Time-limit
By Speed post

GOVERNMENT OF KERALA

Water Respources (WS-B) Department

No.B2/222/219/WRD 27/11/2019,Thiruvananthapuram

From
Secretary to Government

To
Dr.M.Dhinadhayalan
Adviser (PHEE)
Nirman Bhawan, Ministry of Housing
and Urban Affairs ,Government of India
New Delhi - 110032.

Sri.A.Sudhakar DH,WQM-I Division,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
New Delhi - 110032.

Sir,

Sub: Water Resources Department - Hon'ble NGT order dtd 11.09.2019 passed in O.A.No.496/2016 in the matter of News item published in Hindusthan Times dtd 19.06.2015 - Consolidated Report of the State of Kerala - submitting of - reg

Ref: a.Letter No.Q-1514/1/216-CPHEEO dated 25/1/219 of the Ministry of Housing and Urban Affiars, New Delhi
b)Letter F.No.A-14011/325-2015/2019-WQM-II dated 24.10.2019 of the Central Pollution Control Board.

With reference above, I am directed to forward herewith consolidated report of State of Kerala regarding the present status of the implementation and aciton plans on Rain Water Harvesting for Conservation of Water for the purpose of filing a combined report before Hon'ble NGT in compliance with the judgment dated 11.09.2019.

Yours Faithfully,
GOPAKUMARAN NAIR B
ADDITIONAL SECRETARY

For Secretary to Government.

4027429/2019/WRD(OS)

WATER RESOURCES DEPARTMENT
GOVT. OF KERALA

SIGNIFICANCE OF RAIN WATER HARVESTING FOR CONSERVATION OF WATER

Status of Implementation and Action Plan

KWA, GWD & KRWSA - Consolidated Report

Index

1. Introduction.

Kerala is a blessed land with green vegetation, rivers, backwaters and vast natural resources. The state receives an average annual rainfall of 3000 mm. But Kerala faces severe water scarcity between February and mid May every year which leads to acute water shortages during summer, especially in the drinking water sector. Paucity of water during this period for drinking and other needs impact adversely the health and livelihood of the people especially rural poor. This situation is expected to persist in the coming years also. It is estimated that Kerala needs 1833 million cu. metres of water additionally over and above the existing resources every year to meet its needs. Despite 44 rivers and world's largest well density, per capita surface and ground water availability of the State is lower than that of other States in the country. Harvesting rainwater, which is abundantly available, for dry months lends itself as a viable solution in Kerala for solving the shortage of drinking water. If even a small proportion of the huge volume of rainwater lost to the sea can be successfully harvested, it can solve the problem of drinking water scarcity in Kerala especially in the dry months. Government of Kerala has conducted as a special campaign for promoting Rain Water Harvesting (RWH). The efforts taken at various levels are observed to be attracting large population to practice RWH. Moreover the programme is well accepted by people in Kerala, especially those who are living in hilly, coastal and remote areas with limited access to potable water.

Rainwater harvesting is a technique or strategy for the collection of rainwater and storing it in the right way for future use. The water can be collected from various surfaces and platforms and stored for later use. In most cases, the water is usually collected from rooftops and other hard surfaces. Rainwater harvesting is considered as a very reliable way to conserve water. One of the simplest ways of storing water from the collection is storage tanks. The systems used for water collection is based on simple techniques that are very easy to maintain. The overall expenses used in setting up harvesting methods are much cheaper compared to other purifying or pumping means. Also, its maintenance is feasible on the economic front as it does not require deep pockets. Another important advantage is that it reduces dependency on other ground water sources.

As we all know, Kerala has a sloppy terrain and the rain water we receive will flow into the sea within a day. It emphasize the importance of conscious efforts to conserve this precious resource. We should adopt local specific and eco-friendly methods and techniques to conserve the rain water and thereby enrich our ground water level. It is evident that we have developed no many models of rainwater harvesting and ground water recharging.

1.NOTE ON THE SIGNIFICANCE OF RAIN WATER HARVESTING FOR CONSERVATION OF WATER.

A. KERALA RURAL WATER SUPPLY & SANITATION AGENCY (KRWSA)

1. **Implementation of RWH units through Jalanidhi Projects**

Scaling up of rooftop rainwater harvesting programmes with the component of ground water recharge is found suitable for the individual households as alternative method for providing drinking water and gradually improving the water table. Hence the technology was adopted in implementing the World Bank aided Kerala Rural Water Supply and Sanitation Project (popularly known as Jalanidhi) since 2001. The project has been implemented with people participation the setting up of small and large water supply schemes managed and operated by the beneficiary themselves. The cost is shared by Government (GoK), concerned Grama panchayath (GP) and beneficiary (BC) in definite proportion.

Many of the GPs especially belonging to hilly and coastal regions are seriously planning to adopt RWH as technology option to provide the source of the water supply schemes. The RWH technology for providing as a source of the water supply scheme is more economical and the water so obtained is free from quality issues. The agency could so far construct 23,390 nos of RWH structures all over Kerala through Jalanidhi phase-1 & Phase 2 project. Details are as shown below.

JALANIDHI : Details of RWH structures constructed Status as on 30.06.19				
Sl No.	District	Jalanidhi Phase-1 (FY2006-2008)	Jalanidhi Phase-1 (FY 2011-2019)	Total RWH structures constructed
1	Trivandrum	-	-	0
2	Kollam	491		491
3	Alappuzha	-	-	0
4	Pathanamthitta	334	89	843
5	Kottayam	1641	3077	4718
6	Idukki	890	4133	5023
7	Ernakulam	698		698
8	Thrissur	393		393
9	Palakkad	2181		2181
10	Malappuram	1395		1395
11	Kozhikkode	1781		1781
12	Wayanad	79		79
13	Kannur	848	480	1328
14	Kasargode	2029	213	2242
	Total	13334	10056	23390

2. Implementation of RWH units under State Plan Scheme by Rain Centre-KRWSA.

Rain Centre functioning under KRWSA was constituted in the year 2004 to promote Rain Water Harvesting and Ground Water Recharge activities in the State. Initially the Centre was focusing on promoting the concept of Rain Water Harvesting and as part of it a number of IEC activities along with training programmes were conducted throughout the State. Demo RWH units of various capacities were constructed in public institutions with the idea of disseminating the low-cost technology to the general public.

Initially World Bank assistance and MGP funds were provided for promoting Rain Water Harvesting activities. Considering the need for incubating the habit of rain water harvesting as alternate source of water among people, a detailed proposal was submitted to the Planning Board for including in the 12th Five Year Plan. The proposal was approved and budget allocation was sanctioned from the first year of 12th Plan.

Scaling up of tried out Rain Water Harvesting programme with the component of Ground Water Recharge is found suitable for the individual households as alternative method for providing drinking water and gradually improving the water table. This programme is well accepted by the people in the State, especially those who are living in hilly, coastal and remote areas with limited access to potable water.

During the last six years the Centre was assisting individual households and schools to construct RWH structures with the primary objective of minimizing the drinking water issues. The programme is implemented utilizing the Plan provisions provided in the State Budget of every Financial Year.

Many of the Grama Panchayths, especially those located in hilly and coastal regions are seriously implementing Rain Water Harvesting as a technology option to solve the drinking water issues of their GPs. Similarly, many institutions with demand for large quantity of water have evinced interest in establishing rain water harvesting units as an additional source of drinking water.During the last six year period 7130 Nos. of families in 34 Grama Panchayths and 848 Nos. Govt. Schools in the state have been assisted under the programme.

The assistance of the programme was extended to schools belonging to both Government and aided sector. The programme named as "Vidyalayavarshika Nirthiyathanam" was implemented State wide by assisting the selected Government/Aided schools to construct RWH structures. The selection of schools under the programme was entrusted to the Education Department.

The RWH &GWR programme is implemented on a cost sharing basis, the capital cost sharing patterns being 5% for BPL and 10% for APL category. The estimated unit cost for the construction of 10,000 litre capacity farm ponds RWH unit is Rs.[illegible]. The unit cost is likely to vary from location to location based on the cost fluctuations of materials in the market.The State has recognized need and importance of Rain Water Harvesting programme once again especially under the light of recent floods.

The rain water harvested and stored in the RWH units becomes a blessing to several families as they have enough pure water to survive the drought and flood period. Also the concerned GPs and households take initiatives to share the water with the families that had shortage of drinking water. Considering the increased demand for RWH as an alternative and additional source of water, it is essential that financial support is extended from Government at least till such time that the technology gains wide acceptance.

a) Aim of the scheme

The broad aim of the programme is to improve the drinking water facility of the individual households and schools that are facing acute shortage of water. Rain Water harvesting is adopted as alternative source for drinking water as the existing water sources of most of the households and schools in remote and hilly areas dry up from the month of January onwards. The RWH tanks provided as part of the programme will be used as a supplementary source during the rainy season and the water stored at the end of the rainy season is carefully utilized in the summer months.

The concept of harvesting rain water for drinking and other purposes are made known to the general community and student community while they are involving in the implementation and post implementation period of the programme. The concept of rain water harvesting as alternative source of water and conservation of the rain water for the future is passed on to generations irrespective of their age, social status etc. The programme is contributing to the sustainability of the water facilities as it ensures ground water recharge along with rain water harvesting and that in turn will be long term measures taken for addressing the water scarcity problems.

b) Objectives of the programme

The specific objectives of the programme are

1. To popularize RWH with individual households as alternative solution to drinking water scarcity.
2. To institutionalize RWH as a means of water conservation and alternate/additional solution for drinking water in public/Government institutions.
3. To promote the concept of RWH & GWR across the State aimed at building awareness of the general public on water conservation.
4. To initiate campaign for popularizing the concept of well recharge for improving the water table towards ensuring water security.
5. To establish replicable Rain Water Harvesting models for the State.

c) Plan Fund Allocation Status – year-wise

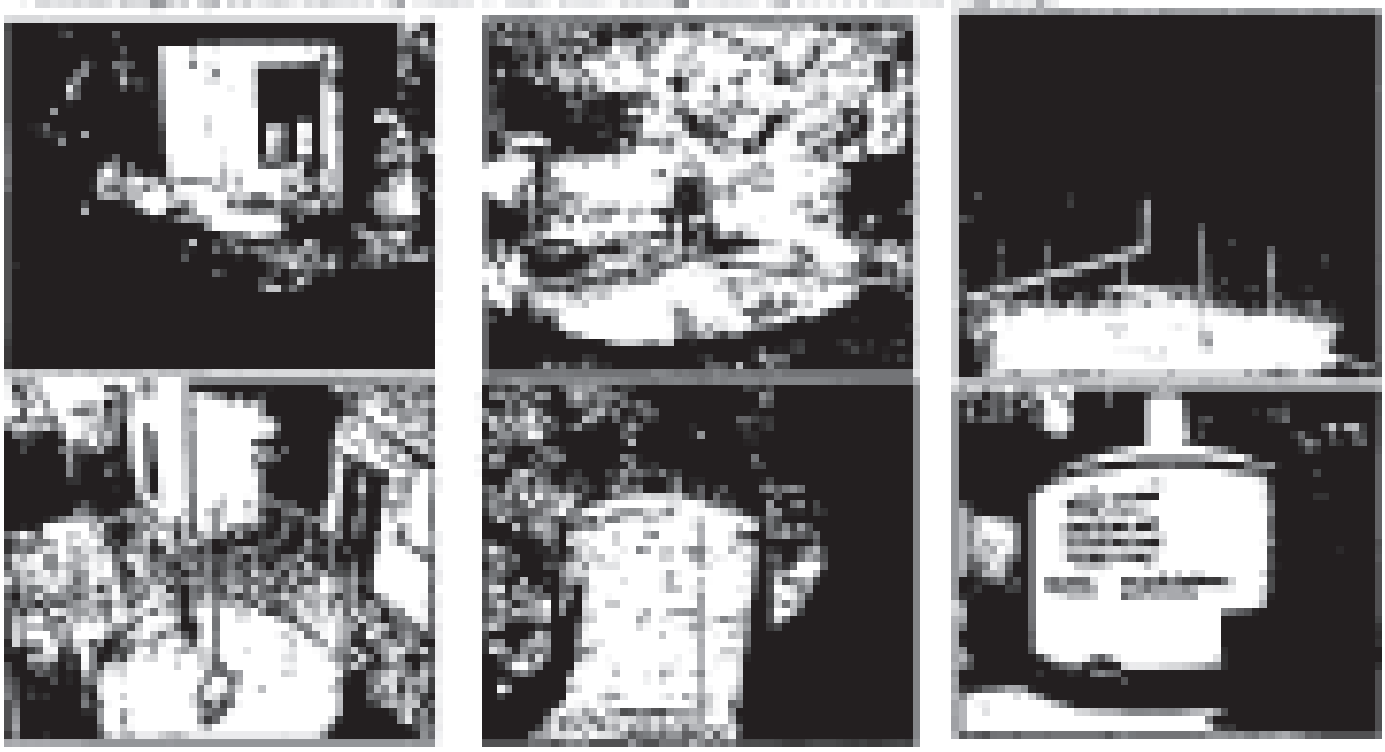
Sl.No	Financial Year	Fund allocated (Lakhs)	Fund Released (Lakhs)	Beneficiary-dwes mobilized (Lakhs)	Remarks
1	2012 – 13	1200.00	800.00	80.34	Work completed
2	2013 – 14	400.00	400.00	35.34	Work completed
3	2014 – 15	400.00	400.00	31.34	Work completed
4	2015 – 16	420.00	400.00	04	Work completed. No cost sharing for cultural RWH programme
	2016 – 17	1000.00	200.00		
5	2017-18	1000.00	500.00	75.34	Work completed.
6	2018-19	1000.00	1127.00	67.41	Work completed.
7	2019-20	2000.00	300.00	02	Work under progress.
	Total		4600.00	365.54	

Page 8 of 36

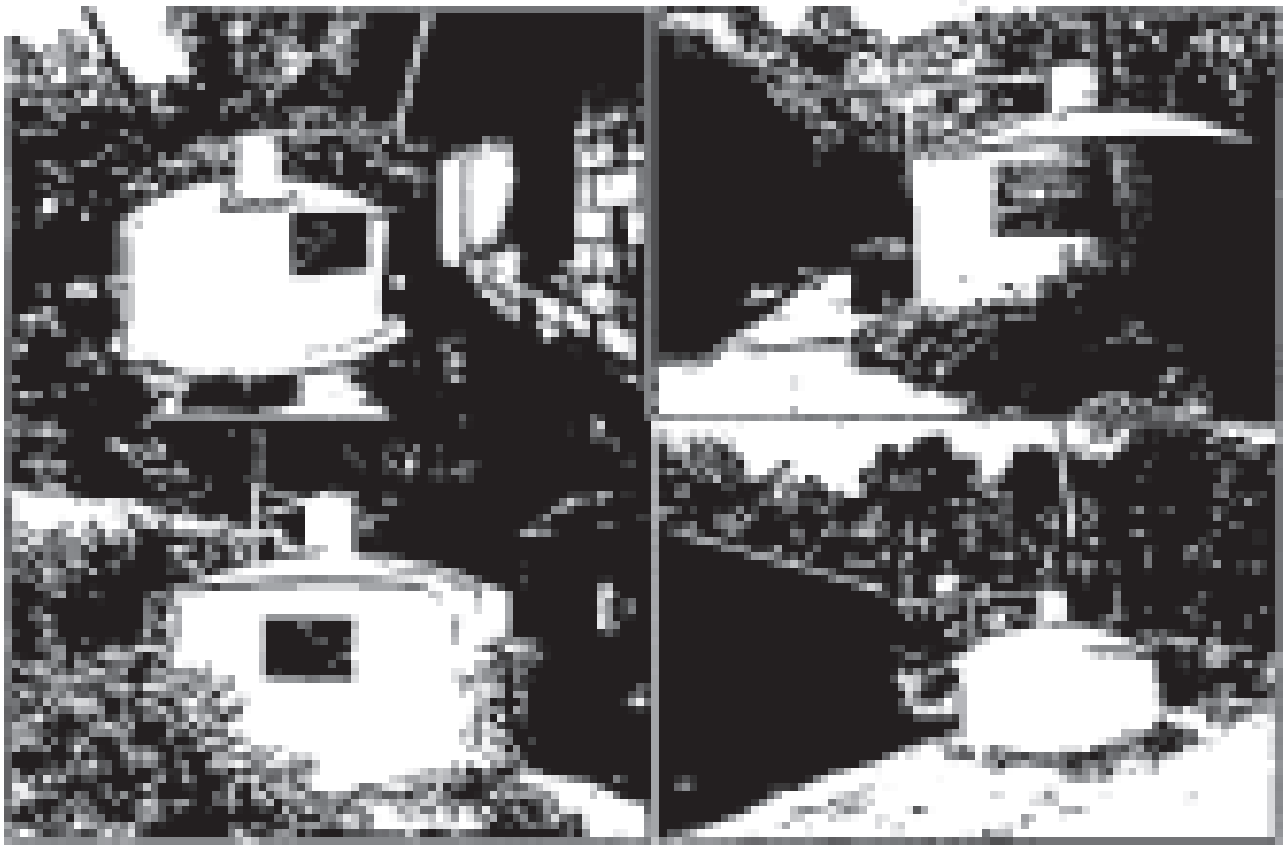
Physical Status - Year Wise.

Financial Year	Name of District	No. of GPs	Name of GPs covered	No. of WSS tests conducted
2012-13	Kannur	8	Chuzapi	700
			Kunnothazhe	500
	Idukki		Vellarmattom	350
			Kanjirachy	45
	Kottayam		Monarcode	300
			Pavilando	550
2013-14	Idukki	4	Kanaragiri	450
			Kokkayar	450
	Ernakulam		Nellipuram	150
			Nayarambalam	50
2014-15	Idukki	5	Kattappa	200
			Kumily	200
			Nedumkandam	200
	Kasargod		West Eleri	200
			Mogalpuly	200
2015-16 & 2016-17	State wide – 14500 WSS	All the districts	Implemented in selected 100 Govt. Schools	640
2017-18	Thiruvananthapuram	9	Attel	62
	Kollam		Chappata	37
			Kulavettikkal	210
	Pathanamthitta		Niranam	33
			Pottamon	75
	Kottayam		Kavalady	365
			Thalappady	75
	Palakkad		Thalikulam	125
	Kasargod		Valiyparamba	300
2018-19	Thiruvananthapuram	16	Aryanadu	4
			Aryangode	111
	Pathanamthitta		Vankombu	75
	Alappuzha		Mathoor	75
			Muhamppuram	75
			Ramankari	75
	Kottayam		Panagar	75
			Thirukodithanam	75
	Idukki		Kanthalloor	75
			Senapathy	75
	TOTAL	34		7921

Various stages of construction of Rain Water Harvesting Tank of 10000 Liters capacity.



RWH units constructed in individual households.



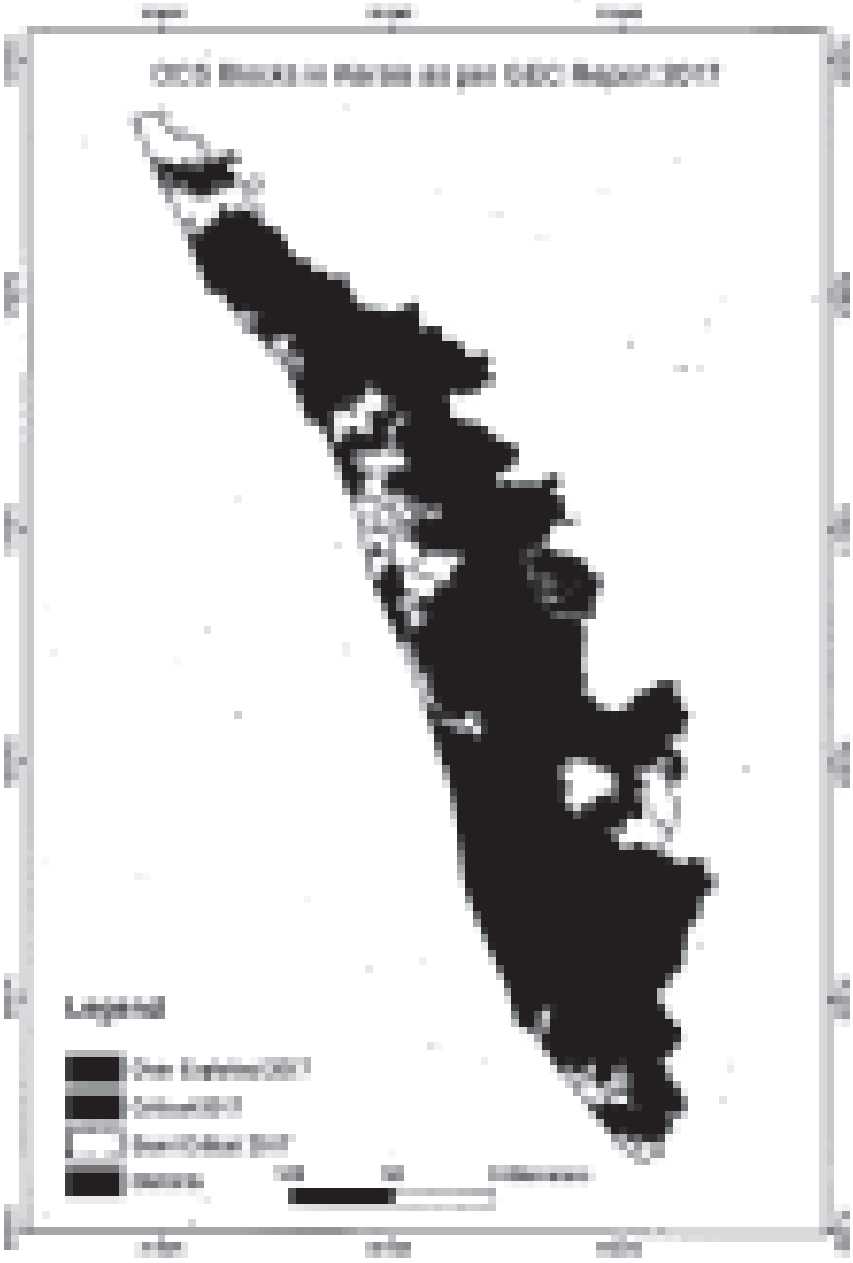
8. GROUND WATER DEPARTMENT (GWD)

The State of Kerala is blessed with abundant rainfall that amounts to an average of 3,000 mm, which is now much more than that of National average. But the pattern in rainfall distribution indicates 65 % of the annual rainfall is received during the Southwest Monsoon (June to September) and 16 % received during Northeast Monsoon (October to December) and the remaining is from the Summer Rains. The intensity of rainfall is high and the precipitation occurs in short spells lasting only few hours. This rainfall is the major source of groundwater recharge. As per the latest groundwater resource estimation, the annual groundwater availability in Kerala as on March 2017 has been computed as 6.21 BCM, in which rainfall recharge accounts for about 85% of the annual recharge, with the remaining contributed by other sources. In Kerala the topography is highly undulating and steep and hence the rain falls on the ground drains fast into the sea without contributing much to groundwater recharge.

About 80% of the total geographic area are underlined by massive hard rocks. Whereas, the weathered hard rocks that forms the top rock acts as phreatic aquifer is not appreciable enough (20 meters approx.) to store entire rainfall. Due to this reason, the hilly areas often experience water scarcity immediately after the rainfall due to hydrogeological and other natural topographic complexities.

Categorisation of Areas

Based on the periodic groundwater resource assessment jointly carried out by Central Groundwater Board and State Groundwater Department, the assessment units (Development Blocks) have been categorised into Safe, Semi-Critical, Critical and Over-Exploited according to the stage of groundwater development. On the Basis of recent estimation, out of 152 blocks a total number of 114 blocks are categorised as Safe and, 30 blocks are categorised as Semi-critical and 3 blocks as Critical and 1 as Over-Exploited. Special attention is being given to recharge groundwater in these OCS blocks through roof top rainwater harvesting by making use of recharge wells/pits. It is also seen that number of bore wells are increasing and deep groundwater extraction also depleting the groundwater resources rapidly. The list of OCS blocks and its stage of development is given in the Annexure-I.



Schemes for Groundwater Conservation and Recharge

Groundwater Department is implementing a "Scheme for Groundwater Conservation and Recharge". Under this scheme, rain water collected from the roof-top is harvested for recharging the aquifer through dug wells and recharge pits. The recharging of deep aquifers through bore wells are also being experimented. The total budget outlay during the period 2018-20 was[illegible] lakhs. It is estimated that there are about 65 Lakhs dug wells in Kerala and the groundwater extraction by means of traditional dug wells are prevalent mostly of fresh water. There are number of public dug wells left abandoned and needs renovation. These dug wells can be considered as suitable structures to recharge groundwater. The Central Groundwater Board has prepared a Block value master plan in 2015 to take up artificial groundwater recharge to groundwater. The same cadre used as a guideline to stream line groundwater recharge activities of the Department.

Groundwater recharging initiatives of Groundwater Department

Groundwater department is engaged in recharging groundwater through roof top rainwater harvesting in public buildings and government institutions. Department had successfully carried out roof top rainwater harvesting in Kattakada Legislative Assembly Constituency of Thiruvananthapuram District. This constituency was officially declarated the first drought constituency in Kerala to implement artificial groundwater recharging structures in all Government offices and Schools in November 14th 2015. The details of groundwater recharging initiatives carried out by groundwater department in government institutions and public buildings are given in the Annexure-II

The Department had undertaken a program to assess the scope of groundwater recharge through bore wells through experimental studies across the State. The interim results of bore well recharging studies from Idukki District is promising. Due to limited storage spaces in the phreatic aquifer zones, the scope of storing huge volume of groundwater in the deep aquifers through bore wells is being explored. Groundwater department had already prepared a proposal in the Kanakkanam Nanadad of Chittur Block of Palakkad District to carry out bore well recharging.

Roof top Rainwater Harvesting

Rainwater Harvesting is the technique of collection and storage of rainwater in any form of container for the use at the time of need. This is also called insitu rainwater harvesting. The excess water can be diverted for recharging groundwater table. In Kerala insitu rainwater harvesting is recommended in the coastal area and also elevated hilly areas where groundwater quality/quantity may not be suitable/sufficient for drinking purpose. Artificial recharge to groundwater is a process by which the groundwater reservoir is augmented at a rate exceeding the natural conditions of replenishment. If the source water for recharge is rainwater, then it is generally called rainwater harvesting to recharge groundwater. It is to be noted that the Roof Top Rainwater Harvesting structures are mandatory in all new buildings in Kerala, but the enforcement mechanism is not sufficient. By considering the availability of large number of open wells and roof tops in the DCS Blocks the scope of groundwater recharging through roof water harvesting is high.

Roof Top Rainwater Harvesting in Public Buildings

Successful recharging structures depends on the hydrogeology of the area, nature and extent of the aquifer, soil cover, topography, depth to water level and quality of groundwater. The availability of source water and clean roof tops are the prime requisite for groundwater recharging. The source for groundwater recharge is basically assessed in terms of non-committed surface resources run off. Kerala is blessed with abundant rainfall and available resources run off is quantified as about 42,000 MCM. The areas having a post monsoon water level of 10m can be considered as ideal for artificial groundwater recharging.

Groundwater Department proposed to recharge groundwater through plan schemes from the year 2020 to 2024. The roof top rainwater harvesting projects can be achieved by making use of the dug wells, recharge pits, bore wells in government institutions and public buildings.A total number of 11 Blocks in Kerala belongs to OCS category as per the latest groundwater resource estimation as on March 2017. A total number of 1018 different artificial groundwater recharge structures are proposed to be implemented in government owned buildings and institutions in these Blocks for an amount of Rs.1023.23 lakhs. The proposed structures in each district, its required cost and implementation plan are given in the Annexure-III (a-c).

Annexure-I

List of Blocks in the SOS Category in Kerala

Sl. No.	District	Name of the Block	Category	Stage of Groundwater Development
1	Ernakulam	Perumbavoor	Semi Critical	79.13
2	Idukki	Thodupuzha	Semi Critical	72.8
3	Idukki	Kattappana	Semi Critical	81.45
4	Idukki	Nedumkandam	Semi Critical	84.28
5	Kannur	Kannur	Semi Critical	89.78
6	Kannur	Panur	Semi Critical	89.68
7	Kannur	Thalassery	Semi Critical	78.42
8	Kasargod	Kasargod	Semi Critical	77.87
9	Kasargod	Kanhangad	Critical	93.68
10	Kasargod	Kasaragod	Semi Critical	83.45
11	Kasargod	Manjeswar	Semi Critical	83.28
12	Kollam	Mathanda	Semi Critical	77.11
13	Kozhikode	Balussery	Semi Critical	74.7
14	Kozhikode	Kozhiyoorpallam	Semi Critical	83.56
15	Malappuram	Kondotty	Semi Critical	84.75
16	Malappuram	Kuttippuram	Semi Critical	77.92
17	Malappuram	Malappuram	Semi Critical	74.9
18	Malappuram	Tirur	Semi Critical	83.86
19	Malappuram	Tirurangadi	Semi Critical	83.57
20	Malappuram	Tirur	Semi Critical	77.73
21	Malappuram	Vengara	Semi Critical	79.84
22	Palakkad	Chittur	Over Exploited	104.49
23	Palakkad	Pottanchi	Semi Critical	81.37
24	Palakkad	Tarikuda	Semi Critical	78.08
25	Palakkad	Mutampathy	Critical	95.75
26	Thiruvananthapuram	Athiyanur	Semi Critical	84.91
27	Thiruvananthapuram	Chirayinkil	Semi Critical	83.86
28	Thiruvananthapuram	Poovachi	Semi Critical	83.94
29	Thiruvananthapuram	Nedumangadu	Semi Critical	83.75
30	Thiruvananthapuram	Nedumangad	Semi Critical	83.82
31	Thrissur	Chavakkad	Semi Critical	77.94
32	Thrissur	Mathilakom	Semi Critical	81.94
33	Thrissur	Thalikulam	Semi Critical	78.32

ANNEXURE-II

Details of Groundwater Conservation and Recharge Schemes implemented by Groundwater Department in Government Institutions and Buildings.

Financial Year	Budget Allotment in Lakhs	Expenditure in Lakhs	Structure
2012-13	50	44	In the 12th 5 year plan(2012 -2017), Total Budget Allocation was 260 lakhs in which 219.34 lakhs expenditure incurred for completing 1 Subsurface dyke 168 Nos of Recharge Pit Dug well Recharge Schemes and 4 Nos of Check dams
2013-14	60	18.17	
2014-15	50	35.45	
2015-16	40	18.13	
2016-17	40	35.54	41 Recharge pit/Dugwell
2017-18	171	118.33	83 Recharge pit/Dugwell Recharge Schemes 3 Borewell Recharge Schemes
2018-19	330	135.15	74 Recharge pit/Dugwell Recharge Schemes 3 Borewell Recharge Schemes

C. Kerala Water Authority (KWA)

It may be noted that the issue for consideration in the OA 320/2013 is distribution, protection and restoration of water bodies whereas in the OA 153/2014 (afterwards OA 496/2014) the issue is the problem of water quality on account of contamination of groundwater. In the order dated 10.03.2019 in the OA 320/2013, the Principal Bench of NGT has 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 and directed all the States and UTs to review the existing framework of restoration of all the water bodies by preparing an appropriate action plan, while in OA 496/2014, the Principal Bench of NGT noted the need for comprehensive groundwater management plan covering Rain Water Harvesting (RWH) systems, use of treated water for ground water recharge and regulation of extraction of groundwater, apart from revival and rejuvenation of water bodies.

The above directions in the two original applications before the Principal Bench indicates the need for a comprehensive action plan covering studies of actions pertaining to pollution control of rivers, sewage management, ground water management and rain water harvesting. The indicative guidelines (copy attached) published by CPCB in June 2017 in compliance to the order dated 10.03.2019 of the Principal Bench of NGT in OA 320/2013 contains the key activities and components and agencies to perform the task. As per this the agencies responsible for rainwater harvesting (RWH) are Local Bodies and District Magistrates and hence the comprehensive action plan for RWH is to be submitted by these departments. However, KWA has plans to implement RWH in assets owned and managed by KWA. Though KWA gives priority to perennial surface water sources while designing schemes, groundwater extraction is resorted to in small/mini water supply schemes. When such schemes are changed to comprehensive water supply schemes based on surface water sources in a phased manner, KWA has plans to handover the existing tubewells wells of such small/mini schemes to Ground Water Department for using them as a source for ground water recharging. Besides this, roof top rainwater harvesting is now practiced in some buildings and water treatment plants of KWA and we have plans to adopt this to the maximum possible extent in buildings owned by KWA.

The actions on the other points mentioned in the indicative guidelines published by CPCB in June 2017 in compliance to the order dated 10.03.2019 of the Principal Bench of NGT in OA 320/2013 and pertaining to KWA is detailed below.

i) (g) GW Protection - Capping of contaminated tube wells and potable water supply through alternate resources in the affected areas of ground water

As per status in IMIS, the web portal of the Ministry of Jal Shakti, Government of India as on 30.04.2019 there were 93 Fluoride affected habitations in the State. Out of the above, 54 habitations have been covered with piped water supply as on 30.09.2018. As per the current status 11 habitations are remaining to be covered and ongoing projects are available for 17 habitations which will be covered by 2021 March.

Regarding the remaining 11 habitations, repeated water quality tests were conducted based on directions from the Ministry of Jal Shakti to ensure detection of contamination. As per the test

results, now fluoride content is within the Acceptable / Permissible limit in 5 out of these 15 habitations. Action is being taken to cover the remaining 8 habitations with piped water supply by 2021 March for which feasible proposals are being prepared. Aggressive RWH and recharging dried up/ by affected sources will also help achieve the situation.

3. Sewage Management

(a) Identification of cities/towns and villages discharging sewage into river/tributary

Through 21 river stretches in Kerala were identified as polluted by the Hon'bleNGT , it was observed that only one river in Trivandrum, viz, Karamana River is reported with problem of direct discharge of sewage in to the river/tributary.The Action Plan for this river was approved by NGT. Out of the remaining 20 rivers, no river was identified as having problem of pollution due to direct discharge of sewage into the water body. Action plan for 13 rivers approved by the River Rejuvenation Committee (RRC) were submitted to CPCB and Hon'ble NGT in 2018-19 and permission was sought for exempting the remaining 7 rivers from the list as these stretches were having BOD less than 3 mg/L.Based on the direction by CPCB that these cannot be exempted and action plan has to be submitted the action plan for these rivers also have been prepared by KPCB.

