	Proposed Timelines for Restoration	Water Bodies under the Custody of Concerned Authorities in the State/UT
30	Telangana	Yes	Yes	Partial	No	Partial	No	Yes	One Year	*Hyderabad Municipal Water Supply & Sewerage Board (HMWS&SB), Irrigation & CAD Department (I& CAD) and Hyderabad Metropolitan Development Authority (HMDA (L&P)).*
31	Tripura	Yes	Yes	Yes	No	Partial	No	Yes	Dec,2020	*ULBs/ Urban Development Department, Department of Science Technology & Environment (DSTE), Tripura State Pollution Control Board (TSPCB), Horticulture & Forest Department, District Administration*
32	Uttar Pradesh	Yes	Yes	Yes	No	No	No	No	-	*Forest Department, Auraiya, Government of Uttar Pradesh*
33	Uttarakhand	No	-	-	-	-	--	-	-	
34	West Bengal	No	-	-	-	-	--	-	31.12.2020	*Fisheries, P&RD, L&LR & Urban Development, DST, Department of IT, DoE*

2.4. Consolidated Report Submitted by the District Magistrates

Hon'ble passed order on 01.06.2020 in OA No. 325 of 2015. Relevant portion of the directions passed by the Hon'ble NGT on 01.06.2020 in OA No. 325 of 2015 is reproduced below:-

Para .6: *However, we wish to add a further direction having bearing on the subject. We have already noted the significance of protection and restoration of water bodies for the environment. The protection of water bodies not only add to availability of water for different purposes, it also contributes to recharge of ground and maintaining e-flow in the rivers, is congenial to micro climate in sub-watersheds as well as enhancing the natural aesthetics. While the rain water harvesting is certainly important, harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of waterbodies takes place, excess flood/rain water can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one*

pond/water body must be restored in every village, apart from creation of any new pond/water body.

Para .6: Action taken in this regard may be compiled at State level and reports furnished to the Chief Secretaries of the States by the concerned District Magistrates. Consolidated report of the State may thereafter be forwarded to the CPCB preferably by 31.08.2020 and CPCB may cover this aspect also in its meeting.

In compliance to Hon'ble NGT order dated 01.06.2020 direction passed by the Hon'ble NGT, States viz., Andhra Pradesh, Kerala, Karnataka, Himachal Pradesh, Madhya Pradesh, Rajasthan, Uttar Pradesh and Telangana and UTs viz., Chandigarh, Delhi and Puducherry have submitted information. State-wise status of information received by CPCB as on 23.10.2020 in connection with Action Taken Report of District Magistrate of States/UTs is *detailed in subsequent paras:-*

2.4.1 Andhra Pradesh

As per the information received from Andhra Pradesh Pollution Control Board vide letter dated 02.09.2020, Collector and District Magistrate convened meetings with the stakeholders of 12 Districts in Andhra Pradesh during 01.07.2020 and 02.09.2020. District-wise information as received is detailed below:-

Kurnool District

1. Collector and District Magistrate convened the meeting with the stakeholders on 06.07.2020.
2. Urban Local Bodies- 4 ULBs have submitted action plans in the prescribed format for 6 water bodies for restoration.

3. Water Resources Department- A total of 61 of 574 water bodies (irrigation)have been selected for restoration work and the action plans to restoration are submitted in prescribed formats.

   A total of 2766 water tanks are located in about 967 gram panchayats and all these ponds have been completely protected from pollution as per the information provided by the department.

4. Panchayati Raj Department- 574 number of tanks are available and are vested in the gram panchayats. Also informed that there are no sources of pollution and the water quality is in good condition.
5. District Water management Authority- Provided a list of 382 number of tanks with area more than 0.5 acres. These are check dams and percolation tanks for recharging groundwater.

Srikakulam District

1. Superintendent Engineer, DRO convened the meeting with stakeholders on 01.07.2020.
2. Water Resources Department- There are about 8298 tanks/ponds located in the district and there is no source of pollution, hence no action plans are proposed.
3. Rural Water Supply Department- only one tank is located at Tekkali and there is no source of pollution, hence no action plans are proposed.
4. District water management Authority- List of 1557 water tanks furnished and these are proposed for de-silting and deepening during 2020-21.
5. Panchayati Raj Department- 6331 number of tanks are available and are vested in the gram panchayats. Also, informed that there are no sources of pollution and the water quality is in good condition.

6. Urban Local Bodies- Two water tanks, one each at Municipal Corporation, Srikakulam & Palakonda have been taken up for restoration and the action plan pertaining to them will be furnished.

Vijayanagram District

1. Collector and District Magistrate convened teleconference with the stakeholders on 30.06.2020
2. Irrigation Department- There are 9 projects and restoration of water quality is not required as per the information provided.
3. District water management Authority- There are 2399 water bodies in the district which are check dams and percolation tanks for recharging groundwater. There are 8 check dams & one mini percolation tank under restoration under IWMP Scheme.
4. Urban Local Bodies- Out of 41 water tanks have been selected for restoration, restoration of 26 water bodies is completed and 15 are under restoration.

Vishakhapatnam District

1. Collector and District Magistrate convened teleconference the meeting with the stakeholders on 27.06.2020
2. Urban Local Bodies- List of water bodies located in the Municipality is provided.
3. Irrigation Department- Provide the list of minor irrigation tanks/ponds with status of geo-tagging

East Godavari District

1. Collector and District Magistrate convened teleconference with the stakeholders on 02.07.2020

2. Urban Local Bodies- 20 water bodies are identified for restoration, 10 are restored and one is under restoration. Nine are taken up for restoration.
3. Irrigation/Water resources Department- 1354 number of tanks/ponds are present in the districts. Also informed that there are no sources of pollution, hence no action plan is proposed.
4. Panchayati Raj Department- 2873 number of tanks/ponds are present in the districts. Also informed that there are no sources of pollution, hence no action plan is proposed.
5. Rural Water Supply- A total of 43 tanks/ ponds are under their jurisdiction for supplying of drinking water, which are completely protected from any kind of contamination.

West Godavari District

1. Collector and District Magistrate convened teleconference with the stakeholders on 13.07.2020
2. Panchayati Raj Department- List of 2955 water bodies is provided.
3. Irrigation Department- To provide list of 1336 of minor irrigation tanks
4. Urban Local Bodies- Action plan for 16 tanks/ponds have been submitted

Krishna District

1. Collector and District Magistrate convened the meeting with the stakeholders on 25.07.2020

Guntur District

1. Joint Collector and Additional District Magistrate convened the meeting with the stakeholders on 25.07.2020

Prakasam District

1. Joint Collector and Additional District Magistrate convened the meeting with the stakeholders on 21.07.2020

Nellore District

1. Superintendent Engineer, Irrigation Department convened the meeting with the stakeholders on 20.07.2020

YSR Kadapa District

1. Water Resources Department- List of 1886 tanks/ponds pertaining to Irrigation Department provided. All these tanks are used for irrigation purposes and 48 tanks have been selected for restoration.
2. Rural Water Supply Department- A total of 2609 tanks are located in 795 gram panchayats and 50 mandals of the district. All these tanks are protected from contamination.
3. District water management Authority- information furnished on 2465 water bodies consisting of check dams, percolation tanks, mini percolation tanks which are under MGNREGS & IWMP for the year 2020-21.
4. Panchayati Raj Department- 914 tanks are available and are vested with the gram panchayats. Also informed that there are no sources of pollution and the water quality is in good condition.
5. Urban Local Bodies- Municipalities, Myukudur and Badvel have identified one & 3 tanks under their jurisdiction, respectively for restoration and the details provided in the circulated formats.

2.4.2 Himachal Pradesh

Himachal Pradesh State Wetlands Authority vide letter dated provided information as received from District Magistrates in compliance to Hon'ble NGT order dated 1.06.2020 passed in O.A No. 325/2015. Vide afore-said letter Himachal Pradesh State Wetlands Authority informed that 9 Districts Magistrates namely viz Kangra, Kinnaur, Kullu, Lahaul & Spiti, Una, Sirmour, Shimla, Solan and Mandi conducted meetings during 11.06.2020 to 13.07.2020 which was attended by Department of Agriculture, Fisheries, Forest, Rural Development, Jal Shakti, DRDA , Department of Soil Conservation, Block Development Officers, ULB, HP State Pollution Control Board, Nagar Panchayat, Municipal Corporation, Divisional Forest Officers. During the year 2019-20, 2404 water harvesting structures have been undertaken in Kangra District, 10 catchment area treatment & 3 watershed plans undertaken in Kinnaur district, 510 water bodies have been undertaken for revival in Una district, 12 water bodies constructed under departmental & CAMPA schemes, 34 water bodies have been created and creation of 151 water bodies ongoing in Sirmour district, 6641 water harvesting structures completed and 590 water harvesting structures ongoing in Shimla district. Also, various structures (like check dam/nallah bunds(416), farm ponds (263), tanks/roof water harvesting structures (1148), ground recharge structure (90), well bawries/kuhal (10), revival of water bodies (8)) have been constructed under WDC-PMKSY(IWMP Projects) in Shimla district. 562 water bodies restored completely, 107 water bodies under restoration and action plan prepared for restoration of 344 water bodies in Solan district whereas in Mandi district 624 water structure works selected for renovation, 2863 water structures renovation under progress under MGNREGA/RWHS, Jal se Krishi Ko Bal & Pradhan Mantri Krishi Sinchai Yojana, Flow Irrigation/Farm water Management/ Schedule Cast Sub Plan Tank/ National Food Security Mission Tank,

Compensatory Afforestation Fund Management and Authority (CAMPA) fund/Soil Moisture Conservation Budget Head.

During the year 2020-21, 2156 water harvesting structures have been undertaken in Kangra District, 17 water bodies have been selected for restoration and creation of 17 water bodies completed & creation of 120 water bodies is ongoing in Sirmour district & in Mandi district 869 water structure works proposed for renovation under MGNREGA.

Himachal Pradesh State Wetlands Authority vide letter dated 29.08.2020 provided information as received from Deputy Commissioner, Hamirpur in compliance to Hon'ble NGT order dated 1.06.2020 passed in O.A No. 325/2015. Vide afore-said letter Himachal Pradesh State Wetlands Authority informed that during the year 2019-20, 2860 water harvesting structures restored/constructed whereas during the year 2020-21, 115 water harvesting structures proposed for restoration/construction under MGNREGA/ RWHS, Jal se Krishi Ko Bal & Pradhan Mantri Krishi Sinchai Yojana.

2.4.3 Karnataka

As per information received from Karnataka State Pollution Control Board vide letter dated 06.10.2020 informed that to comply with the directions issued by Hon'ble NGT regarding the restoration of at least one water tank/body per district ("The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body"), the District Magistrates of each district of Karnataka have been requested to hold meetings with stakeholder departments to take up one tank in each of the revenue village for rejuvenation vide letter dated 07.09.2020. Further, District Magistrates of each district of Karnataka have been directed to take measures for identification and rejuvenation of one water tank/body through Jalamrutha Kere Abhivrudhi Samithi

formed in each Grama Panchayat. Karnataka has the Jalamrutha Project with 5 tiers of administration starting from Grama Panchayat to State level that carries out water budget and water security planning scientifically. District Administration is the Chairman (CEO of the Zilla Panchayat is the Vice Chairman) of district level Jalamrutha Samithi, which will manage the tank rejuvenation work in well-organized way in convergence with other related departments.

2.4.4 Kerala

As per information received from Kerala State Pollution Control Board vide letter dated 14.09.2020, in compliance to Hon'ble NGT order dated 01.06.2020 in O.A No 325/1025, 892 new ponds have been created and 677 ponds have been renovated in 14 districts of Kerala (namely viz Alappuzha, Ernakulum, Idukki, Kannur, Kasargod, Kollam, Kottayam, Kozhikode, Malapurram, Palakkad, Pathanamthitta, Thiruvanathapuram, Thrissur and Wayanad).

2.4.5 Madhya Pradesh

Madhya Pradesh Pollution Control Board (MPPCB) vide letter dated 05.10.2020 submitted report of Government of Madhya Pradesh regarding the polluted ponds & lakes in the various districts of Madhya Pradesh. Also informed that the District Collectors of all the districts were made aware about the orders of Hon'ble NGT dated 1-06-2020. However, in the present times of Covid 19 crisis, the implementation of the directions as far as each and every village of each district is concerned got delayed. However, the district administration is regularly undertaking this activity for past many years and there is encouraging progress to report. It is also submitted that in the last three years period, repair / renovation, rejuvenation works of the existing rain water

harvesting / recharge structures have been undertaken under various schemes of Government of India / Government of Madhya Pradesh including MGNREGS.

During the last 3 years, 4188 no of existing water holding structures including ponds, RWH structures, village ponds etc. that have been repaired, deepened or beautified. These structures have water holding capacity of approximately 24262.72 MCM. It is submitted that the creation of rain water harvesting and water recharge structures, development of micro water shed and repair / rejuvenation, renovation and protection of water bodies of the State is being practiced regularly. District administration undertakes these works through Panchayat & Rural Development Department, WRD, local bodies, MGNREGS, PIIED etc.

During the last 3 years, 2241 water bodies have been newly constructed having 32.8 MCM total water storage capacity in 44 districts of Madhya Pradesh. Also, 4188 old water bodies have been rejuvenated or restored which are having 2426.27 MCM total water storage capacity in 51 districts of Madhya Pradesh (except Alirajpur district). Nature of works relating to rejuvenation or restoration include bund repair & waste wear strengthening, deepening & beautification, ghat construction, expansion , repair, restoration and renovation.

2.4.6 Rajasthan

Director cum Joint Secretary, Environment Department, Government of Rajasthan vide e.-mail dated 31.08.2020 informed that District Magistrates in 33 districts held meetings with the concerned authorities for ensuring compliance to Hon'ble NGT directions dated 01.06.2020 passed in O.A No 325/2015. As informed, during the last 2 years, 12127 ponds have been selected for restoration under MGNREGA , 1963 ponds have been restored and 6348 ponds undergoing restoration.

2.4.7 Telangana

Government of Telangana vide letter dated 13.10.2020 informed that restoration under the Mission Kakatiya Program taken up and a separate manual for the works that are taken up for restoration is also made available since 2015. So far, 23735 lakes have been restored and the government has incurred an expenditure of Rs 5926.4 Crore. Further, in compliance to the Hon'ble NGT orders on the restoration of at least one pond/water body in every village, it is to submit that, 6697 villages out of 10434 (as per 2011 census) are covered under Mission Kakatiya. The details are given in the following table.

PROGRESS OF MISSION KAKATIYA

As on: 22.06.2020

Sl. No.	DETAILS	MISSION KAKATIYA				TOTAL
		PHASE -I	PHASE -II	PHASE - III	PHASE - IV	
1	No of tanks sanctioned	8003	8946	6047	4629	27625
2	Total Ayacut in Lakh Acres	6.92	6.83	3.81	3.22	20.78
3	Cost of Administrative Sanction Rs. in Crores	2540.62	3170.77	1957.64	1486.94	9155.97
4	Works Grounded	7954	8863	5958	4214	26989
5	Works Completed Physically	7934	7842	3918	1742	21436
6	Expenditure incurred in Crores	1903.37	2341.74	1087.39	594.14	5926.64
7	Total Ayacut including Stabilization in Lakh Acres for the completed works	6.74	5.40	2.03	0.88	15.05
8	Silt excavated in Lakh Cubic Meters	1004.97	1003.73	271.35	104.30	2384.35
9	Storage capacity restored in TMC for the works completed	3.55	3.54	0.96	0.37	8.42
10	Works in progress (4-5)	20	1021	2040	2472	5553

2.4.8. Chandigarh

District Magistrate, Chandigarh submitted information to the Advisor to the Administrator, Chandigarh Administration vide letter dated 28.08.2020 regarding water bodies identified in Chandigarh and detailed action plans for restoration of water bodies

as submitted by Engineering Department, Forest Department of Chandigarh Administration and Municipal Corporation, Chandigarh are maintaining the identified two lakes and seven ponds in the Chandigarh UT. As per information received from Chandigarh Pollution Control Committee vide letter dated 31.08.2020, Chandigarh Engineering Department, is the concerned Department dealing with restoration of water bodies. 2 lakes and 7 Ponds haven identified by the Chandigarh UT. All the lakes and ponds have been provide with Unique Identification Number.

Sukhna Lake is having an area of 493 acres (Length-1.52 kms, Width- 1.49 kms) co-ordinates 30°44' 50.65"N, 76°48' 44.19" E. This lake is under the ownership of Chandigarh Administration. About 10,55,450 population living around the lake and there is no industrial estates surrounding lake in Chandigarh. Designated Best Use of Lake is Tourism. As informed, physical condition of the water body is good and the lake is complying to the Bathing Water Quality Criteria as per Water Quality Data of CPCB in the month of April 2020. No Action plans proposed.

4 ponds located at village Dhanas, village Kaimbwala, village Khuda Jassu & at village Maloya, are maintained by Engineering Department of UT Administration. As per assessment made by Engineering Department of UT Administration, all these ponds require restoration with measures such as de-weeding, de-silting, repairing & strengthening of embankments, connections of storm water drains at a total cost of Rs.16 Lakhs.

Dhanas Lake is having an area of 17 acres with co-ordinates 30°45' 59.50"N, 76°45' 25.03" E. This lake is under the ownership of Forest & Wildlife Department of Chandigarh Administration. The lake is situated within the reserve forest area of

Patiala-ki-Rao, Chandigarh. The impounded water is basically used for recreation and conservation of aquatic biodiversity. Main causes for pollution in Dhanas Lake is mainly due improper disposal of sewage water from PGIMER. Other problems associated with Dhanas Lake is silting & weeding. Presently, bio-remediation of wastewater is being done & floating solar fountain installed for aeration of water to add recreational value. Designated Best Use of Lake is tourism. As informed, water quality in August,2020 was observed as BOD 6.4 mg/L, DO 11.4mg/L, COD 10 mg/L, TSS 19 mg/L, NH_3-N 0.9 mg/L & PO_4 as P 0.4 mg/L. No further details provided.