The status report as on 01.11.2019 on the actions/plans/ measures taken by KWA as per the Approved Action Plan of Karamana River is indicated below:

No.	Activity	Cost Rs. in Cr.	Source of Fund	Timeline	Present Status
a)	Pumping main from the terminal pumping station Kizhakkathara to be converted directly to ETP at Chelibhavan	3.375	AMRUT	May-19	Work completed and commissioned.
b)	Rehabilitation/upgradation of Thaliyal and Aamaze Sewerage Pumphouse by rehabilitation of existing well, construction of new well and grit chamber, installation of new pump sets	2.37	Plan scheme	May-20	Work order issued for Thaliyal. Re-offer received for Aamaze. To be retendered.
c)	5 MLD sewage treatment plant at Medical College	13.2	AMRUT	May-20	Work paused. The progress of work is slow due to lack of permission for dumping excavated earth.
d)	Installation of adequate pumps in Mulavoorpadam and Enchakkal pumping stations	0.25	Plan scheme	Mar-20	No response to tender. Presently retendered.

c)	DG sets in all lift and pumping stations – Mudavanmughal, Karipchi, Pattom, Kunnamoola, Pinnacode, Muttippadam	3.82	Plan schemes	May-20	AS issued by Government in Annual Plan 2019-20. Bharat Heavy Electrical Limited has submitted their report and the repair is under process.
f)	Emergency power at Rajaji Nagar, stop outflow of sewage into canal. Sump chambers/tanks, control manholes entry into canals to avoid overflow in Thampanoor area. Sewage generated in Rajaji Nagar shall be diverted to main sewer line. Sewage generated in Thoppil area shall be diverted main sewer line	3.1	Maintenance work	Dec-19	Work could not proceed since the foundation of the bus terminal falls on the alignment. The scope of the work to be revised by removing the pipeline through main road.
g)	Divert the sewer line from the School compound of Government Kunnamoo High School	0.42	Plan Scheme	May-20	Agreement executed. Road restoration charges remitted to PWD. Road restoration estimate from NM to be obtained.
h)	Rehabilitation by laying new lines increasing size of undersized lines and reconstruction by dilapidated manholes for the last 5 years		Plan Scheme/ AMRUT	May-20	Works completed – 23 No. (Rs. 3.58 cr.)
	Total works in progress (42No.)	15.26			In progress – 19 No. (Rs. 11.68 cr.)
	Works in tendering stage (16No.)	4.80			Tenders/Tr to be tendered – 16 No. (Rs. 4.80 cr.)
i)	Extension of sewer network wherever technically feasible in new areas of existing Works		Plan scheme / AMRUT	May-20	Works completed – 11 No. (Rs. 1.68 cr.)
	In progress(20 No.)	10.76			In progress – 9 No. (Rs. 10.1 cr.)
	Tender stage(9 No.)	5.34			Tenders/Tr to be tendered – 9 No. (Rs. 5.34 cr.)
j)	Around 100 houses in Kuruvichalam, Kunnathukkal shall be provided with septic treatment system.	To be estimated			Not technically feasible to connect to the existing sewer system. Septic tanks will be provided by Corporation.

(c)	Procurement of sewer cleaning machines and equipment maintenance	5.17	Plan Scheme	May-20	Work tendered. No response to the tender. Work withdrawn.
(j)	Establishment of six additional blocks in uncovered areas	87.55	BS/UDAB AMRUT	May-20	Works completed : 1 No. (Rs. 1.28 cr.)
	In Progress (18 nos.)				In progress – 8 No. (Rs. 85.06 cr.)
	Tendering (10 nos)	35.59			Tendered/To be tendered – 10 No. (Rs. 22.59 cr.)

(h) Identifying drains joining river and their quantification and characterisation of pollution load

This has to be done by the LSGIs

(i) Preparation of DPR for interception and diversion of drains to STPs for which suitable site to be identified and plan for utilisation of treated sewage

(j) Restoration of natural drains for carrying only storm water(but not sewage)

(k) Interception and diversion of sewage from drains and connectivity to STPs

The above action points (i-j-k) are interrelated. The main activities mentioned like restoration of natural drains for carrying only storm water, preparation of DPR and interception and diversion of sewage from all drains are to be carried out by the local bodies/irrigation/PCB. However, as part of the action plan for Karamana river,the drain carrying sewage to the river from the terminal pumping station at Kuriyathi was intercepted and separate pumping main was laid to convey sewage directly to STP at Muttathara. This has resulted in taking about 20 MLD sewage additionally to STP (increasing the capacity utilisation from 50 MLD to 70 MLD).

(l) Execution of UDP works and necessary infrastructure and connecting household sewer connection for full utilisation of STP.

The present generation of sewage in Thiruvananthapuram city is estimated as 140MLD. Sewage presently treated is around 70MLD at the Muttathara treatment facility with a capacity of 105 MLD with facility for co-treatment of septage. The remaining sewage is managed through individual septic tanks and pit latrines. Around 30 tankers of septage are emptied at the STP on a daily basis. The projected sewage generation by the year 2041 is 115 MLD. With 85% coverage through piped sewerage system, additional STP required is only for 11 MLD (Existing capacity of STP is 105 MLD) hence to ensure household sewer connection and full utilisation of the STP long term measures are planned as below. The plan is to complete these activities within a period of three years.

No.	Long term measures proposed	Amount Required (Rs.in Crore)	Present Status
a)	Extension of sewerage system to Block F to G (MEDIUM)	200	All the the proposal for engaging Consultants for preparation of Detailed Engineering Report has been received under EEI (R.L. 17 Crores)
b)	Extension of sewerage system to Block H sub	100	
c)	Extension of sewerage system to Newly added areas of corporations, Kathirvedu, Sowkarpet,Kodungaiyur, Vyasarpadi&Villivakkam	500	
d)	Providing sewerage system in Block A to C	100	
e)	Rehabilitation of existing network and pump house in Block A to E	100	
f)	Procurement of equipment for maintenance sewerage system	10	
g)	Additional STP requirement	60	
h)	**Total amount required**	1,070	

g) Ensuring utilization of treated sewage for beneficial use such as agriculture, construction activity, washing/flushing/cooling/industrial cooling etc.

In order to promote the usage of treated water, treated sewage water from STP had been given free of cost. But only very few are using the facility. As potential users are very less for the treated sewage water (only secondary treatment), it has been decided to provide tertiary treatment for a part of the treated water as an initial step to enhance the usage of water. Accordingly Administrative sanction has been accorded by the Government for ISRLD tertiary treatment at STP, Mattuthavu vide GO(Ms) No. 45 WD/WRD dated 14.02.2019. This can overcome the apprehension of people in using treated sewage water to a large extent. Potential generate revenues among facilities to utilize the treated effluent (tertiary treated) for construction purpose. Once tertiary treatment plant at Mattuthavu is completed as detailed above, more demand for the treated water is expected. The identified potential users are as follows

Tuticorin Thermal Ltd (1.50 MLD)
English India City (0.5 MLD)
VIEC (0.5 MLD)
Railway terminals (0.5 MLD)
Airport 2 terminals (0.5 MLD)
BSF (0.1 MLD)
Air force station (0.1 MLD)
PHAI station waiting (0.1 MLD)
Construction agencies (0.5 MLD)
Educational institutions around Mattuthavu (0.1 MLD)
Resort and Hotels around Kovalam (0.5 MLD)
Dairy farm-irrigation (0.5 MLD)

As the agency responsible for bulk water supply and sewage services, KWA shall make sure that needful action is taken as per the plan.

Plan of Action

Rain Water Harvesting for Conservation of Water.

a) Kerala Rural Water Supply & Sanitation Agency (KRWSA)

b) Ground Water Department (GWD)

c) Kerala Water Authority (KWA)

Kerala Rural Water Supply & Sanitation Agency (KRWSA)

Plan of Action for the RWSS & RSS activities proposed for Financial Years 2010-11 and 2011-12.

a) **Construction of individual household level RWH tanks of 10000 litre capacity.**

The household level RWH tanks provided shall help the families to directly harvest the rain water and use it for drinking and other domestic purposes. The proposed structure can store rain water for the three summer months, thereby addressing water scarcity during summer.
The programme envisages covering 3000 Nos. of households selected from 20 GPs who shall be provided assistance for 300 Nos. of RWH tanks per GP. The support under this programme shall be considered in order to fill the gap of water supply coverage. Thus the assistance shall be provided to households where there are no facilities at all for drinking water at present. Major criteria for selecting the GPs will be low percentage of water supply coverage. The 10% beneficiary contribution shall ensure an increased sense of responsibility and ownership among the beneficiaries and sustainability of the structure in the long term.

b) **Installation of Open well Recharge system for sustainability.**

The broad aim of the programme is to improve the water quantity and quality levels of borewell open dug wells. The sustainability of the water sources is ensured by promoting rain water harvesting and ground water recharge activities and that in turn will become long term measures for addressing the water scarcity problems.
It is envisaged to recharge 15000 Nos. of seasonal and quality affected wells of 300Nos. of selected Grama Panchayats where the water quality and quantity problems are severely affected. The GPs that are categorised under critical blocks and Schedule Panchayats shall be prioritised while selecting the GPs. The wells shall be made sustainable through recharging the aquifer by diverting rain water from the roof tops. The water quality of these wells is ensured by protecting them from pollution. Feasible measures shall be taken in order to sanitise the well as part of sustainability. The sources of rural water supply schemes which require the support for recharging through rain water harvesting will also be included under the programme. The programme will be implemented on a cost sharing basis.

c) **Community Managed Rain Water Harvesting storage tanks for SC/ST/other backward colonies where water scarcity is acute.**

Common rain water harvesting storage tanks shall be constructed for providing water to a group of families living together. There are several SC/ST/other backward colonies where water is a major issue and people residing in such colonies had to walk long distance for fetching water. The public well provided with in the colony may not be yielding sufficiently to provide water to the requirement of the people in the colony. The common RWH storage tank provided shall serve as a polyvalent source and the overflow from the storage tank shall be diverted to the public well as recharge mechanism.

In order to sustain the schemes, the existing open/bore well source in the colony shall be rehabilitated or additional well shall be provided with the arrangement for pumping and

distribution system to the households in the colony. The scarcity of water during the summer months can be managed by utilizing the sources alternatively.

The structure shall be constructed in a common place and water shall be collected from the houses located nearby the structure. The colony shall be mobilized to form into a beneficiary group and the post operation activities shall be entrusted with the group. The structure shall be constructed on a cost sharing basis to ensure the participation of the households for ownership and responsibility. The size of the structures shall be decided based on the number of households in selected colony. It is proposed to implement the programme in 7 Nos. of selected colonies.

d) Implementing RWH & CWH activities for Govt. institutions in Tupur city.

A portion of the Plan provision is proposed to be utilized for RWH projects in Thiruvannamalai city complementing "Operation Aazhilli – II", the flood control project being implemented in Thiruvannamalai city.

One of the major activities proposed for controlling flood in Thiruvannamalai city is adoption of rain water harvesting and roof top rain water collection and storage systems. The various efforts taken as part of "Operation Aazhilli – I" has resulted in controlling the flood to a great extent in the city. In flood control and management measures, the water retention increases – reduces the flow of water discharged to the canals and drains, thereby avoiding the overflow of canals and drains. Rain Water harvesting and roof top rain water storage systems help in holding the runoff and will reduce the chances of flooding, besides improving the ground water table. The improved water table will reduce the dependency on piped water also.

Sl.No	Name of activity proposed	Financial Year 2019-20		Financial Year 2020-21	
		No. of units approved	Estimated Amount (Rs. in crore)	No. of units proposed	Estimated Amount (Rs. in crore)
1	Construction of individual household level RWH tanks of 1000 ltrs capacity with CWH system	1000 Nos. of individual house holds	7.00	1000 Nos. of individual house holds	14.00
2	Installation of Open well Recharge system for controlling of wells.	1000 Nos. of individual house holds	0.10	1000 Nos. of individual house holds	10.00
3	Community Storage of Rain Water Harvesting storage tanks in SC/ST/other backward colonies where water scarcity is acute	1 Nos. of Colonies	0.50	1 Nos. of Colonies	0.50
4	Implementing RWH & CWH activities for Govt. institutions in Tupur city. ***	10 Nos. of Govt. Institutions	3	10 Nos. of Govt. institutions	3
	Total		10.60		26.5

*** See annexure for details

[illegible]

Sl No.	Name of Institution	Component	Units
1	Fire and Rescue Services Head quarters	Construction of 1 No. of Open well with pump and [illegible]	1
		Construction of 1 No. of [illegible] (2000 litre)	1
		Installing pipe lines for the collection of rain water from existing buildings	1
2	ARP Camp	Construction of 1 No. of Rain Water Harvesting and Flood Moderation Pond at ARP Camp, Nandavanam, Thiruvananthapuram (10000 litres capacity)	1
		Construction of 50 Nos. of Rain Water Recharge pits at ARP Camp, Thiruvananthapuram	50
		Construction of 50Nos. of Bore pits at ARP Camp, Thiruvananthapuram	50
3	SAP Camp	Developing and renovating the existing Rain Water Harvesting and Flood Moderation Pond (10000 litres capacity)	1
		Construction of 200 Nos. of rain water Recharge pits	200
		Construction of 200Nos. of Bore pits	200
		Supply and Fixing of 1 No. of Tipping tank(5000 ltr)	1
4	SAP Quarters	Construction of 1 No. of Open well at SAP Quarters area, Peroorkada, Thiruvananthapuram	1
		Construction of 100 Nos. of Rain Water Recharge pit	100
		Construction of 100 Nos. of Bore pits	100
		Supply and Fixing 1 No. of of Tipping tank(5000 ltr capacity)	1
5	Kerala Legislative Assembly Complex	Museum	
		Renovation of 1 No. of existing LSS (4000 litre capacity RWH units) of Museum building	1
		Cleaning of Groundwater well	1
		Construction of 1 No. of bore pit	1
		At Speaker's Residence	
		Renovation of 1 No. of existing [illegible] litre capacity RWH units	1
		At Deputy Speaker's Residence	
		Renovation of 1 No. of existing [illegible] litre capacity RWH units	1
		Construction of 1 No. of bore pit	1
		At Kerala Speaker's Bungalow	
		Renovation of 1 No. of existing [illegible] litre capacity RWH units	1
		At Main building premises	
		Renovation of 1 No. of existing LSS (4000 litre capacity RWH units)	2
		Construction of 10Nos. of Recharge pit pit	10

8	Govt. Ayurvedic College	Renovation of existing 1 No. of RWH unit in the premises of Govt Ayurvedic College, Thiruvananthapuram	1
		Construction of 10 No. of rain water Recharge pit	30
		Renovation works 10 No. existing well	1
		Construction of 100 No. of Dug pits	150
9	KMV High School	Construction of 1 No. of RWH units at KMV High School, Dig Road, Thiruvananthapuram	1
		Construction of 10 Nos Dug Pits Recharge pits	150
		Renovation of 1 No. of existing open well	1
	Girls High School And Higher Secondary school premises Vellayani hill	Renovation of 1 No. of existing RWH units at Govt. Girls high school and higher secondary school premises Gotten Hill, Thiruvananthapuram	1
		Construction of 100 No. of Dug Pits Recharge pits	150
		Renovation of 1 No. of existing open well	1
11	Girls Pre-Primary & Primary School Vellayani Hill	Providing RWH facilities at govt. Girls High School And Higher Secondary school premises, Kinavilakadu, Thiruvananthapuram	1
12	Girls High School And Higher Secondary school premises, Kinavilakadu	Renovation of 2 No. of existing RWH units at the premises of the school	2
		Renovation of 1 No. of existing open well	1
		Construction of 11 Nos. of Recharge pits	33
13	Govt Teachers Training Institute, Kinavilakadu	Renovation of the existing RWH system	1
		Construction of 150 Nos. of Rain Water Recharge pits	150
		Renovation of 1 No. of existing open well	1

b) Ground Water Department (GWD)

IMPLEMENTATION PLAN AT A GLANCE

Implementation Year	No of DWR	No of RGF	No BWR	Estimated Cost in Lakhs
2019-21	96	45	50	150.75
2021-22	89	44	37	150.75
2022-23	97	30	68	300.5
2023-24	106	37	38	250.75
2024-25	97	32	76	221
GRAND TOTAL				**1015.25**

*DWR – Dug Well Recharge
*RGP – Recharge Pits
*BWR – Bore well Recharge

Annexure-III a

Action Plan for Artificial Groundwater Recharge in OCS Blocks during 2021-22

Sl. No	District	Name of City Block	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	1	1	0
2	[illegible]	[illegible]	1	1	2
3	[illegible]	[illegible]	1	1	2
4	[illegible]	[illegible]	1	1	2
5	[illegible]	[illegible]	3	1	2
6	[illegible]	[illegible]	3	1	1
7	[illegible]	[illegible]	3	1	2
8	[illegible]	[illegible]	3	3	1
10	[illegible]	[illegible]	3	1	2
9	[illegible]	[illegible]	3	1	1
11	[illegible]	[illegible]	3	1	1
12	[illegible]	[illegible]	3	3	2
13	[illegible]	[illegible]	3	1	1
14	[illegible]	[illegible]	3	1	1
15	[illegible]	[illegible]	3	1	1
16	[illegible]	[illegible]	3	1	1
17	[illegible]	[illegible]	3	1	1
18	[illegible]	[illegible]	3	1	1
19	[illegible]	[illegible]	3	3	1
20	[illegible]	[illegible]	3	3	1
21	[illegible]	[illegible]	3	3	1
22	[illegible]	[illegible]	3	1	1
23	[illegible]	[illegible]	3	3	2
24	[illegible]	[illegible]	3	1	1
25	[illegible]	[illegible]	3	1	2
26	[illegible]	[illegible]	3	1	1
27	[illegible]	[illegible]	3	1	1
28	[illegible]	[illegible]	3	1	1
29	[illegible]	[illegible]	3	1	1
30	[illegible]	[illegible]	3	1	1
31	[illegible]	[illegible]	3	1	3
32	[illegible]	[illegible]	3	2	4
33	[illegible]	[illegible]	3	2	3
	Total Number of Structures		94	45	38
	Estimated Unit Cost in Lakhs		1	0.75	1.25
	Total Amount Expected		94	33.75	47.5

Annexure-III b

Action Plan for Artificial Groundwater Recharge in OCS Blocks during [illegible]

Sl. No.	District	Name of the Block	[illegible]	[illegible]	[illegible]
1	Ernakulam	Perumbavoor	2	2	0
2	Idukki	Elam Deseom	1	1	2
3	Idukki	Kanappara	1	1	2
4	Idukki	Nedumkandam	3	1	2
5	Kannur	Kannur	4	1	2
6	Kannur	Peravur	2	1	2
7	Kannur	Thalassery	3	1	1
8	Kasargod	Kasargod	3	1	2
10	Kasargod	Kasaba	3	2	1
9	Kasargod	Kasargod	3	1	1
11	Kasargod	Manjeswar	3	2	1
12	Kollam	Mukhathala	2	2	2
13	Kottayam	Meenachil	3	1	1
14	Kottayam	Kanjirappalli	2	1	1
15	Malappuram	Kondotty	1	1	1
16	Malappuram	Kottappuram	2	2	1
17	Malappuram	Malappuram	2	1	1
18	Malappuram	Tirur	2	2	1
19	Malappuram	Thiruvangadi	2	1	1
20	Malappuram	Tiroor	2	2	1
21	Malappuram	Vengara	2	1	1
22	Palakkad	Ottapalam	4	1	2
23	Palakkad	Mannarghat	4	1	2
25	Palakkad	Pattambi	4	1	2
24	Palakkad	Thrithala	3	2	2
26	Thiruvananthapuram	Attingal	3	1	2
27	Thiruvananthapuram	Chirayinkil	4	1	2
30	Thiruvananthapuram	Nedumangad	3	1	1
28	Thiruvananthapuram	Nemom	3	2	1
29	Thiruvananthapuram	Pothencode	3	1	1
34	Thrissur	Chavakkad	4	2	2
32	Thrissur	Mathilakom	4	1	4
33	Thrissur	Thrikkadeeri	4	2	4
	Total Number of Structures		89	44	87
	Estimated Unit Cost in Lakhs		1	0.75	1.25
	Total Amount Expected in Lakhs		89	33	91.25

Annexure-III c

Action Plan for Artificial Groundwater Recharge in OCS Blocks during 2022-23

Sl. No	District	Name of the Block	[illegible]	[illegible]	[illegible]
1	Ernakulam	Perumbavoor	2	1	1
2	Idukki	Elam Deshom	1	1	4
3	Idukki	Kottayam	0	0	1
4	Idukki	Nedumkandam	1	1	2
5	Kannur	Kannur	4	2	1
6	Kannur	Pavur	2	2	2
7	Kannur	Thalassery	2	2	2
8	Kasargod	Kasargod	2	2	2
10	Kasargod	Kumbla	2	2	1
9	Kasargod	Kasargod	2	2	1
11	Kasargod	Manjeswar	2	2	1
12	Kollam	Mukhathala	2	2	2
13	Kottayam	Kottayam	2	1	1
14	Kottayam	Kanjirappalam	2	1	1
15	Malappuram	Kondotty	2	2	1
16	Malappuram	Kuttippuram	2	1	1
17	Malappuram	Malappuram	2	1	1
18	Malappuram	Tanur	2	1	1
19	Malappuram	Tirurangadi	2	1	1
20	Malappuram	Tirur	2	1	1
21	Malappuram	Nilambur	2	1	1
22	Palakkad	Chittur	2	2	2
23	Palakkad	Mulanthurutty	4	1	2
25	Palakkad	Pattambi	4	1	1
24	Palakkad	Thithala	4	1	2
26	Thiruvananthapuram	Attingal	4	2	1
27	Thiruvananthapuram	Chirayinkil	4	2	2
30	Thiruvananthapuram	Kilimanoor	4	1	2
28	Thiruvananthapuram	Nedumangad	4	2	2
29	Thiruvananthapuram	Parassala	4	1	2
31	Thrissur	Chavakkad	4	1	2
32	Thrissur	Mathilakom	4	2	4
33	Thrissur	Thrikkakara	4	2	4
	Total Number of Structures		97	86	68
	Estimated Unit Cost in Lakhs		1	0.75	1.25
	Total Amount Expected		97	57.5	70

Annexure-III d

Action Plan for Artificial Groundwater Recharge in OCS Blocks during 2021-24

Sl No	District	Name of the Block	[illegible]	[illegible]	[illegible]
1	Ernakulam	Nedumbassery	2	2	1
2	Idukki	Elam Deseam	1	1	4
3	Idukki	Kattappana	1	1	1
4	Idukki	Nedumkandam	1	1	2
5	Kannur	Kannur	3	2	1
6	Kannur	Peravur	4	2	1
7	Kannur	Thalassery	4	1	1
8	Kasargod	Kasargod	4	1	1
10	Kasargod	Karadka	4	2	1
9	Kasargod	Kasaragod	4	2	1
11	Kasargod	Manjeswar	4	2	1
12	Kollam	Mukhidala	3	3	1
13	Kottayam	Bellatery	3	1	1
14	Kottayam	Kottayamgalam	3	1	1
15	Malappuram	Kondotty	3	2	1
16	Malappuram	Kottakkal	3	2	1
17	Malappuram	Malappuram	3	2	1
18	Malappuram	Thirur	3	2	1
19	Malappuram	Tirurangadi	3	1	1
20	Malappuram	Tanur	3	1	1
21	Malappuram	Vengara	2	2	1
22	Palakkad	Chittur	4	4	3
23	Palakkad	Malampuzha	4	2	4
25	Palakkad	Pattambi	4	1	3
24	Palakkad	Thrithala	4	2	3
26	Thiruvananthapuram	Athiyannur	4	1	2
27	Thiruvananthapuram	Chirayinkil	4	1	1
28	Thiruvananthapuram	Nedumangad	4	1	2
29	Thiruvananthapuram	Parassala	4	1	1
30	Thiruvananthapuram	Pothencode	4	1	2
31	Thrissur	Chowannur	4	1	2
32	Thrissur	Mathilakom	4	1	2
33	Thrissur	Wadakkanchery	4	1	2
	Total Number of Structures		108	54	59
	Estimated Unit Cost in Lakhs		1	0.75	1.25
	Total amount Expected		108	39	73.75

4027429/2019/WRD(OS)

Annexure-III

Action Plan for Artificial Groundwater Recharge in [illegible] Blocks during 2014-15

Sl. No	District	Name of the Block	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	2	2	1
2	[illegible]	[illegible]	1	1	2
3	[illegible]	[illegible]	1	0	2
4	[illegible]	[illegible]	1	1	2
5	[illegible]	[illegible]	2	2	2
6	[illegible]	[illegible]	2	2	2
7	[illegible]	[illegible]	2	2	2
8	[illegible]	[illegible]	4	2	2
9	[illegible]	[illegible]	4	1	2
9	[illegible]	[illegible]	4	2	1
11	[illegible]	[illegible]	2	1	2
12	[illegible]	[illegible]	2	2	2
13	[illegible]	[illegible]	2	1	2
14	[illegible]	[illegible]	2	1	2
15	[illegible]	[illegible]	2	2	2
16	[illegible]	[illegible]	2	2	2
17	[illegible]	[illegible]	2	2	2
18	[illegible]	[illegible]	2	2	2
19	[illegible]	[illegible]	2	2	2
20	[illegible]	[illegible]	2	1	2
21	[illegible]	[illegible]	2	1	2
22	[illegible]	[illegible]	1	1	2
23	[illegible]	[illegible]	1	1	2
24	[illegible]	[illegible]	1	1	1
25	[illegible]	[illegible]	1	2	2
26	[illegible]	[illegible]	2	2	2
27	[illegible]	[illegible]	4	2	2
28	[illegible]	[illegible]	4	2	2
29	[illegible]	[illegible]	4	2	2
30	[illegible]	[illegible]	2	1	2
31	[illegible]	[illegible]	4	2	4
32	[illegible]	[illegible]	4	1	2
33	[illegible]	[illegible]	4	1	1
	Total Number of Structures		97	50	56
	Estimated Unit Cost in Lakhs		1	0.75	1.20
	Total Amount Expected in Lakhs		97	38	68

c) Kerala Water Authority (KWA)

KWA has plans to implement RWH in feasible places. Roof top rainwater harvesting is now practiced in only one or two buildings and water treatment plants of KWA and we have plans to adopt this to the maximum possible extent in buildings owned by KWA. For the structures with roof top area exceeding 300 m² has been identified and action is planned to implement rooftop rain water harvesting in all these buildings within a span of two years. The Action plan is indicated below.

Name of Office	Name of District	Area of available roof tops (in Sqm)	Approximate qty of Rain Water that can be harvested (Litre/year)	Time Line
WS Division, Attingal	Thiruvananthapuram	[illegible]	[illegible]	May 2020
Sewerage Division Pattom	Thiruvananthapuram	[illegible]	[illegible]	May 2020
WS Division, Neyyatinkara	Thiruvananthapuram	[illegible]	[illegible]	May 2020
Project Div Kollam	Kollam	[illegible]	[illegible]	Sep 2020
PHO Kunnikkara	Kollam	[illegible]	[illegible]	Sep 2020
PH Division Thiruvalla	Pathanamthitta	[illegible]	[illegible]	Sep 2020
PH Division Pathanamthitta	Pathanamthitta	[illegible]	[illegible]	Sep 2020
Project Adoor	Pathanamthitta	[illegible]	[illegible]	Sep 2020
PHO Kottayam	Kottayam	[illegible]	[illegible]	Jan 2021
Project Kottayam	Kottayam	[illegible]	[illegible]	Jan 2021
PHO Kottathuvilla	Kottayam	[illegible]	[illegible]	Jan 2021
PH Division Thiruvalla	Alappuzha	[illegible]	[illegible]	Jan 2021
PHB Alappuzha	Alappuzha	[illegible]	[illegible]	Jan 2021
PHB Muvattupuzha	Ernakulam	[illegible]	[illegible]	May 2021
PH Division Thodupuzha	Idukki	[illegible]	[illegible]	May 2021
Project Div Kottarakara	Kollam	[illegible]	[illegible]	May 2021
PH Div. Thrissur	Thrissur	[illegible]	[illegible]	May 2021

PH, Dr. Anjaliklode	Thalassery	[illegible]	[illegible]	[illegible]
Project Co-Ordinator	Kozhikkod	[illegible]	[illegible]	[illegible]
PH, Dr. Palakkad	Palakkad	[illegible]	[illegible]	[illegible]
PHD Division	Palakkad	[illegible]	[illegible]	[illegible]
PH Division, Vadakara	Kozhikkode	[illegible]	[illegible]	[illegible]
PH Division, Kozhikkode	Kozhikkode	[illegible]	[illegible]	[illegible]
PH Division, Thodupuzha	Vayanad	[illegible]	[illegible]	[illegible]
P.H Division, Malappuram	Malappuram	[illegible]	[illegible]	[illegible]
P.H Division, Ernakulam	Malappuram	[illegible]	[illegible]	[illegible]
WS Division, Kannur	Kannur	[illegible]	[illegible]	[illegible]
WS Division, Thiruvananthapuram	Kannur	[illegible]	[illegible]	[illegible]

IV. Conclusion.

Nilala Kerala is considered to be a water surplus State, but irony is that the State regularly faces acute water scarcity in the summer months. Much of this can be attributed to poor water management practices and limited water conservation measures. Rain Water Harvesting, as a water conservation measure, needs to be popularized by the State as a means of involving the public in effective water management.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

The following were recommended to the committee of the meeting:

1. [illegible]

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[illegible]

[illegible]

C. [illegible]

2. [illegible]

[illegible]

3. [illegible]

4. [illegible]

5. [illegible]

Supreme Court of India

Industries Department, Water Resources Department, Kerala Water Authority, Electricity Department, KSEB Ltd

This meeting was held on [illegible] 22 minutes.

Dr. V.P. Joy

[illegible]

State Level Meeting convened by the Chief Secretary on [illegible] at [illegible] hrs. with the Hon'ble Supreme Court Bench of Law Department to review the progress made in complying with the orders of the Hon'ble Supreme Court in [illegible]

Sl. No.	Name, Designation, Contact Number and E-Mail	Signature
1	Sri. [illegible] [illegible]	
2	[illegible]	[illegible]
3	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

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17	[illegible]	[illegible]

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Minutes of the State Level Meeting held by the Chief Secretary on 11.12.2019 to review the actions taken for ensuring effective implementation of the Rules [illegible] under the Environment (Protection) Act, 1986 and the [illegible] directions of Hon'ble Supreme Court/ National Green Tribunal in this context

The meeting commenced by 11 am with Chief Secretary presiding. The meeting was attended by the Secretaries of the various departments, District Collectors, Heads of Government Departments and senior officials of various departments of the State. List of attendees [illegible] is attached.

The meeting was convened to review the progress made in various fronts in implementing the environmental rules in the State. The Chief Secretary asked the Chairman, Kerala State Pollution Control Board, KSPCB to brief on the status of implementation. The Chairman briefed on the actions which was followed with a detailed presentation by the Member Secretary on the actions taken as recorded from the reports received by KSPCB from other departments. The main issue in the beginning of 2019 was poor compliance of the local bodies in implementing the solid waste management Rules. It was noted that even after the intervention of NGT, following which monitoring and follow ups were done from State Level Monitoring Committee (SLMC) and KSPCB, no remarkable progress was achieved in solid waste management including remediation of legacy waste dumps.

The issue of the 21 polluted river stretches in the State taken up by the NGT in O.A. No. 673 of 2018 was the approval of action plans by the State RRC and the CPCB and this is now being implemented and monitored monthly by the Central Monitoring Committee. Though the action plans for the 21 river stretches were in place, the pace of progress with respect to the proposed treatment plants were not commensurate with the requirements. It was noted that there were delays in getting the DPRs prepared, securing of administrative and technical sanctions, allotment of funds etc. The prevailing pandemic situation was a major compelling reason for the delays. Another constraining factor was the local body elections which got scheduled in December 2020. As most of the Rules were related to waste management and were to be delivered through the local bodies, the above circumstance posed a challenging situation. As the [illegible] situation [illegible] increasing, the health, the local bodies and district administration were mostly geared up to tackle and contain the pandemic [illegible]

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[illegible]

The role of the District Collectors was brought to the notice by the Chairman, KSPCB using the relevant pdf. [illegible] in Solid Waste Management Rules, 2016 and the specific comment of the Hon'ble NGT. The respondents replied vide [illegible] dated 21.10.2019, 14.11.2020 and [illegible] in the year of 2018 owing to the fact that the representations were [illegible] was investigated in the Rules. The relief in the aforesaid report is [illegible] the issue of quality symbols report was also mentioned. As the personal [illegible] of the Chief Secretary of the State is scheduled on 8.12.2021, the next [illegible] the updated quarterly report will be adverse in January 2021. In the quarterly [illegible] was also highlighted.

The KCZ WMP mentioned in the quarterly [illegible] by the WMP is both [illegible] the possibility of getting CPHC [illegible] in the case of [illegible] within 90 days. Strength engineering colleges which are willing to take up work [illegible] part of academic [illegible]. It is also proposed to [illegible] as a part of the MoU [illegible] in the MoU. Financial year, mentioned the year [illegible] in related issues. MD also discussed that the illegal dumping of [illegible] through the drains leading to [illegible] and the [illegible] of solid waste near the [illegible] of [illegible] and blocking of water into the [illegible] and also affecting [illegible] the water [illegible] the main [illegible] of water pollution and that the same could only be addressed through [illegible] participation, public vigil and proper awareness. Further, [illegible] systems for management of solid and liquid waste shall be provided as [illegible] permit illegal dumping of waste, on the grounds of [illegible] [illegible] the providing technical guidance for liquid and solid waste management is limited of 20 [illegible] engineers have been formed by the [illegible] which expense could be offset by the local bodies or [illegible] Collectors for [illegible] purposes. This expense could also be utilized for the CCTP proposed in Tokyo [illegible] area. KCZ also [illegible] to the good [illegible] taken by KSPCB in setting up a website mechanism for the [illegible] complaints and [illegible] waste spillage. The KCZ WMP and the PM Summary, [illegible] suggested that the website can be modified a step further by adding a more

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proactive and be providing a user interface so as to enable the line departments to update their progress details periodically. Further it was also suggested that the [illegible] and siting guidelines etc. for setting up of treatment plants, be detailed in the [illegible] section of the website maintained by KSPCB.