As per the information provided by Municipal Corporation, Chandigarh, 3 ponds located at village Khuda Ali Sher, village Sarangpur & at village Kaimbwala fall in the purview of Municipal Corporation. These ponds are used mainly for fishing or groundwater recharge or recreation. Physical condition of the water bodies is very poor and requires restoration. At present, these 3 ponds are dry. Total expected time for restoration of each pond is 18 months at a total cost of Rs.34 lakhs. Main action plans proposed for restoration of these ponds are de-weeding, de-silting, repairing & strengthening of embankments, connections of storm water drains.

2.4.9 Puducherry

In compliance to the order of the Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs. Union of India & Ors. (Order dated 01.06.2020 in M.A. No. 26/2019 of O.A. No. 325 2015) the following actions have been taken:

i) Puducherry Union Territory consists of two districts viz. Puducherry and

Karaikal. Puducherry Pollution Control Committee communicated the order of the Hon'ble National Green Tribunal dated 01.06.2020 to both the District Collectors vide letter dated 11.06.2020 for ensuring compliance.

ii) In compliance to the said order of the Hon'ble National Green Tribunal, the District Magistrate of Puducherry District and Karaikal District convened meeting with the members of the Regional Level Committee for Restoration of Waterbodies on 19.08.2020 and 30.07.2020, respectively. The local bodies and other concerned stakeholders were informed about the order passed by the Hon'ble National Green Tribunal and strategies to be adopted for restoration and improvement of water bodies were discussed and decided in the meeting.

iii) To meet the increasing demand for water, Government of Puducherry has made every effort to rejuvenate, renovate and restore water bodies. During the year 2019-20, the District Administration of Puducherry and Karaikal organized a massive public awareness campaign and instituted critical interventions for water conservation and groundwater recharge by launching "Neerurn Oorurn (Water and Village)". and "Nam Neer (Our Water)" Programs. Rejuvenation works were taken up in convergence with MGNREGA scheme and also by involving local communities, NGOs, civil societies, students, government employees, educational institutions and corporates. In total 205 ponds / tanks in Puducherry district and 178 Ponds / tanks in Karaikal district were rejuvenated under this program. Around 200 kms of canals were desilted in Puducherry District. Desilting of 80.50 kms of major rivers/canals, 640 kms of minor canals and its

branches were carried out in Karaikal District. More than 1 lakh tree saplings were planted in the districts.

iv) Utmost importance is given for water bodies conservation program during the current year. Waterbody Restoration work proposed under MGNREGA Scheme - 2020-21, in Puducherry district 34 projects are ongoing and 20 projects have been completd whereas in Karaikal district, 28 projects have been completed. Waterbody restoration work proposed under NAFCC Scheme - 2020-21, 11 out of 39 tanks restoration has been completed. Mini Lake at Padutharkollai Village at T.R. Pattinam Commune in Karaikal has been taken up under NAFCC scheme. Ten out of 39 Ponds under Restoration in Puducherry under NAFCC scheme has been completed. Another 147 Ponds have been proposed for restoration in Karaikal under NAFCC scheme. It will be ensured that all the ongoing programs and future projects on restoration of water bodies will be streamlined as per the directions of Hon'ble National Green Tribunal and guidelines of CPCB.

2.5 Observations and suggestions of CPCB

- *23 States & 4 UTs have provided information as per the format circulated by CPCB.*

- *Based on the information received from the States/UTs, there are Lakes- 2,080 (11 States and 2 UTs), Ponds- 1,69,523 (13 States and 4 UTs), Tanks- 1,699 (1 State), Others like pynes, aahars, reservoirs etc. – 1,51,440 (3 States), Total number of water bodies identified as – 4,13,911 (25 States and 6 UTs), Total*

number of identified water bodies selected for restoration- 1,32,080 (17 States and 02 UTs), Total number of identified water bodies already restored- 3,20,903 (13 States and 3 UTs), Total number of identified water bodies presently under restoration- 40,543 (14 States and 2 UTs).

- *It appears, number of water bodies identified by the States/UTs as reported is not scientific and therefore States/UTs have to carry out proper inventory of water bodies using Geological Survey Maps of India (reconnaissance survey) or using any other available technologies like Remote Sensing.*

- *For prioritization of all the identified water bodies is possible only after assessment of water quality of all the water bodies. Presently, water quality of water bodies are monitored by the State Water Resources Department/Agricultural Department/Fisheries Department/Public Health Engineering Departments apart from Central Water Commission (CWC), Central Pollution Control Board (under National Water Quality Monitoring Programme). Therefore, all the water bodies to be assessed for water quality for prioritisation and for restoration. Also, there is a need to pool all the water quality data under INDIA -WRIS Portal under National Water Informatics Centre as it facilitates policy decision.*

- *Presently, various departments in the States/UTs are custodians of water bodies therefore there is a need that all the States/UTs need to designate a 'single agency' as a nodal agency to ensure restoration of all polluted stagnant water bodies in the respective State/UT in consultation with the concerned departments. Such a nodal agency also may co-ordinate with the respective State Pollution Control Board (SPCB) in the State or Pollution Control Committee (PCC) in the*

respective UT for ensuring timely compliance to Hon'ble NGT directions in the matter.

- *Presently, States Governments /UT Administrations are required to constitute Wetland Authority in the respective States/UTs under the Wetland (Conservation and Management) Rules, 2017. The wetland authority may be given responsibility of restoration of water bodies or a nodal agency or a separate body may be designated as done in case of Haryana (Haryana Pond Waste Water Management Authority), Madhya Pradesh (The Environmental Planning and Coordination Organisation (EPCO) and Mizoram (Irrigation and Water Resource Department).*

- *Presently, water bodies are undergoing restoration of water bodies under the various schemes like financial support of Ministry of Jal Shakti or State schemes (like Mission Kakatiya in case of Telangana). Therefore, Ministry of Jal Shakti being nodal Ministry for Water Resources in the country, there is a need to integrate with the programmes such as 'National Lake Conservation Programme, National Wetland Conservation Programme, Ministry of Water Resources Programmes like 'Repair, Renovation & Restoration of Water bodies with Domestic/External Assistance which are undertaken by Government of India, Central Sector Schemes like AMRUT, Smart City, MGNREGA or any other programmes for restoration of water bodies in the country.*

ANNEXURE-A I

Item No. 03 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

M.A. No. 26/2019
IN
Original Application No. 325/2015
I.A. No. 700/2019 & MA. No. 252/2019

(With Report dated 22.05.2020)

Lt. Col. Sarvadaman Singh Oberoi Applicant(s)

Versus

Union of India & Ors. Respondent(s)

Date of hearing: 01.06.2020

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Respondent(s): Mr. Rajkumar, Advocate for CPCB
Mr. Shuvodeep Roy, Advocate for State of Assam

ORDER

1. This order is being passed in continuation of order dated 25.02.2020. The issue for consideration in the original application was identification, protection and restoration of water bodies in the State of Haryana. However, in the light of proceedings which took place, the scope of the application was extended to the entire country, in the interest of protection of environment.

2. The matter was last considered on 25.02.2020 in the light of the status report handed over during the hearing in pursuance of

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earlier directions vide order dated 10.05.2019. Order dated 10.05.2019 *inter-alia* is as follows:-

"2. *This application was filed on 14.08.2015 before this Tribunal in the context of Gurgaon District and as per status report as on 09.03.2017 filed before this Tribunal on behalf of State of Haryana referred to in the order dated 20.07.2018, there are 1216 water bodies in the State of Haryana which are larger than 2.25 Ha and 123 water bodies which are in possession of the State in Gurgaon District while the total number of the water bodies are 641 (later corrected as 647) in Gurgaon District. The Tribunal directed that for 123 water bodies which are in possession of the State, steps be taken for their proper maintenance and restoration.* ***An exercise be undertaken in the entire State of Haryana to identify water bodies. On such identification, water bodies be assigned Unique Identification (UID) number and steps be taken for restoration.*** *Report was sought within six months.*

3. *Status report has been filed vide email dated 25.04.2019 by the Haryana Pond and Waste Water Management Authority (HPWWMA) stating that HPWWMA has been established under a State Act called the HPWWMA Act, 2018 notified on 23.10.2018 for development and protection of ponds and matters connected therewith. Pond has been defined as a tank or lake or any other inland water body having an area of 0.5 acre or more. The authority is to undertake survey and take steps for restoration of water bodies, PDMS (Pond Data management System) has been developed which can be accessed through "http://hpwwma.org": DPMOs (District Pond Management Officers) are appointed for each District. As per PDMS data, 16306 ponds fall under the Panchayats and 265 ponds fall under the Urban Local Bodies. The same have been given UID numbers and work of development will be undertaken by DPD (Development and Panchayat Department). The work for connecting the ponds with the nearby canal network will be executed by the IWRD (Irrigation and water Resources Department). 200 most problematic and overflowing ponds will be addressed during 2019-20. 193 model ponds which are overlapping with the said 200 ponds will be developed in first phase for which a plan has been prepared.*

4. *The Gurgaon Metropolitan Development Authority (GMDA) has also given a report to the effect that water bodies in the District are owned by 20 different entities. Work of restoration of 123 water bodies was taken up which has been widened to improve 647 water bodies. In all 826 water bodies, as found as per record, the task involves identification and verification of data, review and categorization of water bodies, assigning UID numbers, preparation of maps and analysis of information in regard to size, restoration potential, etc.* ***20%***

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of the water bodies are at risk due to discharge of untreated sewage, industrial effluents or waste water.

5. *Learned counsel for the applicant submits that not even a single water body has so far been taken up for restoration inspite of the exercise undertaken for identification of the water bodies. The steps for preventing dumping of solid waste or discharging of effluents are urgently required. The State of Haryana may take necessary steps in terms of the status report referred to in para 3 & 4 above as well as in the light of general directions which we propose to issue to all the States/UTs.*

6. ***There can be no dispute that the water bodies play significant role in recharge of ground water, preventing soil erosion, harnessing rain water and maintaining micro-climate in the area. Need for conservation and protection of water bodies is thus obvious. This requires involvement not only at the level of the State but also at the level of the community for which State needs to take initiative. The threat caused to the water bodies is by dumping of waste, discharge of effluents and encroachments. The steps required for restoration will include preparation and implementation of catchment area treatment plans, setting up of green belt and wherever viable setting up of bio-diversity parks around the water bodies, cleaning up of the garbage/debris and demarcation by the Revenue Department on identification survey and demarcation. Each water body is required to be given a geo-referenced-UID and an action plan is required for restoration and protection of each of the water bodies. In this view of the matter, need for conservation and protection of water bodies is not confined to the State of Haryana alone but extends to the whole country.***

7. ***The Hon'ble Supreme Court in Hinch Lal Tiwari v. Kamala Devi & Ors. (2001) 6 SCC 496 observed:***

> ***"It is important to notice that the material resources of the community like forests, tanks, ponds, hillock, mountain etc. are nature's bounty. They maintain delicate ecological balance. They need to be protected for a proper and healthy environment which enables people to enjoy a quality life which is the essence of the guaranteed right under Article 21 of the Constitution. The Government, including the Revenue Authorities i.e. Respondents 11 to 13, having noticed that a pond is falling in disuse, should have bestowed their attention to develop the same which would, on one hand, have prevented ecological disaster and on the other provided better environment for the benefit of the public at large. Such vigil is***

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the best protection against knavish attempts to seek allotment in non-abadi sites."

8. *The above observations advance the Public Trust Doctrine which is based on the principle that certain resources like air, water and forests have such great importance to the people as a whole that the same cannot be subject of private ownership. The same are gift of the nature and should be made freely available to the people. The Doctrine requires the State to protect such resources and not to permit them to be used for private or commercial purposes.[1] This concept is applicable to wetlands and all water bodies which is essential for protection of the environment. If the ponds and other such water bodies are not protected and conserved, this will in turn affect recharge of ground water, rain water harnessing and soil preservation.*

9. *Ground water conservation remains a challenge. This led the Hon'ble Supreme Court to direct constitution of the Central Ground Water Authority (CGWA) vide order reported in M.C Mehta v. Union of India & Ors, (1997) 11 SCC 312. The data compiled by the said authority shows that there are over exploited, critical and semi critical areas (OCS). The ground water is on the decline in the said areas. In this regard, it may be noted that vide order dated 11.07.2018 in W.P.C No. 4677/1985, M.C. Mehta v. Union of India and Ors., the Hon'ble Supreme Court noted the report of the Niti Ayog on "Composite Water Management Index", June 2018, in which it is stated, inter alia:*

> *"In fact by 2020, 21 major cities, including Delhi, Bangalore and Hyderabad will are expected to reach zero groundwater levels, affecting access for 100 million people".*

10. *The Tribunal has, vide order dated 07.05.2019 in O.A No. 176/2015, Shailesh Singh Vs. Hotel Holiday Regency, Moradabad & Ors., directed the CGWA to prepare a policy for conservation of groundwater with a robust institutional mechanism for surveillance and monitoring with a view to enhance access to ground water for drinking purposes in OCS areas by way of appropriate replenishment practices which can be properly accounted and measured as well as to sustain the flood plains of rivers in terms of e-flows, augmentation of subterranean flows and preservation of other water bodies. The Tribunal also considered the matter in the context of Delhi, vide order dated 30.08.2018 in Original Application No. 496 of 2016, Tribunal on its own Motion Vs. Govt. of NCT of Delhi & Ors., and appointed a Committee headed by the former Judge of Delhi High Court to oversee the steps for conservation of ground water in Delhi. We also note the guidelines for National Lake Conservation Plan prepared by MoEF&CC in May 2008 as well as National Plan for Conservation of Aquatic Ecosystem (NPCA) prepared by*

[1] (1997) 1 SCC 388, M.C. Mehta vs Kamal Nath & Ors

MoEF&CC in November, 2016. Irrespective of the subject being covered by a particular State statute, ***the protection of water bodies is an essential need for protection of environment as held in Hinch Lal Tiwari (Supra). Such requirement is covered by the 'Precautionary' principle as well as the 'Sustainable Development' principle which are required to be enforced by this Tribunal under Section 20 of the NGT Act, 2010.*** *The HPWWMA Act, 2018 covers only ponds having area of more than 0.5 acres. Thus ponds of lesser area have been left out of regulation under the said Act. This aspect needs to be addressed to the extent the same remains un-addressed not only in Haryana but throughout India to the extent the existing statutory framework or guidelines do not cover comprehensively the subject of restoration of all the water bodies. The definition of water body in the Haryana Act is as follows:*

> *"the 'pond' means a tank or lake or any other inland water body having an area of 0.5 acre or more, whether it contains water or not, and mentioned in revenue records as talab, johar, tank or by any other name and includes green belt and the peripheral catchments areas, main feeder inlet and other inlets, bunds, weirs, sluices etc but does not include wet lands as notified by the Government from time to time."*

11. *The above definition shows that only ponds of area of more than 0.5 acres are sought to be restored under the statutory provisions of the said Act. While in terms of the orders of the Hon'ble Supreme Court in Hinch Lal Tiwari (Supra) even ponds of lesser area will be covered for being protected and restored. This is also imperative in terms of the concern raised in the order of Hon'ble Supreme Court dated 11.07.2018 in W.P.C Nos. 4677/1985, M.C. Mehta vs. Union of India &Ors. for conservation of ground water. If all water bodies including ponds of lesser area than 0.5 acre are not covered, this will affect the environment including recharge of ground water, harnessing of rain water, prevention of soil erosion and maintaining the micro climate. We may, however, clarify that focus may be on ponds, etc. recorded in the revenue record.*

12. ***We may note that there are 351 polluted river stretches in India identified as such by the CPCB which need remediation. The matter is being considered by this Tribunal in Original Application No.673/2018, News item published in "The Hindu"authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB. In O.A. No. 148/2016, Mahesh Chandra Saxena Vs. South Delhi Municipal Corporation &Ors., vide order dated10.05.2019, it was observed that reuse of treated sewage water as well as restoration of water bodies are connected to ground water conservation, which in turn is connected to remedying the pollution of polluted river stretches.***

13. ***Thus to give effect to 'Precautionary' principle and 'Sustainable Development' principle, we direct all the States and UTs to review the existing framework of restoration all the water bodies by preparing an appropriate action plan. Such action plans may be prepared within three months and a report furnished to the CPCB. The CPCB may examine all such plans and furnish its comments to this Tribunal within two months thereafter. The Chief Secretaries of all the States/UTs in the course of undertaking monitoring exercise in pursuance of the order of this Tribunal in O.A No. 606/2018, Compliance of MSW Rules, 2016, may also include restoration of water bodies as one of the items as the same is also incidental to waste management which are covered by orders in O.A No. 606/2018, Compliance of MSW Rules, 2016.***

14. *The CPCB may prepare and place on its website guidelines in the matter of restoration of water bodies in the light of above order within one month."*

3. On consideration of the status report filed before the Tribunal on 25.02.2020. The Tribunal observed:-

"3. In pursuance of the above, the learned counsel for the CPCB has handed over a status report during the course of hearing to the effect that indicative guidelines for restoration of water bodies have been uploaded on the website of the CPCB on 18.06.2019 but most the States have not submitted their action plans. Out of 435 locations monitored, 357 locations were not complying with the primary water quality criteria for bathing. CPCB constituted an expert committee vide order dated 28.08.2019 under the Chairmanship of MS, CPCB comprising, representatives of MoEF&CC, MoJS, MoHUA, IIT Delhi, officials of CPCB and DH-WQM-I as member convener. First meeting of the expert Committee was held on 16.09.2019. The Tribunal has suggested following actions:

S.No.	Activity proposed	Organization Responsible
1.	*Identification and Geo-Tagging of Ponds or Lakes in the Country*	*NRSA, State Space Application Centre and Concerned State Departments*
2.	*Assessment of Water Quality of Ponds or lakes.*	*Through Laboratories approved under E(P) Act, 1986 by the Concerned State Department/ULBs/State Environment Dept./SPCB/PCC.*
3.	*Prioritization of Ponds or Lakes for restoration in consultation with the respective SPCB.*	*State Environment Dept./SPCB/PCC.*
4.	*Preparation and submission of*	*State Environment Dept./SPCB/PCC.*

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	action plans for restoration of prioritized Ponds or Lakes to CPCB for random scrutiny of proposed action plans.	
5.	*Execution of approved action plans.*	*State Environment Dept./SPCB/PCC under the overall supervision of Principal Secretary, Environment Department.*

The CPCB conducted a workshop on the subject on 30.01.2020.

4. *Learned counsel for the CPCB states that further progress in the matter is being monitored and a status report will be filed before the next date. It is stated that only 14 States/UTs have furnished information which is not complete while 22 States/UTs have not furnished any information.*

5. ***Having regard to the significance of the issue and unsatisfactory response of the States as shown above, we direct that the information may be furnished by all the States/UTs by March 31, 2020 positively to the CPCB failing which the States will be liable to pay compensation at the rate of Rs. 1 lakh per month till information is furnished. Payment of compensation will be the responsibility of the Chief Secretaries of the respective States/UTs. Since we are informed that plans for restoration furnished by some of the States run even upto ten years, we direct that the action plans should provide for commencement of the work by 01.04.2020 and conclusion by 31.03.2021. The CPCB will be at liberty to issue appropriate directions to all the States/UTs by for compliance. The Ministry of Jal Shakti is also at liberty to take further remedial action in the matter.***

6. *A copy of this order be sent to the CPCB and Chief Secretaries of all the States/UTs and Ministry of Jal Shakti by email for compliance."*

4. Accordingly, CPCB has filed its further response on 22.05.2020 seeking further time on account of Covid–19 Pandemic. The State of Assam has also filed an application seeking further time by the States in furnishing information in terms of the paragraph 5 of the order dated 25.02.2020 quoted above. The Report dated 22.05.2020 inter-alia states as follows:-

"2.2 Response received from State/UTs:

After the latest NGT order dated 25.02.2020, CPCB has circulated a detailed format seeking information on no. of identified water bodies, location details, water quality status, compliance status w.r.t. designated best use, identified water bodies which require restoration, prioritization of water bodies requiring restoration, detailed action plans for restoration of identified polluted water bodies in light of the indicative guidelines circulated by CPCB to all the States/UTs.

Till 21.05.2020, 20 States (viz. Arunachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Odisha, Punjab, Sikkim, Telangana, Tripura) and 03 UTs (viz., Delhi, Puducherry and Lakshadweep) have responded out of which only 09 States viz., Bihar, Haryana, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Meghalaya, Odisha and Tripura and 02 UTs viz., Puducherry and Lakshadweep have provided information as per the format circulated by CPCB. State-wise status of information received by CPCB as on 21.05.2020 is detailed in the table below:

Sl. No.	***Name of the State/UT***	***Date of receipt of response from the States/UTs subsequent to the order dated 25.02.2020 and a format circulated by CPCB vide letter dated 06.03.2020***	***Whether received information is as per the format circulated by CPCB (Yes/No)***	***Remarks***
1.	*Arunachal Pradesh*	*21.05.2020*	*No*	
2.	*Bihar*	*15.05.2020*	*Yes*	
3.	*Delhi*	*14.03.2020 and 27.03.2020*	*No*	*Sought time for submission of information*
4.	*Goa*	*06.05.2020*	*No*	*Information 'Nil'*
5.	*Gujarat*	*19.03.2020 and 11.05.2020*	*No*	*Sought information from the concerned departments*

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				in the State
6.	Haryana	20.05.2020	Yes	
7.	Himachal Pradesh	20.03.2020, 27.04.2020 and 20.05.2020	Yes	
8.	Jammu & Kashmir	20.05.2020	No	Sought time for submission of information
9.	Jharkhand	19.05.2020	Yes	
10.	Karnataka	11.05.2020	No	Karnataka SPCB vide letter dated 16.03.2020 submitted information submitted by BWS & SB, Cauvery Niravari Nigama
11.	Kerala	19.05.2020	Yes	Kerala SPCB vide letter dated 17.03.2020 submitted information as per guidelines of CPCB
12.	Lakshadweep	21.03.2020	Yes	
13.	Madhya Pradesh	06.05.2020	No	Sought time for submission of information
14.	Maharashtra	31.03.2020	Yes	
15.	Manipur	30.03.2020	No	Sought time for submission of information
16.	Meghalaya	18.05.2020	Yes	

17.	Mizoram	22.05.2020	No	
18.	Odisha	14.05.2020	Yes	
19.	Punjab	31.03.2020 and 06.04.2020	No	Sought time for submission of information
20.	Puducherry	21.05.2020	Yes	
21.	Sikkim	23.04.2020	No	But provided on-going activities with regard to wetlands
22.	Telangana	23.03.2020	No	
23.	Tripura	27.03.2020	Yes	

"

5. Having regard to the fact situation noted above, we extend the time for the States to complete action in terms of order dated 25.02.2020 till 31.07.2020. The CPCB may thereafter file its report by 31.10.2020 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

6. However, we wish to add a further direction having bearing on the subject. We have already noted the significance of protection and restoration of water bodies for the environment. The protection of water bodies not only add to availability of water for different purposes, it also contributes to recharge of ground and maintaining e-flow in the rivers, is congenial tomicro climate in sub-watersheds as well as enhancing the natural aesthetics. While the rain water harvesting is certainly important, harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing

ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of waterbodies takes place, excess flood/rain water can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible atleast one pond/water body must be restored in every village, apart from creation of any new pond/water body.

7. Action taken in this regard may be compiled at State level and reports furnished to the Chief Secretaries of the States by the concerned District Magistrates. Consolidated report of the State may thereafter be forwarded to the CPCB preferably by 31.08.2020 and CPCB may cover this aspect also in its meeting.

A copy of this order be sent to CPCB, Chief Secretaries, State PCBs/ PCCs of all States/UTs for being forwarded to all the District Magistrates and other concerned Departments and further

action in above terms. The District Magistrates may thereupon forward this order to all the levels of Panchayati Raj in their respective Districts.

The Chief Secretaries may also forward this order to their respective Extension/ Public Relation Departments for awareness and publicity.

A copy of this order be forwarded to the Ministry of Jal Shakti for appropriate action at their level by e-mail.

List for further consideration on 18.11.2020

Adarsh Kumar Goel, CP

Sheo Kumar Singh, JM

Dr. Nagin Nanda, EM

June 1, 2020
O. A. No. 325/2015
A

(o)

ANNEXURE-AII

By Speed Post

F.No.A-14011/2/2020/WQM-I 837-871 08.06.2020

To
The Member Secretary,
SPCB/PCCs (All SPCBs/PCCs)

Sub: Ensuring compliance to Hon'ble NGT (PB) New Delhi order dated 01.06.2020 in O.A No 325/2015 in the matter of LT. Col. Sarvadaman Singh Oberoi Vs Union of India &Ors

Madam/ Sir,

Kindly refer to latest Hon'ble NGT order dated 01.06.2020 passed in O.A No 325/2015 and para 6 of said order, the Hon'ble NGT has emphasized significance of protection and restoration of water bodies to ensure availability of water, to recharge groundwater and maintaining E-Flows in the rivers as well as setting up of additional water bodies wherever viable under MGNREGA and this action needs to be coordinated by the District Magistrate in coordination with Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/ Urban Development/Local Bodies/Forests/ Revenue etc. The District Magistrates may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan ***within one month from today***. The District Magistrates may also ensure that as far as possible atleast one pond/ water body must be restored in every village, apart from creation of any new pond/ water body. Para 7 of said order is reproduced below-

"Action taken in this regard may be compiled at State level and reports furnished to the Chief Secretaries of the States by the concerned District Magistrates. Consolidated report of the State may thereafter be forwarded to the CPCB preferably by 31.08.2020 and CPCB may cover this aspect also in its meeting."

A copy of the Hon'ble NGT order dated 01.06.2020 is also uploaded on CPCB website at https://cpcb.nic.in/NGTMC/NGT-order_dated-01062020.pdf

In view of above, I am directed to request your SPCB/PCC to direct all the concerned Departments/ District Magistrates in the State/UT to take necessary action for ensuring compliance to the Hon'ble NGT order dated 01.06.2020 passed in the afore-said matter and arrange to submit the Action Taken Report to CPCB at an early date.

Yours faithfully,

(J.C.Babu)
Sc 'E' & I/C, WQM-I Div

Copy to:

1. PS to Chief Secretary (State Govt./UT Administration) : For information of Chief Secretary please
2. PS to MS : for information of 'MS' please

(J.C.Babu)

Pl. follow-up
SCF(HS.D, Kolkata) 10/6/2020

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
निगति
दिनांक 9/6

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ANNEXURE - A - III

By Speed Post/ E-mail

NGT MATTER
TIME-BOUND

25.09.2020

F.No. A-14011/3/2020/WQM-I 6922-6950

To
The Member Secretary,
SPCB/PCCs (Except Andhra Pradesh, Chandigarh, Delhi, Himachal Pradesh & Rajasthan)

Sub: Reminder for submission of information in compliance to Hon'ble NGT order dated 01.6.2020 in O. A. No 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs UOI & Ors

Madam/ Sir,

This has reference to letter dated 08.06.2020 vide which CPCB requested your SPCB/ PCC to direct all the concerned department/ District Magistrates in the State/UT to take necessary action for ensuring compliance to the Hon'ble NGT order dated 01.06.2020 passed in the afore-said matter and arrange to submit the Action Taken Report to CPCB on or before 31.08.2020. Information is yet to be received from your State/UT.

In view of above, it is requested to kindly arrange to send consolidated report on action taken by the District Magistrates on compliance to Hon'ble NGT order dated 01.06.2020 passed in the afore-said matter, preferably on or before 05.10.2020 to enable CPCB to compile the information and apprise Hon'ble NGT, accordingly.

Yours faithfully,

(A. Sudhakar)
DH, WQM-I Div.

Copy to:

1. PS to Chief Secretary (State Govt./UT Administration : for information of Chief Secretary, please
2. PS to MS : for information of 'MS' please

(A.Sudhakar)

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
दिनांक.....
दिनांक...25/09/2020

JDF (Mr. D. Kumar) 25/10/2020

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ANNEXURE-AIV

F No- A-14011/O A 496-2016/2020-WQM-I 8703-8738

Date: 13.10.2020

To

The Member Secretary,
SPCBs/PCCs

Sub: Submission of Information in compliance to Hon'ble NGT orders passed in O. A. No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs UoI & Ors and O. A. No 496/2016 in the matter of Tribunal in its own motion Vs Govt. of NCT of Delhi & Ors -reg

Madam/ Sir,

In compliance to various Hon'ble NGT orders passed in O. A. No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs UoI & Ors and O. A. No 496/2016 in the matter of Tribunal in its own motion Vs Govt. of NCT of Delhi & Ors, all States/UTs are required to submit information to CPCB. In this connection, it is requested to please upload the information submitted to CPCB on website of respective SPCBs/PCCs/ State Govt./ UT Administration.

It is also requested to please share the web-link details with respect to O. A. No. 325/2015 and O. A. No 496/2016 on Email Ids - asudhakar.cpcb@nic.in and jcb.cpcb@nic.in, at an early date.

Yours faithfully,

(A. Sudhakar)
DH, WQM-I Division

Copy to:

PS to MS : for information of 'MS', please

(A. Sudhakar)

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
प्राप्त 15/10/2020

pl. send scanned copy to all the States by E mail also

15/10/2020

SRF

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The Member Secretary,
Assam Pollution Control Board,
Bamunimaidam,
Guwahati – 781021

The Member Secretary,
Manipur Pollution Control Board,
Lamphelpat, Imphal West D.C. Office
Complex
Imphal– 795004

The Member Secretary,
Uttar Pradesh Pollution Control Board,
Building. No. TC-12V, Vibhuti Khand,
Gomti Nagar, Lucknow-226 010

The Member Secretary,
Delhi Pollution Control Committee,
Government of N.C.T. Delhi
4th Floor, ISBT Building,
Kashmere Gate, Delhi-110006

The Member Secretary,
Meghalaya Pollution Control Board
Arden- Lumpyngngad
Shillong: 793014

The Member Secretary,
Nagaland Pollution Control Board,
Signal Point, Dimapur
Nagaland – 797112

The Member Secretary,
Tamil Nadu Pollution Control Board,
76, Mount Salai, Guindy,
Chennai-600 032

The Member Secretary,
Uttarakhand Pollution Control Board
Gaura Devi Bhawan,
46 B IT Park Sahastradhara,
Dehradun, Uttarakhand - 248001

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

The Member Secretary,
Haryana State Pollution Control Board,
C-11, Sector-6, Panchkula-134109,
Haryana

The Member Secretary,
Kerala State Pollution Control Board,
Plamoodu Jn., Pattom Palace P.O.
Thiruvananthapuram - 695 004

The Member Secretary,
Madhya Pradesh Pollution Control Board,
E-5, Arera Colony, Paryavaran Parisar,
Bhopal - 462 016, Madhya Pradesh

The Member Secretary,
Maharashtra Pollution Control Board,
Kalpataru Point, 2nd – 4th Floor
Opp. Cine Planet Cinema, Nr. Sion Circle,
Sion (E), Mumbai – 400 022

The Member Secretary,
Mizoram Pollution Control Board,
New Secretariat Complex,
KhatlaThlanmualPeng,
Khatla, Aizawl, Mizoram: 796001

The Member Secretary,
Odisha Pollution Control Board,
A-118, Nilakanta Nagar, Unit –VIII,
Bhubaneshwar – 751012

The Member Secretary,
Puducherry Pollution Control Committee,
Housing Board Complex, Anna Nagar,
Puducherry -600 005

The Member Secretary,
Punjab Pollution Control Board,
Vatavaran Bhawan, Nabha Road,
Patiala, Punjab

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

The Member Secretary,
Bihar State Pollution Control Board,
Parivesh Bhawan, Plot No. NS-B/2
Paliputra Industrial Area,
Patliputra, Patna (Bihar) - 800 010

The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhavan, North Block Sector-19,
Atal Nagar Dist- Raipur (C.G.) 492002

The Member Secretary,
Goa State Pollution Control Board
Nr. Pilerne Industrial Estate,
Opp. Saligao Seminary,
Saligao - Bardez Goa - 403511

The Member Secretary,
Gujarat Pollution Control Board
Paryavan Bhavan, Sector 10- A,
Gandhinagar – 382 043

The Member Secretary,
Himachal Pradesh Pollution Control Board,
Him Parivesh, Phase-III, New Shimla,
Himachal Pradesh - 171009

The Member Secretary,
Jammu & Kashmir State Pollution Control Board,
Parivesh Bhawan, Forest Complex,
Gladni, Narwal, transport Nagar, Jammu,
Jammu and Kashmir 180004

The Member Secretary,
Jammu & Kashmir State Pollution Control Board,
Shiekh-ul-Campus, behind Govt. Silk Factory,
Raj Bagh, Srinagar (J&K)

The Member Secretary,
Jharkhand Pollution Control Board,
T.A Building, HEC, P.O. Dhurwa,
Ranchi – 834004

The Member Secretary,
Karnataka State Pollution Control Board,
Parisara Bhavan, 4th & 5th Floor,
49, Church St., Bengaluru-560 001

The Member Secretary,
Rajasthan Pollution Control Board,
4, Jhalana Institutional Area,
Jhalana Doongri,
Jaipur (Rajasthan) - 302 004

The Member Secretary,
Sikkim State Pollution Control Board,
Department of Forest,
Environment & Wildlife Management
Government of Sikkim,
Deorali, Gangtok - 737102

The Member Secretary,
Telangana State Pollution Control Board,
Paryavaran Bhawan, A-3, I.E. Sanath Nagar,
Hyderabad-500 018

The Member Secretary,
Tripura Pollution Control Board,
Vigyan Bhawan, Pandit Nehru Complex,
Gorkhabasti, PO: Kunjaban Agartala – 799006

The Member Secretary,
West Bengal Pollution Control Board,
Paribesh Bhavan, 10A, Block-L.A.,
Sector III, Salt Lake City
Kolkata - 700 106

The Member Secretary,
Chandigarh Pollution Control Committee,
Paryavaran Bhawan, Ground Floor,
Sector 19 B
Madhya Marg, Chandigarh

The Member Secretary,
Andaman & Nicobar Islands Pollution Control Committee,
Department of Science & Technology,
Dollygunj Van Sadan, Haddo P.O., Port Blair – 744102

The Member Secretary,
Arunachal Pradesh State Pollution Control Board,
Paryavaran Bhawan, Papu Hill, Yupia Road,
Naharlagun- 791110

The Member Secretary,
Lakshadweep Pollution Control Committee,
Department of Science, Technology & Environment,
Kavarati- 682555

ANNEXURE-AV

Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110032
****

Minutes of 2nd meeting of the Expert Committee held on 25.08.2020 for ensuring compliance to Hon'ble NGT Orders dated 10.5.2019, 25.02.2020 & 01.06.2020 in O. A. No. 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India & Ors

Second meeting of the Expert Committee was held on 25th August, 2020 through Video Conferencing (VC) with the concerned States/UTs to review action plans proposed for restoration of stagnant water bodies by the States/UTs in compliance to Hon'ble NGT orders dated 10.5.2019, 25.02.2020 & 01.06.2020 passed in O. A. No 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India & Ors.