The Principal Secretary LSGD remarked on the role played by the Department in ensuring compliance to the Rules and the various liquid waste projects at hand which were being implemented through AMRUT and KIIFB. The Principal Secretary LSGD further informed that the projects for waste management should come from the LSGIs and that the role of the Department is very limited. The Chief Secretary emphasized that the Committee should be aware of the projects that are proposed and now under implementation through the local bodies also. There need to be concerted efforts to streamline the processes and to co-ordinate with all concerned, from the Government Departments and the Local Bodies, where needed, so as to get the Rules implemented in the best interest of the State and its people.

While observing the comments from the District Collectors on the [illegible] the District Collectors [illegible] and that it is [illegible] to take from the LSGIs would be monitored to get the projects implemented at the earliest. It was suggested by the Principal Secretary LSGD that as the District Planning Committees have District Collectors as its Member Secretary, the priorities of the State Government for ensuring a safe and effective waste management in the State and need for complying with the orders issued by the NGT can be brought to the notice of all concerned. While sanctioning projects during DPC meetings, high priorities may be assigned to the projects that could be taken up based on NGT orders and for ensuring Rules implementation. Proper assistance to the local bodies should be helpful and would help in sanctioning and implementing the Rules. Then the local financial budgets specific amounts can be earmarked for such projects, for implementing through LSGIs.

As the projects being implemented / proposed by the LSGIs were not available with the State Government Departments, the District Collectors while preparing the environmental reports in their districts shall call for the details of all such projects taken up by various authorities and update the same and a holistic picture on Rule implementation in the District shall be brought to the notice of the LSGD.

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Urban Affairs and Panchayat Directorates. [illegible] may evaluate the situation with LSGD on a monthly basis and be updated on all progress/working mode. They may also intervene to ensure effective implementation of Rules.

While deliberating on the present and forthcoming common facilities for biomedical waste management by the State it was informed that a meeting by the Principal Secretary, Environment was due on the same day to decide at a [illegible] on the [illegible] which ways is to be identified for the two upcoming common treatment plants shortly to come up in Ernakulam, one under KEIL and the other under IMA. The treatment plant of the KEIL will be the first to be commissioned in Ernakulam as its construction and installation is almost over and trial run may take place in January 2021.

Clean Kerala Company deputy [illegible] involved in the management of plastic wastes, informed that the plastic and non-biodegradable wastes from the State were moved to the plant of ACC and as ACC's plant of Coimbatore was under shutdown, the waste may now have to be taken to [illegible], Bangalore unless another plant of ACC in [illegible]. This may increase the tipping fee etc. Hon'ble Chief Secretary enquired about the status of the proposal for co-incineration to be taken up through M/s Malabar Cements to which the Principal Secretary Environment responded that the proposal and drafting were initiated. Chief Secretary wanted the Malabar Cements to [illegible] possible to provide facilities for co-incineration at the plant situated in Kerala as it would cut down the cost involved and further, the State needs to explore possibilities of utilizing facilities in the State before looking for other alternatives or depending on other States.

Following decisions were taken subsequent to the discussions and deliberations:

1. **All the District Collectors shall** review the implementation of environment related Rules in the State Monthly as ordered by the Tribunal and may forward the minutes of the DLMC meetings with specific recommendations for effective implementation of the Rules to the Directorate of Urban Affairs and Directorate of Panchayats, with copy to the Principal Secretary LSGD and Principal Secretary LSGD (Rural), without fail. District Collectors may call for the details from each and every stakeholder concerned, who are

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[illegible] for getting the project [illegible] from as the [illegible] for the [illegible] of legacy waste dumps [illegible] covered by SLF has expired in [illegible] 2020, no further fees may [illegible] that will require to be [illegible] including [illegible] in Vizianagaram (Andhra Pradesh), Sonepur (Odisha), Yadadri (Telangana), [illegible] (Punjab) and [illegible] (Kerala). **Hence the issue of legacy waste dump sites may be given high priority. The progress of pollution control measures may also be reviewed during HLRC meetings.** As directed by the [illegible], the CTE, Pollution Control Boards may be asked to report to the secretary of [illegible] provided to such [illegible] to [illegible] and [illegible].

2. **The Principal Secretary LSGD and Principal Secretary SAGD (Urban) may hold monthly discussions with the Directorate of Urban Affairs and Directorate of Panchayats, to assess the physical and financial progress in [illegible] to take any issues for ensuring compliance to the Rules and related SWM orders. The reduction of solid [illegible] for reprocessing and [illegible] of waste [illegible], towns and villages shall also be included in the Quarterly report. LSGD may [illegible] the monthly status of Bio-methanation or solid and liquid waste to BMPCB in the required format for submission to the Ministry of Jal Shakti, Ministry of Rural Development as Swachha Bharat Mission shall also be sought on monthly. The Annual Reports of the LSGIs may be coordinated by the LSGD through Sarpanchs unions and Municipal Bodies. The details of legacy waste dumps and progressive steps of action of the LSGIs for ensuring bioremediation shall be assessed by the Department. Good initiatives of the State Government shall be included in a separate section to be incorporated in the quarterly report.**

3. **The KSPCB may [illegible] the website of the [illegible] consent to make it more user friendly and to enable updates of details by all Departments / authorities having concerned. Further, details of waste applicable for getting environmental clearance shall be included under the EIA Cell as required by MoEF&CC and Pvt. Secretary first, Department. A separate column may also be incorporated at the website for mentioning the site-specific KSPCB may update the [illegible], [illegible] and Secretary road inventory as required under the Rules. KSPCB may also**

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[illegible] a [illegible] [illegible] for collection of dues for the period of the District Collector of the Area is delivering [illegible] segregating.

5. **District Planning Committee** [illegible] **the District Collector** as Member Secretary, may prioritise the projects that need to come up by ensuring compliance to the Rules about [illegible] management and the NGT order will impact [illegible] grouping of workers, in the adherence to the Solid Policy as envisaged under the Article 48 A of the Constitution of India. No new Local body [illegible] may be made issue of the waste management rules and be priorities by becoming [illegible] of [illegible] and [illegible]. The [illegible] be included as a subject for the training imparted through [illegible]. The based compliance to the Rules shall be prioritised. Non [illegible] for ensuring compliance to the Rules and orders of the NGT may be made not [illegible] among the [illegible].

6. **The Industrial Department** may take up the issue of elements of use of [illegible] for setting up of [illegible] for generation of [illegible] and [illegible] [illegible] as needed to find a [illegible] to the [illegible]. The issue will require to [illegible] of [illegible] [illegible] may be considered by the **Expanded Monitoring Committee. The Industries and Environment Department** may take up the issue of plastic waste disposal through [illegible] **incorporation at the point of Sale Market Licence at the market and the dealer reported.**

7. The Expanded Monitoring Committee constituted by **the Environment Department** may include the Central Water Department as well, as constituted by the Central Monitoring Committee on management of Hazardous Waste in GO No.[illegible] of 2017.

8. The social agency will impart to the [illegible] of water bodies shall be assigned by **the Environment Department**, in compliance to the order dated [illegible] of the NGT in GO No.[illegible] of 2017 and the agency may have a major role to play. In which capacities of Health Citizens [illegible] [illegible] and Irrigation Department is vital.

9. As the action plan for Pongal was to be [illegible] to the State by [illegible] in GO No.[illegible] of 2012, the **preliminary report from the Irrigation Department** shall be reported to the [illegible]. Further, **immediate action may be taken for constituting a Committee by the Environment Department** for preparing the action plan.

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8. As the affidavit to be filed by the User Department, the Bar proposes [illegible] complying compliance in CPC No. 114 of 2019 in WPC pending, it should [illegible] be ensured through [illegible] (Primary Duties) [illegible] [illegible] (Other) immediately.

10. All the Heads of Department / authorities which have signed in the agreement under the title 'authority concerned' may ensure that the departmental functionaries have taken steps as required and furnish action taken reports within the stipulated time frames. Pending affirmed [illegible] follow up priority and importance.

[illegible]

[illegible]

Supreme Court of India

Minutes of the meeting held by the Chief Secretary on [illegible] at [illegible] with the [illegible] Departments/ Authorities to review the progress of implementation of the projects taken up on the basis of orders of the Hon'ble National Green Tribunal in O.A. No. [illegible]

The Chief Secretary [illegible] the meeting to review the progress of implementation of projects taken up based on the [illegible]. The meeting was attended by the Additional Chief Secretary of Water Resources Development & Local Self Government Department, Principal Secretary of Industries & [illegible] Department, [illegible] of [illegible] & [illegible], [illegible], [illegible] Corporation and Member Secretary, [illegible] State Pollution Control Board and [illegible]. Detailed attendance list is attached.

The Chief Secretary [illegible] the need for [illegible] by the State in implementing the projects. The meeting is convened in light of the [illegible] dated [illegible] from the [illegible] to all States [illegible] the last review of [illegible] action taken up by the Central Monitoring Committee (CMC) on [illegible]. The implementing agencies are to include the latest progress report on all projects undertaken by them in the Monthly Progress Report (MPR) to be forwarded to the CMC, [illegible] the MPR [illegible] the [illegible] furnished by the other bodies. [illegible] informed that [illegible] the [illegible] progress reported to the CMC along with details of agencies responsible for the implementation.

Key difficulties in getting the projects implemented in a timely manner are [illegible] which include non-availability of funds, land for setting up of projects, [illegible] difficulty in getting qualified [illegible], difficulties in [illegible] etc.

The issues were discussed in detail and the following decisions were taken for achieving speedy implementation of projects.

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[illegible]

[illegible]

(i) [illegible]

(ii) [illegible]

(iii) [illegible]

(iv) [illegible]

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[illegible]

(iii) [illegible]

4. [illegible]

5. [illegible]

6. [illegible]

7. [illegible]

[illegible]

5. [illegible]

6. [illegible]

7. [illegible]

8. [illegible]

9. [illegible]

10. [illegible]

11. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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ARC – Meeting by CE on [illegible]

[illegible]	Designation	Signature
1	[illegible]	
2	[illegible]	
3	[illegible]	
4	[illegible]	
5	[illegible]	
6	[illegible]	
7	[illegible]	
8	[illegible]	
9	[illegible]	
10	[illegible]	
(11)	[illegible]	
(12)	[illegible]	
(13)	[illegible]	
14	[illegible]	
15	[illegible]	
16	[illegible]	
17	[illegible]	
18	[illegible]	
19	[illegible]	

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[illegible]

[illegible]

[illegible]

[illegible]

Yours faithfully,
[illegible]
UNDER SECRETARY
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

1

[illegible] the [illegible] by the Chief Secretary [illegible], with the Power Engineering Consultants in a single holder [illegible] Authorities, to review the progress in implementing Majuli [illegible] on the basis of orders of the Hon'ble Supreme Court [illegible] [illegible] dt 2018 (PE)

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] may also be identified in [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

- [illegible]

- [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of Performance Measures [illegible] by the Iran [illegible] (CPE), as per the directives of the Tribunal. [illegible] implementation plan of action plans for the published [illegible] made for considered legacy in the compliance assessment [illegible] **RBF Measures Department.**

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]				
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

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[illegible]

[illegible]

NGT-Decisions taken in the meeting held by the Chief Secretary on 31.5.2021-

ATR by KWA

Sl No	Decision No.	Decision on 31.5.21	Action by	Action taken by KWA on the decision as on 15.6.21
1	1.	2. KWA has already taken action for preparation of DPRs of 28 ULBs in the State for management of sewerage, the first phase of which is expected to be completed by October 2021. 3. Out of 28 ULBs, at least 20 projects may be taken up urgently by giving topmost priority for places where land availability and other factors are in place / easily identifiable for execution. Model DPRs can also help in speeding up the projects. 4. Urgent meetings may be convened with the concerned for speedy implementation.	WRD LSGD, Envt. Dept, Rev. Dept, KWA, LSGI, District Collectors	1. DPR for sewerage for 28 ULBs are being prepared. Reconnaissance survey completed and tentative location of STPs and collection wells identified. Preliminary design being done based on data generated from GIS. Targeted to complete by October 2021 2. Tentative locations and extent of land required for STPs and Collection wells for sewerage scheme is being apprised to concerned ULBs for concurrence 3. Meetings with ULBs for land availability in progress Exploring the possibility of fund availability

2	2 i	DPR for full capacity utilisation of Muttathara Sewage Treatment Plant (STP) is under preparation and that it would be completed by June / July 2021 itself. Further it was submitted that new network coverage area can be increased as the leakages in the system are now being effectively plugged and network expansion to the tune of 30 to 40 % may be viable. Preparation of rough estimates and identifying sources of funding under RKI and CFC funds, may also be taken up	KWA, RKI TVPM District	<u>Full Capacity Utilization of Muttathara STP</u> 1. Existing Capacity 107 MLD. ASP (Activated Sludge Process) with extended aeration 2. Present utilisation is only 60% on an average 3. Completion of ongoing works enhance utilization by another 20% 4. On expanding the sewer network, full utilisation of the STP capacity can be achieved. 5. Survey scheduled complete by 15/7/21 6. DPR targeted date 30/9/21* 7. Sewer laying work completion by 31/12/23 subject to availability of funds *Likely to be extended by 2-3 months due to Covid <u>New Coverage to reduce Polluted Karamana River Stretch (PRS)</u> 1. 18 wards abutting the PRS identified 2. 100% survey completed. 3. The Design and preparation of DPR for these wards have also been started simultaneously 4. DPR for these 19 wards can be submitted by the targeted time itself, ie. by 31.7.21

3.		Maximum capacity of expansion of Elamkulam STP at Ernakulam and for providing additional network coverage's, possibilities of funding under KMRL, schemes may be explored.	Finance Departme nt, KWA	1. Elamkulam Existing plant 4.5 MLD ASP. 5MLD STP under construction 2.Present utilisation 3 mld. 3.Preparation of DPR for the under utilised capacity is in progress 4.Completition by 30/6/21 5. KWA has 7.70 acres at STP site & 5.8 acres nearby. 5 MLD new STP work by 31/3/2022 6. KMRL plans 10 MLD STPs at Elamkulam 7. Instead a bigger plant incorporating the KMRL left out nearby areas, STP upto 20 MLD can be accommodated. Under IURWTS, KMRL plans 10 MLD STPs at Elamkulam. KMRL has taken only the areas adjoining to the canals and by considering the left out areas from where the sewage can be treated at Elamkulam is worked out to be 8.5mld and hence if by combining the demand taken by KMRL and ours, an STP upto 20 mld can be constructed at Elamkulam. KMRL has already started the preparation of DER. Meantime meeting conducted bet KMRL & KWA regarding the handing over of DPR for execution through KWA.
4.	2. iii	1. In case of Guruvayoor STP KWA may take up root cause analysis of the circumstances of the cases where files were seized by the Vigilance Department. 2. Proper review of projects and follow up may be taken up to ensure that the projects taken up are implemented without any lapses and to avoid	ACS Vig, KWA TRSR District	1. Request for returning the files from Vigilance wing submitted to Vigilance wing on 20.4.21, but they informed that the files are under the custody of Thrissur Vigilance Court and directed to get permission from the Court for the obtaining the same. Based on this necessary action taken by discussing with standing council for getting the files. 2. Issue of application form for sewerage connection started 24.5.21. With the sanctioned amount of 73.3

		further delays.		Lakh under State Plan for the construction of collection well and dilution tank thatcan be tendered soon. Files from vigilance is not yet received. 3. Expected to commission the scheme before 31.7.2021.
5.	7.	1. Based on the report of the Kollam Corporation, there is direction to utilise the fund available under the cancelled AMRUT schemes, for completing sewer network of Kureepuzha as sought for. 2. Directed for the speedy implementation of Kureepuzha STP and networking of sewer lines.	LSGD, AMRUT, KWA	1. Approval for Rs 93.612Cr. was given by 27th SHPSC dated 20.2.2021 for completing balance sewerage network in Kollam Corporation. 2. The estimate for the above work was prepared as two packages and can be tendered soon. For cutting and removing trees from the site a tree committee was constituted by Kollam corporatio n on 23/01/202L Approval was obtained for tree cutting as per the valuation done by social forestry. on 4.2.2021 auction notice was published with due date on 10/2/2021, but had to extend further since no favorable offers received. 3. However, a bid received in March and corporation council approved the same on 19/4/2021 and confirmation letter issued to the bidder on 26/4/2021. The bidder took the auction and began cutting and removing of trees on 21.4.2021, but was again hindered by strong public protest. The matter was discussed with Corporation authorities and they assured that tree cutting shall be scheduled with arranging police protection after lifting current Covid - 19 Lockdown.

		Decisions taken in 5.4.21		**Action Taken report**
1.		All Liquid waste management proposals through KWA		All public Sewerage system can be prepared & executed by KWA
2		CETP Edayar for industries dept		1. KWA is entrusted with DPR preparation 2. Capacity 2 mld 3. CETP proposed land area 2 acres & total industrial area 433 acres 4. 62- industries(effluent generating) 5. Discussions held 6. Data being obtained 7. Due to lockdown not able to get field data 8. 20% work over. 9. Survey works can be completed by 15.7.2021 10. DPR preparation can be completed by by 31/8/21
3		Commissioning of STP at Tvpm Medical College		1. Capacity 5MLD 2. Moving bed bio reactor (MBBR)process 3. advantage less foot print 4. Power supply obtained. 5. Commissioning by 31/7/21

Managing Director

Minutes of the meeting of River Rejuvenation Committee held by Additional Chief Secretary (Environment) on 23-06-2021 as per National Green Tribunal order in O.A. No. 673 of 2018.

.....

The meeting started at 4 P.M. The progress of the projects taken up in compliance with the National Green Tribunal order and the action taken on the minutes of the meeting held by Chief Secretary on 25-04-2021 and 31-05-2021 were discussed in detail. After detailed discussion the following decisions were taken.

STP at Medical College, Thiruvananthapuram is ready for commissioning. 35% progress has been achieved regarding STP at Elamkulam. Actions are being initiated to commission STP at Guruvayoor. Expected progress could not be achieved in setting up STP at Kannur Municipal Corporation. The Corporation is in search of land for the project. Directed to speed up the process and inform the progress to the MS, PCB so as to in the Monthly Progress Report **(Action: Local Self Government Department)**

2) Directed the Deputy Chief Engineer Irrigation to hand over the progress of the work achieved to the Kerala State Pollution Control Board **[Action:- Chief Engineer /Irrigation & Administration]**

3)All concerned departments/ Authorities have been directed to furnish the requisite progress details urgently to the Member Secretary, Kerala State Pollution Control Board so as to compile the progress achieved in a table format.

[Action:- Member Secretary, Kerala State Pollution Control Board, Water Resources Department, Local Self Government Department, Revenue Department, Kerala Water Authority, Finance Department, Agriculture Department,Corporation Secretary, Thiruvananthapuram/Kollam/Cochi/ Kannur Corporation, AMRUTH]

4) Member Secretary, Kerala State Pollution Control Board informed that 15 rivers in the state have achieved bathing-quality as per National Green Tribunal Order in OA 673/2018 and its details were presented. Additional Chief Secretary (Environment) instructed all implementing departments/ Authorities to focus the outcome of the projects as per action plan and requested the stake holder departments/authorities to forward the monthly progress report to the Member Secretary, Kerala State Pollution Control Board in time so as to identify the actual progress and to be included in the Monthly Progress Report of the State.

5) Joint Director, Industries Department informed that there are 6 polluted textile clusters in the state. Directed to provide details of all clusters, issues if any in this regard to Member Secretary, Kerala State Pollution Control Board before the next Chief Secretary meeting

[Action-Director, Industries Directorate)

6) Directed the Deputy Chief Engineer , Kerala Water Authority to furnish details on utilization, commissioning, sewer connection, leak rectification regarding STP at Medical College, Thiruvananthapuram, Yakkara in Palakkad, Muttathara, Elamkulam, Guruvayoor and forward the same to he Member Secretary Kerala State Pollution Control Board. [Action: Managing Director, Kerala Water Authority]

7) As regards the comments on draft Action Plan for abatement of marine pollution, all stake holder departments/authorities shall immediately furnish their comments to Member Secretary, KSPCB to finalize the action plan.

[Action: Water Resource Department, Kerala Water Authority, Industries Department, Urban Affairs Directorate, Thiruvananthapuram/Kollam/Cochi/Kannur Corporation)

8)The CPCB has directed the Nodal Authority in the State concerned to submit a detailed proposal for each river stretch so as to enable them to delist the same. . The MS, PCB has informed that water quality data of river stretches, chemical and other parameters are important for the process of delisting of polluted river stretches. Directed the MS,PCB to submit a detailed proposal in this regard before the next

meeting of the RRC for approval.

[Action - Water Resource Department, Kerala Water Authority, Member Secretary, Kerala State pollution Control Board]

9) In view of the progress made in the action plan, steps may be initiated to release/ revise the performance guarantee entered into by the state with CPCB as per direction of the National Green Tribunal.

(Action-Water Resources Department, Member Secretary, Kerala State Pollution Control Board).

The meeting ended at 4.35 pm.

List of participants:

Additional Chief Engineer, Irrigation& Administration,
Deputy Chief Engineer, Kerala Water Authority
Member Secretary, Kerala State Pollution Control Board
Secretary, Thiruvananthapuram Corporation
Secretary ,Kannur Corporation
Joint Director, Industries Directorate

Dr Venu V I A S
Additional Chief Secretary
O/O ACS ENVIRONMENT

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[illegible]

Yours faithfully,
[illegible]
UNDER SECRETARY
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[illegible] the [illegible] by the Chief Secretary [illegible], with the Power Engineering Consultants in a single holder [illegible] Authorities, to review the progress in implementing Majuli [illegible] on the basis of orders of the Hon'ble Supreme Court [illegible] [illegible] dt 2018 (PE)

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[illegible] of Performance Measures [illegible] by the Iran [illegible] (CPE), as per the directives of the Tribunal. [illegible] implementation plan of action plans for the published [illegible] made for considered legacy in the compliance assessment [illegible] **RBF Measures Department.**

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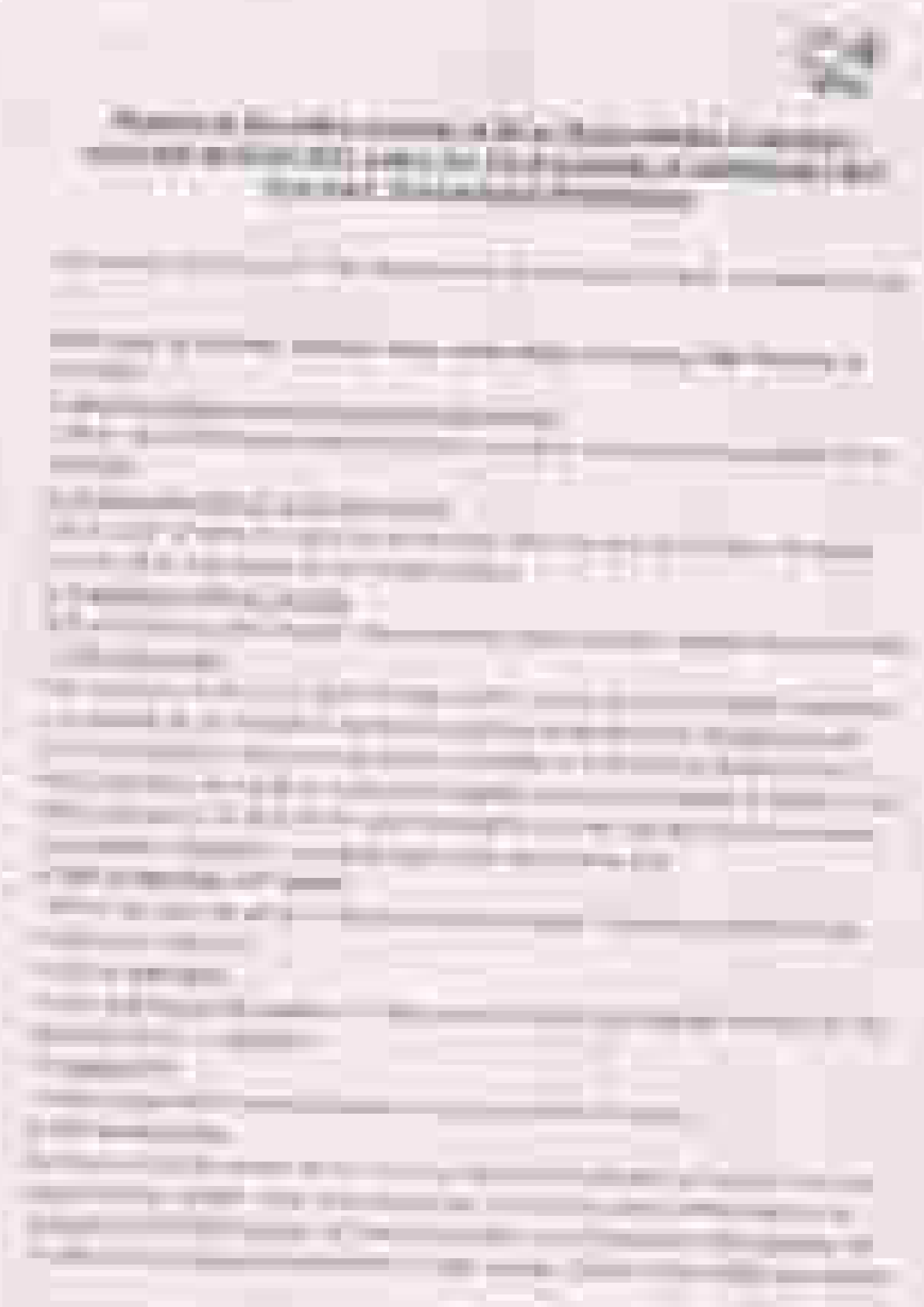

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MEETING ENCLOSURE

GOVERNMENT OF KERALA
Environment (A) Department

No. [illegible] Dated, [illegible]

Dated, [illegible]

Sir/Madam

Additional [illegible] Meeting [illegible]

To,

The Additional Chief Secretary, Water Resources Department

The Additional Chief Secretary, Local Self Government Department

The Additional Chief Secretary, Agriculture Department

The Additional Chief Secretary, Industries Department

The Additional Chief Secretary, Fisheries Department

The Additional Chief Secretary, Revenue Department

The Additional Chief Secretary, Home Department

The Principal Secretary, SC&ST Department

The Principal Secretary, Local Self Government Department

The Principal Secretary, Education Department

The Secretary, Public Works Department

The Director,
Department of Environment & Climate Change,
Thiruvananthapuram

The Director, Government of Kerala Affairs,
Thiruvananthapuram

The Director,
Department of Industries & Commerce,
Thiruvananthapuram

The Director,
Department of Fisheries,
Thiruvananthapuram

The District Collector,
Collectorate, Kadapa, Alappuzha, Ernakulam

The Secretary
Municipal Corporation, Thiruvananthapuram.

The Secretary,
Municipal Corporation, Kollam

The Secretary,
Municipal Corporation, Kottayam

The Secretary,
Municipal Corporation, Kochi

The Secretary,
Municipal Corporation, Kozhikode

The Managing Director
Kerala Water Authority, Vellayambalam, Thiruvananthapuram

The Superintending Engineer, [illegible] (through Chief Engineer)
[illegible] Thiruvananthapuram

The Commissioner for Rural Development
Vazhuthacaud, Thiruvananthapuram

The City Police Commissioner, Ernakulam

The Commissioner
Land Revenue, Vazhuthacaud, Thiruvananthapuram

The Executive Director,
Kerala State Electricity Board, Thiruvananthapuram

The Director General, KERALA STATE INFORMATION TECHNOLOGY MANAGEMENT
Level 3, Government Departments
4th Floor, Sreekandeshwaram Building, [illegible] Building,
Opposite Government Hospital, Thycaud,
Thiruvananthapuram 695014

The Member Secretary,
Kerala State Pollution Control Board, Thiruvananthapuram

Sub: Environmental Degradation — Mandatory notices issued by Chief Secretary, with NOC Conditions, Incorporation, Technical Site of the [illegible] 27.10.2025 — [illegible]

Sub: [illegible]
X Meeting held by Chief Secretary with RDC & Stakeholders
Unauthorised Advertisement on 23-10-2021.

I [illegible] the enclosed copy of minutes of the meeting held by Chief Secretary with RDC & Stakeholders Representatives, Unauthorised on 23.10.2021 for necessary action.

Yours in Sd/-,
SRESTHA VARMA IAS
Under Secretary
for Additional Chief Secretary to Government

Approved for issue

[illegible]
Principal Secretary to Minister

[illegible]

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[illegible] **Local Self Government, Agriculture Department, Sample Model Application and Sample Model.**

Strengthening of Local Bodies – [illegible] **Local Self Government, Agriculture Department, Sample Model Application and Sample Model.**

Strengthening Activities of ICDS Building Blocks (SIFMCT, AMRC) – [illegible] **Rural Development Department, Local Self Government Department, Agriculture Department, Sample Model Application and Sample Model.**

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GOVERNMENT OF KERALA
Environment (A) Department

[illegible] Thiruvananthapuram
Dated: 14.12.2021

From
[illegible]

To
[illegible]

Sir,
[illegible]

[illegible] to be uploaded on the website

Yours faithfully,
[illegible]
Additional Secretary
to Additional Chief Secretary to Government

Approved for issue

Section Officer

[illegible] Stakeholder Meeting of Draft Implementation Strategy for [illegible] 2011-2015 and the Challenge of Scaling Up Advanced Mind Recovery: [illegible]

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Keynote Address [illegible]: [illegible] [illegible]

Summit Under [illegible] Meeting: [illegible] [illegible]

Panel Discussion [illegible]: [illegible] [illegible]

KERALA STATE BIODIVERSITY BOARD

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List of various projects relating to River bank conservation through Bio-diversity park by Bio-Diversity Board of Kerala

Sl. No	Name of Local Body/District	Location	Area
1.	Puthukulam, Grama Panchayath, Kollam District	13th Ward , Champan Chal Region	10 Cent.
2.	Edavatty GramaPanchayath, Idukki District	Near Malankara Dam	15 Cent.
3.	Malappuram Municipality, Malappuram District	Hajiyarpalli	15 Cent.
4.	Malappuram Municipality, Malappuram District	Nechikutti, Munduparambu	15 Cent.
5.	Perumpadappu Gramapanchayath , Malappuram District	Cheruvalloor	15 Cent.
6.	Farook Municipality, Kozhikkode	Chanthakadavu	10 Cent.
7.	Mananthavadi Municipality, Wayanad District	Chootakadavu Region	15 Cent.
8.	Vanimel Grmapanchayath , Kozhikkode	Vanimel River	_
9.	Muzhakunnu Gramapanchayath, Kannur	_	_
10.	Ayiroor Gramapanchayth , Pathanamthitta	Pampa	_
11.	Kozhenchery Gramapanchayath, Pathanamthitta	Pampa	_
12.	Ayoorkunnam Gramapanchayath, Kottayam	Meenachal River	_
13.	Mananthavady Corporation, Wayanad	Mananthavadi	_
14.	Kurumathoor Gramapanchayath, Kannur	_	_

15.	Perunkadavila , Gramapanchayath, Thiruvananthapuram	Neyyar	_
16.	Poovar Gramapanchayath, Thiruvananthapuram	_	_
17.	Maranaloor , Gramapanchayath, Thiruvananthapuram	Neyyattinkara	_
18.	Cherayinkeezhu, Gramapanchayath, Thiruvananthapuram	Vamanapuram River	_
19.	Pullur-Periya Gramapanchayath, Kasaragod	Chitharipuzha	_
20.	Kozhancheri, Cherukol, Ariyoor, Ranni, Ranni Angadi, Ranni Pazhavangadi, Vadasherikara, Ranni Perunadu, Naranamoozhi, Vachuchira Gramapanchayath , Pathanamthitta	Pampa	_

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[illegible] Department, [illegible] Department, [illegible] Department, [illegible] Department, Kerala [illegible] [illegible], Northern [illegible].

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[illegible] Department, Local Self Government, Hiya [illegible]
[illegible] Water [illegible], Land Revenue [illegible]

Abbreviations of Department

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Source: Hawaii Water Authority, Water Resources Department

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[illegible] Hall Counsel Tribunals

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[illegible] Department, Law [illegible]

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[illegible] Department

[illegible]

Notes: [illegible] Department, Revenue Department, [illegible] Administrator.

In the Supreme Court of India (SLP) – Personal appearance of the Chief Secretary of the State.

[illegible]

Advocate-on-Record, Self Government Department, Environmental Management, Wildlife Protection Department [illegible]

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1. **[illegible]** [illegible]
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b. [illegible]

c. [illegible]

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To

The additional Chief Secretary to Government

The additional Chief Secretary, Finance Department

The additional Chief Secretary, Local Self Government Department

The additional Chief Secretary, Agriculture Department

The additional Chief Secretary, Finance Department

The additional Chief Secretary, Vigilance Department

The additional Chief Secretary, Revenue Department

The additional Chief Secretary, Home Department

The Principal Secretary, PHCFP Department

The Principal Secretary, Local Self Government Department

The Principal Secretary, Industries Department

The Secretary, Public Works Department

The Secretary, Law Department

The Secretary, Cultural Affairs Department

The Secretary, Tourism Department

The Secretary, Forest Department

The Secretary

Government of Karnataka (Forum)

Thiruvananthapuram

The Director, Department of Urban Affairs,

Thiruvananthapuram

The Director,

Department of Industries & Commerce,

Thiruvananthapuram

The [illegible]
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The [illegible]

The Commissioner
[illegible]

The Executive Director
[illegible]

The [illegible]
[illegible]
4th Floor, [illegible]
[illegible]
[illegible]

The Member Secretary
[illegible]

Sir,

Sub: [illegible]

Ref: [illegible]

Minutes of the meeting convened by [illegible] Chief Secretary on [illegible] in the matter of O.A. No. [illegible] and connected cases before the [illegible] Tribunal

The meeting commenced at [illegible] with Chief Secretary presiding the meeting. The Additional Chief Secretary of [illegible], [illegible], Environment, [illegible] Govt. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and other officers concerned were present. The following items were discussed.