Action plans of 15 States viz. Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Telangana, Tripura and 3 UTs Delhi, Dadra & Nagar Haveli & Daman & Diu, Lakshadweep Puducherry proposed were discussed. The list of participants is enclosed at Annexure I.

Dr. Prashant Gargava, Member Secretary, CPCB welcomed all the members of the Expert Committee and the officials from States/ UTs for participating in VC meeting and requested Sh. A Sudhakar to initiate the proceedings. Sh. A. Sudhakar briefed that in pursuance to Hon'ble NGT directions an "Indicative Guidelines for Restoration of Stagnant Water Bodies" prepared and circulated to all the States/UTs. Also, organised a One-day Workshop for all States/UTs on 30.1.2020 for sensitization on the subject matter. Sh. A. Sudhakar also informed that restoration of water bodies is a major challenge for all the authorities specially in Urban areas to restore their "designated best use (DBU)".

Thereafter, Sh. J. C. Babu briefed about the Hon'ble NGT orders dated 10.5.2019, 25.02.2020 & 01.06.2020. Thereafter, he requested the representatives of States/UTs to make a brief power point presentation covering aspects such as (i) no. of stagnant water bodies identified, (ii) custodian of water bodies, (iii) status on geo-tagging, (iv) break-up on the designated best use of water bodies, (v) break-up regarding water bodies complying to outdoor bathing or designated best use criteria, (vii) Prioritised water bodies requiring restoration, (viii) proposed action plans for restoration of stagnant water bodies in the State/UT with agency responsible for implementation of action plans, (ix) budget requirement, time required for implementation of action plans and other relevant information.

Based on the presentations made by the States/UTs, State-wise salient features of the presentations and the suggestion made by the Expert Committee are detailed below:-

1. **Gujarat:** - Representative of Narmada, Water Resources, Water Supply & Kalpsar Department, Government of Gujarat informed that Water Resources Department, Gujarat is the Nodal Agency. Stagnant water bodies have been identified under Water Resource Dept. (4413), Revenue Dept. (12182), Urban Development Dept. (1939) and Panchayat Dept. (25604 water bodies) in Gujarat. Geo-tagging of all water bodies expected to be completed by Oct, 31,2020. About 400 samples were collected, only from water bodies those notified in the year 2006 and the collected samples given to GPCB for further analysis. Based on the field visits and physical assessment of water bodies, most of the water bodies are found to be polluted. Water Quality Assessment will be completed in association with GPCB by Dec 31, 2020. Action plan for restoration of prioritized Water bodies shall be prepared by 15th January 2021 and will be submitted to CPCB. Concerned departments shall execute the action plans for restoration of water bodies by December 2021. Under Repair, Renovation and Restoration of Water Bodies (RRR) scheme of PMKSY program of Government of India, 61 minor irrigation projects with estimated cost of Rs. 102 Crore are sectioned for drought prone Saurashtra region, which is centrally assisted 60% by GOI share and rest 40% is from state budget. Scheme is presently in progress and 2490 farmers are provided facilities till November, 2019.

Suggestion of the Committee: - Nature of water bodies and major causes of pollution to be assessed. Apart from physical verification, Gujarat State should also carryout physico-chemical and biological monitoring. Water quality and compliance status should also be provided. DBU of all water bodies to be stated. Assessment should be taken for extinct water bodies and their catchment areas. Action Plans to be finalised to control sources of pollution and based on the detailed assessment of existing water bodies.

2. **Haryana: -** Haryana Pond & Waste Water Management Authority informed that Haryana has constituted Haryana Pond & Waste Water Management Authority. So far authority has identified and got uploaded the data of all the 16662 Ponds (572 Urban + 16090 Rural) on PDMS (Ponds Data Management System) i.e., 16090 Ponds under Gram Panchayats, 572 under Municipalities. All the identified ponds have been assigned Unique IDs and also Geo-Tagged. Assessment of Water Quality of Ponds or Lakes in association with HSPCB has been under taken. Polluted & Overflowing Ponds selected in consultation with HSPCB. Action Plan for F.Y. 2020-21 prepared and submitted 18 Polluted Ponds were taken for their restoration during F.Y. 2019-20. The Model drawings based on the 11 components were prepared for all the 18 Model Ponds and issued by the Pond Authority to the PR-PW (i.e. The Executing Department). Restoration of 18 ponds expected to be completed by March 2021. Water quality of 100 ponds being checked and is pending with HSPCB. 626 ponds restoration have already been completed by IWRD, PR-PW & ULBD under different schemes. 584 ponds restoration is under progress by IWRD, PR-PW & ULBD under different schemes. 2267 ponds are Yet-To-Start by IWRD, PR-PW & ULBD under different schemes. Constructed Wetland Technology has been adopted for treatment of Waste Water, for all the Model Ponds.

Suggestion of the Committee: - Pond Data Management Software needs to be examined so that it can be replicated by the other States/UTs. Pond information system should be in public domain. Case studies also be uploaded in Haryana Pond & Waste Water Management Authority website. Assessment to be made by CPCB for replication of 18 model ponds restored in Haryana State. Encroachments of ponds to be taken up by Haryana Pond & Waste Water Management Authority.

3. **Himachal Pradesh: -** Representative of H.P. Pollution Control Board informed that a Committee has already been constituted to oversee the work. 6 stagnant water bodies were identified in the State for restoration under NRCP. Geo-tagged but UIN not provided till date. Designated best use of water bodies and water quality of 6 stagnant water bodies provided. Gap analysis also carried out for 6 identified water bodies for restoration. Activities proposed under submitted action plans includes (i) Inventorisation of industries/hotels in the catchment, regulation implementation, (ii) Organization of Swachhata Campaign near the lake and surrounding villages and urban areas, (iii) Preparation & Distribution of IEC material on the importance of lakes, (iv) Sensitization workshops/meetings for tourists and others with district Administration, (v) Entrance Gates, Cafeteria and shops, Toilet Block, urban element, Benches, Signages, railing, Dustbins, Beautification of lake area, paths, parking, viewpoints, landscaping plants, Renovation of existing rain shelter, retaining walls on lake side, Gabion wall with woven create wire in lake, proposed timelines for completion is Financial Year 2020-2021.

Suggestion of the Committee: - Identification and inventorisation of all water bodies to be done scientifically. UIN for water bodies to be provided. Water quality of all the stagnant water bodies in the State to be conducted by HPPCB. Wetland Authority to be constituted by the State. All point sources and non-point sources causing pollution in lakes or ponds to be assessed by the State. Action to be taken by HPPCB for ensuring compliance to Hon'ble NGT orders.

4. **Jammu & Kashmir: -** Member Secretary, J & K Pollution Control Board informed that a committee has been constituted to oversee the work by the J & K UT Government vide order No. 213-FST of 2019 dt. 12/07/2019. 2815 no. of stagnant waterbodies have been identified and prioritized. Custodian Departments of Water Bodies are Forest Department (Ponds-32, Lakes-160), Wildlife (Ponds-8, Lakes-47), Soil & Water Conservation Department (Ponds-912, Lakes-3), Revenue/DC/AGRI (Ponds-1182, Lakes-1), Jammu MC (Ponds-61, Lakes-0), DERS/Revenue (Ponds-184, Lakes-225), Priority –I Stagnant Water Bodies identified are 222 i.e., (Ponds-13, Lakes-209), Available Budget for restoration of stagnant water bodies is Rs. 503.24 Cr and funds required is of Rs.37.23 Cr.

Suggestion of the Committee: - Apart from physical verification, the State should also carryout chemical and bio-chemical monitoring. Water quality data and compliance status should be provided. DBU of all water bodies to be indicated. Detailed action plan indicating sources of pollution, water quality of all identified water bodies including implementing agencies and definite timelines be submitted to CPCB and other aspects as per Hon'ble NGT orders. J & K already involved in restoration of Dal Lake in J & K State. Case study be documented and report also be submitted to CPCB.

5. **Kerala:-** Member Secretary, Kerala State Pollution Control Board informed that a Committee has been constituted to oversee the work. Primarily, 40,000 ponds were identified by Irrigation Design and Research Board (IDRB) for which Unique Identification No. has been marked. Kerala State Pollution Control Board (KSPCB), with GIS Specialization, marked the ponds in the maps of all the 14 districts of Kerala. In second phase, 15,765 ponds were identified by Irrigation Design and Research Board (IDRB) for which Unique Identification No. has been marked. Main activities proposed under action plan are Collection and maintenance of historical information relating to the water bodies, by 30.10.2020.
Digital mapping of all the collected information as well as identification of designated best use, sources of pollution, assessment of water quality of all water bodies expected to be completed by 31.07.2021. Restoration of water bodies by way of De-Siltation, De-Weeding, Mechanical and biological control measures, Stabilization of earthen bunds and the drainage channels as well as silt and soil erosion control measures, Protection drainage basin including preservation of drainage channels, by 30.05.2021. Actions for removal of encroachments and blockades in water bodies spread area/ boundary/drainage channels and necessary flood control measures, by 30.05.2021. Adoption of In-situ techniques for in-situ remediation of ponds or lakes (Physical & chemical treatment). Proposed LSGD as nodal agency for restoration of water bodies. A committee comprising of the representative from local body, concerned Village Officer, representative from Irrigation Department, Haritha Keralam Mission, Agriculture Department, Overseer of Soil Conservation Department/ Directorate and representative from MGNREGS proposed to be constituted for the field survey and preparation of action plan. Secretary of local body will be the convener of the Committee. Initiatives of Kerala State for ensuring compliance subsequent to Hon'ble NGT order dated 01.06.2020. 677 out of 1833 polluted water bodies claimed to be already restored.

Suggestion of the Committee: - Water quality data of all the identified stagnant water bodies to be prepared and submitted. Water body wise sources of pollution and gap analysis to be included. Prioritisation of the water bodies to be completed based on the water quality and the designated best use of water bodies. A database management system to be developed for all the identified polluted water bodies as done by Haryana Pond & Waste Water Authority. Stagnant water bodies which have already been restored, all such details be documented and uploaded in Kerala State Website and also submitted to CPCB.

6. **Odisha: -** Representative of H&UD Dept. informed that few water bodies under Administrative Control of H&UD Department. Water quality for the parameter such as pH, salinity, temperature, turbidity, nutrients, organic carbon, conductivity and presence of heavy metals were analyzed. Action plans proposed for restoration of identified polluted stagnant water bodies include De-silting and purification, strengthening of earthen embankment surrounding the ponds with stone pavements and dredging. In-situ measures like biological treatment, ensuring no entry of drains wastewater or waste to the ponds or lakes. Periodic mechanical cleaning and purification of water, Maintaining of major plant and eco system. Creating pavements and stairs for better access, making rest/ activity points to boost local recreation etc., Out of a sum of Rs 2,23,00,000 (2.23 Cr.) received from H&UD Department for dredging and De-silting of Narendra Puskarini Tank under "Protection and Conservation of Water bodies" the Puri Municipality has spent Rs. 1 Cr to restore, modify and beautify the holy tank.

Suggestion of the Committee: - Identification and inventorisation of all stagnant water bodies to be done properly for the entire state by all the custodians. All the water bodies to be geo-tagged. Water body wise major cause of pollution to be identified and Water quality of all water bodies be checked for prioritisation. Action Plans to be prepared based on the water quality status of all the stagnant water bodies, for the entire state by all the concerned departments in Odisha State

7. **Punjab: -** Representative of Directorate of Environment & Climate Change(DECC), Govt. of Punjab informed that there are 15466 ponds in rural areas and 249 Ponds in Urban arears having area of 23,988 Acres (0.19% of TGA). 243 out of 15466 in rural areas and 2 out 249 ponds in urban areas are having treatment facilities. 795 ponds are used for irrigation and 6001 ponds can be used for irrigation. Action Plan for restoration of ponds (having size of > 0.5 acres), submitted to CPCB on 31.03.2020 and Consolidated & Pond wise information in prescribed formats, submitted to CPCB, on 31.07.2020. Based on recommendations of the Technical Committee, 4 technological options of waste stabilisation ponds (WSP) in various combination in rural areas have been finalized recommend for wastewater treatment of villages ponds. During December,2018- January,2019, samples collected from 110 village ponds were analysed for pH, TSS, BOD and COD and PPCB to analyse water quality of 167 Village Ponds. It is proposed that 17,732 rural ponds for restoration at a total cost of Rs. 4987.58 Cr and 249 urban ponds at a total cost of Rs.3399.19 Cr. Concerned local and urban bodies are the implanting agencies. Water Regulation & Development Authority, Biodiversity Management Committee will be involved in restoration of stagnant water bodies in the State of Punjab.

Suggestion of the Committee: - Water body wise water quality status for the parameters suggested under CPCB guidelines to be carried out and compliance status based on the designated best use of water bodies to be included in action plans. Action plans should also ensure restoration of lost native bio-diversity as well as O & M of all new infrastructure.

8. **Puducherry**: - Representative of Puducherry Pollution Control Committee (PPCC), Department of Science & Technology & Environment, Government of Puducherry informed that in Puducherry UT, there are 84 Tanks (under Irrigation Division of Public Works Department) and 843 Ponds under the custody of Local Administration Department. UT Level Monitoring Committee under the Chairmanship of Chief Secretary, Steering Committee as well as regional level committees to ensure compliance to the directions in the matter have been constituted. Under Neerum Oorum Program in Puducherry District and NAM Neer Program in Karaikal District (2019 onwards) in line with the Jal Shakthi Abhiyan Mission of Government of India, the Puduchery and Karaikal Collectors had launched the program in August 2019 to protect and restore the water bodies. So far, 205 ponds in Puducherry district and 153 Ponds in Karaikal district have been rejuvenated. In compliance to order dated 25.02.2020, the District Magistrate of Puducherry District and Karaikal District convened a meeting with the members of the Regional Level Committee for restoration of waterbodies on 19.08.2020 and 30.07.2020 respectively and the local bodies and other concerned agencies were informed about the order of Hon'ble NGT and strategies to be adopted for restoration and improvement of waterbodies were discussed and decided. Consolidated report of present action will be submitted by 31.08.2020 to CPCB. Public Works Department, restored 19 out of selected 41 tanks and 22 tanks presently under restoration. Municipalities and Commune Panchayats, restored 302 out of 666 total Number of Ponds selected (free from pollution) and 364 ponds under restoration. Identification and inventory of water bodies completed and all the identified water bodies have been geo-

tagged. Water quality assessment & causes of pollution are under survey and expected to be completed by 31.09.2020. Major problems associated with the ponds are silting, weeding, encroachments, No Provision of inflow or outflow control measures, Poor Embankment & Poor Watershed in Catchment. Removal of encroachments would be completed by December 2020. Report for Rejuvenation of 25 Tanks and 32 village ponds was prepared under NAFCC Scheme of MoEF&CC, GoI and it is under implementation. Works for 19 Tanks and 19 Village Ponds has been completed under the scheme. Revised proposal submitted to MoEF & CC. Desilting, bund strengthening and sluice repairs are proposed under this restoration project.

Suggestion of the Committee: -Gap analysis of Industrial effluent management to be included apart from identification of all sources of pollution while preparing action plans for restoration of water bodies keeping in view the designated best use water quality of all the water bodies.

9. **Meghalaya: -** Representative of Meghalaya State informed about the Wards Lake (Total Area: 23800 Sq meters or 2.38 Hectares, Altitude: 1460 meters, Maximum depth: 6 meters, Mean Depth: 3.4 meters, Volume: 80, 920 cubic meters, Shore Line: 1284 meters, Major Drains outfall into Water Body: None, Lake is fed by spring water). Lake is used for Fish Breeding by Department of Fisheries, Boating by Department of Tourism and Recreational Park by the Department of Forest and Environment. However, water from the lake is neither used for water supply nor for bathing. Swimming is strictly prohibited. Action initiated are Interception & Diversion of effluent from the two hotels near the lake is carried out via a conduit pipe to the nearby public drain which is in the downstream of the lake; The Two Hotels will be directed to install zero liquid discharge treatment method for reuse of water. Water quality analysed for Temperature (° C), pH, Dissolved Oxygen (mg/L), BOD, Feacal Coliform (MPN/100mL), Feacal Streptococci (MPN/100mL) and are observed to be within the DBU for aquaculture. Proposed action plans includes activities such as (i) Awareness Program (To be implemented by the Department of Forest and Environment), (ii) Monitoring of Water Quality Parameters (To be implemented by MSPCB) and (iii) Bio Remediation (To be implemented by the Department of Fisheries)

Suggestion of the Committee: Inventorisation of water bodies is incomplete. Geo-tagging not yet done. Water quality & causes of pollution given only for a Wards Lake. Lake samples were analyzed only for pH, DO, BOD, FC and FSC as well as parameters for aquaculture but not for all the parameters suggested under the CPCB indicative guidelines. Suggested to initiate action in line with the guidelines circulated by CPCB for identification as well as restoration of stagnant water bodies and in compliance to Hon'ble NGT orders in O. A. No 325/2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi Vs Union of India & Ors.