1. [illegible]:

It was decided in the last meeting that, all [illegible] projects being [illegible] in progress and that which needs urgent [illegible] from Govt. shall be brought to the [illegible] during the [illegible] meetings. [illegible] [illegible] along with the [illegible] [illegible] by the [illegible] [illegible]. The following [illegible] projects were discussed.

- **[illegible] Corporation: [illegible] Sewerage [illegible] Scheme for [illegible] Corporation**

The land proposed for the project is [illegible] [illegible] [illegible] through the CLRC. The Agriculture Production Commissioner [illegible] informed that as per the recommendations [illegible] it was decided in the CLRC meeting [illegible] of the [illegible] [illegible] Section [illegible] of the [illegible]. [illegible] Corporation, informed that the proposed [illegible] [illegible] [illegible] [illegible] [illegible] the land [illegible] [illegible] [illegible] [illegible] that the land has already been allotted for the project [illegible] [illegible] of the project is [illegible]. Additional Chief Secretary, Water Resources informed that the land was allotted to the Corporation well before the enactment of [illegible] Act 2008 and requested to consider the [illegible] of utilising the land for the above project. [illegible]

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GOVERNMENT OF KERALA
[illegible] Department

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[illegible] Department of Mechanical Engineering, Dartmouth College, Hanover, [illegible]

GOVERNMENT OF KERALA
Environment (A) Department

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To

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Minutes of District Level Technical Committee Meeting on 26-04-2022 Through Video Conferencing

District Level Technical Committee (DLTC) Meeting on Polluted River Stretch (As per order of Hon'ble NGT in 0A673 of 2018) was held on 26th April 2022 through video conferencing at 11:00 am. Representatives from the Pollution Control board, Irrigation Department, Pattambi Municipality, and Pudur Panchayath have participated in the meeting.

Members Participated:

1. Mr Baji Chandran, Superintending Engineer, Minor Irrigation Central Circle, Irrigation Department, Ernakulam (Chairman of DLTC)
2. Mr Suresh Babu, Executive Engineer, Minor Irrigation, Palakkad
3. Ms Anees, Secretary, Pudur Gramapanchayath, Pudur
4. Mr Nasir, Secretary, Pattambi Municipality, Palakkad
5. Mr Muhammad Iqbal, Health Inspector, Pattambi Municipality, Palakkad
6. Mr. Krishnan M N, Environmental Engineer, Kerala State Pollution Control Board (Convener of DLTC)

Mr. Krishnan M N, Environmental Engineer, Kerala State Pollution Control Board welcomed the DLTC members and shared the information regarding the OA 673 and the reason for constituting the District Level Technical Committee as introduction. Then he discussed the progress of the polluted river stretches action plans of Bharathapuzha at Pattambi and Bhavani at Elachivazhi.

Bharathapuzha at Pattambi

Environmental Engineer discussed the action points of Bharathapuzha at Pattambi one by one and the concerned implementing agency reported progress.

- Establishment, and modernization of the MSW treatment Plant (Solid Waste Management), Material collection Facility, and Resource recovery facility fully implemented in the Pattambi Municipality.
- Pattambi Municipality informed that the implementation of household and community-level solid waste management unit are in progress. A total of 1600 household units were sanctioned and it is being distributed based on applications.

- The action point on door-to-door collection and transportation of municipal solid waste was implemented in the Municipality. Environmental Engineer asked Secretary,Pattambi Municipality to ensure that the project was going well.
- Superintending Engineer, Irrigation Department informed that the DPR for regulating flood plain zone protection and management, and E-flow maintainance in the Bharathapuzha at pattambi were prepared and submitted to the government several months ago. But funding did not get sanctioned. He also mentioned that this matter should be bought to the attention of the Chief Secretary and Hon'ble National Green Tribunal. He commented that the State Government should taken necessary action for the approval of DPR and fund before asking for progress from the DLTC.
- The action points on management of plastics, hazardous, biomedical, and electrical and electronic wastes were achieved in Pattambi Municipality by the implementation of MCF and RRF facilities.
- The action points on creating awareness among the public, water quality monitoring, and the Green Protocol implementation were implemented by KSPCB. Environmental Engineer informed that the water quality of the Bharathapuzha at Pattambi is consistently achieving bathing standards, still the action plan was to be completely implemented.
- In the case of the implementation of the Primary Sewage Treatment Plant and Septage Treatment plant, Pattambi Municipal Secretary informed that Kerala Water Authority prepared a DPR for STP and submitted it to the Government. The STP is proposed to be installed at Nambram in Pattambi municipality in about 50 cent of land. The survey for the sewerage pipeline was also completed and it is also included in the DPR.
- The Pattambi Municipal Secretary informed that the funds have been allocated for the installation of a modern slaughterhouse and assorted rendering plant but land could not be identified for the same.
- DPR for the renovation of two sanitary complexes (located in the bus stand and near Nila Hospital) and one new at Pattambi market was prepared and its tendering were also completed. Pattambi Municipal Secretary said that its implementation will be started soon.
- Environmental Engineer, KSPCB suggested to Pattambi Municipality to prepare an explanatory note on the progress of the action plan in detail and send it at the earliest.

Bhavani at Elachivazhi.

- In Pudur Panchayath, building construction for the MSW treatment plant(MCF and RRF) was completed, machineries for RRF were purchased and waiting for KSEB connection for its installation. Wet waste processing was not started, Pudur Panchayath Secretary informed.
- Harithakarmmasena collected plastic wastes from Pudur Panchayath including tribal colonies and sent them to the MSW treatment plant for proper processing.
- Pudur Panchayath Secretary said that she was joined only recently so the progress of the other actions points, where Pudur Panchayath is acting as an implementing agency ,will be sent in a written format after enquiries with the concerned personell.
- Superintending Engineer irrigation department informed that the E-flow of the Bhavani Riverhad been earlier studied by IDRB and the report will be made available for the action plan implementation.
- Water quality monitoring of Bhavani at Elachivazhi and its upstream and downstream were monitored by KSPCB and it will be continuing for the complete achievement of the action plan.
- The action points on construction of protection wall and seasonal clearance of jungle and muddies of river courses are progressing and its current status will be submitted in written format Executive Engineer Minor Irrigation informed.

The meeting concluded at 12.00 pm

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

Copy for kind information:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director NRCD
3. Additional Secretary, Ministry of Housing and Urban Affairs, Nirman Bhawan, Maulana Azad Road, New Delhi – 110011.
4. Joint Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi – 110003
5. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
6. PS to ED (Project), NMCG
7. Joint Secretary, NRCD

Minutes of the 13th meeting of the Central Monitoring Committee held on 09.06.2022 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 13th meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through video conferencing with the States on 09.06.2022 from 10.30 AM onwards in Conference Room, NMCG under the Chairmanship of Secretary, DoWR,RD&GR, Ministry of Jal Shakti (MoJS). The list of participants of NMCG, NRCD, MoHUA and CPCB present at the meeting is at ***Annexure-I.***

II. Director General, NMCG welcomed all the participants. All the States were directed to submit Monthly Progress Reports on monthly basis for monitoring the compliance. Few States have still not submitted any MPR for 2022. It was also directed to submit details with regard to action taken in compliance to the directions issued for prohibition of immersion of idols, puja materials and other items of religious offerings in rivers and other water bodies. States should submit correct and updated information in their MPR submissions. The MPR should depict clear picture with regard to the proposed projects being taken up for bridging the gap in sewage treatment, along details of proposal stage and funding source.

ED (Tech), NMCG highlighted that in September 2021 directions were issued to all States for taking steps to prevent idol immersion in rivers/ water bodies. Information have been received from Gujarat, Karnataka, Odisha, Telangana, West Bengal, Sikkim, Mizoram, Chhattisgarh and Rajasthan. Other States are requested to send details of the action taken in this regard. Further, it was informed that CPCB is coordinating with the States for submission of Action Plan for Coastal Pollution Management. As per CPCB, 5 States are yet to submit action plans – Tamil Nadu, Odisha, Gujarat, Andaman & Nicobar and Daman Diu & Dadra Nagar Haveli. Further it was informed that CPCB has observed that no common methodology has been adopted by the States for estimation of sewage generation in the States/ UTs. Infact, States are estimating sewage generation as per quantity of water being used instead of actual measurement of the drains or pumping stations.

Secretary, DoWR,RD&GR said that States/ UTs should ensure prevention of immersion idols as well as other puja materials, a comprehensive solution needs to be adopted in this regard. States were directed to take a note of the issued raised and stated that Chief Secretaries of all States would be communicated for submission of the blue print for achieving zero untreated discharge, idol immersion issue and other general & State specific issues.

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

Through a presentation, progress made by the States was highlighted and the issues related to sewage, industrial and solid waste management in the States based on the information submitted in MPRs were brought out for review.

1. **Karnataka**

Joint Director, NRCD informed that a present 573 MLD of gap exists in sewage treatment, for which 418 MLD STPs are under construction and 262 MLD STPs are proposed. However, capacity utilization of the existing STPs is 69% while in PRS it is 64% only. The data for number of water polluting industries as indicated in the MPRs were different from previous MPR submissions. State to provide steps taken with regard to 10 non-operational STPs, action taken against 7 non-compliant STPs along polluted river stretches, 158 water polluting industries not having ETPs, 25 industries reported to have non-functional ETPs, 1 non-compliant CETP connected to 5 industries and another CETP that was closed. Progress appears to be stagnant in 4 on-going STPs works at Kolar, Chikkare, Sandhur and Hassan. A brief has been submitted by the State with regard to the action taken for prohibition of immersion of idols/ other materials in rivers/ water bodies.

Secretary, DoWR, RD& GR, MoJS highlighted that as per NGT order, the States/ UTs were required to fully treat the sewage generated in the State and ensure no untreated sewage is discharged into rivers & water-bodies. Therefore the States/UTs may indicate the gap in sewage treatment capacity at present and the action proposed to bridge the gap in the shortest possible time.

Additional Chief Secretary (Urban development), Karnataka attended the meeting along with Principal Secretary (Environment), Karnataka and Member Secretary, Karnataka Pollution Control Board. It was informed that 10 STPs are non-operational due to non-completion of UGD, which shall be completed by July 2022. The on-going STP works which are held up shall be improved by July, 2022.

Member Secretary, Karnataka Pollution Control Board informed that regular review meetings were held under the chairmanship of ACS, UDD regarding STPs incremental progress from December 2021 to May 2022. Earlier the capacity utilization was 65%, now it has increased to 70%. Number of existing STPs increased from 164 to 167. 60 MLD STP at Hebbal has been refurbished and technology has been improved. The treatment capacity in the State has

been increased from 1832 MLD to 1925 MLD. Earlier there were 17 non-operational STPs, at present 10 STPs are non-operational. 7 STPs have been made operational in 3 months' time. State assured to operationalize all 10 STPs by July 2022. House service connections and underground drainage are major challenge. In this regard ACS, UDD is endeavouring with ULBs to pace up HSCs. Completion of HSCs will help to operational all 10 STPs. Earlier 58 STPs were under construction, now 69 STPs are under construction. 29 additional STPs have been proposed. 10 STPs have been moved from under construction to operational. State is gearing up its total capacity upto 3464 MLD while the estimated sewage generation in the State is 3356 MLD. 87 proposed STPs are at advanced stage, 38 DPRs submitted to Govt, 9 DPRs are in tendering, LoI has been issued for 5 DPRs and works ready to start in 7 projects.

With regard to polluted river stretches, on recommendation of NRCD, State submitted proposals of Rs.653 crore from BWSSB and Rs.114 crore from KUWS&DB to NRCD for consideration. With regard to water polluting industries in the State, it was informed that State is reconciling the data, hence there is change in number. 158 industries without ETPs majorly includes bus depots, car washing units and rice mills. 23 new ETPs are being proposed by KSRTC and ETPs are also being put up by car washing units. KSPCB is pursuing to ensure the 25 non-functional ETPs are made functional. 1 MLD CETP at tannery road was closed due to commercial/ economic reason. All the 84 industries linked to the closed CETP have been shifted to 9 CETPs operational within 22 km radius. Data regarding E-flow has been submitted in the MPR. For prohibition on immersion of Ganesha idols in the water bodies in the State, Turmeric Ganesha campaign 2021, was undertaken in the State, the initiative has received Asia Pacific Award.

Secretary, DoWR,RD&GR, MoJS acknowledged the progress of the State in various aspects and appreciated the success story of idol immersion and requested State to submit a brief. However, it was reiterated that a commitment from all the States is expected as to by when they would comply with zero untreated discharge in the States. Karnataka seems to be struggling with industrial pollution management. Firm action needs to be taken against the defaulters and industries not comply to be shut down, no middle path to be obtained. All State Government needs to show urgency in this regard as NGT timeline has already been lapsed. A clear blueprint of zero untreated discharge is expected by the next meeting.

DG, NMCG requested State to re-submit the proposal for STPs in polluted river stretches which were flagged in Parliamentary Committee's meeting as well, as the same has not been

received at NRCD. Further, it was requested that State may again participate this year in 'Catch the Rain Campaign' being under taken by Ministry of Jal Shakti.

2. Tamil Nadu

Joint Director, NRCD highlighted that State generates 3938 MLD of sewage against which 80 STPs of capacity 1746 MLD are existing, however the utilization capacity of the STPs is only 54%. 752 MLD of sewage is being treated through alternate technology and 0.659 MLD through FSTPs. At present, 1439.5 MLD of gap in sewage treatment remains. This is proposed to be addressed through 35 ongoing STPs of 890.82 MLD and 38 STPs which are at proposal stage. However capacities of the proposed STPs are not provided or are yet to be finalized by the State. There seems to be no progress in the proposed STPs since past two years. Not much incremental progress observed in 7 ongoing STPs, status needs to be updated on the same. All the 11,445 water polluting industries in the State are having ETPs and 2835.7 MLD of effluent is generated from these industries. 1497 industrial units are connected with CETPs. 1 CETP is reported to be non-complying and closure notice has been issued. 1 CETP of 3650 KLD with 76 member industries is under construction. Compliance status of the 36 existing CETPs not provided in the MPR. 4 FSTPs of 0.11 MLD are in the proposal stage from a very long time. 1 CETP of 1.5 MLD has been closed, action taken by the State with regard to the 62 member industries of the CETP to be provided. As per the MPR, Completion timeline of 1.2 MLD STP at CRRT, Nungambakkam MSTP, 1.6 MLD (STP -1) at CRRT, Todd Hunter Nagar MSTP, 30.53 MLD STP at Coimbatore – Kuruchi & Kuniyamuthur, 16 MLD STP at Karaikudi was indicated as May, 2022, State to provide update status on the same. State may take action in enhancing the quantity of treated water being re-used. State has submitted response with regard to action taken for prevention of idol immersion. Action Plan for coastal pollution management yet to be submitted to CPCB.

Additional Chief Secretary (Environment), Tamil Nadu informed that continuous review/assessment of progress is being carried out for control of pollution from sewage and industrial waste. The industries are mandated to be operational on zero liquid discharge basis.

Tamil Nadu Government has made a notification that no polluting industry would be setup in certain districts so that the water bodies which are there in the delta region including Cauvery and other rivers are protected from pollution. State accepted that there has been a delay in completion of certain STPs, but now the work is going on full swing. It was assured that

updated information in case of STPs with stagnated progress will be furnished within a week time and its progress will be taken care of.

Commissioner, Municipal Administration informed that 54.95 MLD additional STP capacities have been added since the last meeting of CMC. Similarly, capacity of solid waste processing facility has been increased to 536 TPD and quantity of waste treated is 543 TPD. State shall be expediting 4 FSTPs construction. Works under all the STPs are under progress and will be completed soon without any further delay. More number of STP/ FSTPs will be taken up under AMRUT 2.0 cities and AMRUT has been extended to cover all the ULBs, so that the gap will be covered with planning and proper execution.

Member Secretary, TNPCB informed that 11,445 water polluting industries in the State are either connected to the individual ETP or CETP and industries which are not having any ETP are closed. Out of 36 CETPs, 34 CETPs are achieving zero liquid discharge as per State mandate. One 1500 KLD CETP at Kanchipuram connected with 62 member industries was not achieving ZLD, therefore all its member industries were closed down. It was informed that State is following the idol immersion norms for more than 20 years. Idol immersion locations have been identified and restrictions have been made so as to use only natural colours and to also ban the Plaster of Paris. As per CPCB directions, necessary orders and gazetted notifications have been followed and awareness program are also conducted by the District Collectors.

DG, NMCG highlighted that as per latest MPR the existing solid waste processing facility is 3675 TPD while previously it was reported as 3821 TPD. There is difference in the capacity utilization of the same. State representative reported that some small processing facilities have been merged due to which the number have been reduced.

Joint Secretary, NRCD recommended that State should install online monitoring system to monitoring the status of existing STPs/ CETPs in the State.

3. <u>Gujarat</u>

Joint Director, NRCD informed that estimated sewage generation in the State is 4003 MLD and 73 STPs of 3485 MLD are existing. 38 under construction STPs have now been completed and are under trial run. For bridging the gap in sewage treatment capacity of 518 MLD, State proposes to install 28 STPs of 744.77 MLD. Out of 111 STPs, 40 STPs are not

complying (including 15 STPs not obtained CTE & CCA). Out of 112 under construction STPs, incremental progress of 3 STPs is held up and completion timeline of 14 STPs has been indicated as 31st May 2022. State may provide update status in this regard. There are 12,815 water polluting industries in the State and 12,700 units have installed ETPs. Quantity of effluent generated from water polluting industries needs to be provided in the MPR. State to highlight the actions taken against 149 non- complying ETPs and 16 non-complying CETPs. It was also informed that State is having adequate solid waste processing facilities. However, details of MSW treatment facility/ no of dumpsites, sanitary landfills/ legacy waste along polluted river stretches have not been separately provided in MPR. Further, it was highlighted that 646 MLD of treated waste water is being reused as per the State Government policy for reuse of "Treated Waste Water" (TWW). Action Plan of Coastal Pollution Management is yet to be submitted by the State and not much progress has been reported by the State with regard to the proposal of deep sea disposal in the MPR submission. Status of installation of OCEMS in the STPs may also be provided. State has submitted details of action taken report with regard to directions issued for prohibition of immersion of idols/ other materials in rivers/ water bodies.

ED (Tech), NMCG highlighted that almost 1300 MLD capacity of STPs are non-complying. State may identify the issues, whether the STPs are non-complying due to technical faults or due to improper O&M.

Secretary, DoWR,RD&GR, MoJS appreciated the efforts of the State for completing the construction of good number of STP projects. State was directed to indicate the timeline for completion of projects for bridging the gap in sewage treatment capacity. State was also directed to take strict action against the non-complying STPs and to take necessary action in rectifying the issues either by up-gradation of the unit or by ensuring proper O&M of the STP.

Member Secretary, Gujarat Pollution Control Board (GPCB) informed that directions and show cause notices have been issued against the non-complying STPs, ETPs and CETPs. GPCB is pursuing with the agencies for obtaining CTE/CCA for the new 15 STPs. It was also informed that with the completion of 47 ongoing STPs recently, the gap in sewage treatment capacity have been reduced. Further, 105 STPs having 1354.43 MLD total capacity are under construction and 26 new STPs of 736.27 MLD capacity are proposed, which shall bridge the remaining gap.

DG, NMCG highlighted that the progress of NRCD funded project for conservation of River Tapi is slow and the works needs to be accelerated.

4. **Andaman & Nicobar**

Joint Director, NRCD informed that sewage generation in the UT is 21.75 MLD and there exists 118 STPs of 12.143 MLD leaving a gap of 9.6 MLD. 1 FSTP of 42 KLD has been completed under Swachh Bharat Mission. The gap in sewage treatment will be addressed by 3 ongoing STPs of 9.76 MLD by March, 2023. There are 546 water polluting industries. Data with regard to effluent generation needs to be estimated and provided. MPR indicates that 12 ETPs are non-complying and show cause notices have been issued to all the 12 units, including closure directions to 2 units. Action taken status with regard to 24 non-compliant STPs needs to be provided. Action taken report with regard to the directions issued for prohibition of immersion of idols/ other materials in rivers/ water bodies has been submitted. Action Plan with regard to Coastal Pollution Management is yet to be submitted.

Commissioner (Department of Science and Technology), Andaman & Nicobar informed that out of the reported 546 water polluting industries, 2 are major polluting industries and the remaining 497 units are hotels and 41 units are automobile service centers which are categorized as industries as per the guidelines of CPCB. Out of 497 hotels, 364 are classified in green category, which do not require independent STPs. 133 hotels are in orange and red category, out of which 116 have installed STPs and 13 are under process, while 4 hotels have not initiated and notices has been issued to them. Out of 41 automobile service centres, 29 have already installed ETPs, 4 are in process and show cause notice have been issued to 8 centres. With regard to Action Plan for Coastal Pollution Management, it was informed that 2 districts have submitted their plan while 3rd district will be submitting shortly and within one month the Plan shall be finalized. It was informed that the number of non-complying STPs have been reduced from 24 to 17, as some STPs are closed and 13 are in progress and notices have been issued to the remaining 4 STPs. With regard to data of effluent generation from industries, around 2 MLD of effluent is being generated from hotels, data with regard to effluent generation from automobile centers is unavailable and shall be estimated shortly.

DG, NMCG highlighted that UT must submit the Action Plan for Coastal Pollution Management to CPCB by July, 2022 and action needs to be taken for bridging the gap of 9.67 MLD in sewage treatment.

5. Punjab

Director, NRCD informed that there are 4 polluted river stretches identified in Punjab. Total sewage generation in the State is 2118 MLD however the treatment capacity available is 1827.50 MLD which leaves a large gap of 576 MLD. Out of 131 existing STPs, 130 are operational and their utilization capacity is only 80%. Out of the 107 STPs monitored, 76 STPs are complying and 31 non-complying. 55 STPs are under-construction and 58 STPs are proposed in the State. There are 4110 water polluting industries in Punjab. 1632 industries have their own ETPs of capacity 349 MLD. 2454 industries are connected to the existing CETPs. At present, there are 6 CETPs of capacity 110.535 MLD operational, 3 CETPs have been reported to be non-compliant. 4100 TPD of solid waste is generated in the State, processing facilities for 3034 TPD available (74%) and management is done through centralized composting facility.

The major source of pollution in Satluj River is Buddha Nallah, this nallah is carrying 612 MLD of untreated sewage, 137 MLD of industrial effluents and 12 MLD of dairy wastes, all from Ludhiana town. Buddha Nalah Rejuvenation Project was launched in December, 2020 and is expected to be completed in 2 years by December, 2022. This covers two new on-going STPs of 225 MLD at Jamalpur and 60 MLD at Balloke, Ludhiana and rehabilitation of 4 existing 418 MLD STPs. However, the progress of the two new STPs seems to be very slow to achieve the timeline of December 2022. CETPs need to be regularly monitored for their performance evaluation and OCEMS are to be installed and connected to CPCB/PPCB servers. There are some unit remaining which are yet to be connected to CETPs. In case of pollution caused by dairy waste, PEDA needs to implement action plan for treatment of effluent generated and solid waste, also the River Rejuvenation Committee is to review the same. State to indicate in the MPRs the model river identified by the State along with the actions taken.

Principal Secretary (Local Government), Punjab informed that as per the plan, 93% of gap in sewage treatment capacity will be achieved by December, 2022. The remaining 7% gap will be managed under SBM 2.0, which shall be completed in another year. It was informed that Buddha Nallah project, is being monitored regularly and efforts are being put in to complete the projects as per the committed timeline. With regard to the pollution due to dairies in Buddha Nallah, it was informed that dairies will not be shifted instead State is planning to install ETPs for treating the effluent. RFP has been putted up by PEDA in public domain for

one biogas plant and another proposal will be put-up by them in near future. It was informed that 25 STPs are non-complying (data to be re-concile), as they were installed in 2005/2006 and are based on old conventional treatment technologies. With addition of chlorination tank in 3 STPs, improved parameters have been observed in the treated effluent of the 3 STPs, therefore it is proposed to install chlorination tanks in remaining STPs so as to achieve the norms. With regard to gap in solid waste management facilities, it was assured that the gap shall be addressed under SBM 2.0. It was informed that Punjab Pollution Control Board has assured that OCEMS will be connected with CPCB/PPCB in another week. 3 CETPs in Ludhiana reported to be non-compliant are treating effluent from the industries in the catchment area of Buddha Nallah. All the 3 are operational and under stabilization. Actual discharge and compliance will be reported by PPCB in a month.

Secretary, DoWR, RD &GR, MoJS appreciated that timeline for bridging the gap in sewage treatment capacity has been worked out by the State. State may take appropriate action for ensuring compliance of the STPs/ CETPs. Firm deadlines for addressing the issue of pollution from the dairies in Buddha Nallah catchment to be provided in the next meeting.

ED (Tech), NMCG remarked that 4 STPs of 418 MLD are being renovated under Buddha Nallah Project. However, the STPs are based on UASB technology and even after up-gradation of the plants in December 2022, these may not be able to achieve the desired treated water quality standards. This issue was also flagged in DO letter to Chief Secretary. The recommendations made by IIT-Roorkee may be implemented.

DG, NMCG directed State may relook on the performance of technology adopted for the 4 STPs of 418 MLD.

6. Assam

Scientist B, NRCD informed that State generates 809 MLD of sewage, however no sewage treatment capacity exists. Proposals for setting up 3 STPs of 65 MLD, 62 MLD and 60 MLD capacity at Silsakoo Beel, near Borsola Beel and Paschim Boragaon respectively under JICA funding are awaiting DEA clearance. The status remains same since long. State also needs to expedite implementation of 2 MLD capacity at Nagaon, for which work order has been issued. Details of information such as proposed FSTP, Bharalu pollution abatement works, which were reported in previous MPRs, not provided in the recent MPRs, therefore State may

ensure proper & complete information in their MPR submission. State to highlight status of proposed STPs at Mangdaloi, Tezpur, Jorhat & Silchar. As per April 2022 MPR submission, Industrial Pollution Management details are being updated by the State. Out of total municipal solid waste generation of 1212 TPD, 412.5 TPD waste is reported to be processed and around 800 TPD of solid waste remains unprocessed. State to indicate status of 38 Waste to Compost plants of 169 TPD scheduled for completion in May, 2022. State to expedite early commissioning of 1 CBWTF at Barpeta and completion of other CBWTF at Tezpur. State lacks facility for treatment of 60 TPD hazardous waste generated.

Senior Consultant, NMCG highlighted that 44 polluted river stretches have been identified in Assam (second highest), no STP is existing and no STP have been implemented in the past two years.

Secretary (Urban & Housing), Assam informed that some incremental progress has been made in the 3 STPs of 187 MLD proposed for Guwahati. DEA has submitted the proposal to JICA, after which a team of JICA has visited the sites in June, 2022 and validation from JICA is expected soon. Work for 2 MLD STP at Nagaon could not be initiated due to incessant rain. Further, it was mentioned that DPR for another 5 STPs have been submitted to CPHEEO for consideration under SBM while 2 more STPs are proposed to be constructed under State's fund.

Official from Guwahati Municipal Corporation informed that work order for setting up of one solid waste processing plant at the cost of Rs.30.9 crore has been issued on 24.05.2022 and the plant is likely to be operational by February, 2023. For issues related to the 16.19 ha uncontrolled dump site at Paschim Boragaon that was closed as per NGT Matter in OA No. 472/2018 in August, 2021. It was informed that a new land with an area of 56 bigha has been identified in Boragaon as scientific landfill, outside the eco-senzitive zone proposed for Deepor Beel. Work order has been issued for laying of Rubber Membrane and construction of embankment in this new site.

Member Secretary, Assam Pollution Control Board informed that as per the CPCB Report of 2018, there are 44 polluted river stretches identified in the State. However, as per the latest assessment of water quality conducted in the State, 35 stretches are to be de-listed from the CPCB's list of polluted river stretches of 2018. With regard to the action taken against idol immersion, it was informed that policy has been framed and circulated to District Administrations for compliance. Water quality analysis pre and post idol immersion is being

carried out and data is being generated. With regard to hazardous waste management, a Gujarat based party was invited and acceptance letter was issued. But due to low quantity of hazardous waste generation, the deal between the Gujarat based party and State Govt. of Assam was called off. At present, some quantity of hazardous waste is being stored in captive storage while some is sent to Dalmia Cement Plant for incineration. Coordination with other industries has also been made for taking care of not only hazardous waste, but pharmaceutical wastes, non-recyclable waste such as plastics and other industrial wastes generated in the State.

State Government was advised to take precaution that incineration of hazardous waste in the cement plants does not lead to air pollution. The State Govt. assured that this has been taken care of and emissions are within the prescribed standards of CPCB.

Joint Adviser, CPHEEO informed that 2-3 proposals have been received from the State, however, as the proposals were not received through the proper route, the State was directed to submit the proposal again through SLTC.

Secretary, DoWR, RD&GR, MoJS raised concern over non-existence of any sewage treatment facility in the State. It was directed that proposed STP plans may be approved at the earliest. A thorough review of the sewage generation in the State, town-wise sewage generation and classifying which towns to be considered either under SBM or AMRUT-II or NRCP to be done at NMCG. Post the review a team from NRCD should visit the State.

7. **Sikkim**

Scientist B, NRCD informed that total sewage generation in the State is 47.68 MLD (including rural), against which treatment capacity of 22.5 MLD exists. Gap of 28.9 MLD exists in sewage treatment capacity in the rural areas. Capacity utilization of the STPs is 54%, latest status of house connections to be provided by the State. State to expedite implementation of 3.25 MLD STP at Gangtok Zone III having 67 % progress with completion timeline of March 2023. State to expedite acquisition of land for 3.63 MLD STP at Namchi and 1.6 MLD STP at Jorethang. State to early materialize the proposals for 1.5 MLD STP at Rabong and 1 MLD STP at Soreng. State may also provide status with regard to progress of implementation of one project under NRCP at Gangtok Zone I. Status of implementation of 0.02 MLD ETP to be provided. State may indicate plan to bridge the gap of solid waste management which is 28.1 TPD.

Additional PCCF (Environment), Sikkim along with Secretary (UDD), Sikkim and Member Secretary, Sikkim Pollution Control Board and other officials attended

Secretary (UDD), Sikkim informed that the delay in implementation of 3.25 MLD STP at Gangtok Zone III was mainly due to land issue which has now been resolved. The overall progress of the ongoing project at Zone I under NRCP is now 30% complete and NRCD is requested to release the next installment of funds for smooth implementation and to meet the project completion timeline of September, 2023.

Member Secretary, Sikkim Pollution Control Board informed that works of 0.02 MLD ETP has been completed however OCEMS is yet to be connected to CPCB server.

Special Secretary (UDD), Sikkim informed that funds have been transferred for setting up of decentralized solid waste processing facilities such as RRCs, MRCs, etc in all ULBs. Proposal for approval of EOI for preparation of DPR for bioremediation of legacy waste is under consideration. Waste management agencies have been approached for recycling of plastic wastes.

8. Jammu & Kashmir

Director, NRCD informed that there are 9 polluted river stretches identified in J&K. Total sewage generation in the UT is 523 MLD, sewage treatment capacity of 139.40 MLD exists, leaving a gap of 394 MLD in sewage treatment. Out of the 15 existing STPs, 14 are operational and their utilization capacity is 88.18 MLD. 14 STPs are reported to be complying with the norms and one STP is under refurbishment. 10 STPs of 92.01 MLD are under construction (5 STPs in Jammu region & 5 STPs in Kashmir region) and 27 STPs of 123 MLD are proposed. The major issue is big gap of 384 MLD sewage treatment between sewage generation (523 MLD) and treatment capacity available. Even after considering the STPs in under construction and proposal stage, there remains a gap of 169 MLD. Another issue is the low capacity utilization of existing STP (88.18 MLD against installed of 139.40 MLD). To accomplish this, house service connection needs to be expedited for optimal utilization. Progress of Devika river project under NRCP and 10 under construction STPs to be expedited so as to meet the completion target.

There are 282 water polluting industries in J&K (178 in Jammu & 104 in Kashmir region). 242 industries have functional ETPs. Closure orders have been issued to 11 non-complying industries and closure proceeding have been initiated for 29 industries. There are 6 CETPs of 4.05 MLD, 5 CETPs are under construction and 10 CETPs are in proposal stage. There is a

big gap in solid waste management, total solid waste generation is 1498 TPD and processing facilities are available for 84 TPD of waste and 520 TPD of solid waste is dumped at landfill site at Achan in Srinagar. A waste to energy plant of capacity 5 MW has been proposed since long for solid waste management in Srinagar. Solid Waste Management facilities to be expedited to minimize the gap especially the Waste to Energy plant at Srinagar.

Chief Engineer (UED), J&K informed that 60 MLD STP at Noormagh will be commissioned by December 2022 and STP at Belicharana is 100% complete however some trunk sewer is under construction and is expected to be completed this year. Gap of 384 MLD in sewage generation is primarily because of the Srinagar and Jammu main projects of sewerage zonation. For which a DPR has been formulated for Srinagar city of 125 MLD and for Jammu city of 75 MLD, which is expected to be funded by JICA. The modality has been submitted to Jal Shakti (NRCP).