10. **Delhi: -** Wetland Authority, Department of Environment, Govt. of NCT of Delhi that there are 256 water bodies (ponds/lakes) under the custody of DDA, BDO/REV. (PANCHAYAT), EDMC, SDMC, NORTH MCD, DJB, PWD, CPWD, ASI, FOREST, DELHI ARCHAEOLOGICL DEPTT., DELHI WAKF BOARD, DUSIB, DSIIDC, JNU and IIT. Also, DBU standards applicable to 70 water bodies has been identified. Action plans for 89 stagnant water bodies already prepared. 76 out of 256 identified stagnant water bodies require restoration. Proposed action plans for restoration of water bodies includes (i) installation of STPs, (ii) Fencing/Railing/ Beautification/Boundary wall repairs, (iii) fencing

to prevent encroachment under progress, (iv) Demarcation of Land, (v) To act on Domestic waste/ Plastic waste/Municipal waste, (vi) De-siltation & de-weeding to maintain the depth of Pond, Biological & Chemical treatment of Ponds, (vii) Restoration of natural drains like Silt control measures in natural drains, (viii) outflow and outflow flood control provision, (ix) Earthen embankment around the pond, (x) Public Participation for Cleaning of surroundings, (xi) Maintaining a buffer distance, (xii) fence of at least 6' high to avoid entry of people or throwing of garbage, (xiii) greenery in development in the 1 m space including plantation of perennial plants (xiv) Training and Awareness Programme for local people, (xiv) Installation of Bench and instruction Board, (xv) Restoration of Natural drains, (xvi) Earthen embankment surrounding the pond, (xvii) Training to the staff for maintaining the water body.

Suggestion of the Committee: As per earlier report submitted to Hon'ble Courts, geotagged about 1000 stagnant water bodies and presently reported no. of water bodies identified as 256. There is a huge gap between existing water bodies and it appears other water bodies are in the way of extinction. Considering the water scarcity, emphasize should be given in Delhi for restoration of all stagnant water bodies by emphasizing pollution source control measures on priority.

11. Tripura: - The representative of Tripura SPCB informed that 180 number of ponds have been identified in the State. 30 out of 180 water bodies have been selected for restoration and 26 water bodies are presently under restoration. Various actions initiated by Tripura State for ensuring compliance to the Hon'ble NGT order includes (i) The State Government has already notified the Statutory Guidelines for protection and preservation of lakes, ponds and water bodies in the state; (ii) A State Level Committee as well as District Level and Subdivision wise Committees were re-constituted by the Government of Tripura for monitoring and effective implementation of the statutory Guidelines. Summary of indicative action plans have already been shared to all concerned department for effective implementation. (iii) All District Magistrates & Collectors have been directed to take necessary steps for identification of water bodies in their jurisdiction. Also, all DMs have been instructed to take necessary action in regard to the para 6 & 7 of the Hon'ble NGT Order dated 01/06/2020 in OA No. 325/2015 filed by Lt. Col. Sarvadaman Singh Oberoi vs. Union of India and Ors. (iv) A workshop organized by CPCB at Delhi on 30.01.2020 regarding restoration of water bodies was attended by the representative of Tripura State Pollution Control Board. (v) The information collected in the prescribed format relating to water bodies was sent to CPCB on 27/03/2020. (vi) The final action plan for 30 nos. of water bodies will be sent to CPCB after receiving the related information as well as finalized action plan for restoration of water bodies from concerned ULBs. Tripura State representative also apprised about the action taken for beautification & restoration of Kumartilla Lake (a lake /water body located in Agartala Municipal Corporation is a land mark and a success story to be considered). Once Kumaritilla Lake, Agartala was Heavily encroached with septic tanks outlets, drains flowing into it & solid waste was being dumped. The area of the lake was 3.9233 acres. After encroachment removal, enhancement in area is 5.0070 acres. Restoration by closing all drains, removal of waste, excavation, development of walkway/jagging track all around fountain for aeration, lighting children parks, open gym etc. at a total restoration cost of Rs. 3.43 Crore.

Suggestion of the Committee: Identification and inventorisation of water bodies is incomplete and same to be done scientifically. All the water bodies to be geo-tagged. Action plans for restoration of stagnant water bodies to be made based on the detailed investigation and scientific assessment and based on the designated best use of the water bodies.

12. **Maharashtra:** -Representative of Maharashtra Pollution Control Board informed that Hon'ble Chief Secretary, Government of Maharashtra has directed all the local bodies to map water bodies in their jurisdiction in a meeting held on 30.08.2019. All RO/SRO collected information from respective ULB's in their jurisdiction, prepared an inventory and progress of remediation submitted in the prescribed format. *Methodology followed for identification of water bodies* using different tools include (i) Preparation of district wise grids (Khasra No./ Plot No./ Survey No. in which the water body is located), (ii) Searching of waterbody on Google map (Latitude and Longitude and all geographical), (iii) Verification of identified water bodies using MRSAC Geo-mapping, (iv) Marking of location of each lake on topo-sheet using GIS software as well as marking on Google Earth. (v) Data to be collected from 383 ULBs as per the format circulated by CPCB. In Maharashtra State, State Wetland Authority has been Constituted on 06.02.2018. As per the definition of the wetland mentioned in The Wetlands (Conservation and Management) Rules 2017, 15864 total number of wetlands have been identified in the State of Maharashtra. Preliminary brief documents received from all Districts, yet to be placed before the State Wetland Authority.

More than 350 lakes in Maharashtra state, however only those falling in territory of Urban Local bodies are considered in the study. The data has been received from 103 Urban Local Bodies for total 91 lakes/ water bodies. Most of the ULBs don't have any water body pertaining to their jurisdiction. Status is as follows:- Total ULBs in Maharashtra: 391; Data received from ULBs: 103; Number of ULBs that do not have any water body: 44 (Out of received data); Number of ULBs having water body restoration plans: 8; Number of ULBs that have already restored water bodies: 15 and Number of action plans already developed and waiting for funds: Nil .

Restoration framework consists of (i) Building environment and setting up restoration team including local community, technical experts, government officials and NGOs, (ii) Preparation of Restoration plan / Detailed Project Report for individual water body. (iii) Feasibility of treatment (In-situ and ex-situ treatment options-The most feasible technologies that can be easily implemented in Indian Scenario); (iv) Phytoremediation Technology, (v) Circular Economic Floating Wetland / Floating rafter technology-Monitoring to review timely progress, effectiveness and maintenance and Identification of other associated issues which requires attention; (vi) Feasibility for Bio-diversity park in case adequate land is available in the vicinity of ponds or lakes. (vii) Machinery and the man power requirement for maintenance of restored water body. (viii) Existing provision for disposal of waste arising from the de-siltation and de-weeding activity of a pond or lake. (ix) Awareness and training requirements, (x) Any other related measures E.g., aesthetic point of view, bins for rubbish management which may be generated due to visitors. Protection of restored water bodies includes (i) Acquiring at least 1Acre or 0.5 Acre as buffer zone, (ii) fencing, (iii) control waste disposal, (iv) no discharge of untreated sewage into lake, (v) provision community toilet and waste bins, (vi) prohibition of washing activities by dobhis and idol immersion, (vii) Levying of fine or Environmental

Compensation on the violators. Improvement of restored water bodies includes (i) Adoption of In-situ techniques for in-situ remediation of ponds or lake, (ii) Physical treatment approaches, (iii) Chemical treatment approaches; addition of alum, bio-culture etc. (iv) In-situ techniques by development of Ecosystem in the Moat, and (v) Biological techniques by Constructing a Healthy Food Web in the Core Lake. Proposed Lake front area development plan includes Pathways & Jogging tracks, Brick works in toe works, overlooking decks, Play equipment for children in the children play area, Parking Area, Signages, Rocks, Boating Activity, Lighting and electrical works, Irrigation & plumbing. Proposed Revenue Generating Activities from lake rejuvenation includes Boating, Space Rent for food stalls and entertainment kiosks, Advertising Space Rent, Parking – Car Parking - 2 Wheeler. Proposed Revenues from lake front development includes Entry Fee, Fees to go to theme park and rides, Costumes+ Locker Fees, Restaurant rent.

Prioritization of restoration of lakes is proposed as (i) Priority –I- Lakes that recover without any intervention, (ii) Priority-II: Lakes that can be restored close to their former condition to serve their earlier functions, and (iii) Priority-III. Lakes that cannot be restored to any agreeable degree viably

Suggestion of the Committee: - Water quality & causes or sources of pollution, Water body-wise water quality compliance status w.r.t Designated Best Use standards, time lines and the department responsible for restoration of water bodies and proposed action plans implementation should be in visible form and all the beneficiaries also be encouraged to take part in restoration of stagnant water bodies.

13. Manipur:- The representative of Manipur State informed that Manipur Pollution Control Board is monitoring the water quality of 2 lakes (Loktak and Pumlen) and 13 community ponds in the state under the National Water Quality Monitoring Programme. During the monitoring, it has been observed that the water quality at times do not meet the National Criteria of Designated Best Use for Bathing (BOD should be less than 3 mg/L). Water Resources Department, Manipur is implementing the scheme for Repair Renovation & Restoration (RRR) of water bodies for Lamphelpat (lake), Waithoupat (lake) and Irong Nalla. The 18 water bodies (including 4 lakes, Irong Nalla and 13 ponds) were identified for restoration and geotagged. Presently, 4 lakes and 1 water body under restoration. Water quality of water bodies have been analysed for pH, DO, BOD, COD and TC. Proposed action plans for restoration of selected water bodies.

Suggestion of the Committee: - Incomplete inventorisation of water bodies. Focussed only in urban areas. One of the student from Manipur has done her Ph.D on Lakes and suggested to look into the report as it is useful for the state of Manipur.

14. Telangana: - The representative of Telangana State Pollution Control Board informed that 46531 lakes has been identified (Minor Irrigation). Sanctioned programmes: 27631, No. of programmes completed:21436 and Ongoing / under process:6195. As regards identification of lakes or ponds, 235 have been identified, 235 monitoring stations, 13 water bodies complying to bathing criteria, 43 lakes complying to Class D- DBU criteria, 128 complying to Class-E Criteria and 51 lakes are dry. Also , informed that 44672 lakes are geo-tagged, geo-tagging of 1240 lakes at approval stage, 619 lakes yet to be geo-tagged. The geotagging of the remaining 619 lakes will be completed by October, 2020

by the I & CAD Department. Identification of designated use of water bodies through assessment of water quality criteria (As per National Restoration Goals) has been completed (Completed (best designated best use as fit for irrigation & fishing). 21,436 lakes are restored so far and remaining 6195 lakes restoration under progress and are likely to be completed within two years. Identification of the sources of pollution quantification and detailed gap analysis (Sewage Management, Industrial Effluent Management & Waste Management) has been completed through I & CAD, TSPCB, Urban Local Bodies, HMWS&SB. HMWS&SB has constructed 20 STPs to protect the lakes and plans for another 20 STPs to prevent entering of Sewage water into the lakes. Three years as it includes networking. Actions plan for sewage management submitted in OA No.673/2018 with timelines up to May, 2022 and the sewage management will cover the water bodies in urban areas. No Gap in Industrial Effluent management. A separate action plan is under implementation in the 6 lakes with legacy industrial pollution. The details of which are submitted in subsequent section. Action plan for Solid waste management- 100% Door to door collection is being practiced and the setting up of the processing facilities is under progress as per the actions indicated in OA No.606/2018. De-Siltation, De-Weeding, Mechanical and biological control measures, Stabilization of earthen bunds and the drainage channels as well as silt and soil erosion control measures, Protection drainage basin including preservation of drainage channels has been completed for 21,436 lakes and remaining 6195 lakes restoration under progress and will be completed in two years and the other regulatory activities are to be carried out on continual basis. For adoption of In-situ techniques for in-situ remediation of ponds or lakes (Physical & chemical treatment), Kokapet lake drain is taken up on pilot basis and the works are in progress and DPRs for four other drains are under progress. A pilot project rain guard / wetland construction on Kukatpally Nallah which joins Hussain Sagar Lake is taken up for a length of 300 RMT to reduce the BOD load of the water passing through it. The same is under construction. It will be completed by October, 2020. In case of 6 industrially polluted lakes, TSIIC has given a study for assessing the pollution in the drains and the 5 lakes, The study is about to be completed. An STP will be built for treating the waste water and remediation of the lakes will be followed by the construction of the STP.

Suggestion of the Committee: - Telangana has taken measures for restoration of water bodies from irrigation point of view but emphasis also be given from biodiversity point of view. Also, all the other water bodies existing in nature also be covered for their restoration.

15. Chhattisgarh:- The representative of Urban Administration & Development, Chhattisgarh informed that in compliance of Hon'ble NGT order, UAD, vide order dated 31st December 2019, constituted an Intra Departmental Committee for preparation of action plans for restoration of water bodies. Illustrative list of water bodies has been sent to CPCB vide letter dated 10.07.2020. 1658 number of water bodies having area of 0.1 acre to 10 acres have been identified in the urban areas of Chhattisgarh under the ownership of Government (ULB Owned)-Municipality (1446), State Irrigation (54), Individual/ Group of Individual (59) and Private Body / Industry Owned (99). Designated Best Use of water bodies have been identified such as Bathing /Washing, Aqua Culture

(Fisheries), Irrigation, Use in Garden near pond / lake , Tourism and others. All the identified water bodies have been geo-tagged. He also detailed about three case studies under taken by Chhattisgarh such as (a) Restoration of Waterbodies at Raipur Pilot Project-1 -Marine Drive-Telibandha (for more than 10 Lakh Population) at a total cost of Rs.17 Crore (b) Restoration of Waterbodies at Ambikapur Pilot Project-2 (for 1-10 Lakh Population)- 1. Runjhun Pond –AMC 2. Marine Drive- AMC and (c) Restoration of Waterbodies at Kumhari Pilot Project-3 (for less than 1 Lakh Population)- Bada Talab- Kumhari. Time linse proposed for restoration of water bodies is about 6 years depending on the priority.

Suggestion of the Committee: - Committee felt that the cost of in-situ remediation appears to be on higher side and suggested to review the cost of treatment of wastewater by in-situ remediation methods. Also, suggested to document the details and to upload in Chhattisgarh State website and the document be shared with CPCB also to share with other States/UTs. Stagnant water bodies which are in rural areas also required to be identified by the State.

16. **Daman, Diu and Dadra Nagar & Haveli: -** The representative of Dadra Nagar Haveli and Daman & Diu informed that there are no polluted stagnant water bodies in the U.T. There is no water body (Lake / Pond) in the Diu District. In Daman District, there are 6 Nos of lakes / ponds situated which are regularly maintained by the Administration. In Dadra Nagar Haveli, there are 18 Nos of Ponds developed by the Administration for conservation of water and to recharge ground water table. Designated best use of each identified water body has been indicated during his presentation.

Suggestion of the Committee: - Committee felt that detailed assessment of water quality of each water body has to be carried out apart from identification of sources of pollution before prioritisation of each water body for restoration depending on the need. Also, sewage and waste management aspects in the catchment of each pond has to be delineated clearl by the UT..

17. **Mizoram: -** Irrigation and Water Resources Department is responsible authority for restoration of stagnant water bodies. There are 14 no. of stagnant water bodies, UIN completed. Information has been submitted as per the format circulated by CPCB. Action plan will be prepared and submitted after assessment of water quality of all identified stagnant water bodies.

Suggestion of the Committee: - Detailed inventory of stagnant water bodies to be carried out by the State apart from detailed assessment of water quality of each water body, compliance status of each water body with regard to the designated best use, prioritisation of stagnant water bodies for restoration and the proposed action plans based on the detailed assessment with regard to control measures for various sources of pollution.

18. **Nagaland: -** The representative of Nagaland informed that there are 421 wetlands, 01 natural lake, 1 man made reservoir, 3 natural ponds, 04 man made ponds. Two water bodies namely Padampukhuri, Raj Pukhuri has been identified for restoration. Water quality of the two water bodies has been carriedout for the parameters such as pH,

Temperature, Turbidity, BOD, COD DO, Total Alkalinity, TDS, EC. Only proposed additional measures such as deweeding, aeration, training and public participation at a total cost of Rs.16 lakhs each for restoration of two identified water bodies.

Suggestion of the Committee: - Detailed inventory of stagnant water bodies to be carried out by the State apart from detailed assessment of water quality of each water body as per guidelines issued by CPCB, compliance status of each water body with regard to the designated best use, prioritisation of stagnant water bodies for restoration and the proposed action plans based on the detailed assessment with regard to control measures for various sources of pollution to be prepared and submitted.

Prof.A.K.Gosain and Prof. C.R Babu, Emeritus Professor, University of Delhi were of the view that (i) the States/UTs have to take up the work very seriously and proper inventory of all the stagnant water bodies must be carried out with the help of the available technology or sources (Remote sensing and existing survey map of India) (ii) All possible sources of pollution in stagnant water bodies to be identified, (iii) water quality of all water bodies to be carried out for the relevant parameters depending on the designated best use, (iv) required infrastructure as a part of restoration of stagnant water bodies to be decided depending on the availability of funds and necessity (alternative technologies can be adopted in place of conventional STPs wherever feasible), (v) artificial water bodies created due to mining activities should also be restored and included in the Action Plans, (vi) Existing water bodies may be restored and protected, (vii) Proper sensitization and community participation is equally important for sustenance of water bodies. (vii) After creation of requisite infrastructure, O & M of such infrastructure also be taken care of.

Sh. Rohit Kakkar, Deputy Advisor (CPHEEO), MoHUA shared that in rural areas proper septage management should be done to prevent the stagnant water from eutrophication. He insisted that in case of waterbodies, non-point sources must be taken as seriously and insisted that all States/UTs to work on grey water management.

Sh. Sundeep, Director, MoEF&CC suggested that all States/UTs to examine the water quality data being submitted in action plans carefully as this data will be used as a baseline data before initiation of the work of restoration.

Shri J.C.Babu, Sc 'E', WQM-I Division informed that as per the information received, few States are submitting information Department-wise. Compilation of such information would be difficult. Information has to be compiled by all the concerned State/UT and only compiled information has to be submitted as a whole for the State/UT as per the format circulated by CPCB. Therefore, he urged all the States/UTs to designate a 'single agency' as a nodal agency to ensure restoration of all stagnant water bodies in the respective State/UT in consultation with all the concerned departments. Such a nodal agency also may co-ordinate with the respective State Pollution Control Board (SPCB) in the State and Pollution Control Committee (PCC) in the UT for ensuring timely compliance to Hon'ble NGT directions in the matter.

Meeting ended with vote of thanks to the Chair.

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Annexure I

List of Participants

1. Dr. Prashant Gargava, Member Secretary, CPCB and Chairman of the Committee
2. Sh. C.R Babu, Emeritus Professor, University of Delhi, (Member, Expert Committee)
3. Sh.A.K Gosain, Professor, IIT, Delhi, (Member, Expert Committee)
4. Sh.Rohit Kakkar ,Deputy Advisor (CPHEEO),Representative of MoHUA (Member, Expert Committee)
5. Sh. Sundeep Singh, (Representative of MoEF& CC) (Member, Expert Committee)
6. Sh. A. Sudhakar, DH, WQM-I, CPCB
7. Smt. Divya Sinha, DH, UPC Division, CPCB
8. Sh. J. Chandra Babu, Scientist 'E', CPCB
10. Ms. Deepty Goyal, SRF, CPCB
11. Ms. Deepa Kumari, JRF, CPCB

Officials of States –

1. Chhattisgarh
2. Delhi
3. Daman & Diu
4. Gujarat
5. Haryana
6. Himachal Pradesh
7. Jammu & Kashmir
8. Kerala
9. Lakshadweep
10. Maharashtra
11. Manipur
12. Meghalaya
13. Mizoram
14. Nagaland
15. Odisha
16. Puducherry
17. Punjab
18. Telangana
19. Tripura

ANNEXURE - A VI

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26-6-2020

D.O. No.22-210/CGWA/OA326/2015

17th June, 2020

Dear

Your attention is kindly invited to the directions of Hon'ble NGT, New Delhi in M.A No. 26/2019 in O.A No. 325/2015 (copy of judgment is enclosed). The matter was last heard by the Hon'ble NGT on 25.02.2020. The Hon'ble NGT has directed all the States and Union Territories to prepare and submit action plans for identification, protection and restoration of water bodies in their respective States/UTs. The Hon'ble NGT has also held that the action plan should commence from 1.4.2020 and be finalized by 31.03.2021.

I would also like to remind you that guidelines for water recharge, through the convergent use of resources under different programmes, have been sent in a letter jointly written by the Secretaries of the Departments of Rural Development, Water Resources and Ganga Rejuvenation, Drinking Water and Sanitation and Land Resources. The guidelines specifically prioritise protection and restoration of water bodies.

You are requested to kindly arrange to send the action plan as desired by the Hon'ble NGT with expected time of restoration/rejuvenation directly to Central Pollution Control Board (CPCB) & Central Ground Water Board (CGWB) with a copy to this Ministry. As the Hon'ble NGT has fixed the final date for restoration of water bodies as 31.03.2021, necessary instructions may kindly be issued to all the concerned authorities for initiation of urgent action to meet the deadline.

With regards,

Yours sincerely,

(U. P. Singh)

Encl: As above.

To
All the Chief Secretaries in the States & UT Governments.

Copy to:

1. Secretary, Ministry of Environment, Forests and Climate Change, New Delhi.
2. Secretary, Ministry of Drinking Water and Sanitation, New Delhi.
3. Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi.
4. Secretary, Ministry of Rural Development, New Delhi
5. Chairman, CPCB
6. Chairman, CGWB

MS
Please discuss.
26/06/2020
We discussed. Please put up the status of Action plans received as on today.
30/06/2020
Pl provide by 02/07/20

PART-B:

Joint Committee's Consolidated Status Report on Rain Water Harvesting Systems for Conservation of Water

Submitted

in compliance to Hon'ble NGT orders dated 11.9.2019 and 3.2.2020 in O. A. No 496/2016 in the matter of Tribunal on Its Own Motion Vs Government of NCT of Delhi & Ors"

PART-B: Joint Committee's Consolidated Status Report on Rain Water Harvesting in compliance to Hon'ble NGT orders dated 11.9.2019 and 3.2.2020 in O. A. No 496/2016 in the matter of Tribunal on Its Own Motion Vs Government of NCT of Delhi & Ors"

1.0 Background

Hon'ble NGT vide order (date of hearing 27.08.2019 and date of uploading 11.9.2019) passed in O. A. No 496/2016 in connection with Rain Water Harvesting as well as for conservation of water directed as follows:-

- **Para 18 (vi)** - "Having regard to significance of RWH for conservation of water, Joint Committee of CPCB and Ministry of Jal Shakti may secure status of implementation and action plans from all States and UTs and furnish combined status report in O.A. No. 325/2015 on or before 30.11.2019. The Chief Secretaries of all States/UTs may oversee compliance in their respective areas."

- **Para 19-** The Committee may give its further report preferably by 30.11.2019.

In pursuance to Hon'ble NGT Order, Central Pollution Control Board (CPCB) jointly with Ministry of Jal Shakti (MoJS) filed combined status report on 28.11.2019 before Hon'ble NGT seeking additional time of at least three months for obtaining information from States and UTs and for submission of status report before Hon'ble NGT. Thereafter, Hon'ble NGT passed order on 03.02.2020 in O. A. No 496/2016 in the matter of Tribunal in its Own Motion Vs Government of NCT of Delhi & Ors in connection with Rain Water Harvesting as well as for conservation of water.

The relevant portion of the directions passed by Hon'ble NGT order dated 03.02.2020 regarding existing policies relating to RWH for ground water recharge and for conservation of water in States/UTs as per Para 8 is as below:

- ***Para 8*** - *In pursuance of direction of order dated 11.09.2019, a joint report has been submitted by the CPCB to the effect that six States have furnished status reports on implementation of rain water harvesting systems while the remaining*

States are yet to furnish their action plans in the matter. We are informed that action plans of all the States are likely to be available within next one month. The same may be filed in OA No. 325 of 2015 as already directed.

A copy of the Hon'ble NGT order passed on 03.02.2020 in O. A. No 496/2016 in the matter of Tribunal in its Own Motion Vs Government of NCT of Delhi & Ors is annexed as **Annexure-B I**

2.0 Initiatives of CPCB for ensuring compliance to Hon'ble NGT Orders in the matter

2.1 Communications sent by CPCB

CPCB communicated to all States/UTs about the Hon'ble NGT order dated 11.9.2019 passed in O. A. No 496/2016 in the matter of News Item Published in "Hindustan Times" dated 19.06.2015 Titled "Dirty flows your drinking water" authored by Ritam Haldar" in connection with implementation of action plans for Rain Water Harvesting for Conservation of Water vide letters dated 27.9.2019 and 24.10.2019 and also reminded Chief Secretaries of all the States/UTs to arrange status on compliance to the order to CPCB at an early date to enable Joint Committee of CPCB and Ministry of Jal Shakti (MoJS) to file combined compliance status report on or before 30.11.2019. Copies of the afore-said letters were also sent to Ministry of Jal Shakti and Ministry of Housing & Urban Affairs for information and further action at their end.

In pursuance to Hon'ble NGT order dated 03.02.2020, a format was prepared by CPCB in consultation with Ministry of Jal Shakti to obtain information on status of implementation of Rain Water Harvesting and ground water recharging. CPCB circulated the format vide letter dated 24.2.2020 and reminder letter dated 27.4.2020 to all States/UTs with a request to provide the desired information for ensuring compliance to Hon'ble NGT order dated 03.02.2020 passed in OA No 496/2016 in the matter of Tribunal in its Own Motion Vs Government of NCT of Delhi & Ors in connection with implementation of action plans for Rain Water Harvesting for Conservation of Water.

In order to obtain the desired information as per the format circulated by CPCB vide letter dated 24.02.2020, CPCB requested AP, HP, Karnataka, MP, Meghalaya and Odisha to provide desired information vide letter dated 15.06.2020. CPCB requested Gujarat, Haryana, Mizoram, J & K and Delhi to submit complete information as per the format circulated by CPCB vide letter dated 29.06.2020. CPCB vide letter dated 02.07.2020 also requested concerned Departments of AP, HP, Karnataka, MP, Meghalaya and Odisha to submit desired information as per the format circulated by CPCB, latest by 10.07.2020.

2.2 Meetings of the Joint Committee (CPCB & MoJS)

CPCB has organised three meetings of Joint Committee comprising CPCB and Ministry of Jal Shakti (MoJS) for ensuring compliance to direction passed in OA No 496/2016. The details are given below:

The first Meeting of Joint Committee was convened on 21.11.2019 at CPCB, Delhi under the Chairmanship of Sh. A. Sudhakar, DH, WQM-I Division to discuss the status of implementation of action plans received from States and UTs on Rain Water Harvesting for conservation of water in compliance to Hon'ble NGT order dated 11.9.2019 in O. A. No 496/2016 for filing the combined compliance status report on or before 30.11.2019 before Hon'ble NGT. Following decisions were taken in the afore-said meeting: -

(i) *It was decided that MoJS will follow-up with all the States/UTS for obtaining status of implementation of action plans for Rain Water Harvesting for conservation of water to enable Joint Committee for filing status report before Hon'ble NGT.*

(ii) *A Report may be filed before Hon'ble NGT based on the information received from States/UTs (till 22.11.2019) on or before 30.11.2019.*

Further, for ensuring compliance to Hon'ble NGT order dated 03.02.2020, second meeting of Joint Committee was convened on 04.02.2020 at CPCB, Delhi under the Chairmanship of Sh. A. Sudhakar, DH-WQM-I, CPCB to discuss the issues related

to compliance and further follow up action to be taken for filling the final Status report before Hon'ble NGT on Rain Water Harvesting (RWH) system for conservation of ground water for ensuring compliance to Hon'ble NGT order dated 03.02.2020 passed in O. A. No 496/2016. Following decisions were taken in second meeting:

(i) *As the information received from the States/UTs (till 31st January, 2020) is discrete and incomplete, therefore a format may be prepared & circulated to the States/UTs seeking specific information such as existing Policies/ Bye-Laws of ULB's in State/UTs, No. of Government buildings that require RWH system, No of Government buildings already implemented RWH systems, GW level (pre & Post monsoon) as well as improvement in GW table (region wise and year wise) and existing monitoring mechanism for periodic physical verification of existing RWH system.*

(ii) *It was suggested that MoJS may write to all the States/UTs for providing desired information to CPCB & MoJS as per format circulated by CPCB.*

The third meeting of Joint Committee was convened through Video Conference (VC) on 29.06.2020 under the Chairmanship of Sh. A. Sudhakar, DH-WQM-I, CPCB to discuss the issues related to compliance and follow up action needed for filling the final Status report before Hon'ble NGT on Rain Water Harvesting (RWH) system for conservation of water in compliance to Hon'ble NGT order dated 3.02.2020 in O. A. No.496/2016. Upon deliberations following decisions were taken by the Joint Committee

(i) *A communication need be sent to Chief Secretaries of States/UTs for nominating a Nodal Department for collating, compiling and providing desired information to CPCB as per the earlier circulated format in compliance to Hon'ble NGT Order in the matter.*

(ii) *Any State/UT seeking additional time for providing the information in the circulated CPCB format may file separately to NGT seeking extension of time with valid reasons for providing the desired information.*

(iii) *It was suggested that CPCB may write to all the States/UTs for providing desired information and a copy may be shared with MoJS.*

3.0 Action initiated by Ministry of Housing and Urban Affairs (MoHUA)

Subsequent to CPCB letters dated 27.9.2019 and 24.10.2019, Adviser (PHEE), Ministry of Housing and Urban Affairs (MoHUA) requested Chief Secretaries of all States/UTs to forward status report latest by 11.11.2019 on compliance to Hon'ble NGT order dated 11.9.2019 passed in O. A. No 496/2016, vide letter dated 25.10.2019.

4.0 Actions initiated by Ministry of Jal Shakti (MoJS)

Ministry of Jal Shakti (MoJS) prepared a 'Master plan for Artificial Recharge to Ground Water in India' envisaging type of design and type of structures to be adopted for artificial recharge and requested all States/UTs to take up artificial recharge in the areas where the aquifers are critically depleted vide letter dated 15.1.2015. MoJS also requested all the States to improve the water use efficiency in all sectors, awareness among the stake holders on judicious use of water resources, measures to minimize substantial loss of water due to leakages/seepages during transmission/distribution of water from source and measures for improvement in ground water resources, vide DO letters dated 21.5.2018 and 21.8.2019. Also, Ministry of Jal Shakti (MoJS) requested all States/UTs to direct the concerned Officers/ Ground Water Department/ Water supply agencies/SPCBs/PCC to submit the desired information to enable joint Committees for submission of the consolidated report before Hon'ble NGT for consideration, vide letter dated 03.01.2020.

5.0 Status of Response Received from States/UTs

In pursuance to CPCB letters, response has been received from 25 States/UTs viz., UTs viz. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Odisha, Puducherry, Punjab, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal.

Information as per format circulated by CPCB have been provided only by 13 States/UTs namely Assam, Chhattisgarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Meghalaya, Mizoram, Puducherry, Tamil Nadu and Tripura. Andaman & Nicobar Islands, Bihar, Chandigarh, Daman, Diu, Dadra & Nagar Haveli, Manipur, Rajasthan, Sikkim, Telangana and Uttarakhand have not submitted any information relating to Rain Water Harvesting provisions in the respective State/ UT.

Information provided by States/UTs is detailed in subsequent paras.

5.1 Andhra Pradesh

Andhra Pradesh Government vide e-mail dated 31.03.2020 communicated that the industries were pursued for development of rain water harvesting measures aiming to recharge of ground water and preserving the natural resources. The APPCB while granting the Consent for Operation (CFO) to the industry under Water (Prevention and Control of Pollution) Act, 1974 & Air (Prevention and Control of Pollution) Acts, 1981, the following condition is being stipulated by the Andhra Pradesh Pollution Control Board 9APPCB): "The applicant shall provide appropriate Rain Water Harvesting systems in the plant site." However, information related to existing Rain Water Harvesting policies and present status on implementation of the existing policies in the State as per the circulated format is not received from Andhra Pradesh State.

5.2 Arunachal Pradesh

Department of Town Planning & Urban Local Bodies, Government of Arunachal Pradesh, vide letter dated 20.11.2019 informed that provision of Rain Water Harvesting (RWH) system has been incorporated in Arunachal Pradesh Building Byelaws, 2010. Department of Public Health Engineering & Water Supply, Government of Arunachal Pradesh, vide letter dated 11.12.2019 has submitted information regarding the policies relating to RWH systems in the Arunachal Pradesh State. As per Building Byelaws, provision of RWH shall be mandatory for plot of size 100 sq.m and above. In case of water scarcity areas, the State Government is undertaking rain water harvesting activity in phased manner on priority as per

availability of fund. However, no information has been provided by the State as per the circulated format related to policies on Rain Water Harvesting.

5.3 Assam

Assam State has submitted incomplete information in the format circulated by CPCB, vide letter dated 20.6.2020 and informed that no provision of RWH exists under the Building Bye-laws in Assam State. Assam State already implemented RWH systems in 6700 Government buildings and 225 Private buildings.

5.4 Chhattisgarh

Urban Administration and Development Department, Chhattisgarh State has submitted partial information as per the format circulated by CPCB (vide letter dated 6.3.2020). Chhattisgarh State communicated that 21124 Rain Water Harvesting structures constructed and 26934 structures are being taken up in five main Urban Bodies in Chhattisgarh in buildings of 150 sq.m or above. As per information received from Department of Panchayat, vide letter dated 21.7.2020, 445 out of 585 proposed Rain Water Harvesting structures have been installed.

5.5 Delhi

Delhi Jal Board (DJB), Government of NCT of Delhi has submitted information in the format circulated by CPCB vide letter dated 20.7.2020 and informed that provision of RWH is already included in Building Bye-Laws, 1983. Rebate provision of 10% in water bills to the consumers having RWH in buildings with area 100 sq.m and above has been incorporated in Building Bye-Laws, 1983. Non provision of functional RWH having plot area of 500 sq.m and above invites penalties in water bills, which are increased by 1.5 times. So far, 1305 RWH systems have been installed and 1232 are under installation in Govt buildings whereas, RWH structures have been installed in 1869 Private buildings. Total 3218 RWH systems are required in Government infrastructures. No information with regard to total private buildings which require RWHs. Information with respect to increase in ground water level is not provided as piezometers are not installed by Delhi Jal Board.

5.6 Goa

Department of Environment, Government of Goa vide letter dated 06.01.2019 informed that Water Resources Department is implementing the roof terrace rain water harvesting scheme for individual and residential complexes on plot sizes of 2000 sq.m and above, commercial complex on plots of 1500 sq.m and above. No information has been provided by the State as per the format circulated by CPCB.

5.7 Gujarat

Narmada, Water Resources Water Supply and Kalpsar Department, Government of Gujarat, Gujarat State has submitted partial information vide letter dated 14.5.2020. Vide afore-said letter, Gujarat State has informed that scheme known as 'Sujalam Sufalam Jal Abhiyaan-3' was launched during the year 2018-19 wherein 31 RWH systems were planned. *Presently, implementation of RWH systems is under progress.*

5.8 Haryana

The Haryana Pond and Wastewater Authority, Government of Haryana has submitted information collected from six departments (viz., Irrigation & Water Resources Department, Agriculture Department, Haryana Shehri Vikas Pradhikaran, Public Health & Engineering Department, Panchayati Raj and Public Works Department) as per the format circulated by CPCB, vide letter dated 30.5.2020. As per the information received from Irrigation & Water Resources Department, Haryana (I&WR), provision of RWH is already included in Building Bye-Laws. RWH systems required in 215 I&WR Government buildings and 83 I&WR Government Buildings have already implemented RWH systems.

Also, informed that there is a positive rise in the ground water table. As per the information received from Director General, Agriculture & Farmers Welfare Department, 946 roof-top RWH structures for ground water recharging have been constructed on Government Buildings under State Plan Scheme. A target of 50 such structures is fixed for the year 2020-21. Also, various ground water recharge structures constructed under 'Jal Shakti Abhiyaan and Atal Bhu Jal Yojna'.