Commissioner (Environment), J&K informed that works of Banganga project started as money investment has been done from UT Capex. Another under construction STPs of 92.23 MLD will be completed by March, 2023 and 60 MLD STP at Palpura will be completed by December, 2022. There will be enhancement of 40 MLD in utilization capacity of the STPs by March, 2023 as works of house connections and some other missing parts have been taken up and are under progress. With regard to Municipal Solid Waste, 100% door to door collection has already been started in all the wards, around 60% of the segregation has also been accomplished. 100 % segregation will be achieved by December 2022/ January, 2023. Two major projects for Jammu for handling the solid waste processing, one at Bhalwal and other at Bhandurak are already commissioned. Rates are yet to be finalized by the authority for Waste to Energy project.

9. Maharashtra

Director, NRCD informed that there are 53 polluted river stretches identified in the State. Total sewage generation in the State is estimated at 9757 MLD which includes nearly 2500 MLD of sewage from Mumbai city. Sewage treatment capacity exists for 7747 MLD with 144 STPs installed and their utilization is 4326.8 MLD. Out of 144 STPs, 7 STPs of total capacity 227.56 MLD were reported to be non-operational. State Government was asked to take necessary action on priority to expedite commissioning of these STPs. Out of reported 70 non-compliant STPs, 4 major STPs of 757 MLD, 380 MLD, 280 MLD & 280 MLD are in

Mumbai. Maharashtra PCB to ensure proper functioning of all STPs in the State to meet the prescribed norms.

With regard to polluted river stretches, to address the said gap of 1023.26 MLD between sewage generation and treatment, 78 STPs of total capacity 1279.70 MLD are proposed in the identified towns. Out of it, 29 STPs of total capacity 396.6 MLD were reported to be under construction and scheduled for completion by December, 2021. However, there being minimal progress during last 3-4 months on these STPs, completion target has been revised to January-December, 2022. State Government to firm up the respective time lines vis-à-vis the actual progress on site. In case of remaining 49 STPs, State Government to inform the details in terms of STPs under tendering process, awaiting administrative/technical sanction and/or proposal yet under formulation.

Additional Commissioner (BMC) raised the issue of prescribed norms for discharge of treated effluent and informed that many of the STPs in Mumbai were complying with the discharge standards notified by MoEF&CC and require up-gradation to meet the stringent norms directed by NGT. Further, it was informed that work orders have been issued for new STPs of 2500 MLD for Mumbai, which shall be completed in 3-4 years. Tenders floated for bioremediation of aerated lagoons and work will start post monsoon. Work has been awarded for treatment of pollution along 4 polluted river stretches. IITs have been engaged for taking up work of treatment in major nallah and DPR shall be submitted shortly.

Secretary, DoWR, RD&GR, MoJS directed State to provide the above said information and their updated status in their MPR submissions.

Joint Secretary (UDD), Maharashtra informed that out of 2010 MLD gap in sewage treatment, 700 MLD in Mumbai is being taken care, 120 MLD is under implementation and balance 1200 MLD is proposed to be taken under AMRUT 2.0.

Secretary, DoWR, RD&GR, Ministry of Jal Shakti expressed concern over absence of senior officers of the State Govt not attending the meeting, and desired that all concerned organizations/officers in the State, responsible for sewage management and/or other directions involved, may be asked to attend the meeting for providing complete status.

10. Odisha

Director, NRCD informed that as per the last MPR received from the State, total sewage generation in the State is estimated at 880 MLD. However, in case of six major towns in the State (Bhubaneswar, Cuttack, Puri, Sambalpur, Rourkela and Talcher) covering 41% of the State population, it is reported to be 302 MLD. It was further informed that the issue was deliberated in the last CMC meeting also. In response, the State Govt has provided clarifications which would be taken up separately after detailed examination in house. It was informed that against total sewage generation of 302 MLD from six major towns, sewage treatment capacity created so far is 282.5 MLD with 11 STPs installed in these towns. Meanwhile, with more sewage treatment of 88 MLD and the FSTPs planned for these towns, there would be no gap between sewage generation and treatment. However, the same would not hold good for the State as a whole. Two STPs of total capacity 88 MLD were under construction from the resources mobilized by the State. These included STPs of 40 MLD at Dhanupalli, Sambalpur and one STP of 48 MLD at Rokat in Bhubaneswar. These STPs were earlier scheduled for completion by December, 2021, but now the revised target is June, 2022 respectively. The State Government was asked to expedite networking and/or house service connections to ensure adequate inflow to these STPs for their optimal utilization. Status with regard to bio-remediation not provided in the MPR. State is yet to submit Action Plan for Coastal Pollution Management. With regard to Kathajodi river (in its Cuttack stretch), the model river, State Government to indicate action taken and the achievements made in the MPRs.

Special Secretary (E&F), Odisha along with Additional Secretary (UDD), Odisha & Member Secretary, Odisha Pollution Control Board attended the meeting.

Additional Secretary (UDD), Odisha informed for treatment of grey water in the State, 119 FSTPs are proposed to cover all 114 ULBs in the State. Out of these, 104 FSTPs are operational in major ULBs/towns with the installed capacity of 1807 KLD. In the remaining ULBs, FSTPs of total capacity 230 KLD shall be completed by July,2022. With regard to solid waste management, it was informed that the State has adopted decentralized system of aerobic decomposting and engaged community partners.

Secretary, DoWR, RD&GR, Ministry of Jal Shakti appreciated the efforts adopted by the State and directed that a team comprising of officials from SBM 2.0, NMCG/NRCD may visit the State for reviewing the matter and verify any deficiency.

Member Secretary, Odisha Pollution Control Board informed that Action Plan for Coastal Pollution Management has been prepared and circulated to other departments for comments/ observations. The same shall be submitted to CPCB by July, 2022. Action taken status with regard to prevention of idol immersion has been submitted. There are 1264 water polluting industries in the State, of which 1233 are having ETPs, closure directions issued to remaining 31 industries. Of the 72 industries inspected recently, 11 were found to be non-complying and show cause notices have been issued to them. With regard to Kathajodi river, 82 MLD of sewage is generated in the catchment area of the river, State has installed 3 STPs of 85 MLD, however utilization capacity is 52 MLD at present and house sewer connections will be addressed within a year.

11. Tripura

Director, NRCD informed that out of total sewage generation of 82.4 MLD in the State, sewage treatment capacity exists only for 8.72 MLD (8 MLD STP & 720 KLD FSTP at Agartala), and thus leaving the huge gap of 73.68 MLD in sewage treatment which needs to be addressed urgently. Low capacity utilization of existing STP of 8 MLD due to incomplete laterals/house service connections and slow progress on STP of 8 MLD (under construction) was also highlighted. Status with regard to bio-remediation remains same. There is gap in solid waste generated and processed.

Secretary (Urban Development), Tripura informed that capacity of the existing 8 MLD STP is being increased by utilizing cess-pools for Agartala and surrounding areas. House sewer connections will be taken up in AMRUT 2. Construction of new 8 MLD STP was delayed due to funding issue, the same is being taken up under State funding now and shall be completed within a year. For remaining 19 ULBs, DPR for FSTPs of 600 KLD has been prepared and is under tendering. Ministry of Jal Shakti was requested if funding for the same can be requested under AMRUT from Ministry of Housing & Urban Affairs. Work has been awarded for bio-remediation of 5 drains to IIT and shall be initiated post monsoon in August, 2022. DPRs for remaining drains are ready and shall be implemented after positive results are received from the pilot project. 17 tertiary treatment plants for solid waste processing is in advance stage and shall be completed by December 2022 for bridging the gap.

Secretary, DoWR, RD&GR, Ministry of Jal Shakti directed State to pursue funding for the FSTPs and to intimidated in the next meeting of CMC firm timelines for tackling the untreated sewage in the State.

12. Goa

Director, NRCD informed that 9 STPs of 78.35 MLD are installed in the State against total sewage generation of 112.53 MLD (based on actual assessment of waste water generation mainly from urban areas). All the STPs are complying and operational. 5 STPs of total capacity 35.5 MLD are under construction from the resources mobilized by the State. These are reported to be nearing completion in terms of civil works and were expected to be completed by May 2022. State directed to expedite completion of the ongoing STP projects. There is gap in solid waste processing facilities in the State. Regarding action plans for coastal areas/towns in the State, it was informed that CPCB has examined the same and returned to the State Government for implementation after approval by the River Rejuvenation Committee in the State.

Director (Environment) Goa informed that 9 STPs are operational and 4 STPs are under construction. 2 STPs are expected to be completed by October 2022 and 1 STP by December 2022. 3 STPs are proposed and land issues for the same are being sorted out by the State Government. Further, it was informed that 250 TPD solid waste processing facility at Saligao has been commissioned and made fully operational. The 100 TPD plant at Cacora will be completed by June 2022, trial run for the same has been started. 250 TPD Plant at Bainguinim is on hold due to court stay. Plant at Verna has started trial runs and land issue is to be cleared for Bicholim plant.

Secretary, DoWR, RD&GR, Ministry of Jal Shakti raised concern over extension of completion timeline of the ongoing STP projects and informed that the issues will be highlighted to the Chief Secretary for resolving the land issues at the earliest.

13. Lakshadweep

Scientist E, NRCD highlighted that physical progress and scheduled completion timeline of STP at INS needs to be indicated and status of DPR for 4.5 KLD FSTP at Kavaratti is not reflected.

Official from UT Administration informed that 40% physical progress achieved with regard to the STP and due to monsoon season, movement of material is restricted till September end. Further, the STP is expected to be completed by December, 2022. The DPR for 4.5 KLD FSTP at Kavaratti was sent to NIT Calicut, observations have been received. Recommendation has been received that the cost of Rs. 2 crore have been highlighted to be on higher side as per various units and may not be viable for low population.

DG, NMCG recommended to explore any other cost effective treatment.

14. <u>Kerala</u>

Scientist E, NRCD highlighted that State needs to expedite the house sewer connections for 107 MLD STP at Muthathara, as the capacity utilization is 60% only. There is a gap in sewage treatment of 118.524 MLD in urban areas. State to provide action taken status against 1 non-operational CETP (0.25 MLD) & its member industries and 1 non-compliant CETP (1.6 MLD). No of water polluting industries in the State may be verified. There is gap in solid waste processing facility.

Secretary, DoWR, RD&GR, MoJS highlighted that Kerala has a different geographical and socio-economic set up as compared to other States. Therefore State must indicate gap in sewage treatment in rural areas and should plan to bridge the gap in rural areas as well. State was directed to provide status on action taken for prevention of idol immersion in rivers/ water bodies.

ACS (Environment), Kerala informed that out of the 21 polluted river stretches identified in the State, only one river stretch Karmana is categorized in Priority – I and rest stretches are categorized as Priority – IV and V. Data for addressing the issue of pollution in Priority – I river has already been provided by the State. There is no issue of idol immersion in the State. It was justified that the no of water polluting industries in the State was accurate and the no of total industries in the State may also include MSME industries. With regard to the gap in sewage treatment of 118 MLD, it was informed that 59 STPs of 67 MLD are proposed & DPRs are being prepared and 11STPs of 22 MLD are under construction.

DG NMCG highlighted that a number of queries are being received with regard to pollution in the catchment area of River Pamba, probably during Sabrimala season and confirmed

about the status of existing STP. State was directed to look into the matter and submit proposal for consideration.

ACS (LSG), Kerala informed that a strong system is in place for management of solid waste in the State. Individual households have adequate space in Kerala to manage their organic and liquid waste in their premises. Local government have been supported with composting units, institutional support and innoculum enterprises have been set up to address the issue.

Local Self Governments both urban & rural have come up with Action Plan for waste management, particularly for solid waste (inorganic and non-biodegradable). 30,000 Harita Karma sewa have been brought together clustered as enterprises. They are provided vehicles/ facilities and are supported by local governments. As per the feedback, household collection scenario is better than institution collection. Sufficient Material Collection facilities have been installed for segregation of solid waste. However, at few municipalities due to land issue/ lack of interest by LSG, Material Collection facilities could not be set up. These municipalities have been directed to set up the facilities. Resource Recovery Facility has been installed at least one per block and 80% municipalities have the facility. Private players are being engaged for MSW management. The Clean Kerala Company has been set up for collection of segregated municipal waste from the municipalities and for forward linkages. A guideline for domestic hazardous waste management is being prepared. There is no sanitary landfill site at present and zonal landfills sites are being identified. A World Bank project for MSW management covering 93 municipalities is coming up.

Official from Kerala Water Authority informed that at present the 107 MLD STP is being utilized at only 60 MLD. Works are in progress for augmenting the flow by 20.4 MLD within 3 months and works are in progress in 19 wards on priority and is expected to be completely shortly.

Due to limited time constrain, Secretary, DoWR, RD&GR, MoJs suggested State to provide comprehensive detail regarding SWM in their MPR submissions. Further, it was directed to update details with regard to sewage management both in urban and rural areas of the State in their MPR submissions so as to review the progress in next meeting.

15. Puducherry

Scientist E, NRCD highlighted that there exists a gap of 23.5 MLD in sewage treatment and 2 STPs of 3 MLD each are proposed. Status of the proposed STPs remains same and needs to

be expedited. EoI status for Selection of Consultant for Formulation of DPR for the Underground Sewerage scheme including STP for left out Urban and Peri Urban areas of Puducherry and New Project for the entire region of Karaikal, Mahe and Yanam of U.T. of Puducherry may be expedited and completion timeline be incorporated in MPR submission. State may indicate the measures taken for 2 non-operational STPs. Individual capacity utilization and compliance of existing STPs needs to be reported in MPRs. Action taken against 4 non- complying ETPs be indicated. Present solid waste processing capacity is 18% and remaining 333 TPD is unprocessed. State to submit the action taken with regard to immersion of idols and other items in rivers & other water bodies.

Secretary (Environment), Puducherry informed that with regard to action plan for coastal management, as per directions of CPCB, MoU to be signed with NCCR for monitoring the sea water quality. A RTWQMS has been installed and monitoring data is being generated for coastal regions. Out of 4, one ETP is now meeting the norms and remaining 3 ETPs have requested 3 months' time for compliance; thereafter action will be taken. With regard to development of Biodiversity park, it was informed that fencing and sign board was put up and Forest Department was notify it as a Biodiversity park through and the encroachment issues are being taken up by PWD and Revenue Department. Steps are being taken by UT for prevention of immersion of idols/ other materials in rivers/ water bodies as per the directions of CPCB. The manufacturing units are being inspected to ensure no prohibited materials are used in the manufacture of idols and public notices are being released in newspapers along with trainings.

Officials from PWD, Puducherry informed that the gap of 23.5 MLD in sewage treatment is due lack of UGD at Karaikal, Magaon and Enam. In Karaikal only onsite sanitation, soak pit and septic tank exists for sewage treatment. DPR will be ready soon for 6 MLD STPs.

Further, on enquire by DG, NMCG, it was reported generation in Karaikal is 23 MLD, for which 2 STPs of 3 MLD each have been proposed. As the 2 STPs shall not be able to bridge the gap, therefore an integrated system is being planned for both Puducherry and Karaikal on priority basis.

Director (LAD), Puducherry reported that Yana generates 20 MT of solid waste and the setting up of solid waste processing facility has been completed for treatment. Karaikal generates 100-120 MT of solid waste for which no facility exists and tenders have been floated for setting up of solid waste processing facility to treat the entire waste generated in

the region. Puduchery rural area generates 150 MT of solid waste, tenders were floated for setting up of solid waste processing facility, bidders identified and financials will be opened within a week. For treatment of the municipal waste of 360 MT generated from Puducherry, tenders have been floated for setting up of solid waste processing facility. Work for bio-mining of existing sanitary landfill has been awarded and completion is expected by December end 2022. Few sanitation parks for segregation and disposal of single use plastics are in place. 2 TPD solid waste is generated in Mahe, the wet waste is being composted care by the households themselves.

16. Telangana

Managing Director, HMWSSB informed that 1659 MLD of sewage is generated in Hyderabad city where Musi is the polluted river stretch. 772 MLD (46.4%) of sewage is treated and O&M for 355 MLD STPs are going on. OCEMS have been installed on all STPs. 31 new STP of 1259 MLD were proposed to be taken up however due to land issues, it has been reduced to 26, as 5 of the STPs have been cascaded into bigger STPs. With completion of these STP by March 2023, the treatment capacity will be 2031 MLD in Hyderabad. Work in progress for 18 STPs of 1090 MLD, work for 26 STPs held up due to litigation issues. Further, works of 116 MLD STPs are also held up due to apprehension by the locals. Works on 320 MLD STPs at Nabol, 212 MLD STP at Amberpet, 133 MLD at Fatenagar are going at fast pace and expected completion by February, 2023 while smaller STP are expected to be completed by October to December 2022. Installation of FSTPs has also been taken up. 79 septic tanks have been brought in to network so that septage are not directly let out into the lakes or rivers. About 65 MLD of treated waste water is reused. Industries are also encouraged to utilize treated waste water.

Member Secretary, Telangana Pollution Control Board informed that outside Hyderabad, 72 STPs are required, of which DPRs for 42 STPs are ready and administrative approval is awaited for STPs of 215.17 MLD capacity. DPRs are under preparation for 30 STPs of 99.85 MLD. 10414 TPD of solid waste is being generated in the State. Hyderabad GHMC Authority having treatment capacity of 7000 TPD is able to treat the entire quantum generated in Hyderabad. 4316 TPD of solid waste is generated in 141 municipals, of which 1870 TPD solid waste is treated. For the gap in treatment of 2441 TPD solid waste, tenders have been called. For legacy waste, 123 ULBs were grouped in 9 clusters and tenders were

called. Entire works is expected to be started. Outside GHMC, 118639 MT of legacy waste works has been completed.

Secretary, DoWR, RD&GR acknowledged the submission made by the State that sufficient sewage treatment capacity will be created by March 2023 in Hyderabad. However, State was directed to provide timelines and status for the already prepared 42 DPRs and 30 to be prepared DPRs in the next meeting of CMC.

17. <u>Andhra Pradesh</u>

Scientist E, NRCD highlighted that 516.65 MLD of STPs are existing in the State and only 382.81 MLD is being utilized.

Secretary, DoWR, RD&GR, MoJS requested State to indicate the action proposed for bridging the gap in sewage treatment of more than 900 MLD at present.

Special Chief Secretary (Municipal Administration), Andhra Pradesh informed that 2 WTE projects of 1200 TPD at Guntur and 900 TPD at Vishakapatnam have been completed. 28 Waste to Compost projects have been completed and another 17 are under construction. For integrated solid waste management project, 37 projects have been awarded and tenders are going to be invited for 15 projects. These projects would cover 116 ULBs. State has started 100% door to door collection over the year, deploying more than 2500 diesel autos, user charge collection has been introduced that are used for running these autos. To ensure 100% segregation at source, dustbins have been distributed to all houses along with IEC activities. With regard to legacy waste, 2 projects have already been completed, 1 project is in progress, work order issued for 4 projects, 6 projects are in tender stage and tenders to be called for 19 projects.

With regard to the STPs, it was informed that 44 STPs of 516 MLD are operational in the State, 32 STPs are under progress and work of another 30 STPs will start in July, 2022. The 62 STPs will cover 533 MLD. For bridging the gap of 500 MLD in sewage treatment, DPRs are prepared and submitted to CPHEEO for approval. The tenders are expected to be called in July, 2022. This will cover 1500 MLD considering the future projection in the State. Further, 64 FSTPs of 915 KLD are under construction. . The land issue at Nellore has been resolved. Utilization capacities of the 4 STPs were reported to be 0% due to change in site and lack of House Service Connection. Of which 11 FSTPs had to be retendered and DPRs for 10 FSTPs

are prepared and tendering would be conducted in July. 2 FSTP have been inaugurated and another 4 are ready for inauguration.

State has initiated Mission Godavari wherein a 55 MLD STP costing around Rs. 88 crores is to be set up. Cleaning of floating solids on Godavari and beautification projects have been taken up at Rs.120 crores.

Secretary, DoWR, RD&GR, MoJS appreciated the response, however it was pointed out that in many STPs no progress is shown from Nov 2021 to April 2022. Further, it was directed to send updated MPR capturing the correct progress of the projects.

DG, NMCG highlighted that updated status of the STPs is not reported in the MPR submission (April 2022) made by the State. It was pointed out that the progress since November 2021 at Kalahasti progress is reported as 40%, at Madanpalli progress reported as 20%, Kurnool progress is stuck at 80% and 0% progress reported for Kadappa, Ananthapuram & Dharmavaram. Further it was highlighted that NRCD has approved the project for Godavari at Rajahmundry for which SNA had to be opened for transferring funds, State responded that SNA has been opened and State would confirm the details.

18. <u>Mizoram</u>

Scientist B, NRCD informed that against the total sewage generation of 68 MLD in the State, treatment capacity of about 10.8 MLD exists (10 MLD capacity STP and 0.8 MLD being treated through biodigester), leaving a gap of about 57 MLD in sewage treatment. The existing STP is underutilized and only 0.6 MLD of sewage is treated. So far, out of 19000 households only 4136 are connected to the STP while laying of sewerage network is 76% complete. Implementation works are reported to be on hold due to exhaustion of funds. State Government is to mention firm timelines for completion of the remaining works of this project in MPR. No progress in implementation of action plan for Tier-II towns. Out of total solid waste generation of 348 TPD in the State, a treatment capacity of 199 TPD exists.

Official from the State informed that the project for pending connections to the 10 MLD STP at Aizawl was under taken under North Eastern Region Capital Cities Development Programme under MoHUA which has been concluded in March, 2022. Later, Joint Secretary, MoHUA visited the State and took a review on the pending project. Subsequently, a report was submitted to Ministry of Finance for further consideration of additional fund to complete the remaining works of the project.

19. Manipur

Scientist B, NRCD highlighted that no MPR has been received from the State since January, 2022, therefore the status of the projects remain the same as discussed in the 12th meeting of CMC held on 4th February 2022. State may indicate the following:

- Action proposed for bridging the gap of 88 MLD in sewage treatment.
- Status of house sewer connections to the existing 27 MLD STP.
- Status of implementation of 1 MLD and 16 MLD capacity STPs at Imphal under NRCP having completion timeline of March, 2022.
- Status of the proposal for setting up 49 MLD capacity STP at Imphal under NDB funding.
- Information regarding total effluent generation from 34 water polluting industries in the State and its management.
- Status of rectification process of the non-operational 400 KLD CETP connected to 5 units of water polluting industries.

Additional Chief Secretary (Environment), Manipur informed that remaining house connections to the existing 27 MLD STP at Imphal will be completed by September 2022 and full utilization capacity is expected to be achieved by December, 2022. STPs of 1 MLD (53%) and 16MLD (91%) at Imphal are expected to be completed by December, 2022. Recently tender was floated and approval of NIT has been given for 49 MLD STP proposed under NDB funding. With regard to the industrial pollution, it was informed that one new CETP is proposed and Rs.1.77 crore is yet to be sanctioned by State Finance Department for the up-gradation of the non-functional 400 KLD CETP. However, the concerned Department in the State is pursuing the matter so that the project gets sanctioned in this current Financial Year. It was informed that 100% door to door collection of solid waste has been carried out in all 27 ULBs in the State. However, ward-wise segregation is 90% complete and expected to achieve 100% segregation in next two months. A treatment plant exists at Lamding. For other areas DPRs for six clusters is under preparation and expected to complete by June, 2022 thereafter the DPR will be submitted to Ministry for funding.

Further, State official informed that for installation of ETPs in all 44 health facilities in the State, Rs.1.78 crore will be required, out of which Rs.0.50 crore has been allocated in the State's Budget Plan for FY 2022-23.

Secretary, DoWR, RD&GR, MoJS informed that issues highlighted in the meeting will be flagged to the Chief Secretaries of the States/UTs through DO letters and it is expected that the proposals requiring sanction from the State Finance Department shall be released for taking up the project.

20. Meghalaya

Scientist B, NRCD informed that out of 75 MLD of sewage generated in the State, treatment capacity of only 2.6 MLD exists and 72.4 MLD of sewage remains untreated. State needs to expedite the progress of implementation of 5 onsite STPs of 13.42 MLD capacity (40% complete) and one 0.105 MLD capacity which is under tendering at Shillong. State to expedite the progress of implementation of 0.35 MLD FSTP (75% complete) at Shillong and another 50 KLD capacity FSTP which is under tendering at Jowai. State to indicate reason for non-operation of the 0.04 MLD FSTP at Khliehriat even after one year of its completion. Status of work for In-Situ bio-remediation of Umkhrah and Umshyrpi rivers at Shillong needs to be provided. State may indicate status and timeline of completion of 5 ETPs of 0.002 MLD each at Tura. One unit of 2 TPD capacity Waste to Recovery Centre at Shillong could not be made operational even after one year of its completion. Status on action taken for rejuvenation of model river Nonbah to be provided.

Secretary, DoWR, RD&GR, MoJS highlighted that the data with regard to sewage generation in hilly regions may be worked out.

Secretary (Environment), Meghalaya attended the meeting along with Secretary (Urban) and other State officials.

Joint Director (Urban), Meghalaya informed that the estimated sewage generation reported in the MPR is slightly on higher side and the same will be re-assessed. Further it was informed that considering the existing treatment capacity (2.6 MLD) and the facilities which are under implementation, the total treatment capacity in the State will be 16.46 MLD. However, still a huge gap of treatment capacity will exist. In order to bridge this gap, a sanitation acion plan under Swacch Bharat Mission (SBM-II) is under preparation in which septage treatment in all towns will be taken up. Regarding the utilization capacity of the recently completed 115 KLD capacity FSTP at Shillong, it was informed that 30 KLD of septage is now being treated at this FSTP. It was informed that the ongoing projects for setting up 5 onsite STPs (13.42 MLD total capacity) and 0.35 MLD FSTP at Shillong are likely to be completed by March,

2023. Similarly, for 50 KLD FSTP at Jowai, work order has been issued and expected to be completed in March, 2023.

The current utilization capacity of 170 TPD Waste to Compost facility at Shillong is 40 TPD. For the yet to be made operational 2 TPD capacity Waste to Recovery Centre at Shillong which has been constructed for more than a year now, the State informed that training of operator has just been recently completed and the plant will be made operational within a month's time. Further, it has been mentioned that Waste to compost facilities of 50 TPD at Tura and 15 TPD at Nongpoh and Composting plant of 0.1 TPD capacity at Khliehriat will be made operational shortly. On completion of these ongoing projects, the State will have a solid waste treatment capacity of 245 TPD.

With regard to the 5 ETPs of 0.002 MLD each which were reported to be under construction at Tura, the State informed that projects for 2 ETPs were cancelled while works for construction of the remaining 3 ETPs are ongoing. It was further informed that works for flood plain zonation and implementation of action plan for rejuvenation of model river Nonbah have already initiated.

21. <u>Nagaland</u>

No Representative from the State of Nagaland was present in the meeting.

22. <u>Daman, Diu & Dadra Nagar Haveli</u>

Scientist B, NRCD highlighted that MPRs were not received from the UT since November, 2021. Therefore UT was requested to indicate update status on following points:

- Present utilization capacity of 13 MLD STP at Silvassa and status of house connections to the STP.
- Status of implementation of 16 MLD STP at Nani Daman and 7 MLD STP at Diu
- Status of proposed standalone modular STPs in 04 panchyats including Damanwada, Magarwada, Pariyari and Patlara.
- Status of implementation of action plan for coastal management.

Engineer, DDDNH Pollution Committee informed that out of 24105 households, 6130 have been connected to the 13 MLD capacity STP at Silvassa. Further notices to 7383 households have been issued for connection to the sewerage network. Due to road construction being

carried out by PWD at Dadra Nagar Haveli, works for house connections have been affected. Work for issuing new notices will be started once the permission for road cutting is obtained. With regard to implementation of 16 MLD STP at Nani Daman, topographical survey has been completed and DPR is under preparation by PWD and Daman District Council. Topographical survey completed for stand alone STPs proposed at 4 panchyats including Damanwada, Magarwada, Pariyari and Patlara and DPRs are being prepared by District Panchayats. It was submitted that the updated status of the above proposals will be given in the next MPR.

Secretary, DoWR, RD&GR, MoJS raised serious concern over the delay in implementation of the 16 MLD STP proposed at Nani Daman as the status remains the same since past two years.

23. <u>Haryana</u>

Director (Technical), NMCG informed that sufficient sewage treatment capacity is available in Haryana. There exists sewage treatment capacity of 1834 MLD against the sewage generation of 1495 MLD. In Yamuna basin, there is sewage generation of 1086 MLD for which 59 STPs of 1074 MLD are existing. Main issue in the State remains non-compliance of the existing STPs. Out of these 59 STPs, 32 STPs are reported to be non-complying and discharge from these STPs are also affecting the water quality in Delhi region. The STPs from Yamunanagar, Karnal, Panipat and Sonepat are discharging upstream of Wazirabad barrage which is critical to Delhi. The STP's discharge from Jhajjar, Bahadurgarh and Gurugram are discharged in Najafgarh drain via Mungespur drain i.e. downstream of Wazirabad barrage in Delhi. The STP's discharge from Faridabad and Palwal and Nuh are discharged into Yamuna river downstream of Okhla, Delhi, which is critical to Mathura and Vrindavan. The progress of under constructions of two STPs in Faridabad scheduled for completion in November 2022 is not satisfactory.

DG, NMCG raised concern over the issue of coordination of multiple agencies involved in operation of the STPs.

ACS (Environment), Haryana informed that the issue of non compliance is due to revision of norms upto 1/3rd of previous norms in 2020. Due to covid-19 issue, all STPs could not be upgraded to new norms but these are under process. The construction of two STP projects is constructed by MC, Faridabad and Chief Secretary is also reviewing regularly these projects

to complete the projects on time. In Haryana, 63 STPs are being upgraded as per new norms, upgradation of 28 STPs is in progress and upgradation of 33 STPs is under tendering as per new norms. There is no issue of coordination of different agencies (MC, HSVP, ULB and PHED). It was also apprised that during the review meeting of projects costing more than Rs 100 crore, Chief Minister, Haryana instructed that monitoring of all STPs projects will be done by PHED, Haryana. A real time monitoring portal will be prepared for monitoring purpose and access will be shared with NMCG. Idol immersion in river is banned in Haryana.

ED (Tech), NMCG cited examples of Panipat and Yamunanagar where issues of coordination among different departments exist. In Panipat, drain carrying excess sewage is managed by Irrigation department, underutilized STP is managed by PHED and similarly in Yamunanagar, there is Tejab Nala carrying toxic waste and there is underutilized Radaur road STP. So there is a definite coordination issues between departments and ultimately Yamuna river is victim. Three STPs are non-complying in FC norms. It was requested to submit detailed report on action taken for prevention of immersion of idols in rivers/ water bodies.

ACS (Environment), Haryana informed that drains near industrial areas in Yamunanagar also carry industrial effluent and it becomes difficult to treat the mixed effluent in the STPs. Though effluent treatment is a domain of industrial department however due to non-availability of land, PHED (Haryana) have engaged IIT Roorkee for preparation of DPR for the same.

Member Secretary, Haryana Pollution Control Board informed that most of the STPs are not complying with FC norms as in 2021 FC parameter in outlet of the STPs was notified as less than 100/MPN. To complying with the norms, chlorination is being done in STPs and other measures are being installed.

DG, NMCG expressed all coordination issues may be solved by next CMC review meetings and requested State to closely monitor the ongoing STP works so as to achieve the committed completion timelines.

24. <u>Delhi</u>

Director (Technical), NMCG informed that the estimated sewage generation in Delhi is 3491 MLD for which 34 STPs of 2,828 MLD capacity are in operation as per MPR of April 2022. The utilization capacity is reported to be 2,447 MLD (88%). In March 2022, only 8 STPs out

of 34 STPs are reported to be complying. In latest MPR of May 2022 received on 08.06.2022, 5 STPs are non-complying but 13 STPs are not meeting the design norms also. The issue is that number of non-complying of STPs as per design norms have been increased now. For example, Kondli Ph-IV STP is giving TSS- 80 mg/l against design norms of TSS-30 mg/l.

Member Drainage, Delhi Jal Board informed that due to commissioning of ISP project and diversion of sewage load to STPs, the existing STPs are not having sufficient capacity, so such problem of effluent parameters not meeting the design norms are being observed. The action plan for upgradation of the existing STPs is under process as per latest norms and by Dec 2022, the situation will improve. By June 2023, all the STPs will be upgraded. In STP at Kondli, the firm responsible has been debarred and new firm has been appointed so the situation shall improve now. The upgradation of the STPs in 5 packages are expected to be awarded by June 2022 with completion time line of June 2023. 42 decentralized STPs were planned in Delhi however due to land constrain, presently 33 decentralized STPs are scheduled. Land at 50% sites have been received from DDA and other agencies and balance land are being followed. Where land is made available, completion timeline has been indicated as June 2023, where land is expected & yet to be made available, timeline is indicated as Dec 2023.

DG, NMCG directed DJB to verify operation of the STPs and the reason for increase in number of non- complying STPs as per design norms may be submitted within a week's time. DJB to also submit action plan for upgradation of the STPs, technologies adopted with all time lines for action to be taken, also for construction of 42 decentralized-STPs, comprehensive reply of all action plans for drains.

Director (Technical), NMCG informed that out of 18 drains, 13 drains are reported as tapped. Issue of overflow in 7 of the tapped drains was observed and has been reported, joint team shall inspect the drains to verify the issue. Mori gate drain is being planned to be diverted and treated in Coronation Pillar STP. Timeline for the same is requested. Flow in Maharani Bagh and Barapullah drain are being planned to be diverted to Okhla STP by June 2023.

Member (Drainage), DJB informed that works for Mori Gate will be retendered and time line for completion of work is July 2023.

ED (Tech), NMCG informed that all the time lines for upgradation and construction of DSTPs in Delhi are over as per directions given by Hon'ble NGT. And Hon'ble NGT has prescribed a penalty of Rs 5 lakh per drain per month on the concerned department.

Director (Technical), NMCG highlighted that out of 13 CETPs, 8 CETPs are complying, 3 CETPs are non-complying and 1 CETP (Lawrence Road) is non-functional.

Chief Engineer, DSIIDC informed that all CETPs are functional and 4 CETPs are non-complying with regard to one or two parameters. Lawrence Road CETP is functional but defaulting in certain parameters. CETP societies have been informed and action for improving their CETPs is been carried out accordingly.

ED (Tech), NMCG informed that NEERI has done adequacy report of all CETPs. The task of upgradation of all CETPs is given to DJB as informed in last Principal Committee meeting held in January 2022. The issue of non-compliance of CETPs and capacity utilization of CETPs remain an issue until a timeline has been fixed. In the last CMC meeting in February 2022, Secretary, DoWR, RD&GR, MoJS directed very clearly to close all non-complying CETPs and its member industries. NMCG also issued directions to the 13 CETP societies.

With regard to upgradation of CETPs, Chief Engineer, DSIIDC informed that for transferring of CETPs to DJB, the approval of Hon'ble LG, Delhi is required and it is under progress. DPCC is continuously monitoring all CETP and issued notices to CETP societies.

ED (Tech), NMCG highlighted that Yamuna river being a special priority, a survey was done for entire Yamuna in Haryana, Delhi and UP, to identify which industry is consuming maximum amount of Nitrate and Ammonical Nitrogen. 10 types of industries like textiles, slaughter house were identified. Directions were issued by NMCG and CPCB also. DPCC has to get in touch with the industries to make an action plan to reduce use of Nitrate and ammonical nitrogen. An action plan is yet to be received.

Member Secretary, DPCC informed that the transfer of CETPs from DSIIDC to DJB is in process. DPCC had put penalty on 12 CETP societies for noncompliance/ functioning of CETPs. However, several societies approached to Hon'ble High Court and got stay on Environmental Compensation. Further, with regard to action plan to reduce of use of Nitrate and ammonical nitrogen, the response shall be submitted by DPCC within a week.

DG, NMCG directed DPCC to expedite the transfer of CETPs from DSIIDC to DJB and if not getting Environmental Compensation from the societies, then close the concerned CETPs and submit an action plan to reduce Nitrate and Ammonical nitrogen at the earliest.

25. Himachal Pradesh

Director (Technical), NMCG informed that latest MPR was received at night of 08.06.2022 due to which the MPR could not be reviewed and the same could not be updated in the presentation. All the States are requested to submit updated MPRs on monthly basis and well in advance before the CMC meetings.

As per the last MPR (December 2021), the estimated sewage generation in the HP State is 191 MLD for which 68 STPs of 121.24 MLD capacity are in operation. The utilization capacity is reported to be 81.35 MLD. Through alternative technology (Soak Pits, Septic Tank), 109 MLD of sewage is being treated. Only 5 STPs out of 68 STPs are reported to be non-complying with standards. As such there is no gap in sewage treatment. There is one 25 MLD CETP at Baddi which is complying. There is one CETP of 5 MLD at Kala Amb which is made operational in May 2022. In last few MPRs, water quality in 7 polluted stretches was observed in order (BOD< 3 mg/l). However in the latest MPR, BOD values have been observed to have increased from 2.2 mg/l to 60 mg/l in Sukhna Nala stretch and from 4.5 mg/l to 28 mg/l at Jatwala Nala in Markanda river stretch. This drastic change in BOD load needs to be examined.

Member Secretary, Himachal Pradesh Pollution Control Board informed that increase in BOD levels in Sukhna nala and Markanda river have been observed due to ongoing sewage connections works in their catchment and dry region in last periods. In Sukhna Nala catchment, there are two STPs, one STP (Zone-I) just commissioned and works of house service connections (HSCs) by Jal Shakti department are going on. Similarly, in Markanda river, works of HSCs are going on and dry period are the main reasons due to which there is increase in BOD levels. Very less natural flow was available in two stretches. After completion of HSCs works, there will be improvement of BOD values. The Paonta sahib STP Zone III has been commissioned and the concerned officers have been directed to make it fully operational by June 2022. Action against non-complying industries are being taken up as per regulatory norms. 2 MLD CETP at Paonta Sahib is under planning stage and is under process of getting funds from State Government.

26. Madhya Pradesh

Director (Technical), NMCG informed that since last meeting of CMC, 7 new STPs of 76 MLD capacity have been completed and under trail run. This is matter of satisfaction that more and more STPs are getting commissioned and as of now 1128 MLD capacity STPs are working and 76 MLD are under trail run. However, capacity utilization of the existing STPs has to be improved; only 632 MLD (56%) is being utilized. It is understood that many of these STPs are recently commissioned and thus HSCs work may be going on but there is an urgent need to monitor all such ongoing works which will improve the capacity utilization. There are 22 polluted river stretches in Madhya Pradesh and now water quality has achieved to satisfactory level in 19 river stretches and now attention should be paid on remaining 3 river stretches viz. Chambal river, Kahn river and Khispra river. With regard to the water quality monitoring data reported in the latest MPR, high BOD values have been observed downstream of Nagda town for River Chambal. Chambal River is one of cleanest river in Yamuna sub basin and this particular stretch appears to be affected by discharge from Nagda town. NMCG had agreed in principle to provide financial assistance for Nagda town pollution abatement works. State is requested to submit DPR for STP in Nagda town. At present, PFR has been submitted by the State and the same is being reviewed at NMCG. With regard to River Khan, BOD has been observed to be 36 mg/l, being the model river selected by the State, action needs to be initiated for addressing the issue. Similarly, River Kshipra near Ujjain, the water quality is not satisfactory, especially at Ujjain, which is a point of concern. State has submitted DPR for Indore town to seek financial assistance from NMCG. DPR has been examined and returned to state with minor observations for compliance.

E-in-C (Urban Admin), Madhya Pradesh informed that 1 STP would be completed by July 2022, 8 STPs by August 2022 and 16 STPs by September 2022. Under Namami Gange, DPR for STP at Indore and PFR for STPs at Ujjain and Nagda have been submitted for consideration. Remaining DPRs for STPs at Indore, Ujjain and Dewas are submitted for consideration under AMRUT 2.0 and survey is currently under progress. Efforts are being put in to complete the works of House sewer connections with the completion of the STPs, this shall improve utilization capacity of the STPs.

DG, NMCG appreciated the efforts of the State in enhancing the sewage treatment capacity. DG, NMCG directed State to submit good quality DPRs wherein land for STP should be

identified/ finalized and the same would be approved after physical verification by team from NMCG. Any deviation in cost estimation post approval to be borne by the State.

27. <u>West Bengal</u>

There are 17 identified polluted river stretches in West Bengal, Action Plans for restoration for the river stretches have been approved and implementation work has been assigned to one Nodal Agency for each river stretch. Out of these 17 stretches, works have been completed in 6 river stretches and results are satisfactory. Further work is about to complete in 2 other river stretches. Simultaneously work is going on all remaining stretches with priority on river Ganga.

Director Technical, NMCG apprised that 8 new STPs have been commissioned (7 rejuvenated and 1 no. newly built) since last meeting of CMC. NMCG has sanctioned the project for rejuvenation of existing STPs in Hooghly district and in North 24 Parganas district.

With regarding to the works being carried out in the catchment area of River Churni, Principal Secretary (Environment), West Bengal informed that the works are being executed by KMDA for construction of 3 STPs. Overall physical progress of 4 MLD STP at Sreenathpur is 5 % and 5.2 MLD STP at Chaitanyaghat is 2 %. Construction of 2.6 MLD STP at Silver Jubliee Road is in progress. Director Technical, NMCG requested State to expedite the pace of work in this project as the work progress is very slow.

DG, NMCG enquired about the hindrances in ongoing STP projects specially at Barrackpore that had the issue regarding laying of rising main in Kalyani Expressway.

Principal Secretary (Environment), West Bengal informed that the issue of laying of network already resolved. The remaining STPs which are rejuvenating in Hooghly district and North 24 Parganas district will be completed in June 2022. By end of June 2022, 7 more STPs shall be made functional (excluding above 8 STPs), which shall result completion of total 15 STPs through 5 different projects in 3 districts of North 24 Pargana, Hooghly and Nadia. It was also informed that the water quality data for 7 STPs is being uploaded on Ganga Tarang and for the rest process is going on. With regard to Tolly's nallah, it was informed that revision of DPR for 26.1 MLD proposed STP is being taking place. Further, it was informed that to fill the gap in sewage treatment, State is preparing the DPRs for I&D and STP proposal for 11 towns. Some DPRs have been finalized and shall be submitted once clear land titles with

NOC for proposed site is granted by ULBs/ concerned department. NMCG suggested that instead of sending all DPRs in one go, State may submit the DPRs in staggered way for ease of examination.

Govt of West Bengal have to upload the FSTP policy on UD&MA website and State informed that it is under process. NMCG has also sanctioned a FSTP project for Burdwan town for river Banka. Beside this, fecal sludge treatment as co-treatment is being taken with all new STPs proposals.

It was informed that 3 Electric Crematoria with support of funds from NMCG have already been completed at Bhatpara, Naihati and Garulia and handed over to the respective Municipalities during April and May 2021. All the Crematoriums are fully operational. Now construction of one new Electric Crematorium at Kalyani has recently been sanctioned. Further 6 Feasibility Reports for installation/ construction of new Electric Crematoria has been forwarded to NMCG. DG NMCG assured that all proposals shall be examined as per merit of the proposal.

There are 454 water polluting industries identified in the State and all the industries have ETPs. There are 8 No. of CETP with capacity of 5 MLD each are operational, out of which 4 are under trail run stage.

With regard to Solid Waste Management Intervention, Bio-mining of Legacy waste has already been undertaken in 78 legacy dumpsites (85.03 lakh MT) in the State out of 107 dumpsites (108.84 lakh MT). Further 97 % progress has been achieved in House to house collection of solid waste and 34% progress has been achieved in segregation at source. 2 FSTPs of each 50 KLD are being constructed at the 2 sites – Kharagpur and Siliguri, from where land has been reclaimed after removal of legacy dumpsites. Further, a detailed report has been submitted by the State recently with regard to action taken for prevention of immersion of idols/ other wastes in river/ water bodies. Action Plan for Coastal Pollution Management was returned back by CPCB with observation and the same was forwarded to State Urban Department and as soon as it comes back and is finalized by RRC/ CPCB, it shall be implemented.

State requested financial assistance from NMCG for repair of 3 Ghats for organizing a mini Kumbh and for installation of OCEMS on 47 STPs in the State. It was suggested that the proposal may be submitted to NMCG for reviewing the same.

28. Uttarakhand

Director Technical, NMCG informed that most of the STP projects on Ganga main stem have been completed and one project for kumaon region have been sanctioned. Due to non-availability of land, works at 7 locations out of 9 of the Uddham Singh Nagar project have not been initiated. 5 STPs of small capacity have been reported to be non-complying. It was also highlighted that in Srinagar, the solid waste dumping ground is near to the STP, due to which the open solid waste burning at times lead to the premises of STP catching fire.

DG, NMCG directed State to ensure such fire incidents are not repeated at any STP premises.

ED (Tech), NMCG highlighted that complaint with regard to dumping of solid waste in Bhagirathi river is being reported repeatedly.

Member Secretary, UEPPCB informed that DG's DO letter has been received and Chief Secretary, Uttarakhand has directed DM, Uddham Singh Nagar to expedite the process of acquiring land for STP. With regard to solid waste management, it was informed that 100 ULBs and 1152 wards in the State generates 1561 TPD of solid waste, door to door collection of waste started in 1152 wards and source segregation is taking place at 1040 wards. 30 Material Recovery Facilities have been created in the State. UEPPCB has given 56 compactors to ULBs and the ULBs have collected & sold Rs. 3.25 crore worth plastic waste in last year. At present 600 MTD of waste processing facility is operational. In smaller ULBs, after segregation, the biodegradable waste is being converted into organic manure. For managing the waste from floating population, CS (Uttarakhand) has directed all the DMs to ensure solid wastes being dumped along the roads are removed regularly. In this regard, UEPPCB has given Rs 1 crore to the districts. Along the Char dham route, a lot of plastic wastes have been obtained from forest area and State Forest Department is collecting the same. Further, NTCA has been requested to consider the activity of collection of plastic waste in forest area as eco-restoration of habitat activity so as to obtain funding from CAMPA. ULBs are ensuring prevention of solid wastes being dumped into the rivers and EOs have been directed to install solid waste processing facilities in their ULBs on cluster basis. UEPPCB has also taken action against EOs not complying with the directions. State ensured that fire incident due to solid waste burning shall not be repeated at any STP premises. With regard to wetland conservation, it was informed that brief document and management plan for wetlands in 4 districts of Haridwar, Chamoli, Udhamsingh Nagar and Uttarkashi is being prepared by WWF and is expected to be submitted shortly. Under

AMRUT Sarovar Yojana, the State Urban Development Department identified 68 wetlands in 18 ULBs and these are being rejuvenated.

Senior Consultant, NMCG suggested that the wetland conservation plan should be according to the guidelines notified by MoEF&CC and directed State to submit the same at the earliest.

DG, NMCG directed State to convene District Ganga Committee meetings on 10th June (second Friday of the month) and also ensure programmes are held on the Ghats on 21st June as a part of International Yoga Day celebrations.

ED (Tech), NMCG highlighted that while compiling the information for NGT Matter OA No 200/2014, it was observed that CETPs at Sitarganj and Pantnagar have been reported to be non-compliant by CPCB. Therefore, State needs to coordinate with CPCB and re-concile the data.

Official from the State informed that the CETPs were observed to be non-compliant during the month of February, 2022. The CETPs are currently complying with the standards and the same shall be confirmed with CPCB.

29. Uttar Pradesh

Senior Specialist, NMCG informed that estimated sewage generation is 5500 MLD against which sewage of 3655 MLD is being treated through 118 STPs. Since last meeting, 4 STPs of 95 MLD capacity (Bulandshahr- 40 MLD, Hapur – 30 MLD, Mirzapur – 7 MLD & Rae Bareilly – 18 MLD) have been completed and are under trail run. Another 34 STPs having 763 MLD capacity are under construction. In addition, 14 proposed STPs of 397 MLD capacity are under tendering. Further, critical issues were also highlighted such as (i) increase in number of non-compliant STPs from previously reported 21 to 25; (ii) increase in number of non-operational STPs (presently 10 nos.); (iii) non-completion of Baniyapurwa STP though physical progress reported as 98% since 2 years; (iv) non submission of MPRs on a monthly basis.

Managing Director, UPJN (Urban) informed that there are 29 STPs under the purview of UPJN (Urban) and 45 STPs under UPJN (Rural). All STPs under UPJN (Urban) were reported to be complying as per design parameters. However, to tackle Faecal Coliform parameter issue, concerned CEs have been directed to submit the proposals for upgradation of existing STPs. Further, 15 STPs were reported to be under construction in UPJN (Urban), out of which 6 have been completed & are under trial run. Except 3 STPs (Shahjahapur,

Azamgarh & Balia), remaining 6 are expected to be completed by December 2022. With respect to Baniyapurwa STP it was informed that due to collapsed trunk sewer line, the project is held up and a proposal to repair the same is submitted to State for consideration under State sector scheme. Bulandshahr STP was reported to be commissioned.

CE, UPJN (Rural) informed that Lucknow project (40 MLD STP) is being transferred to UPJN (Rural) and work shall be commenced soon. Member Secretary, UPPCB informed that STPs at Varanasi are not compliant due to directions given by CPCB regarding revised norms, however, these STPs are compliant as per their design parameters.

DG, NMCG indicated that revised guidelines regarding stringent outlet parameters have not yet been issued by MoEF&CC.

ED (Tech), NMCG clarified that for existing STPs, compliance shall be monitored based on design parameters and for new STPs, revised discharge parameters may be followed.

Additional Director, CPCB informed that CPCB has issued directions to follow NGT specified standards to STPs in Ganga towns.

ED (Tech), NMCG indicated that a joint sampling by UPPCB & CPCB may be carried out to check the compliance status and a report indicating compliance status as per (i) design parameters & (ii) NGT specified standards may be submitted to NMCG. A letter regarding the same to be issued by NMCG.

Senior Specialist, NMCG raised the issue of non-operational STPs (at Moradabad, Banda, Rampur (3 nos.), Sultanpur, Jhansi, Farrukhabad, Agra & Baniyapurwa - Kanpur).

CE, UPJN (Rural) informed that only 1 STP at Sultanpur under UPJN (Rural) is non-operational which is under rehabilitation and rest 9 STPs are under UPJN (Urban). Senior Specialist, NMCG informed that similar to Baniyapurwa STP, Garhmukteshwar STP is also reported to be non-operational. State was directed to resolve the non-operational STPs issue and make them operational.

The status of directions issued by NMCG on non-complying industries was raised by DG, NMCG and it was informed that no update from UPPCB in this regard has been received so far. UPPCB was directed to inspect and submit a report on directions issued to Saraiya Distillery, Gorakhpur for non-compliance.

With respect to municipal solid waste, it was informed that out of total 14710 TPD MSW generated in the State, 10433 TPD is being processed. Timelines for 5 plants of 325 TPD

capacity at Fatehpur, Sambhal, Badaun, Mirzapur & Ballia have been revised to December 2022 from March 2022. Special Secretary, UDD, GoUP informed that Balia plant has gone into litigation. State was directed to submit the incremental progress of under construction MSW plants along with capacity utilization of exiting MSW plants in the MPR. Additionally, timelines for under construction C&D waste processing plants also to be provided in the MPR.

With respect to E-flow, Floodplain Zone Demarcation & identification of Model river no change in status was reported since last MPR.

The issue of works to be carried out on Varuna river at Varanasi (by Irrigation department) was also flagged. ED (Tech), NMCG informed that a sanction was issued in favor of Irrigation department through SMCG for construction of 8 wetlands on Kali East along with Varuna. Since the Irrigation department could not provide any DPR, the sanction was revised and UP Project Corporation Limited (UPPCL) was authorized to prepare the DPR. However, the work is stuck up as the letter is not endorsed to UPPCL. State was directed to look into the matter for necessary action and report in next MPR.

State was directed to take measures for addressing the issues highlighted in the meeting and report incremental progress on SWM plants under construction along with completion timelines in the MPR.

State was also directed to send updated monthly progress reports in a timely manner.

30. <u>Rajasthan</u>

Senior Specialist, NMCG informed that estimated sewage generation is 1551 MLD against which 1083 MLD is being treated through 109 STPs and 585 MLD treatment capacity through 54 STPs is under construction. The issue of poor capacity utilization (64%) and non-complying STPs (19 nos.) was flagged. Since last review, 2 STPs at Churu & Ramgarh Shekhawati of 3.5 MLD capacity have been completed. State was directed to ensure completion of 13 nos. of under construction STPs having achieved 90% progress as scheduled (i.e. by June'22).

With respect to industrial pollution, it was informed that against 15 CETPs, 2 at Sanganer & Pali Unit no. 3 are reported to be non-operational since more than 1 year. Additionally, data regarding capacity utilization of operational CETPs is not being reported in the MPRs. Against 5 non-complying CETPs, it has now been reported that only 2 are non-complying.

ED (Tech), NMCG informed that in Jodhpur 20 MLD CETP, conveyance of effluent to CETP due to choking of network is reportedly an issue and from the industries it has been reported that nearly 30 MLD untreated effluent is being discharged into river Jojhri. This needs to be looked into with priority.

Member Secretary, RSPCB informed that Jodhpur textile CETP is having capacity of 20 MLD, against which only 11 MLD is being treated. The DPR for pipeline upgradation has been prepared and submitted to industry department for approval. Another CETP of 0.6 MLD at Jaipur leather complex (6 tanneries are connected to it) is non-complying and necessary actions are being taken to make complying.

State was directed to expedite resolution of non-complying, non-operational CETPs and report on progress & capacity utilization of CETPs also.

ED (Tech), NMCG enquired about the plans to ensure no untreated effluent is discharged into the river Jhojhri, considering the fact that approval and work completion for pipeline upgradation may take significant time. State must have remediation plan for an interim period during which upgradation works would be completed. It was suggested that pilot remediation technologies for textile sector have been successfully tested by BARC in a few of industries in Surat (Gujarat) as well as in Jodhpur. These technologies may be studied by obtaining data from BARC and considered for implementation for the intermittent period till the time pipeline upgradation work is completed. The requisite information would be shared by NMCG in this regard.

ED (Tech), NMCG highlighted the issue of 7 non-complying STPs on account of CTO having not been provided by State Pollution Control Board. DG, NMCG directed State to look into the matter and issue the CTO at the earliest to make these STPs complying before next meeting.

In addition, DG, NMCG clarified that for existing STPs, the compliance shall be monitored against the design parameters and for under construction/ proposed STPs, the compliance shall be monitored against revised stringent parameters of Hon'ble NGT.

Further, Director (Technical), NMCG indicated that regarding Kota project, State has requested to utilize the savings in the project for House service connections (HSC), though charges for HSC seems to be on higher side. It was informed that the request for the same shall be reviewed and communicated.

Secretary, LSG informed that waste processing has improved from 46% to 49%. Regarding developing a mechanism for capacity utilization & compliance status of STPs/ CETPs, it was informed that OCEMS is being installed in existing/ new STPs/ CETPs. Regarding payment issues with contractor for Sriganganagar STPs, it was informed that work has commenced at 1 STP and for other STP, the issue will be resolved by month end.

State was directed to ensure that monthly progress reports are being sent timely and regularly.

31. <u>Bihar</u>

Managing Director, BUDICO informed that many projects have been sanctioned in the State and are in advance stages of implementation. Work is in progress for STP with I&D projects of 423 MLD and around 50 MLD STPs are in final tendering stages. Project at Dehri (Sone River) has been tendered, Barahiya submitted to NMCG for confirmation and final tender to be processed for Kahalgaon. 14 STP projects are expected to be completed by December 2022, network projects are also in advance stages and will eventually reduce the gap in sewage treatment. STP projects for 13 MLD are being taken under other schemes.

DG, NMCG highlighted that land acquisition remains a major issue in State which causes infinite delay in implementation of STP projects. DPRs should be submitted after land identification/ confirmation. Current status of the proposed STP projects was sought. State was directed to submit action take status with regard to prohibition of immersion of idols/ other materials in rivers/ water bodies.

Senior Environmental Specialist, NMCG informed that expect DPR for Raxaul, DPRs for 4 towns in the polluted river stretches have been submitted by the State. Land issue needs to be sorted for Fathua project. Status of proposed CETP and status of solid waste management in the State is not being updated in the MPR submissions. BUDICO to ensure update information is provided in the MPRs with regard to the sewerage projects.

Managing Director, BUDICO informed that land confirmations are being pursued with the concerned departments. It was confirmed that DPR for Raxaul will be submitted shortly.

32. <u>Chhattisgarh</u>

Senior Environmental Specialist, NMCG appreciated that 7 of the ongoing STPs in the State have been completed and are under trial run. Work in progress for 6 STPs and DPR under preparation for STP at Korba. 3.94 MLD of septage from 166 ULBS is being treated through FSTPs. Gap of 177 MLD in sewage treatment shall remain even after commissioning of the

proposed projects. Therefore it was suggested that STP projects may be undertaken at Bhilali and Durg. Model river is yet to be identified by the State. Updated status regarding industrial pollution management needs to be provided by the State in MPR submissions.

ED (Tech), NMCG suggested that State PCB be vigilant and ensure that no breach incidents are taking place due to Korba Thermal Power Plant.

Member Secretary, Chhattisgarh Environment Conservation Board informed that 5 STPs commissioned, 6 STPs are ongoing and issue with regard to Korba STP has been resolved and works shall begin soon.

33. Jharkhand

Senior Environmental Specialist, NMCG informed that 452 MLD of sewage is generated and 107 MLD STPs are operational in the State. House sewer connections for the STPs at Sahibganj and Rajmahal (funded under Namami Gange) is being carried out by a different agency and work is in progress. State to ensure the repair works with regard to Sahibanj STP may be completed before the monsoon. 89 MLD STPs are under construction and STPs of 442 MLD are proposed. 3 STP projects Dhanbad (144 MLD), Phusro (15 MLD) and Ramgarh (40) are proposed to be taken up under Namami Gange. Land issue for one SPS for the Ramgarh STP project is yet to be sorted, thereafter the DPR shall be forwarded for TPA. Funding yet to be sorted for 43 MLD STP at Mango. Status of the proposed 200 MLD STP at Ranchi remains same since past 6 months. State to ensure regular submission of MPR to NMCG. Updated status of the bioremediation project being undertaken by NEERI and the floodplain demarcation works undertaken by the State needs to be provided in the MPR.

Director (SUDA), Jharkhand informed that 16 MLD STP at Ranchi is 93% complete, 37 MLD STP at Ranchi is 73% complete and Administrative approval is being sought for hiring of Consultants for preparation of DPR for proposed 200 MLD STP at Ranchi. State approached Tata Steel for providing funding under CSR for installing 43 MLD STP at Mango and consent has been received. NEERI was engaged for preparation of DPRs for bioremediation works, however due to change in policy recently NEERI has intimated its reservations in continuing with the project, therefore State is now exploring alternatives. For bridging the gap in sewage treatment, State has prepared a comprehensive State level plan, funding to be managed from AMRUT 2.0/ SBM 2.0/ Namami Gange (for 3 projects)/ Externally Aided Funding. One septage management plan has been completed. With regard

to solid waste management, it was informed that 65% of the solid waste generated in the State is processed. Work of 3 processing facilities have been completed in 4 ULBs, 2 facilities are under trial run and work in progress for installing 21 plants by March 2023. Legacy waste in Ganga towns have been treated through bioremediation and for treatment of legacy waste in 11 towns, work is proposed to be taken under SBM 2.0.With regard to floodplain demarcation, it was informed that highest flood plain zoning has been done for River Ganga and River Damodar, risk proposals are being prepared by Water Resource Deaprtment. Details will be submitted in next MPR submissions. As per the water quality monitoring data of March 2022, only one stretch is observed to have BOD more than 3 mg/l.

DG, NMCG directed State submit detailed report with regard to action proposed for bridging the gap in sewage treatment along with proposed funding to NMCG.

Member Secretary, Jharkhand Pollution Control Board informed that ongoing 3.5 MLD CETP at Ranchi shall be completed by September 2022.

The meeting ended with thanks to the Chair.

****

Annexure-I

List of participants:

1. Shri Pankaj Kumar, Secretary, DoWR,RD&GR, Ministry of Jal Shakti – *in Chair*
2. Shri G Asok Kumar, Director General, NMCG cum Project Director, NRCD
3. Shri Anand Mohan, Joint Secretary, NRCD
4. Shri D.P. Mathuria, Executive Director (Technical), NMCG
5. Shri M H Khan, Additional Chief Secretary (Environment), Manipur
6. Shri Brijesh Sikka, Senior Consultant, NMCG
7. Dr. Pravin Kumar, Director Technical, NMCG
8. Shri A.Sudhakar, Additional Director, CPCB
9. Shri V.K.Chaurasia, Joint Adviser, MoHUA
10. Shri J.B.Ravinder, Deputy Adviser, MoHUA
11. Shri Ishwer Singh, Consultant (Legal) NMCG
12. Shri S.K. Srivastava, Director, NRCD
13. Shri A.P. Singh, Scientist E, NRCD
14. Dr. Sabita Madhvi Singh, Joint Director, NRCD
15. Shri Rajat Gupta, Senior Waste Management Specialist, NMCG
16. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
17. Dr. P.N.Rymbai, Scientist B, NRCD
18. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
19. Shri Rachit Andley, Project Manager, NMCG
20. Shri Kumar Ajitabh, Project Officer Legal, NMCG
21. Mrs. Ruby Raju, Senior Project Engineer, NMCG
22. Ms. Preeti Sinha, Research Associate, NRCD
23. Shri Debarshi Ghosh, Research Associate, NRCD

KERALA STATE POLLUTION CONTROL BOARD

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Meeting held by the Chief Secretary on 21.06.2022 in the Matter of NGT Order in OA No. 673/ 2018 – Action Taken / Status of AMRUT Projects

Sl. No.	Discussion & Decision	Action Taken / Status
1a	**Thrissur Corporation – Decentralized Sewerage Scheme (with 2.5 MLD STP):** The Chief Secretary directed the ACS, LSGD to route the file to the competent authority for the decision in the matter of land issue *(Action: Local Self Government Department/ Revenue/, District Collector, Thrissur, Corporation Secretary, Thrissur)*	Decision of the Govt. on land category change is awaited.
1b	**Guruvayur Municipality – 100 KLD Septage Treatment Plant at Chakkamkandam:** KWA informed that proposal for dilution tank and connected works for Rs.36 lakh was submitted for AS (Funding from RKI). The Chief Secretary directed to expedite the work. *(Action: Finance/ Local Self Government Department/ Kerala Water Authority)*	The 30th SHPSC of AMRUT held on 05/07/22 decided to cancel the 100 KLD septage plant proposed under AMRUT at Chakkamkandam as KWA has taken up the project for co-treatment of septage at the existing 3 MLD STP at Chakkamkandam under RKI.
1c	**FSTP at Yakkara, Palakkad:** Municipal Secretary informed that WPCs connected to land transfer and proposed STP were heard by Hon'ble Court on 20.06.22 & reserved for final orders. Also informed that they are moving forward with the retender procedures as the contractors selected in the earlier have shown their reluctance to go with the project. Chief Secretary directed to expedite the project within the time limit. *(Action: Local Self Government Department/ Revenue/ Law Departments/ District Collector, Palakkad)*	Judgment of the Hon' High Court is awaited. Site visit & meeting were conducted with Consultant on 08/07/22 and the Consultant has agreed to give the necessary drawing & documents for submitting application to the KSPCB for consent to establish.
1d	**Kozhikode Corporation – Sewerage System in Zone A – Package A & Zone A–Package B:** **(a) Zone A - Package A:** Secretary, Kozhikode Corporation informed that work will commence on 23.06.2022 with adequate police protection. Chief Secretary directed the Corporation to expedite the work and to complete within time limit. *(Action: Local Self Government Department/ Home Department/ District Collector, Kozhikode/ SP, Kozhikode)* **(b) Zone A - Package B:** Stay was vacated with condition that construction of permanent structures can be undertaken only on the basis of judgment in WP. Only certain preliminary works for which	**Zone-A – Package A:** Soil testing, site clearance & fencing works completed. Levels taken to be reported to CTE. **Zone-A – Package B:** Judgment of the Hon' High Court is awaited.

Sl. No.	Discussion & Decision	Action Taken / Status
	permission was granted could be carried out. Final orders awaited. *(Action: Local Self Government Department/ Home Department/ District Collector, Kozhikode/ SP, Kozhikode)*	
6	**STP, Kureepuzha & Elamkulam:** **Kureepuzha:** DDC, Kollam conveyed that 80% of the work is completed. KWA also conveyed that the project is expected to be completed by the end of September 2022. *(Action: KWA)* **Elamkulam:** KWA conveyed that almost all works completed and trial run is being done. Some works connected with noise abatement is being looked into. Expected to be completed by the end of June 2022. *(Action: KWA)*	Permission from the Govt. is awaited for acquiring land for administrative building, generator room etc; Possibility of relocating the above structures within the available land is being checked by ULB & KWA. Physical Progress – 62%. Acoustic works of air blower room has been completed and trial run has been restarted. Physical Progress – 95%.

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GOVERNMENT OF KERALA

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Sir,

Sub: [illegible] meeting held by Additional Chief Secretary, [illegible] on [illegible] 2023 [illegible] Minister [illegible] Kerala - Reg

Ref: Minutes of the meeting on [illegible]

Annexure-I

I am [illegible] herewith a copy of the minutes of the [illegible] meeting held by Additional Chief Secretary, [illegible] in the matter of [illegible] Nos. 675 of 2018 for taking [illegible] action.

Yours faithfully,
DEEPTHA GOPINATH
[illegible] SECRETARY

For Additional Chief Secretary to Government

Approved for issue

Section Officer

Minutes of the RRC meeting held on [illegible] by Additional Chief Secretary, Environment in the matter of NGT Order in O.A.No.673 of 2018

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Minutes of the RRC meeting held on 15.07.2022 by Additional Chief Secretary, Environment in the matter of NGT Order in O.A.No.673 of 2018

The RRC meeting via VC commenced at 3.30 pm with ACS, Environment Department presiding. Director, Urban Affairs, MD. KWA, Joint Director, Industries Department, Supt. Engineer, Irrigation Dept, Central Circle, Supt. Engineer, Irrigation Dept, Palakkad, and MS, KSPCB attended the meeting.
The following matters were discussed and decisions were taken

1. Thrissur Corporation- Decentralized Sewage Treatment Scheme-The Director , DUA informed that a committee was constituted for evaluating the land issue and the committee will take a decision and submit report next week . He assured that the matter will be followed up.

(Action. Director, DUA)

2. Guruvayur Municipality -100 KLD Septage treatment plant at Chakkamkandam-

MD, KWA informed that A.S received from RKI for the construction of dilution tank and connected work in Guruvayoor STP for Rs 36 Lakhs on 23.6.2022. The process of issuing TS is in progress. TS will be issued by next week itself.

(Action- MD, KWA , Director, DUA)

3. Kozhikode Corporation- Sewarage system in Zone A- Package (a) & Zone A-Package (b)-

The Director , Urban Affairs informed that preliminary works have begun with the assistance of Police force. Nil progress is achieved except certain preliminary works like soil testing etc for which permission was granted by Hon'ble High Court of Kerala. ACS reminded to follow up the matter as per decision taken in the CS meetings.

(Action. Director, DUA)

4. STP at Yakkara, Palakkad-

KWA is moving forward with the re-tender procedures as the contractors selected in the earlier work have shown their reluctance to go with the project. Also referred a High Court case waiting for judgement. The case was heard by the Hon'ble High Court on 20.6.2022 and reserved for final judgement. Site visiting and meeting were conducted with Consultant on 08/07/22 and the consultant has agreed to give the necessary drawing & documents for submitting application to the KSPCB for consent to establish.

(Action- Director, DUA, KWA)

5. CETP-Edayar-

Joint Director, Industries informed that Administrative Sanction for the construction of Edayar CETP for 37.5 cr has been issued on 21.5.2022 and action is being taken to issue T.S and for tendering the work. DPR preparation is entrusted to KWA. MD, KWA informed that O & M(Operation and maintenance) is executed for one year only. Subsequent O & M can be executed based on the pollutants only. O & M shall be executed every year by Industries Department or CETP, Edayar with KWA as being done in the case of STP at Muttathara. Joint Director replied that action in this regard will be taken after communication is received from KWA. ACS asked MD, KWA to issue letter to Industries Dept. in this regard. M.S, KSPCB reported that District office of the Board has taken action to identify the polluting industries. Further action will be initiated at the earliest.