As per the information received from Haryana Shehri Vikas Pradhikaran (HSVP) on 31.10.2001, a notification was issued making roof rain water harvesting – Conservation & Artificial Recharge of Ground Water mandatory in all the Government Buildings/ HSVP Buildings including all private houses/ buildings in Urban Estates with roof top surface area of 100 sq.m or more. A provision of RWH system has been made in 60,077 premises of various categories in the 10 Urban Estates of HSVP. In addition, 460 RWH wells were constructed. However, no mechanism exists for physical verification of RWH systems at present. Also, information relating to increase in ground water level is being collected from CGWB.

As per the information received from Public Health & Engineering Department (PHED), 753 Roof Top RWH structures have been constructed. As per the information received from Panchayati Raj & Public Works (PR-PW), provision of RWH included under Haryana Building Code, 2017. RWH systems required in 25,450 government buildings and same were installed in 15,482 buildings. As per the information received from Public Works Department (PWD), 1125 rooftop RWH systems have been provided in 319 existing Government Buildings.

5.9 Himachal Pradesh

Himachal Pradesh State Pollution Control Board, Shimla has submitted partial information (as per the format circulated by CPCB) provided by Department of Urban Development and Department of Jal Shakti, Himachal Pradesh State Government vide letter dated 17.7.2020. Provision of RWH is already included in HP Building Bye-Laws (HP TCP Rules 2016) and HP Municipal Act, 1994 according to which, all Government/ Private buildings have to install RWH systems and no water supply connection will be provided to buildings unless RWH systems are installed and operationalised. Presently, only 10 ULBs have installed RWH systems in their buildings in Himachal Pradesh State.

5.10 Jammu & Kashmir

Jammu & Kashmir UT has submitted partial information as per the format circulated by CPCB, vide letter dated 05.05.2020 and informed that Housing & Urban Development is nodal department for implementation of rain water harvesting

provision. Provision for RWH system is included under Jammu Master Plan 2032, wherein provision of Rain Water Harvesting by way of collection of rain water in surface reservoirs or in recharge wells is incorporated for storage of rain water in all new buildings existing on plot of 1000 sq.m and above and all group housing complexes shall be mandatory.

Regarding implementation of RWH, no survey (buildings that require RWH systems) has been conducted by J & K UT Administration. However, RWH structure in one Govt Building is being constructed in J & K. Nine towers comprising of 216 flats require RWH systems pertaining to Jammu Development Authority. Overall no action plan has been proposed for RWH in the J & K UT.

5.11 Jharkhand

Rural Development Department, Government of Jharkhand vide letter dated 14.11.2019 informed that under Jal Shakti Abhiyan various activities were undertaken throughout the State to conserve rain water. Rain water harvesting is made mandatory in all housing complexes (above 20 flats), industrial premises, governmental buildings, ministries, project houses, FFP Building, MDI Building, Nepal House, Yojana Bhavan, State Guest House, Prison Complex, etc. Under Jal Shakti Abhiyan, planned one lakh seven thousand Rain Water Harvesting systems and soak pits. Water Resources Department, Government of Jharkhand vide letter dated 14.11.2019 informed that 144 RWH structures are planned for construction by June 2020. Government of Jharkhand has not submitted information in the format circulated by CPCB.

5.12 Karnataka

Rural Drinking Water and Sanitation Department, Karnataka has not submitted information as per the format circulated by CPCB. However, vide letter dated 27.07.2020, Rural Drinking Water and Sanitation Department, Karnataka informed that 1751 out of 3539 planned sustainability structures have been installed during 2015 - 2018. No information with respect to existing Building Bye-laws with regard to rain

water harvesting systems, present status on implementation of rain water harvesting and increase in ground water level is provided.

5.13 Kerala

Water Resources Department, Government of Kerala vide letter dated 27.11.2019 communicated that plan of actions for RWH for conservation of water have been prepared department-wise for implementation. Implementing authorities are Kerala Rural Water and Sanitation Agency, Ground Water Department, Kerala Water Authority. Actions are being implemented under 'Jalanidhi' programme in two phases. As on 30.06.2019, about 23390 RWH structures have been constructed. No information has been provided as per the format circulated by CPCB.

5.14 Lakshadweep

Lakshadweep UT Administration, vide letter dated 13.11.2019 informed that roof top Rain Water Harvesting structures are being constructed at both individual and community level under state scheme as well as the central schemes like AMRUT. As on date, 4,532 individual Rain Water Harvesting Tanks (RHT) have been constructed and 434 RHT are under construction. Also, 49 community Rain water tanks have been provided. About 355 lakh litre of rain water is harvested in a year. The over flow from these structures are connected to the nearby dug walls for accelerating the recharge of ground water. There are 55 RWH Tanks constructed with total capacity of 2,021 KL. No information has been provided as per the format circulated by CPCB.

5.15 Madhya Pradesh

Madhya Pradesh Pollution Control Board (MPPCB) has submitted information in the format circulated by CPCB, vide letter dated 30.7.2020. As informed, Urban Administration Department and Public Health Engineering Department (PHED) are involved in installation of RWH structures.

As per Urban Administration Department, provision of RWH is already included in Building Bye-Laws in MP Bhumi Vikas Adhiniyam 2012 according to which, all type of

buildings of 140 sq.m or more area shall install RWH systems. So far, 47,564 buildings out of 2,94,590 buildings that require RWH systems have already implemented RWH systems and 5,671 are under construction. Verification and monitoring of RWH structures is done by the Engineering Departments at ULBs. Additionally, PHED has also constructed 19,247 recharge structures, which include pits & trenches, check dams, percolation tanks, point source recharging, dug-wells or skimming wells etc.

Also, MPPCB vide letter dated 5.10.2020 informed that the issues relating to ground water recharge, rain water harvesting, creation of water harvesting structures for channelizing and storing excess rain water is one of the priority areas of GoMP. Departments like Panchayat & Gramin Vikas Vibhag, Water Resource Department, Urban Local Bodies etc. are undertaking these works in the State of MP, which not only creates water holding, recharging and harvesting structures but also generates employment for the rural poor.

5.16 Maharashtra

Urban Development Department, Government of Maharashtra vide letter dated 09.12.2019 informed that the provision of RWH has already been incorporated in the Sanctioned Development Control Regulations of Planning Authorities and Sanctioned Development Control Regulations of Regional Plans of Districts. According to these provisions, the rain water harvesting arrangements shall be provided in case of development/ redevelopment of plots having area of 500 sq.m. and more by all the owners or society of every building complexes. In case of failure, levy of fine, not exceeding Rs 1,000 per annum for every 100 sq.m of built-up area shall be imposed on the owner of such building. No information has been provided as per the format circulated by CPCB.

5.17 Meghalaya

Meghalaya State Pollution Control Board has submitted information collected from Department of Urban Affairs, Meghalaya, Shillong Cantonment Board and Meghalaya Urban Development Authority, vide letter dated 11.6.2020. As per the information received, Public Health Engineering Department (PHED), Government of Meghalaya

is the Nodal Department for implementation of policies related to RWH systems. Provision of RWH system is already included in Meghalaya Building Bye-Laws, 2011 wherein all buildings having area of 100 sq.m or more shall include Rain Water Harvesting provisions. PHED identified 27 Government buildings that require RWH systems and are taken up under Shillong Smart City Project. However, status of implementation of RWH and action plan proposed were not provided. Also, information relating to improvement in ground water level is not provided. As per the information received from Shillong Cantonment Board, two Government Buildings i.e. Office of the Shillong Cantonment Board and Shillong Cantonment Board School have already installed RWH systems.

5.18 Mizoram

Public Health Engineering Department, Government of Mizoram has submitted partial information as per the format circulated by CPCB, vide letters dated 6.5.2020, 14.5.2020 and 6.6.2020. As per Mizoram State, Building Bye-Laws not yet framed for Rain Water Harvesting System. Public Health Engineering Department (PHED), Mizoram is the nodal agency for implementation of policies related to RWH systems. Mizoram State informed that 79 rain water based gravity feed systems are proposed for the year 2020-21.

5.19 Odisha

Housing and Urban Development Department, Government of Odisha, vide letter dated 29.11.2019, informed that installation of RWH systems has been prescribed in the Planning and Building Standards Regulations of all Development Authorities of the State which is mandatory for all plots with an area of more than 300 sq.m, including open spaces. Further, the same provisions have also been prescribed in the Odisha Special Planning Authority & Regional Improvement Trusts, Planning and Building Standards and Rules, 2017 which is also mandated for all sizes of plots. Water Resources Department, Odisha vide letter dated 17.8.2020 informed that artificial recharge of ground water including Roof Top RWH would be encouraged as per the Odisha State Water Policy, 2007.

Also, during the years 2014 – 2019, a scheme of Roof Top Rain Water Harvesting (RRHS) and recharge to ground water implemented in 11 urban areas in 358 Government and 9,438 private buildings with total roof area of 14,75,351 sq.m. During the Year 2019-20, 179 recharge shafts have been constructed in tanks and ponds on pilot basis. During the financial year 2020-21, 300 Government and 6,000 private buildings are taken up along with 65 recharge shafts.

5.20 Puducherry

Puducherry UT has submitted information in the format circulated by CPCB vide letter dated 05.05.2020 and informed that provision of RWH is already included in Puducherry Building Bye-Laws and Zoning Regulations (Amendment), 2017 and RWH policy is also included in Water Policy of the UT of Puducherry, 2016. In Puducherry, all the buildings having 100 sq.m or more area shall include proposals of RWH, while submitting building plans for sanction.

So far, 194 Government Buildings and 650 private buildings have already implemented RWH provisions and Action plan for construction of RWH systems in Puducherry is being prepared by Puducherry Government. Puducherry UT also provided District-wise data for Ground Water level for the period 2017 – 19 and ground water level was observed to be improved by 4.8 m, as per data submitted.

5.21 Punjab

Directorate, Local Government, Punjab vide letter dated 05.12.2019 informed that provision regarding RWH has been made in Punjab Municipal Building Bye-Laws - 2018 and is being implemented by all ULBs.

As per Punjab Municipal Building Bye Laws - 2018, all buildings having plot size of 100 sq.m or more while submitting the building plans for sanction, shall include proposal of RWH. It is mandatory to have RWH structures for all residential buildings with area of 100 sq.m or more, group housing complexes, industrial buildings and others of all sizes. Municipal Corporation or Council or Nagar Panchayats shall constitute a rain water harvesting cell, which will be responsible for enforcement and

monitoring of the provisions of RWH. Punjab State has not submitted information as per the format circulated by CPCB.

5.22 Tamil Nadu

Tamil Nadu State has submitted information as per the format circulated by CPCB vide letter dated 14.5.2020. As per Chennai Metropolitan Water Supply and Sewerage Board, provision for RWH included under Building Bye-laws of ULBs in Chennai and also informed that as per the amendments made in the Tamil Nadu District Municipalities Building Rules, 1972 and Multi-storeyed and Public Building Rules, 1973, provision for conservation of rain water has been made. (G. O. Ms. No. 138, Municipal Administration and Water Supply, 11th October, 2002). The provisions have also been included in Tamil Nadu Combined Development and Building Rules 2019 vide G. O. Ms. No. 18, dated 4.2.2019.

As per Chennai Metropolitan Water Supply and Sewerage Board, 1,143 Govt buildings and 6,10,268 private buildings have already implemented RWH system and 46 Govt and 2,57,265 private buildings required RWH systems. In Chennai, verification of RWH structures has been carried out at 3,14,780 buildings and 2,42,438 buildings found with good RWH structures. Improvements were needed in 24,981 buildings and 29,056 buildings were found without RWH systems. The Ground Water level improvement of 3.25 m below ground level was observed in the month of June 2019. The Area/ Depot Engineers are monitoring the installation and maintenance of Rainwater Harvesting structures in Chennai.

As per Municipal Administration and Water Supply Department, necessary provisions have been incorporated in the Tamil Nadu District Municipalities Act, 1920 and respective Corporation Acts. Further, RWH structures in all buildings are made mandatory, while issuing building license under Tamil Nadu Combined Development and Building Rules, 2019. As per Municipal Administration and Water Supply Department, 2,599 Government buildings and 4,56,508 private buildings required RWH systems. RWH systems implemented in 30,366 Government and 41,08,575 Private Buildings. Field verifications are carried out periodically by ULBs and notice to 6,34,539 individual households have been issued. As per the information provided by

Directorate of Town Panchayats, 14,957 Government buildings and 26,43,472 private buildings required RWH systems. RWH systems implemented in 14,420 Government and 21,61,351 Private Buildings. Field verifications are carried out periodically by ULBs.

5.23 Tripura

Tripura State has submitted partial information vide letter dated 20.3.2020 and informed that provision of RWH is already included in Tripura Building Rules, 2017 (Amendment - February 2020). As per Tripura Building Rules, 2017 (Amendment - February 2020), it is mandatory to have RWH structures for all commercial buildings of 50 sq.m or more area, residential buildings with area of 150 sq.m or more, group housing complexes and industrial buildings of all sizes and others (area of 50 sq.m or more). Tripura State Pollution Control Board informed vide letter dated 20.03.2020 that 1,363 private buildings have already installed RWH provisions whereas data collection from Government Buildings was in process. Assessment of number of buildings that required RWH systems was also in process. Tripura State provided data on Ground Water levels for the Year 2017 and data for recent years was being obtained from CGWB.

5.24 Uttar Pradesh

UP Pollution Control Board (UPPCB) vide letter dated 15.11.2019 informed that the Ground Water Department, Uttar Pradesh has prepared policy for Ground Water Management, Rain Water Harvesting and Ground Water Recharging. Based on the latest study of Central Ground Water Authority (CGWA), New Delhi, at present. 45 Over Exploited, 21 Critical and 15 Semi Critical blocks have been declared in the Uttar Pradesh State. For proper and effective monitoring of ground water status, State Government of U.P has notified The Uttar Pradesh Ground Water (Management and Regulation) Act, 2019 (U.P Act No - 13 of 2019) dated August 07, 2019 which is effective from October 02, 2019. UP State has not submitted information as per the format circulated by CPCB.

5.25 West Bengal

Department of Environment, Government of West Bengal vide letter dated 06.12.2019, informed that Rain Water Harvesting (RWH) is being executed by various departments/ agencies namely Water Resources Investigation & Development Department (WRI&DD), State Water Investigation Directorate (SWID), Municipal Engineering Directorate (MED), West Bengal Pollution Control Board (WBPCB). Under Jalatirtha Programme, total 94 Nos. of rain water harvesting structures have been installed from financial year 2016-17 to 2018-19.

In Darjeeling, 1650 RWH systems have been installed out of 3000 holdings by Municipal Engineering Directorate (MED). So far, in 17 districts, 137 projects have been completed and 17 are under process by State Water Investigation Directorate (SWID). The projects include Rain Water Harvesting, artificial recharge to Ground Water, construction/ re-excavation of pond and tanks. West Bengal State has not submitted information as per the format circulated by CPCB.