(Action- Director, Industries , Director ,Urban Affairs, MD, KWA , M.S ,KSPCB)

6. CETP-Aroor-

Counter affidavit was filed in WP(C)29163/2021 filed by JIS International Exports. Joint Director, Industries Dept. informed that the case was heard on 28.06.2022 by the Hon'ble High Court but no decision was taken. Next posting is in the next week. ACS directed to follow up the case.

(Action- Director, Industries, M.D,KWA)

7. CSTP-Kureepuzha & Elamkulam

Kureepuzha

MD, Kerala Water Authority informed that 62 % of the work has been completed . The slow progress of work is due to the water level in the area. Maximum effort is being taken to complete the construction in September 2022 itself. Land proposed for administrative building, generator room, lab etc not yet received from Corporation. Director, DUA informed that the file in connection with the land issue is pending with the Govt. MD, KWA requested to make available land for the construction of administrative block for the operation of the plant. ACS directed the LSGIs to take up the matter in consultation with KWA.

Elamkulam

M.D. KWA also informed that almost 92% of the work has been completed except electric connection. The capacity of the new plant is 4.5 MLD. An existing plant of 3 MLD is already functioning at the same place. The sewer network of the existing plant will carry 3 MLD waste water to the new plant. Proposal has been prepared for the balance 1.7 MLD. Further action will be initiated once the sanction is received. This will cater the waste water of nearby 3-4 wards on the western side of the plant. After commissioning the new plant the old existing plant will be dismantled and it is proposed to construct a 15 MLD plant at that place.

(Action, Director, DUA, M.D , KWA)

8. Karamana sewer network-

MD, KWA informed that the draft DPR of 6 wards received from M/s REPL , many discrepencies were found hence terminated the contract. KWA has taken action to prepare DPRs internally with prority for 19 abutting wards. DPR for 4 wards are under scrutiny. Will come to a conclusion on how it can be completed, within one month. ACS asked MD, KWA to review the matter and shall fix a time frame for the completion of the same.

(Action - M.D KWA, Director, DUA)

9. Eviction of encroachment of rivers & e-flow calculation-

C.E, Irrigation has assigned 44 EEs to identify encroachments and to take action to evict encroachment. Supt. Engineer, Central Circle informed that no such encroachment found in connection with Periyar River. The encroachment in Puzhakkal river has been identified and the details were forwarded to Thahsildar, Thalappally Taluk. Supt. Engineer, Palakkad Circle informed that e- flow details of 8 rivers in that region has been submitted. Out of 10 rivers in that region, 8 achieved the bathing quality. Kallayi and Kuttiyadi are yet to achieve the quality. Action was already initiated to rejuvenate the rivers. No encroachments were reported till date. Survey has been started near Tirur river. ACS directed to submit compliance report from all the regions and also asked MS, KSPCB to discuss the matter with CEE, Irrigation.

(**Action- C.E, Irrigation, M.S, KSPCB**)

10. Financial assistance from Ministry of Jal Shakthi :

MD. KWA informed that the proposal for financial assistance from MoJS under NRCP are being progressed. ACS asked to submit the details to NRCD at the earliest.**(Action- M.D, KWA)**

11. Polluted river stretches:

MS,KSPCB informed that out of the 21 Polluted River Stretches (PRS) , 10 rivers achieved water quality. The monthly progress report of the PRS those not achieved bathing quality was presented by the MS. ACS asked Director, DUA to look into the matter and asked MS to share the details with the officials concerned.(Action- MS KSPCB & DUA)

12. STP Projects in 28 ULBs

ACS asked to update the progress in this regard.

(**Action- M.D, KWA, DUA)**

Meeting ended at 4 p.m.

DR VENU V I A S
ADDITIONAL CHIEF SECRETARY
O/O ACS ENVIRONMENT

KERALA STATE POLLUTION CONTROL BOARD

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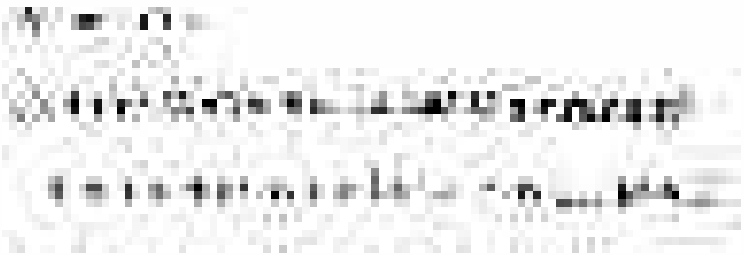

Minutes of the monthly meeting chaired by the Chief Secretary with Department/Authorities concerned on 23/08/2022 to review the progress made in the projects taken up as per orders of the Hon'ble National Green Tribunal in OA No. 673/2018 (PZ) and connected matters.

The meeting commenced at 10:30 AM with the Chief Secretary in chair. The following officials were present during the meeting: Additional Chief Secretaries of Local Self Government and Finance Departments, Principal Secretary, Industries Department, Additional Secretary, Revenue Department, Managing Director, Kerala Water Authority, Principal Director, LSGD, Directors of Panchayats, Urban Affairs, Suchitwa Mission, Environment Directorate and AMRUT, District Collectors / DDCs, DCP & SP, Kozhikkode, CE, Irrigation Department, Member Secretary, Kerala State Pollution Control Board, Secretaries of local bodies and other officials concerned. Member Secretary, KSPCB made the presentation depicting the status of the projects and initiatives taken up as per the orders of the Hon'ble National Green Tribunal. The progress made since the last monthly meeting (held on 21/06/2022) was reviewed.

Following decisions/suggestion were made after detailed discussions and deliberations:

1. STP/FSTP projects:

A) Thrissur Corporation- Decentralized Sewerage Treatment Scheme:

The Principal Director, LSGD informed that vide G.O (Rt) No.1926/2022/ LSGD dated 08/08/2022 a committee was constituted to re-assess the nature of the proposed land of STP. He conveyed that the proposed site was inspected along with the District Collector and Director Urban Affairs. PD, LSGD reiterated that the proposed land is paddy land as per the Notified Databank. The Conversion/filling up of the entire land (13 Acres) is not required, as Thrissur Corporation is planning for an overhead STP plant on pillars in 2 Cents. The PD, LSGD also highlighted that there is need to treat waste water of Thrissur Corporation and if STP is not provided environmental issues would arise. Chief Secretary directed the PD, LSGD to forward the detailed report to the appropriate authority for urgent necessary action. Thrissur Corporation is also directed to forward the reports to the PD, LSGD immediately for enabling them to furnish report.

(Action: Local Self Government Department, Revenue, Agriculture, Director, Urban Affairs, District Collector, Thrissur, Thrissur Corporation)

(B) Guruvayur Municipality:

The MD, KWA informed that Administrative Sanction was received for the construction of dilution tank and connected work in Guruvayoor STP for Rs 36 Lakh on 23/06/2022 (vide G.O.(Rt) No.249/2022/P&EA dated 23/06/2022). Technical Sanction was also issued and work e-tendered with opening date on 10/08/2022, as no offers were received the tender was cancelled. MD, KWA brought to the notice that the contractors in this field are very few and it is often required to retender. Chief Secretary instructed KWA to retender the work and look into the possibility of vendor development.

(Action: Water Resources Department, Kerala Water Authority, Finance, Local Self Government Department, District Collector Thrissur)

(C) STP at Yakkara, Palakkad:

The DC, Palakkad informed that Municipality is waiting for the Judgment of the Hon'ble High Court for taking further action.

(Action: Local Self Government Department, Revenue, Director, Urban Affairs, District Collector, Palakkad)

(D) Kozhikkode Corporation- Zone A- Package A & Zone A- Package B:

a) Zone A- Package A: The Secretary, Kozhikkode Corporation informed that soil testing, site clearance & fencing works were completed with Police protection amidst huge protest. Director, DUA informed that the project needs some design change in the foundation as per the latest soil test done. Chief Secretary enquired about the agency which prepared the DPR without collecting baseline data. Chief Secretary also expressed dissatisfaction in the way the agency had taken up the project without proper investigation. DPRs are to be prepared only after collecting and analysing all relevant baseline details. Chief Secretary directed to black list the empanelled agencies which are found incompetent to complete the projects assigned to them in a systematic, scientific and time bound manner. ACS, LSGD informed that Suchitwa Mission had empanelled the agencies and that instructions would be given to blacklist and disempanel incompetent/ non-complying agencies.

(Action: Local Self Government Department, Home Department, Director, Urban Affairs, Suchitwa Mission, District Collector, Kozhikode, Superintend of Police Kozhikkode, Kozhikkode Corporation)

b) Zone A- Package B: Secretary, Kozhikkode Corporation informed that Hon’ble High Court had vacated the stay with certain conditions and that the Judgment is awaited.

(Action: Local Self Government Department, Director, Urban Affairs,

District Collector Kozhikode, Kozhikode Corporation)

(E) Karamana Sewer Network:

The MD, KWA informed that contract with M/S REPL was terminated owing to many discrepancies. M/S REPL had approached the Hon'ble High Court and obtained stay against the termination. MD, KWA also conveyed that action is being taken internally to prepare DPR. In this regard, higher priority is given to highly polluted 19 wards abutting Karamana River. DPR for Cluster-1 covering 4 wards which can be linked to existing STP will be submitted before 20/09/2022.

Chief Secretary observed that many projects/initiatives for setting up of STPs/CETPs/FSTPs for treatment/processing of various types of wastes are being stayed by the Hon'ble High Court. Chief Secretary instructed Departments/Authorities concerned to file proper affidavits and caveat before the Hon'ble High Court before taking up such important projects where objections are anticipated. Urgent communication may be issued to the Advocate General in this respect. LSGD may route file with details of all such stalled important Government projects to the undersigned immediately.

(Action: Kerala Water Authority, Local Self Government Department, Departments, Urban Affairs Director, Industries Department,Revenue Department)

2. STP Kureeppuzha & Elamkulam:

(a)Kureeppuzha: MD, KWA informed that 66% of the construction works of 12 MLD STP has so far been completed. Chief Secretary noted the progress and directed to expedite the project work.

(Action: Kerala Water Authority)

(b) Elamkulam: MD, KWA informed that construction of 5 MLD plant under AMRUT scheme is completed. KSEB connection is expected by the end of August 2022. Out of 5 MLD plant capacity only 3 MLD is being utilized. DPR for 1.75 MLD network for the full utilization of the Plant is revised into PRICE 3.0 for an amount of Rs. 63.91 Crores and will be submitted to RKI and Government.

(Action: Kerala Water Authority, Rebuild Kerala Initiative)

3. CETP- Edayar & Aroor:

(a) CETP- Edayar: Kerala Water Authority reported that as per revised estimate the total amount for establishment of CETP comes to Rs. 42 Crores. Industries Department conveyed that KWA informed that they can proceed with the tender only if additional Rs. 4.5 Crores is deposited with them. The O&M cost of the CETP for the 1st 10 years will be 156.02 Crores and for the successful & smooth running of the plant, the entity taking up the construction tender may also be entrusted with the responsibility of initial

year's O&M. Hence cost of O&M of at least 1st year also be remitted to KWA. These two conditions were not present at the time of submission of AS proposal to the Government.

During the discussions with the industries in Edayar, they have conveyed that they are not in a position to meet the project cost. The O&M cost is also exorbitant. They expect it to be met by the Government. The Chief Secretary conveyed that the industrial units are duty bound to regulate pollution from their units. ACS, Finance Department conveyed that this project was considered to be funded by the Government as the matter was before the NGT and some solution had to be offered.

The Member Secretary, KSPCB informed that there are 330 industrial units functioning in Edayar region of which 72 units generate effluent; among those only 3 are major units, others being small/medium scale units. MS, KSPCB also conveyed that there are 3 outlets and 5 drains which discharges treated effluents into the Periyar River. There are already directions of the Supreme Court Monitoring Committee to provide a single discharge point from Edayar industrial area for releasing treated effluent to Periyar. It was also informed that all units have some facility to treat effluents and some are even reusing the treated effluents.

In the above scenario, MS, KSPCB suggested for reconsidering the design prepared by the KWA. The KWA had prepared the design considering the raw effluents as influent to CETP. As the industrial units have their own treatment facilities, and the primary/raw effluents are already treated in the industrial units itself, the CETP may take the treated effluent as influent for further treatment.

MD, KWA said it is unfair to suggest changes at a later change like this when the cost is released to KWA and the TS procedures are on. Chief Secretary asked KSPCB to continue with the monitoring process of industries and also to conduct a thorough study of the effluents from all the units around the region along with KWA and KWA shall accordingly remodel the DPR. The final treated effluent can be released through a single outlet with online monitoring facility. This may bring down the capital cost and O&M cost of the CETP and shall make the project more feasible. Three months time can be given for such a study to revise the DPR.

(**Action: Kerala Water Authority,Industries Department, Director, I&C, Kerala State Pollution Control Board)**

(b) CETP- Aroor: Additional Director, I&C informed that the case is posted on 25/08/2022. Chief Secretary directed to get the stay vacated and to complete the project at the earliest.

(Action: Industries, Industries & Commerce)

4. Eviction of encroachments: CE, Irrigation Department informed that no visible encroachments in rivers were reported. Also conveyed that around 60 encroachments in Ashtamudi Lake were identified and about 37 encroachments were evicted. Additional Secretary, Revenue Department had requested to hand over the list of identified encroachments to the District Collectors. AS, Revenue Department conveyed that the labour component of

MGNREGS can be utilized for the side protection of river banks. CE, Irrigation also informed that a joint survey with the local bodies is proposed to identify encroachments in river purambokke land and as discussed encroachments if any found can be reported to Revenue Department/MGNREGS.

(Action: C.E,IRRIGATION, Local Self Government Department, District Collectors, Water Resources Department ,MGNREGS)

5. E-Flow of rivers: CE, Irrigation Department informed that E-flow calculation of 39 rivers have been completed and the remaining 1 will be completed soon. E-flow calculation of 4 rivers can't be taken up due to non-availability of data. Informed that there are e-flow in 14 rivers; structural interventions and non-structural interventions are required in 15 & 8 rivers respectively to ensure e-flow. Also informed that the DPR & cost estimation for maintaining e-flow of rivers is being prepared and will be completed within a month.

(Action: Water Resources Department, Chief Engineer, Irrigation)

6. Ranking of local bodies: Director, Urban Affairs informed that ranking of Ulbs was published in the website of Urban Affairs Department. Chief Secretary asked LSGD to felicitate good performers. Chief Secretary also directed Urban Affairs Department to monitor the performance of Ulbs at regular intervals and to use mass media for publicizing the performance of Ulbs.

(Action: Local Self Government Department, Director, Urban Affairs, Director, Panchayat ,Suchitwa Mission)

7. Land policy: Additional Secretary, Revenue Department informed that the draft land policy prepared by the Land Revenue Commissioner was submitted to the Hon'ble Revenue Minister. The Hon'ble Revenue Minister had proposed some modifications in the draft land policy and has asked to resubmit it with modifications. Chief Secretary directed the Revenue Department to resubmit the draft land policy after necessary modifications at the earliest. Meanwhile, DCs may give higher priority to find and provide lands for waste management activities, as these are very important public projects to be executed for environmental safety and safety of general public.

(Action: Revenue, Land Revenue Comnissioner, District Collectors)

8. STP projects in ULBs: All local bodies and also Revenue Department have to identify land available for waste management projects. DCs shall monitor the progress and report the same to LSGD. The land so far made available and the further requirements shall be assessed and updated by KWA and LSGD. DCs shall also render necessary help. ACS, LSGD suggested that the DCs may find and report the list of abandoned quarries for setting up of waste treatment facilities. Such quarries may have good road access, safe distance from habitations and may be economical to procure. Chief Secretary directed DCs to forward the list of abandoned quarries

including Government owned ones to the LSGD. Chief Secretary directed KWA to consider providing decentralized plants in flat areas and centralized plants in places having feasible good contour, to minimize the cost.

Chief Secretary enquired about the funding source for the projects. The MD, KWA informed that AMRUT, RKI funding is being looked into. Also informed that GoI expressed willingness to provide financial assistance if the State submits good proposals before the GoI. This is also to be explored.

(Action: Local Self Government Department, Kerala Water Authority, Rebuild Kerala Initiative, Director, Urban Affairs, Revenue, District Collectors)

9. Polluted River Stretches: MS, KSPCB conveyed that 10 out of the 21 Polluted River Stretches have achieved bathing quality. The remaining polluted river stretches are in the Districts viz. Trivandrum, Ernakulam, Thrissur, Kozhikkode & Kannur. Chief Secretary directed the DCs to periodically convene DLTC & DLMC meetings and monitor the progress made in action plan to achieve the prescribed water quality in the respective polluted river stretches. If needed, further measures may be taken up.

(Action: Local Self Government Department, Water Resources Department, All District Collectors, Kerala State Pollution Control Board)

10. Elimination of Single Use Plastic: ACS, LSGD informed that Government have issued model Plastic Waste Management Bylaws and circulated to all LSGIs for customization and adoption. Instructions were also given to LSGIs to enforce the ban on single use plastics. Inspections were carried out from 1st July 2022 and 9.5 Tons of plastics were seized and Rs. 10.47 Lakhs imposed as fine. Director, Urban Affairs informed that the matter is being reviewed every month. Chief Secretary directed LSGIs to carry out regular inspections to find violators, seize SUPs and to fine them. The reassignment of works of officers in the local bodies may also be looked into for the effective implementation of the single use plastic ban. Revenue collection by LSGIs – building taxes, fining for violations etc. to be monitored and outstanding revenue shall be got collected. PD, LSGD informed that activities of LSGIs are reviewed monthly.

(Action: Local Self Government Department, Director, Urban Affairs, Director, Panchayat)

11. Liquid Waste Management in ULBs: LSGD reported that instructions were given to all the Ulbs to identify land for STPs/ FSTPs within their jurisdiction.

(Action: Local Self Government Department, Director, Urban Affairs)

12. Financial assistance from Ministry of Jal Shakti: Water Resources Department reported that proposals for financial assistance from the Ministry of Jal Shakti under National River Conservation Plan (NRCP) is under

preparation.

(Action: Water Resources Department,)

The meeting came to a close by 11:30 AM

DR V P JOY
CHIEF SECRETARY
O/O CHIEF SECRETARY

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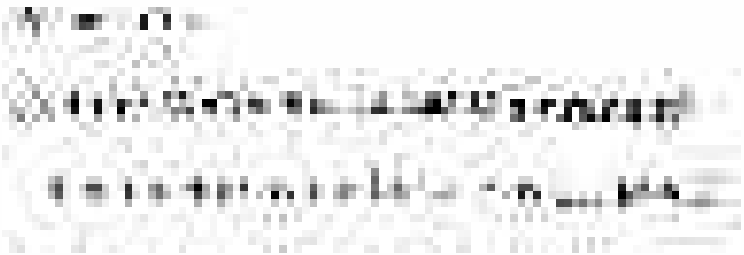

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Minutes of the 14th meeting of the Central Monitoring Committee held on 20.09.2022 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 14th meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through video conferencing with the States on 20.09.2022 from 10.30 AM onwards in Conference Room, NMCG under the Chairmanship of Secretary, DoWR,RD&GR, Ministry of Jal Shakti (MoJS). The list of participants of NMCG, NRCD, DW&S, MoHUA and CPCB present at the meeting is at ***Annexure-I.***

II. Director General, NMCG welcomed all the participants. Secretary, DoWR,RD&GR, Ministry of Jal Shakti highlighted that the States are already lagging behind the timelines stipulated by NGT for setting up of STPs. Several States have significant gap in sewage treatment capacity, though STP projects are being taken up in many States to bridge the gap. States were requested to take up projects on urgent basis through AMRUT/ NRCD/ NMCG/ State funds for treatment of sewage and to prevent discharge of untreated waste, so that there is no gap left in sewage treatment. AMRUT 2.0 has provision of treatment of wastewater and in 500 AMRUT cities target is to achieve no untreated sewage discharge. Information sought from many States as regards compliance of directions on idol immersion are also awaited. MPR from many States are not being received regularly, which may be looked into. Quite often MPRs have been found not to be capturing complete and updated information. Timelines for sewerage projects which have already been lapsed have not been updated in MPRs. Special focus may also be kept on providing MPR in time with updated information.

States were also directed to ensure compliance with the directions of the Ministry with regard to prevention of idol immersion during the upcoming festival season.

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

Through a presentation, progress made by the States was highlighted and the issues related to sewage, industrial and solid waste management, etc. in the States based on the information submitted in MPRs were brought out for review.

1. **<u>Gujarat</u>**

Joint Director, NRCD informed that as per the MPR for July, 2022 submitted by the State, the entire sewage generation in the State is being addressed through the existing 73 STPs of

3485 MLD, 54 under-trial STPs of 1226.7 MLD, 102 under construction STPs of 1075.63 MLD and 22 proposed STPs of 701.47 MLD. With regard to the on-going STP projects, no progress has been indicated for 6 STPs with I&D / HSC (house service connections) projects. Out of the total 127 STPs, 30 STPs are reported to be non-complying, including 7 STPs which are yet to obtain CTO/CTE. This also includes 3 major STPs of 205 MLD in Vinzol area, 3 STPs of 346 MLD in Pirana, 3 STPs of 401 MLD in Vasna and 3 STPs of 88 MLD in Gandhinagar, cumulating to about 1040 MLD of suboptimal discharge into River Sabarmati. As pollution in River Sabarmati is being highlighted in the media, the State was directed to provide their response. Number of water polluting industries in the State has increased from 12,815 to 13,239. It is reported that 12,942 industries have installed ETPs, of which 246 ETPs are found to be non-complying. 6483 industries are connected to 36 CETPs of 800.23 MLD capacity. 16 CETPs of 263.35 MLD are proposed/under construction and 3 CETPs of 45.5 MLD are under expansion. There is reduction in number of non-complying existing CETPs from 16 to 10. Action taken against the industries connected to the non-complying CETPs is to be provided by the State. State needs to expedite the submission of Action Plan for coastal and marine pollution as well as provide status with regard to Action Plan for deep sea disposal for industrial pollution management.

With regard to the non-compliance of the STPs, the State official informed that the State has taken up campaign for all STPs to apply for CTE & CTO from the Board. 15 STPs are without CTE and 29 units without CTO. In next 1 month, all non-functional STPs are expected to have CTE & CTO from the Board. Most of the new STPs are under stabilization. Further, with regard to non-compliance of STPs in catchment area of Sabarmati River, it was informed that the Ahmedabad Municipal Corporation is working with World Bank for Resilient City project under which up-gradation of non-performing STPs is underway. With regard to the performance of the CETPs in Sabarmati River catchment, NEERI has been engaged for evaluation of effluent disposal from all CETPs insto the river. The draft report is in final stage under the Joint Task Force constituted by Hon'ble High Court. All the recommendations and suggestions by NEERI would be implemented by the State in a time bound manner.

Additional City Engineer, AMC informed that STPs in Vinzol area are non-complying majorly due to mixing of industrial effluent. Therefore, a drive has been taken up to close all the industrial connections. 529 industrial connections through which discharge was received

have been removed. In Pirana area, 126 MLD UASB and 240 MLD ASP based STPs are underway for up gradation through World Bank funding and are currently under tender evaluation. To address the bypassed discharge, 126 MLD UASB plant is planned to be augmented to 375 MLD. Similarly, at new Pirana campus 180 MLD plant is planned to be augmented to 420 MLD. 1300 MLD of sewage is generated in AMC area for which there are 14 STPs of 1245 MLD capacity. Works are in progress for 4 new STPs of 122 MLD capacity and are expected to be completed by March, 2023. 92% physical progress of 30 MLD CETP has been achieved and is expected to be completed by 2022. 2 new STPs are under planning.

Secretary, DoWR, RD & GR, MoJS raised concern over the large number of non-complying STPs in Ahmedabad.

DG, NMCG enquired from the State the standards (MoEF&CC/ NGT orders) on the basis of which the Board reports non-compliance of the STPs.

Additional City Engineer, AMC responded that the old STPs are designed on MoEF&CC parameters of BOD <30 mg/l and TSS <100 mg/l, for which up-gradation is underway to achieve the standards as prescribed by NGT.

Secretary, DoWR, RD & GR, MoJS suggested that stringent standards as per the directions of NGT should be followed. States should take up measures to upgrade the old STPs so as to achieve the revised standards.

ED Technical, NMCG highlighted that in the last meeting of the CMC held in June 2022, State was directed to identify the reason for non-compliance of the STPs, and whether it was due to operational deficiencies or technical deficiencies. State is yet to submit its response.

Secretary, DoWR, RD & GR MoJS directed State to submit a report containing concrete steps proposed to be taken for overcoming the issue of non-compliance of STPs in the State in a time bound manner.

With regard to the deep sea disposal proposal, State informed that within one month the report shall be submitted.

DG, NMCG enquired about the status of Tapi Sudhhikaran project as Hon'ble Prime Minister proposes to inaugurate the project.

City Engineer, Surat MC informed that under the project, 1 STP of 43.21 MLD has been completed in Valak, which shall be inaugurated by Hon'ble PM on 29th September, 2022.

Further, 10 STPs are under construction, of which one STP is to be completed within the next 3-4 months and the remaining 9 STPs shall be completed as per the timelines.

2. **Tamil Nadu**

Joint Director, NRCD informed that the capacity utilization of existing STPs in the State is 55% only and gap in sewage treatment is 1225.15 MLD. 32 STPs of 868.67 MLD and 25 FSTPs of 0.585 MLD are under construction. 38 new STPs are proposed in the State. Action taken report with regard to the model river Bhavani has not provided separately in the MPR. 2 CETPs out of 36 are reported to be non-compliant, of which 1 CETP with 62 industrial member units has been closed down. 10 CETPs of 41 MLD are in proposal stage from past 2 years. 5 FSTPs are in proposal stage since long. Action taken with regard to 26 drains falling into water bodies needs to be reported. State needs to take action in bridging the gap of 6979 TPD in solid waste processing. State is yet to submit Action plan for Coastal Pollution. Since last review meeting, no information has been provided with regard to idol immersion. Incremental progress has been provided for 10 under construction STPs only, while the progress with regard to the remaining 22 STPs needs to be provided in the next MPR.

ACS (Environment & Climate Change), Tamil Nadu attended the meeting with other State officials. Chief Engineer, DMA informed that total solid waste generation in the State is 14,998 TPD, for which 9585 TPD of solid waste processing facility is existing, having 8019 TPD utilization capacity. 112 SWM processing units of 1573 TPD are under construction and 7 incinerator plants of 35 TPD and 9 pyrolysis plants of 0.9 TPD have been completed. 10 SWM processing units of 36.5 TPD have been proposed.

DG, NMCG raised concern over the proposed 10 CETPs of 41 MLD which are pending for a long time.

ACS (Environment), TN informed that the Chief Secretary, TN has already taken a meeting and directed immediate action for completion.

Secretary, DoWR, RD & GR, MoJS highlighted that a gap of around 400 MLD in sewage treatment capacity is still existing. Similarly, around 4000 TPD of gap in SWM exists. Projects to bridge the gap needs to be implemented at the earliest. State was directed to submit details of plan for tapping 29 drains falling into water bodies and plan to expedite the implementation of the proposed 10 CETPs.

ACS (Environment), TN informed that State has proposed construction of additional STPs of 546 MLD to address the gap. 1573 projects are under consideration for addressing the gap in MSW. It was assured that detailed review report shall be submitted at the earliest by the State. It was informed that detailed report with regard to Idol immersion has already been submitted by the State.

DG, NMCG highlighted that Action Plan for Coastal Pollution needs to be addressed on priority. Also, State may provide in the MPRs the incremental progress with regard to the on-going projects.

ACS (Environment), TN informed that NIOT, Chennai has been identified for preparation of the coastal zone management plan. A draft report has been prepared by NCSCM, based on which State is entering into MoU with NIOT. Due to a large coastal area, 5-6 months are required for preparation of the report.

3. Karnataka

Joint Director, NRCD informed the capacity utilization of STPs in the State is 69% and gap of 569.27 MLD exists in sewage treatment capacity at present. 10 STPs of 37 MLD are reported to be non-operational due to non-completion of the HSCs and 5 STPs are reported to be non-compliant. 50 FSSMs approved projects are still in DPR preparation stage since last 1 year. 3423 industries have installed ETPs, of which 168 ETPs are reported to be non-complying. 60 industrial units have no ETPs. There is a gap of 3018 TPD in SWM. 146 drains are reported to be falling into 17 rivers and details of in-situ bio-remediation initiated on these needs to be provided. 1 CETP of 1000 KLD has been reported closed. Incremental progress with regard to on-going projects needs to be provided.

ED (Tech), NMCG highlighted that even during the previous meeting of CMC, 10 STPs were reported to be non-operational due to lack of UGD, and the State had committed that it would be completed by July, 2022. However, the status remains the same even in September.

Member Secretary, KSPCB informed that the State is trying to resolve the issue of capacity utilization of the existing STPs. Efforts put in by the State to resolve the issue of non-operational STPs and house service connections was briefed. It was informed that in Bagalkote area, Rs. 8.7 crore has been earmarked under SBM 2 and work has started. In Gadag, Rs.19.35 crore has been earmarked for works related to 4.18 MLD STP and work

shall start soon. In Kalburgi, for 3.25 MLD STP, Rs. 5.83 crore has been earmarked under SBM 2. In Tumkur, a DPR amounting to Rs. 10 crore for providing 2nd Stage UGD scheme to Turuvekere town has been submitted to State Government for approval. For Ramdurga region, DPR has been submitted to State Government. For Guledgudda, Rs 4.18 crore has been earmarked for 4 MLD STP under Nagrot Thana Phase IV. In Dakshin Kannada, to upgrade the HSC connections under SBM, work is under progress.

With regard to the non-complying STPs, it was informed that the 2.25 MLD STP at Mysuru based on waste stabilization pond is being upgraded to Sequential Batch Reactor of 3.8 MLD. In Shivamogga, Bhadravati WSP STP is being upgraded to natural endogenous bioreactor technology. In Belagavi, Chikodi WSP is being upgraded under SBM-2. In Bangalore Rural, works are under progress and initially aerators are being installed for enhancing DO level. With regard to the non-operational ETPs, it was informed that 46 industries without ETPs have been closed. 61 industries have closed down due to their own reasons. 60 units are KSRTC Bus Depots, not industrial units, which are to be covered by the STPs. With regard to the issue of no in-situ remediation for pollution of drains that are directly falling into polluted river stretches, MS KSPCB informed that Haveri Grey Water Treatment project has been awarded under Atmanirbhar Bharat Innovation Award 2022 by Ministry of Jal Shakti. Thus, the State Government is addressing the issues.

DG, NMCG highlighted that small modular units called Johkasou / Decentralized STPs are being manufactured in India now as per the MoU between India and Japan, which may be useful for cities like Bangalore. Capacity building programmes can be arranged by MoHUA for the States. As the O&M cost is comparatively low, State can explore such options as well. Further, State was directed to provide written submission with regard to the action proposed against non-operational and non-complying STPs.

4. Andaman & Nicobar

Joint Director, NRCD highlighted that last MPR was submitted by UT in April, 2022 and the status was reviewed in last meeting of CMC held in June, 2022. Another major issue with the UT is that it is yet to submit Action Plan for Coastal Pollution to CPCB.

DG, NMCG directed the UT Administration to submit the MPRs every month in a timely manner and well in advance before the CMC meetings so as to monitor the progress

UT Administration informed that the Action Plan for Coastal Pollution shall be submitted within 15 days.

5. **Punjab**

Director, NRCD informed that there are 4 polluted river stretches identified in Punjab. Total sewage generation in the State is 2128 MLD for which 1834 MLD treatment capacity is available. Out of 133 existing STPs, 132 are operational and their utilization capacity is 80% on an average. Since, last CMC meeting, 2 STPs of 6 MLD & 0.5 MLD have been commissioned. Out of the 106 STPs monitored, 76 STPs are complying and 30 STPs are non-compliant. There are 6 CETPs of 110.53 MLD total capacity of which 3 major CETPs of 15 MLD, 40 MLD & 50 MLD are in Ludhiana catering to textile dying units. These 3 CETPs are reported to be non-compliant. With regard to the Buddha Nallah rejuvenation project, it was informed that progress of new 225 MLD STP at Jamalpur in last three months has been 14% and for the 60 new MLD STP at Balloke was 13%. The cumulative progress of the 225 MLD STP is 74% and for 60 MLD STP at Balloke is 24%. Refurbished STPs of 50 MLD and 105 MLD are under trial run while the progress for 152 MLD STP is 16%. However, progress remained stagnant with regard to the 111 MLD STP at Bhatia. Work for installation of 2 ETPs (2.25 MLD & 3.75 MLD) for dairy complexes has started and is expected to be completed by June, 2023. Work has been awarded for installation of Compressed Biogas Plant with October 2024 as completion timeline.

Major issue in the State is the gap of 570 MLD in sewage treatment and the progress of 52 under-construction STPs needs to be expedited. Land issues are there in 4 under-construction STPs and 20 proposed STPs. Work for 0.15 MLD CETP has been stopped due to litigation in Punjab High Court. There is gap of 26% in MSW processing.

Actionable points from the meeting held between Hon'ble Minister of Jal Shakti and Chief Minister, Punjab in July, 2022 with regard to issue of Buddha Nallah pollution were highlighted. Expediting the works of on-going new STPs (Dec 2022 & June 2023) and refurbishment of existing STPs as per the committed timelines (Dec 2022); regular monitoring of CETPs and individual ETPs in the catchment of Buddha Nallah for ensuring proper functioning and compliance; for control from diaries – installation/commissioning of bio-methanization plant and ETPs of adequate capacities.

Principal Secretary (LSG), Punjab informed that financial arrangements have been made for the STP projects and State is endeavouring to resolve the land issues. The gap in sewage treatment will be addressed completely after commissioning of the planned STPs.