6.0 Main Observations

Based on the information received, in compliance to Hon'ble NGT directions dated 11.09.2019 and 03.02.2020 passed in OA No. 496 of 2016, compiled consolidated status report of Joint Committee (CPCB & MoJS) on rain water harvesting systems for conservation of water is filed before NGT for consideration. Main observations of the Joint Committee are detailed below:-

- *As regards provisions for Rain Water Harvesting in Building Bye-laws, 11 States viz. Arunachal Pradesh, Haryana, HP, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Punjab, Tamil Nadu, Tripura and 3 UTs viz Delhi, J&K, Puducherry have provisions for RWH in Building Bye-laws. Two States viz. Assam and Mizoram have communicated that there are no provisions for RWH in Building Bye-laws yet.*

➢ *State-wise provision for Rain Water Harvesting made under Building Bye laws is given in the table given below*

S No	Name of the State/UT	Submission of Information as per the format circulated by CPCB	Provision of RWH under Building Bye-Laws
1.	Andaman and Nicobar Islands	No Information Provided	-
2.	Andhra Pradesh	Yes	Not Provided
3.	Arunachal Pradesh	Yes	Yes
4.	Assam	Yes	No
5.	Bihar	No Information Provided	-
6.	Chandigarh	No Information Provided	-
7.	Chhattisgarh	Yes	Not Provided
8.	Dadra & Nagar Haveli, Daman & Diu	No Information Provided	-
9.	Delhi	Yes	Yes
10.	Goa	Yes	Not Provided
11.	Gujarat	Yes	Not Provided
12.	Haryana	Yes	Yes
13.	Himachal Pradesh	Yes	Yes
14.	Jammu and Kashmir UT	Yes	Yes
15.	Jharkhand	Yes	Not Provided
16.	Karnataka	Yes	Yes
17.	Kerala	Yes	Not Provided
18.	Lakshadweep	Yes	Not Provided
19.	Madhya Pradesh	Yes	Yes
20.	Maharashtra	Yes	Yes
21.	Manipur	No Information Provided	-
22.	Meghalaya	Yes	Yes
23.	Mizoram	Yes	No
24.	Nagaland	No Information Provided	-
25.	Odisha	Yes	Yes
26.	Puducherry	Yes	Yes
27.	Punjab	Yes	Yes
28.	Rajasthan	No Information Provided	-
29.	Sikkim	No Information Provided	-
30.	Tamil Nadu	Yes	Yes
31.	Telangana	No Information Provided	-
32.	Tripura	Yes	Yes
33.	Uttar Pradesh	No	Not Provided
34.	Uttarakhand	No Information Provided	-
35.	West Bengal	Yes	Not Provided

- *Multiple organizations are implementing Rain Water Harvesting in the States /UTs.*

- *None of the States/UTs have provided time frame for installation of Rain Water Harvesting structures on all Government and Private buildings that require Rain Water Harvesting systems/structures in accordance with Building Bye-Laws.*

7.0 Suggestions

- *As multiple agencies or State Departments/UT Administration Departments are involved in implantation of policies related to Rain Water Harvesting (RWH), information provided by different departments of the State/UT are not corroborating with each other leading to confusion. All the States/UTs shall nominate single Nodal Department for implementation of policies relating to rain water harvesting system.*

- *Every ULBs should have one Rain Water Harvesting cell in place to regulate and monitor the Rain Water Harvesting related activities effectively.*

- *Ministry of Housing & Urban Affairs (MoHUA), Central Ground Water Authority (CGWA) and Department of Water Resources (DoWR), Ministry of Jal Shakti (MoJS) should play a major role in ensuring implementation of policies relating to rain water harvesting in the Country with a mutual co-ordination and for providing requisite guidance and necessary initiatives for ensuring compliance to Hon'ble NGT orders passed in the matter of Tribunal in its Own Motion Vs Government of NCT of Delhi & Ors in OA No 496/2016 in connection with Rain Water Harvesting and Ground water recharging for water conservation.*

- *Presently, provisions for Rain Water Harvesting (RWH) Systems are incorporated mainly under Building Bye-Laws by the States/UTs/ULBs. There is a need to enact legislation/law by various States/UTs as done by Tamil Nadu to make RWH measures mandatory.*

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ANNEXURE-BI

Item No. 02 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 496/2016
(Earlier O.A. No. 253/2015)

Tribunal on its own motion Applicant(s)

Versus

Govt. of NCT of Delhi & Ors. Respondent(s)

Date of hearing: 03.02.2020

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER

For Respondent(s): Mr. H.S Phoolka, Sr. Advocate with Mr. Sumeet Pushkarna, Ms. Sakshi Popli, Advocates, Sh. Sahni, Chief Engineer for DJB
Mr. Ardhendumauli Kumar Prasad, Advocate for Ministry of Jal Shakti/CGWA
Mr. Anuj Aggarwal, Advocate for Directorate of Education
Mr. Balendu Shekhar, Advocate for EDMC
Mr. Rajkumar, Advocate for CPCB
Ms. Puja Kalra, Advocate for North & South MCD

ORDER

1. Issue taken up for consideration in the present matter is the water management in Delhi including rain water harvesting, revival of water bodies and use of treated water and control of illegal extraction of ground water. The problem of contamination of ground water in Delhi was highlighted in a news item dated 19.06.2015 in the Hindustan Times which led to initiation of proceeding by this Tribunal. On 10.12.2015, the Tribunal constituted a Committee headed by Special

Secretary (Environment), Delhi to take remedial action. The Committee gave its status report on 09.09.2016 recommending comprehensive ground water management plan covering Rain Water Harvesting (RWH) systems, use of treated water for ground water recharge and regulation of extraction of ground water, apart from revival and rejuvenation of water bodies.

2. The Tribunal by the order dated 30.08.2018, constituted an independent Monitoring Committee headed by Justice S.P. Garg, former Judge of Delhi High Court to oversee issues relating to water management in Delhi. The Committee has already furnished its reports dated 18.02.2019 and 31.07.2019 which were dealt with respectively by orders dated 19.02.2019 and 11.09.2019.

3. The first report mentioned identification of 50 water bodies in different parts of Delhi out of available list of 201 water bodies. On the subject of RWH systems, it was found that 6761 systems were in place. With regard to ground water recharge, it was mentioned that 14,231 borewells were illegally operating. 15% of ground water had already reached below 40 meters which requires serious efforts for recharge. Depleting level of ground water was also affecting the flow of river Yamuna.

4. Second report mentioned that the ground water resources were over-exploited. Out of 34 units, 22 were over-exploited (dark blocks), 2 were critical, 7 were semi critical and 3 were in safe category. Over use of ground water for drinking, irrigation and domestic purposes was resulting in rapid depletion of ground water. Water table

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dropped to more than 300 feet in many areas. Kitchen water can be made potable by spending 10% money compared to converting other waste water into drinking water. 90% fresh water was being used for non-drinking purposes which could be substituted by reused water. 280 MCM rain water is lost which needs to be conserved. ULBs were to ensure that all Government buildings have RWH structures and if they were not functional, they have to be made functional. Treated water can be used for AC cooling towers, buses/trains washing, thermal power plants, other non-potable industrial uses and flushing in domestic uses. 300 installations of DJB have RWH. All Government buildings have to make a provision for RWH. PWD was to implement the RWH system where buildings are maintained by PWD. Decision of the Delhi Cabinet dated 02.07.2019 makes such a provision. List of 559 such buildings had already been prepared. On the subject of illegal borewells, the Committee mentioned that number of illegal borewells as on 30.06.2019 was assessed to be 17,062. Parks and gardens were also having tubewells which were required to be stopped to promote use of treated water for gardening. The DJB had improved its network for distribution of treated water. 400 borewells were operating in Patparganj Industrial area which matter needs to be resolved by the Chief Secretary. Environmental compensation suggested by CPCB ranging from Rs. 10,000/- to Rs. 1,00,000/- as an interim measure was required to be recovered for illegal extraction of ground water.

5. On the subject of subsidy under Free Water Scheme, the Committee observed:

"8. *The Committee then considered the status of illegal borewells and found it necessary to seal the same. Action of sealing was too slow. Number of illegal borewells as on 30.06.2019 was assessed to be 17,062. Parks and gardens were also having tubewells which were required to be stopped to promote use of treated water for gardening. The DJB has improved its network for distribution of treated water. 400 borewells are operating in Patparganj Industrial area which matter needs to be resolved by the Chief Secretary. Environmental compensation suggested by CPCB ranging from Rs. 10,000/- to Rs. 1,00,000/- as an interim measure was required to be recovered for illegal extraction of ground water. Theft of water in any form should be dealt with as per law promptly.*

9. *The Monitoring Committee has been informed that subsidy being provided under 20,000 liter free water scheme is misused by several Group Housing Societies. After availing the required quantity of 20,000 liters free of cost, these societies start extracting groundwater by using tube-wells/bore-wells to avoid payment of water tariffs. DJB should take effective steps to prevent this practice."*

6. The Committee also found dumping of garbage in water bodies and encroachments which are required to be checked by the land owning agencies. Eutrophication was also noticed in lakes and ponds. Misuse of water bodies for cultural or religious festivals was causing a threat to such water bodies, apart from immersion of idols resulting in contamination. Free supply of water was resulting in injudicious use of water.

7. Vide order dated 11.09.2019, the Tribunal issued following directions:

"

(i) *The DJB may prepare an action plan in consultation with the local bodies or any other expert to ensure that RWH systems are installed in all Government buildings, group housing societies, new buildings where occupancy certificate is yet to be issued with such exceptions as may be carved out such as where there will be contamination of ground water on account of its location close to storm water drain carrying untreated sewage / trade effluents or where water level is high.*

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(ii) *The existing Government buildings and group housing societies buildings where roof top RWH is required to be installed and has not been installed, may be required to furnish a declaration of compliance at a specified web portal upto 31.12.2019 that such systems have been installed with compensation being required to be paid for failure.*

(iii) *Technical specification for the RWH systems and recharge purposes and indicative list of available service providers may be placed on the website of the DJB and the Local bodies within one month from today. Online interactive helpline/information may also be made available to facilitate the users. It may be made clear that the users are at liberty to engage services of their choice from any source.*

(iv) *If specified categories of owners/ occupiers of buildings fail to install RWH and recharge systems by 31.12.2019, the amount of compensation, which may be specified within one month by the DJB, may be recovered and credited to a separate account. Such amount may be spent for the purpose of restitution of environment in accordance with action plan which may be got approved from this Tribunal.*

(v) *A study may be got conducted by the DJB with regard to the area not covered by the above directions where RWH may be necessary such a public places, road sides, colonies and common places specifying the agencies to be responsible for the purpose, precautions to be taken about sites where RWH system may result in contamination of ground water in the process of recharge of ground water, like place where storm water is flowing with untreated sewage and industrial effluents.*

(vi) *Having regard to significance of RWH for conservation of water, joint Committee of CPCB and Ministry of Jal Shakti may secure status of implementation and action plans from all States and UTs and furnish combined status report in O.A. No. 325/2015 on or before 30.11.2019. The Chief Secretaries of all States/UTs may oversee compliance in their respective areas.*

(vii) *A flat recovery rate towards collection and treatment of sewage may be adopted as a viable option for sustainable sewage management."*

8. In pursuance of direction (vi) above, a joint report has been submitted by the CPCB to the effect that six States have furnished status reports on implementation of rain water harvesting systems while the

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remaining States are yet to furnish their action plans in the matter. We are informed that action plans of all the States are likely to be available within next one month. The same may be filed in O.A. No. 325/2015 as already directed.

9. The Committee headed by Justice S.P Garg, former Judge, Delhi High Court has filed its third report dated 19.12.2019. With regard to rain water harvesting system, the highlights of the report are:

- The DMRC needs to set up RHS at various locations. The DMRC as per report dated 31.10.2019 installed such systems at 185 out of 236 locations. At 45 locations, it was not found feasible. Further steps were underway.
- Out of 44 Government schools in NDMC, RWH system was functional in 30. Further action was in progress.
- In SDMC area, the deadline was fixed for 64 schools and further work was in progress.
- In EDMC, RWH system was in existence in 217 out of 231 schools and further work was in progress.
- RWH systems were also installed in 65 community halls and similar steps were initiated in 70 private schools and colleges under Directorate of Education.
- RWH systems were completed in 699 out of 740 institutions in schools and colleges, under Higher Education Department further steps were being taken.
- In North DMC, RWH systems were completed in 455 out of 568 primary schools and some further work was being carried out.

- In PWD, at 149 out of 339 locations, RWH systems were completed. Further work was also being undertaken.
- Out of 1048 buildings maintained by the PWD, RWH systems were functional in 756 and at other locations also steps were being taken.
- Steps were being taken for RWH systems in buildings occupied by the Police Department, hospitals, dispensaries, DTC and Railways.
- In Delhi Urban Shelter Improvement Board (DUSIB) out of 129 locations, RWH system existed in 39 locations.
- Delhi Jal Board has set up RWH system at 368 locations and has mapped 4800 schools and colleges.
- DDA has RWH system at 324 locations so far and is planning to cover other locations also.
- DTTDC has RWH systems at 9 locations.

10. On the subject of revival of water bodies, action plans have been prepared by the DJB, DDA, I&FC and ASI. 10 water bodies belonging to DDA may be revived within three months and thereafter 10 water bodies every three months so that 60 water bodies are revived in a year. The DDA has given NOC for revival of 20 water bodies to DJB. 91 water bodies will be revived by the DDA in a time bound manner.

11. With regard to preventing uncalled for extraction of ground water for horticulture purposes, it is mentioned that tube-wells/bore-wells will be closed and only treated water will be used for horticulture purposes. A time bound action plan has been indicated.

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12. Steps have also been indicated for preventing encroachments of water bodies by demarcation and other steps. The water bodies newly created in Yamuna flood plains i.e. in Golden Jubilee Park and in Ghonda Gujran Khader areas (6 in number) will be surveyed, demarcated and entered in the revenue records within next 3 months. Status of restoration of other water bodies has also been given. 95 water bodies have been taken up for revival by Irrigation and Flood Control Department (I&FC) out of which 11 will be revived by September, 2020. Wet land system based on SWAB (Scientific Wet Land with Activated Bio-digester) Technology on the left bank of Bawana Escape Drain between RD-9700 M to RD-9970 M to treat 1 MLD of waste water of Ghoga Drain in North-West Delhi has been set up. Water bodies under ASI are to be revived either by ASI itself or by the DJB. Out of 11, 3 are to be revived by the DJB for which NOC has been given and the remaining by the ASI. 155 water bodies under the Delhi Jal Board are to be revived by CSIR-NEERI and IIT Delhi. Revival of 22 such water bodies will be completed by June, 2020 and 24 such water bodies will be revived by 31.07.2020, 18 water bodies by October, 2020. There is plan for revival of remaining water bodies. The Committee has also mentioned the progress made by the DJB with reference to different locations.

13. The report also mentions the steps taken for sealing of illegal bore-wells, including 400 tube-wells in Patparganj industrial area.

14. Since the same Committee was requested to oversee compliance of environmental norms by entities organizing various functions, the

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progress on the said issue is also mentioned but the same may be dealt with separately in the concerned matter.

The summary in the report is as follows:

"SUMMARY

- *There is remarkable progress in implementation of RWH Systems in schools and colleges. Barring few, all the schools and colleges have adequate and functional RWH Systems.*
- *After successful implementation of RWH Systems in schools and colleges, the Monitoring Committee concentrated upon implementation of RWH Systems in various other buildings under DDA, DJB, PWD, DMRC, DTTDC, DUSIB. Substantial progress has been shown by these bodies. Number of buildings now have RWH Systems in place. In other buildings, RWH Systems is under construction and action plan has been chalked out for completing the same.*
- *The Monitoring Committee is now concentrating for implementation of RWH Systems in buildings under DTC, Railways, Group Housing Societies, Hospitals, Private Industries etc.*
- *Monitoring Committee has visited several water bodies. Some of the water bodies have been revived. Some are in the process of revival. The DJB, DDA and I&FC have furnished action plan for revival of the water bodies under their jurisdiction in a time bound period. The Monitoring Committee shall supervise the implementation. The Monitoring Committee intends to visit sites where the work of revival of water bodies is being undertaken and is in progress.*
- *DDA has been impressed upon to fill water body at Ashoka Park with treated water either by transportation from Okhla plant through tankers or by connecting STP line for which connection has been permitted by DJB.*
- *Monitoring Committee shall ensure that Satpula Lake near District Court, Saket is revived in a time bound period with landscaping. It will be a tourist spot surrounded by monuments. Water body at Gogha is on verge of complete revival. Water has been filled in this water body by laying a pipeline near the wetland system. The water body is full of water. On persuasion by Monitoring Committee DSIIDC has already given permission for landscaping of the water body to I&FC. The work is to be allotted soon.*
- *The Monitoring Committee shall coordinate among various government departments, NEERI and concerned DMs to remove difficulties in revival of the water bodies.*

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- *The Monitoring Committee has already involved the concerned DistrictMagistrates for sealing illegal tube-wells/bore-wells. DDA and other land owning agencies have been directed to stop extraction of water through tube-wells/bore-wells in the parks for horticulture purposes and to use treated water.*

- *The Monitoring Committee shall supervise implementation of plan for carrying out the work in Patparganj Industrial Area to provide DJB water. It will enable 400 tube-wells presently being used for extraction of groundwater to be closed.*

- *The Monitoring Committee shall review the steps taken by Urban Development Department for implementation of the directions given by Hon'ble NGT in O.A. No. 400 of 2017.*

- *Area in Lutyen Zone has been surveyed to assess the water level position. The comprehensive report has been prepared by Central Ground Water Body.*

- *PWD was persuaded to provide net/mesh to prevent people standing on the road to throw garbage in the water body at Neela Hauz Khas as requested by Prof. Babu. The PWD has since provided the said protection.*

- *The Monitoring Committee had wider consultations with senior officers i.e.Vice Chairman, DDA, Secretary, Urban Development, CEO DJB and I&FC, Member (Water) Scientist of NEERI. They have been persuaded to implement the directions of the Hon'ble NGT and the Monitoring Committee in letter and spirit in a time bound period.*
  The contractors to whom the work has been allotted were called and persuaded to complete the projects in the allotted time period.

15. We take the report on record and record our appreciation for the outstanding work executed by the Committee. We request the Committee to further monitor the compliance on the subject. The report may be placed on the website of the Tribunal and the CPCB for a period of 2 months. Further report may be furnished within three months preferably by 30.04.2020 by email at judicial-ngt@gov.in.

16. Before parting with this order, we are of the view that having regard to significance of issues dealt with that is revival of water bodies in

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view of their potential for recharge of ground water, which in turn impacts water availability in river Yamuna, preventing illegal extraction of ground water to preserve the ground water table, rain water harvesting systems having impact on ground water table and use of treated water (from STPs) for secondary purposes, to increase availability of potable water, it may be necessary to consider compensation regime with a view to ensure sustainable development and inter-generational equity. Accordingly, we lay down such regime as an interim measure as follows:-

(i)	Failure in revival of water bodies by the land owning agencies till 31.03.2021.	@ Rs. 50,000/- per month payable to and to be recovered by CPCB who may notify such agencies within one month about this direction.
(ii)	For failure to install rain water harvesting systems by the institutions responsible for such failure.	As per earlier order dated 16.11.2017 in O.A. No. 217 of 2016 *Mahesh Chandra Saxena Vs. The Ministry of Urban Development & Ors.* @ Rs. 5 Lakh per institution required to be paid by educational institutions in terms of the said order will apply to all such institutions as may be specified by the Committed and the amount will be payable to and to be recovered by DJB who may notify such institutions within one month about this direction.
(iii)	Illegal extraction of ground water by the person doing so.	As per earlier order dated 11.09.2019 in O.A. No. 176/2015, *Shailesh Singh v. Hotel Holiday Regency* as per formula suggested by CPCB payable to and to be recovered by DJB who may notify all concerned

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		by a general order on its website or otherwise within one month about this direction.
(iv)	For failure to use treated water for secondary purposes after 31.03.2021 and use of fresh in lieu thereof by the DJB.	@ Rs. 1 Lakh per month per STP payable to and to be recovered by CPCB who may notify all concerned by a general order on its website or otherwise within one month about this direction.

List for further consideration on 11.05.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

February 03, 2020
Original Application No. 496/2016
(Earlier O.A. No. 253/2015)
AK