Disciplinary action is being taken against non-complying STPs with FC norms and it is expected that the monitoring in upcoming months shall have improved results. Further, BOD levels in treated effluent discharge have been notified as 10 mg/l by PPCB in the State. As few STPs are based on old technologies and achieving BOD level of below 10 mg/l is difficult, therefore technological interventions are being explored. With regard to Solid Waste Management in the State, a meeting has been conducted with SBM 2, funds have been tied up and work is in progress.

With regard to the Buddha Nallah Project, it was informed that 60 MLD new STP was delayed and efforts are being put up to complete the project by June 2023. Further, issues with the locals have been resolved and STP works have started. For the remaining works under the project, State is trying to complete the works by December, 2022. As per the decision taken in the meeting held with Hon'ble Minister of Jal Shakti, a Committee was constituted by CS, Punjab with Secretary (Science and Technology) Punjab as Chairman, Municipal Commissioner and Chief Executive Officer, Punjab Water Supply & Sewerage Board. The study has been completed, for which the final report is awaited. However, the Municipal Corporation feels the original estimate prepared is taking into account all the capacities. If there is any deviation, tender shall be floated for the same.

Secretary DoWR, RD & GR raised concern over State Governments response with regard to the non-complying STPs. NRCD was directed to look into the matter and provide appropriate recommendations to the State Government. By the next meeting, State needs to come up with a concrete plan for up-gradation of STPs in order to make them compliant. It was remarked that State Pollution Control Board and Industries Dept. have significant role in ensuring compliance of the CETPs in highly polluting textile clusters. A credible strategy is to be framed to make non- compliant CETPs complaint. State needs to stick to the committed timelines with regard to the Buddha Nallah Project and may take necessary action for completing the 60 MLD STP before June 2023.

Joint Secretary, NRCD informed that a team comprising of officials from NRCD, CWC, CPCB along with the State officials including Member Secretary, PPCB undertook visit to

STPs and CETPs in Buddha Nala catchment in May, 2022. Non- compliance of the CETPs was noticed during the visit and State was directed to take action against the same.

ED (Tech), NMCG highlighted that every industry should have a functional primary treatment unit so as to ensure input to the CETP conforms to the inflow design standards. Consent has to be given by State PCB to the primary units in the industries and it shall meet the CETP standards.

Member Secretary, PPCB informed that till April, 2022, EC of 77 lakhs has been imposed on the 15 MLD CETP. Upgradation of system is under way and by this month end the work shall be completed. BOD & COD standards are being achieved in the 40 MLD CETP but the CETP is unable to achieve the TDS level of 2100 mg/l. The 50 MLD CETP is under stabilization, but there is an issue regarding the share allotment and excessive discharge. PCB has closed down 50% capacity of few of the industries to stabilize the CETP.

6. Maharashtra

Director, NRCD informed that the State has maximum number of polluted river stretches. The estimated sewage generation is 9757 MLD for which 144 STPs of 7747 MLD total treatment capacity exists. The gap in sewage treatment is 2010 MLD. The capacity utilization of the STPs is 4336.31 MLD. 137 STPs are operational of which 72 STPs are reported to be complying and 62 STPs are non-complying. 7 STPs of 171.2 MLD are non-operational. As per sewage treatment gap analysis in the polluted river stretches, treatment capacity exists for 2024.16 MLD against the sewage generation of 2728.65 MLD. To meet the gap, 78 STPs are proposed of total capacity 1279.70 MLD. 29 STPs of 396.6 MLD were reported under construction earlier, but as per latest MPR 23 STPs of 312 MLD are reported under construction. The completion timeline of most of the STPs under construction are January to December, 2022. This needs to be revised vis-à-vis the actual progress. Status of remaining STPs under various stages needs to be informed. In case of Mumbai, works for 7 STPs of 2464 MLD have been awarded. These works needs to expedited and monitored rigorously. Recently, NGT has directed the State to pay EC of Rs.12000 crore for improper management of solid and liquid waste. NGT has taken cognizance of the treatment gap. Commissioning of proposed CETP needs to be expedited. 81 drains have been identified which are discharging waste water along P-I & P-II stretches. These need to be provided with interim measures taken to tackle the discharge.

Secretary DoWR, RD&GR, MoJS highlighted that State needs to be have concrete plan to bridge the substantial gap in sewage treatment. Also, the State to upgrade the large capacity STPs reported to be non-compliant. Issue of industrial pollution also needs to be addressed. Still, a large number of drains are discharging untreated waste water into the water bodies. Serious concern was raised regarding absence of senior representation in the Central Monitoring Committee meetings.

Member Secretary, Maharashtra Pollution Control Board informed that low capacity utilization of the STPs is due to connection issues and works are underway to resolve the issue. Chief Secretary, Maharashtra has taken cognizance of the low capacity utilization prior to the NGT order. 2 meeting were held with regard to management of sewage, municipal solid waste and legacy waste across the State. . Chief Secretary reviewed the status ULB wise and provisions for about Rs. 21000 crore for addressing the issues has been submitted to GoI. With regard to the gap in sewage treatment capacity of 2010 MLD, it was informed that 1600 MLD of gap is on account of Mumbai, Pune, Thane, Nagpur and Vasai-Virar Municipal Corporations. Plans are in place for these 5 cities and Chief Secretary has directed Principal Secretary, Urban Development to address each Municipal Corporation and frame a realistic timeline for making the STPs functional to their optimum utilization. With respect to Mumbai, a gap of 720 MLD exists and work orders have been issued for 8 STPs of 2464 MLD. These STPs are to be completed by 2026-27, though Chief Secretary has directed to expedite the completion. A gap of 275 MLD exists in Pune, for which 11 STPs under JICA assistance are in progress. Regarding gap of 130 MLD in Nagpur, JICA is funding to tackle the deficit. For bridging the gap in Vasai-Virar, plans are proposed for funding under AMRUT 2 / SBM 2 /own funding.

Though the NGT has issued directions to ringfence Rs.12000 crore for treatment and utilise for the purpose, therefore budgetary provisions has been made accordingly. There are 144 STPs of capacity 7800 MLD in the State, of which 5 are non-operational. The non-operational STPs are in Kalyan Dombivali MC, Mira- Bhaindar MC, Daund MC, Bhiwandi MC and 1 STP is taken for upgradation in Aurangabad Municipal Corporation. Out of 139 STPs, 73 are complying and 63 are non-complying. Non-compliance of the STPs is majorly due to old STPs having BOD design parameters of 30 mg/l and are unable to achieve the revised stringent BOD standards of 10mg/l. Show cause notices for upgrading the STPs and

improving the O&M have been issued. In Mumbai, entire project of revamping STPs is underway.

It was informed that due to continuous efforts, as per the monitoring data there is improvement in water quality of the polluted river stretches in Maharashtra. At present only 1 stretch remains in Priority - I and 8 stretches have been shifted to PIII & PIV. There are no stretches in Priority - II. There is reduction in number of polluted river stretches in Priority–III from 14 to 11.

With regard to the discrepancy observed in the data related to proposed STPs, State assured to submit the reconciled data early. At present, there are 25 STPs of 349 MLD capacity under construction. 15 FSTPs exists along polluted river stretches. 70 new STPs of 3908 MLD are proposed. 24 CETPs are functional out of 26 existing CETPs in the State. 1 CETP is closed due to non-compliance and another is under up-gradation. 23 CETPs reported are complying. One non-complying CETP is preparing the upgradation plan.

With regard to the Municipal Solid waste, it was informed that 98.86% of the MSW generated in the State is being collected. Quantity of MSW processed is 83.97%. For the gap of 7% which is 1776 MT in generation and processing, Chief Secretary has directed to identify the ULBs and start the processing facility. 3.94 crore MT legacy waste is still to be processed, of which about 3 crore is from Mumbai Corporation. 120 dumpsites have been cleared this year. State has committed to NGT to clear the dumpsites at the earliest. MCGM is in process to provide the bioremediation measures to the 81 drains discharging into water bodies.

Secretary DoWR, RD&GR directed NRCD to put up a DO letter to Chief Secretary, highlighting issues like treatment gap and time bound action plan to bridge this gap, problem of polluted water discharged through the drains, non-complying CETPs and other issues as discussed.

7. Odisha

Director, NRCD highlighted that there are 19 polluted river stretches. Total sewage generation in the State is 880 MLD, of which 302 MLD is from six major towns catering to 41% of the population. Treatment capacity of 372.56 MLD is available. Thus, there is a huge gap in sewage treatment. The capacity utilization is 109.12 MLD against the operational

capacity of 282 MLD. This is due to non-completion of I&D works and HSC for newly commissioned STPs. Status of 18 drains identified for bioremediation has not been mentioned in MPRs. The Kathajodi river has been chosen a model river, but the HSC needs to be expedited to achieve the desired water quality. Action Plan for Coastal Pollution was submitted after July, 2022 to CPCB.

Principal Secretary (Environment), Odisha attended the meeting along with other State officials. Special Secretary (Housing and Urban) cum Mission Director, SBM (Odisha) informed that faceal sludge treatment plants have been initiated since 2019 to manage the faecal matter and black water. Of the targeted 119 FSTPs, 108 FSTPs have been completed and remaining 11 FSTPs shall be completed by March 2023. State has initiated pilot project for used water treatment in 2 ULBs. Many officials from different States have visited Odisha regarding waste water management. The actual sewage treatment has increased from 109.12 MLD to 133.35 MLD. Main challenge is the House hold connections for which community partners are appraising the households for connections. For bioremediation works, NEERI was approached by the State, but no assistance has been received. Therefore, CMC was requested to provide assistance with regard to bioremediation of drains. With regard to river Kathajodi, it was informed that in last three months, 404 household connections have been done & a total of 17454 connections out of 43500 household connections have been achieved so far.

The State has adopted decentralized solid waste management system through 248 micro-composting centres which process bio-degradable and wet waste for generating compost. In the last financial year, 1270 MT of compost has been generated. Hon'ble Chief Minister of the State has approved the rate of the compost at Rs.20 per kilo. It has been distributed to various departments and Rs.2.58 crore has been generated. This amount goes as honorarium to community centres, thereby establishing a circular economy at field level.

Odisha Water Supply & Sewerage Board official informed that grey water management is on track and the State has plans to saturate the ULBs with the same management system.

Member Secretary, Odisha Pollution Control Board informed that Action Plan for Coastal Pollution has been submitted to CPCB. There are no CETPs in the State, 48 industries have been inspected amongst which 16 industrial units were found to be non-compliant. 14 non-complying units were issued show cause notices, one unit has been closed and another unit is

under investigation. Rules for idol immersion has been framed and being implemented since last year.

DG, NMCG highlighted that out of 19 polluted river stretches identified in the State, 13 river stretches are in Priority V (Mahanadi, Brahmani, Kusumi, Nuna, Ratnachira, Rushikuli, Sabulia, Serua, etc.). Small interventions can lead to improvement in these river stretches.

Member Secretary, Odisha Pollution Control Board informed that as per the draft report of CPCB, 12 out 19 stretches can now be notified as non-polluted based on the latest water quality monitoring data. Further, 1 river passing through Bhubaneswar is in priority - I, 3 river stretches are in priority - IV and 3 river stretches are in priority - V. State has requested CPCB to de-list the rivers.

DG, NMCG informed that under Namami Gange, selling of compost to the farmers is being initiated and suggested that a team shall visit to understand the mechanism adopted by the State.

Special Secretary (UDD), Odisha informed that community driven mechanism has been adopted and the price has been fixed by the State Government. The concerned department gets the compost from the nearest ULB and delivers it to the farmers/ plantation programmes.

8. Tripura

Director, NRCD informed that all the 6 identified polluted river stretches in the State are in priority-V. As per MPR submitted by the State, sewage generation is 82 MLD, but as per CPCB report it is 237 MLD. State needs to reconcile this data. There is only one STP of 8 MLD existing in the State, leading to huge gap in sewage treatment facility. The capacity utilization of the STP is only 3 MLD. Another STP of 8 MLD at Agartala is under construction through Smart Cities Mission, the work for which was awarded in February 2020 and so far only piling work has been taken up. The proposed works for combined FSTPs and STPs for 20 ULBs needs to be expedited. In-situ bioremediation has been proposed for 210 drains in the State, and its present status and timeline needs to be informed by the State. On pilot basis, the work order for bio-remediation was issued in July 2022 and the work needs to be expedited. Action taken with regard to the model River Haora needs to be reported in the MPR separately. 256 TPD solid waste processing facility exists against the

total MSW generation of 411 TPD. State needs to provide action proposed for management of this gap in MSW.

Director (Science & Technology), Tripura along with Member Secretary, Tripura PCB and other State Officials attended the meeting. It was informed that in 2016 the rivers were not achieving the desired bathing water quality. However, as per the monitoring data post 2016, the rivers were achieving the desired water quality. Due to fund constraint, the State could not take up any measures on time to bridge the gap of 74 MLD in sewage treatment. State Urban Development Department has planned to install combined FSTP and STP in all the Municipal Corporations. Accordingly, DPRs for 12 ULBs are being prepared for funding under ADB. Action plan for 8 ULBs has already been sent to Swachh Bharat Mission.

To enhance the capacity utilization of existing STP, 104.5 kms. sewerage lines have been connected with the STP, including 9 pumping stations. Septage from Agartala city and surrounding areas are carried in by cesspool emptier vehicle and treated at this plant. For coverage of the remaining part of the area (provision of 34.16 kms. sewerage line and 1590 nos. household connection) to this STP plant, a DPR has been prepared and financial tie up is being explored. With regard to the 8 MLD on-going STP, it was informed that while initially there were some delay, the issue has been resolved and work started. Mobilisation work is on-going for the pilot taken up for insitu bioremediation. Floodplain Zones of 6 polluted river stretches are already identified and illegal encroachments removed. Bamboo plantation on sides of the river banks has been done in collaboration with Forest Department, Tripura.

Secretary, DoWR, RD & GR, MoJS highlighted international border issue of pollution due to polluted river discharging from Tripura into Bangladesh. State may take necessary action to resolve the issue.

ED (Tech), NMCG informed that Bangladesh has raised the issue of pollution from Akhaura entering into their country. It was made a part of the Agenda of the Joint River Commission meeting recently held. State had given input that a 8 MLD STP is under construction at Akhaura, the work for which was awarded in 2020 and started in February, 2022. The delay was due to funding problem. State has committed to complete the work by December, 2022. It was also learnt that the pollution in Akhaura enters through two other sources namely Kalapania and Katakhal. Therefore, pollution from all three locations/ sources needs to be addressed and State may apprise the plan initiated or proposed.

Due to connectivity issue, response from the State could not be properly recorded. State was directed to provide its submission in written to the Ministry and was directed to adhere to the committed timeline for completion of the on-going STP at Akhaura.

Secretary DoWR, RD & GR, MoJS directed NRCD to highlight in DO letter to CS, Tripura the issue of pollution from Tripura going into Bangladesh and State to take appropriate action on priority.

9. **Goa**

Director, NRCD informed that there are 11 polluted river stretches in the State. Sewage generation in the State is 112.53 MLD. 9 STPs of 78.35 MLD are operational and complying. 5 STPs of 35.5 MLD are under construction and are in final stages of completion. State may closely monitor the progress of these STPs so as to ensure timely completion. There are 3 proposed STPs of 43 MLD. The low capacity utilization of the existing STPs (51 MLD) is due to non-completion of on-going HSC works and the State needs to expedite the projects for optimum utilization of the STPs. MSW generation in the State is 766 TPD for which processing facility available is only 200 TPD. On-going and proposed SWM projects may be expedited to meet the gap in MSW management. Present status of Model river Sal needs to be provided in detail in the MPR. Status of Action Plan for Coastal Pollution needs to be mentioned in the MPR.

Director (Environment), Goa informed that 350 TPD Solid waste processing facilities are available in the State. Some municipalities are disposing 204 TPD at their level, 10 TPD is being disposed at village level, 225 TPD is being disposed at Panchayat level. In total, 589 TPD is being disposed out of 766 TPD. Gap of 177 TPD exists. Stay order has been issued by Supreme Court for the plan at Daikini and public consultation needs be conducted for the plan at Waina. The implementation of these plans shall resolve the gap in solid waste management.

DG, NMCG enquired about the completion timeline of the 5 STPs in final stage and the local issues being faced at Bandora and Purovarum.

Director (Environment), Goa informed that STPs at Panaji, Baga and Mapusa will be completed by October 2022 and STPs at Kavlem and Colva will be completed by December,

2022. With regard to the proposed STPs, it was informed that local people were reluctant to set up STPs at the identified sites and efforts are being put in to resolve the issue.

10. Andhra Pradesh

Additional Director, NRCD informed that there are 5 polluted river stretches in the State. Total sewage generation in the State is 1503.20 MLD and 45 STP of 535.45 MLD are operational, thus leaving a gap of 967.75 MLD. MPRs are not being received timely. No significant incremental progress has been observed in case of under construction STPs. Even after considering the ongoing and proposed STP projects, there exists a gap of 425.48 MLD in sewage treatment. No progress has been indicated with respect to the STPs of 1302 MLD proposed for 120 ULBs & municipalities. Progress need to be expedited for the 2 CETPs of 3 MLD and house service connection works for 11 MLD STP at Drivers Colony, Nellore. Also, State needs to indicate the Model River selected by the State & Action Plan for Coastal Pollution needs to be submitted.

DG, NMCG indicated that major issue seems to be stagnant incremental progress being reported in the MPR by the State since November, 2021. State may verify the same. Details of other relevant issues such as ground water regulation, floodplain demarcation, etc. needs to be incorporated in the MPR submission.

Special Chief Secretary (Municipal Administration), Andhra Pradesh stated that the existing STP capacity against the 1503.20 MLD sewage generated by State is only 535.45 MLD. Another 506 MLD of sewage will be covered by the 62 under construction STPs. There has been some incremental progress in these STPs and by the next CMC meeting there will be further substantial progress and the same will be updated in the next MPR submissions. Further to bridge the gap of 425 MLD in sewage treatment, STPs are proposed to be installed at 221 locations. Currently State is working on acquisition of lands (~251 acres) for setting up these proposed STPs. Upon completion of these 221 STPs, 100% coverage of liquid waste will be ensured. With regard to the Drivers Colony STP at Nellore, it was informed that State has planned for 1500 house service connection and will ensure its completion by the next CMC meeting.

State generates 6890 TPD of solid waste spread over 123 ULBs of which 4340 TPD is actually being processed. 1420 TPD is processed by waste to composting and Bio CNG plant, 800 TPD through MRF and 2120 TPD through Waste to Energy plants which have been

commissioned in Guntur and Vishakhapatnam. This leaves a gap of 2550 TPD, for which the State is planning for Waste to Compost plant and Waste to Energy plant at Rajahmundry which has been given clearance by Energy Department. 15 independent projects for treating dry and wet waste and 37 integrated solid waste management projects have been awarded. Some of them have site issues which will be sorted out soon and 17 waste to compost plants are in progress. State has a plan to treat 2550 TPD waste. State is trying to clear up all the legacy waste dump yards, some of which are in tendering process and for some works have been awarded and this will be cleared up totally in one and half year time.

DG, NMCG highlighted that for rejuvenation of River Godavari, some financial assistance is being provided by NRCD, which requires opening of SNA account. Further, it was suggested that if State can expedite the clearing up of legacy waste within one year, it can be a show case as one of the successful programmes in Andhra Pradesh.

Additional Director, NRCD informed that SNA account has been opened but they are not able to link it with the PFMS. This needs to be checked on priority basis for release of funds.

11. <u>Telangana</u>

Additional Director, NRCD informed that there are 8 polluted river stretches in the State. Total sewage generation in the State is 2750 MLD and there exists 35 STPs of 905 MLD thus leaving a gap of 1844.95 MLD. MPR is not being received regularly. Site issue with regard to the 100 MLD STP at Reddypuram needs to be resolved. There exists a gap of 2398 TPD in solid waste management. State may update about the management of e-flows in the rivers as it has been reported that all the rivers in the State are rain fed and non-perennial, due to which e-flow management is not possible.

DG, NMCG stated that the State's submission with regard to all rivers being non-perennial is not correct & may be reviewed.

Member Secretary, Telangana Pollution Control Board informed that on-going STPs will be expedited. HMWSS has proposed completion timeline of the ongoing projects up to June, 2023. Out of 15 STPs, 2 STPs have been dropped because of submergence issue and the proposed effluent shall be diverted to other STPs. With regard to Warangal STP, action has been taken for shifting the site to another location. Commissioner and Director, Municipal Administrator has written a letter to Special Chief Secretary requesting for an amount of Rs. 19 crore for acquiring the land. Except for Reddypuram, all the STPs works have been

started. With regard to proposed STPs, there are issues in 10 STPs at GHMC level, HMWSS is requesting for Administrative Sanction and it is under active consideration of Special CS. For STPs beyond HMWSS region, Administrative Sanction has been given and M/s Design Green Environmental Services has been appointed for the preparation of DPRs for 72 STPs. There is no gap in industrial pollution management and solid waste management in GHMC area. For other municipalities, Commissioner has already called for tenders. Action is being taken with regard to legacy waste, waste generation and faecal treatment, etc.

Commissioner and Director, CDMA informed that to bridge the gap of 2346 TPD in solid waste, tenders have been called for processing facilities of 2974 TPD capacity for 129 municipal clusters. In GHMC area, Waste to Energy plants and pulverization has been proposed and in other municipalities, pulverization and bio-methanation has been proposed. 7 municipalities have taken up the work on their own. Technical and financial evaluation has been done and price negotiation is in process at Government level and shortly it will be completed. The Bio-remediation works got delayed due to rain, and work will be started soon in 73 municipalities.

ED, HMWSSB informed that 2 new large STPs of 312 MLD & 220 MLD capacities (based on SBR) are being taken up at Nagole and Amberpet to bridge the gap in sewage treatment. By June 2023 all the STPs are planned to be grounded.

On enquiey by DG, NMCG, it was informed that 772 MLD STPs are existing in GHMC and STPs of 1259 MLD are being taken up, totalling to 2031 MLD. A 51 MLD STP already exists at Attapur, and a 64 MLD STP is also being taken up at the same location. Bulkumpet nallah which pollutes Hussain Sagar Lake, shall be tapped and treated at the nearing completion 133 MLD STP at Fatehnagar and treated water shall be released into Hussain Sagar.

DG, NMCG directed State to keep up with the committed timelines.

12. <u>Lakshadweep</u>

Additional Director, NRCD informed that the major issues with the UT are MPRs not being submitted regularly, gap of 2.77 MLD existing in sewage treatment and status of the 4.5 KLD capacity FSTP remains the same since last 6 months.

Member Secretary, Lakshadweep Pollution Control Committee informed that MPR upto August, 2022 was submitted on 19.09.2022. With regard to gap in sewage treatment, it was informed that Navi is setting up a STP. Tender has also been floated for 5 KLD STP under Kavarati Smart City and the tender opening date is 27.09.2022.

DG, NMCG raised concern over delay in submission of MPRs. It was directed that MPRs be submitted every month and well in advance before the CMC meetings so as to monitor the progress.

13. <u>Kerala</u>

Additional Director, NRCD informed that there are 21 polluted river stretches in the State. Total sewage generation is 317 MLD and there exists 19 common STPs of 129.476 MLD capacity, leaving a gap of 118.13 MLD. As per the MPR, sewage treatment gap is reported to be 51.314 MLD, but the actual gap is calculated to be 118.13 MLD {317-(129.476+0.21+69)}. 107 MLD STP at Muthathara, Thiruvanathapuram remains underutilized due to inadequate sewer network. There remains a gap of 342 TPD in Solid Waste Management as no significant progress has been achieved with respect to the proposed 8 Waste to Energy plants. The State has requested for expert advice for in-situ treatment.

ACS (Environment), Kerala highlighted that much of sewage management in the State is through fairly efficient and universal system of septic tanks and soak pits. The density and peculiar distribution of population settlement across the State prevents it from establishing extensive sewerage system through piped sewerage. Therefore, it was requested that the same may be considered along with the data submitted for gap in treatment as reported in the MPR.

Member Secretary, Kerala Pollution Control Board informed that 21 polluted river stretches were identified in Kerala of which 1 was in priority-I and others were in priority – IV & V. However, as per the draft report prepared by CPCB, wherein the list of polluted river stretches have been revised based on the latest water quality data, out of 21 stretches, 11 stretches can be de-listed and for the remaining stretches there has been a considerable change in the priorities, depicting improvement in water quality. Further, State is having septic tank system in individual households as per the IS code and that also needs to be considered to reduce the gap in the sewage treatment. For the first time non capping bio-mining has been done in the State in Kureepuzha and has been completed. There are 298 large scale and medium scale water polluting industries and 11000 small scale units. ETPs

have been installed for all these industrial units and consent for the same is given only after the installation of ETPs by the industrial units. Further, Guidance was requested with regard to phyto-remediation and constructed wetlands projects from the Ministry.

ED (Tech), NMCG remarked that largely the septic tanks are being used for individual sewage management in the State and it is quoted that 1011 MLD is being treated through septic tanks and soak pits. **State was directed to provide method adopted by the State for assessing the quantity of sewage being treated through the septic tanks. Efficacy of this system needs to be ascertained by the State. Compliance status of the existing STPs needs to be provided in the MPRs. No significant progress has been achieved in on-going STPs.**

Scientist D, CPCB informed that the river water qualities for the years 2019 and 2021 have been assessed at CPCB and a draft report was prepared. The draft report was shared with the States for comments. The rivers have not been de-listed at present. After considering the comments from the State, the report shall be finalized and published.

14. Puducherry

Additional Director, NRCD highlighted that there are 2 polluted river stretches in the UT. Total sewage generation is 92 MLD and there exists 5 STPs of 56 MLD and one oxidation pond of 12.5 MLD, leaving a gap of 23.5 MLD in sewage treatment. MPRs are not being received timely and to avoid delay the State may send the MPRs through mail as well. Status of the 2 proposed STPs each of capacity 3 MLD at Puducuherry and Karikal remains same. Status of the 2 non-operational STPs is not reported in the MPR. Action taken with regard to 4 non-complaint ETPs needs to be provided. State may indicate directions issued with respect to immersion of idols, puja materials, etc.

DG, NMCG directed UT to expedite the works of the proposed STP projects. Action taken with respect to immersion of idols, puja materials, etc in rivers was sought.

Secretary (Environment) cum Chairman, Puducherry Pollution Control Committee informed that DPRs are ready for the proposed STPs and shall be taken up under AMRUT. These shall be completed by March, 2023. It was assured that MPRs will be submitted regularly on time. Further, it was informed that closure directions have been issued to 2 non-complying ETPs and remaining 2 non-complying ETPs have complied with the discharge norms. With regard

to the Solid Waste Management, it was informed that out of 416 TPD of MSW generated, work order has been issued for installing processing facilities of 217 TPD and it shall be commissioned soon. For treatment of remaining waste, tenders are being prepared and will be floated shortly. It was informed that the idols and pooja materials are immersed in the sea and directions received from the Ministry shall be complied with.

15. <u>Assam</u>

Scientist B, NRCD informed that State has proposed 3 STPs of 187 MLD under JICA funding. Land acquisition has been completed and action for hiring of Project Management Consultancy (PMC) is being undertaken. The project is expected to be completed in 2 year duration. State needs to provide completion timeline for under construction 2 MLD capacity STP at Nagaon and six other ULBs. State Government needs to expedite action for the proposed 2 MLD capacity each STP cum FSTPs at Mangdaloi, Tezpur, Jorhat proposed under SBM, which are currently in DPR stage. Similarly, project for 2 MLD STP capacity cum 10 KLD FSTP and 11 km sewerage for Silchar, currently in DPR stage proposed under AMRUT 2.0 needs to be expedited. Out of 408 water polluting industries, only 344 units have ETPs of total 28.78 MLD. Action taken against remaining 64 units needs to be indicated. Total MSW generation in Guwahati is about 550 TPD and only 12.5 TPD treatment capacity exists. RDF-Compost Plant has been proposed with capacity of treating 150 TPD in phase-I, for which tender has been already floated. Work has started at Belortol Pachim Boragaon. This needs to be expedited. In previous MPRs it was submitted that 38 Waste to Compost plants of 169 TPD will be completed in May, 2022. State may indicate the present status of the same. 1 CBWTF at Barpeta was to be commissioned in June 2022 and 1 CBWTF is proposed at Tezpur. State Govt. may indicate its present status.

Commissioner Secretary (Environment), Assam along with Commissioner Secretary (Urban) and Member Secretary (Assam PCB) attended the meeting. It was informed that State Government of Assam had submitted a request to CPCB for de-listing 35 polluted river stretches as highlighted in the 2018 report of CPCB. Of the remaining 9 polluted river stretches, 5 are in Guwahati. It was also informed that there has been improvement in the water quality of Borsola in Guwahati where the priority has changed from priority-I to priority-III due to efforts put up by Development Authority for the last one year by diverting the sewage and installation of large number of silt traps.

With regard to JICA funded projects for construction of 3 STPs of 65 MLD, 62 MLD and 60 MLD capacity at Silsakoo Beel, near Borsola Beel and Paschim Boragaon respectively, it was informed that clearance from DEA has been received and preliminary works have started. As the STP project will be completed within 7 years, parallelly the State Government has started work for implementation of FSTP in Guwahati.

DG, NMCG directed the State Government to revisit the proposed duration of these projects as the timelines were too long. Commissioner Secretary (Urban), Assam further informed that work for implementation of 2 MLD STP at Nagaon has started under State's own resources. However, it was mentioned that for Silchar and Dibrugarh, STP works are being proposed under AMRUT 2 and 3 respectively. Clearance from the Apex Committee meeting of AMRUT Mission following which, preparation of DPR will commence. For six other towns, STPs of 12.5 MLD have been proposed under SBM 2, clearance from CPHEEO has been received and approval of MoHUA is awaited.

Deputy Adviser, MoHUA informed that approval has been cleared for funding and is in approval file for first funding installment.

DG, NMCG directed MoHUA to give Assam priority as there is no sewage treatment capacity available in the State.

Commissioner Secretary (Urban), Assam informed that 150 TPD plant at Belortol Pachim Boragaon has started with completion timeline of 18 months. 119 TPD processing facilities were supposed to be completed by May 2022, of which 100 TPD has been completed and remaining 19 TPD (organic waste converter) for 38 ULBs shall be commissioned within 3 months.

State official informed that 1 CBWTF at Barpeta is already commissioned. With regard to the 64 industries where no ETPs were installed, it was informed that these are small units such as pathological laboratories and hotels that have not applied for the consent to operate. The State informed that action in this regard has been taken and the issue is expected to be resolved in a month's time. With regard to hazardous waste management, it was informed that presently hazardous waste is being sent to Dalmia Cement Plant for incineration. Discussions with Oil India Limited and with West Bengal Pollution Control Board are being carried out for sending the hazardous waste to TSDF site at Haldia, West Bengal.

DG, NMCG suggested that State may also consider setting up of decentralized modular STPs with Johkasou technology for small towns with lesser sewage generation. It was directed to expedite implementation of all ongoing projects in the State to meet the timelines of NGT.

16. Sikkim

Scientist B, NRCD highlighted that 3.25 MLD STP at Gangtok Zone III is having 72% progress and has of completion timeline of December, 2023. State may expedite the works. State also needs to expedite implementation of projects for Mangan (0.98 MLD STP), Geyzing (1.8 MLD STP) & Chungthang (0.72 MLD STP) sanctioned recently under NRCP. Land acquisition for proposed 3.63 MLD STP at Namchi and 1.6 MLD STP at Jorethang may also be expedited. Effort needs to be put in for early commissioning of 0.02 MLD ETP.

DG, NMCG highlighted the issue of land allocation to Central Water Commission at Gangtok. State was directed to resolve the long pending issue as the same is being regularly pursued by Hon'ble Minster of Jal Shakti. This also led to delay in releasing funds for the ongoing projects under NRCP in Sikkim.

Chief Secretary, Sikkim attended the meeting along with the State officials. It was informed that on 19.09.2022, officials of State Government along with CWC officials inspected land belonging to Animal Husbandry Department which has been recommended for allotment for construction of CWC building. Approval from Chief Minister, Sikkim is awaited.

Secretary (PHED), Sikkim requested for early release of funds for the ongoing projects for their timely completion. With regard to 3.63 MLD STP at Namchi, it was informed that there has been opposition from the locals and the State is doing its best to acquire the land. With regard to land for 1.6 MLD STP at Jorethang, forest clearance is in process. For proposed STPs at Rabong and Soreng, source of funding is being explored.

Further, it was informed that 4 polluted river stretches (all in priority V) in the State were identified by CPCB in its report of 2018. However, as per the latest draft report of CPCB with revised polluted river stretches, all the rivers in the State are achieving the desired bathing water quality and no river is categorized as polluted.

17. Mizoram

Principal Secretary (Environment), Mizoram informed that solid waste processing facility at Kolasib is already completed and operational. Similarly for Champhai, substantial amount of

work for SW facility has been done and there are some problems associated with land, which is being sorted out. About 50% of the gap in solid waste treatment lies in Aizawl, and for addressing the issue, DPR is almost ready. In other towns - Serchhip, Mamit, Saitual, Khawzawl and Hnahthial, construction of solid waste treatment facilities have been completed and State Urban Department has been asked to submit list of machineries within a month's time. It is expected that by early 2023, all these SWM facilities will be fully operational. However, not much MSW work has been taken up in rural area. Therefore, a Committee has been constituted for framing road map and action plan to tackle solid waste problem in rural areas. Industrial pollution is negligible in the State as most of the industrial units are small scale and are equipped with ETPs. Further, it was informed that a River Protection Bill that will provide a framework for combining developmental needs with river water protection from pollution is being developed and is in final stage. The Bill is expected to be passed in the next Assembly session.

18. <u>Manipur</u>

Scientist B, NRCD highlighted that there exists a gap of 88 MLD in sewage treatment. State needs to ensure the ongoing STPs of 1 MLD (60% progress) and 16 MLD (98% progress) at Imphal are completed within the committed timeline of December, 2022. The 49 MLD STP at Imphal, reported to be under tendering needs to be implemented expeditiously. MPR needs to clearly depict the total quantity of industrial effluent generated from the 31 water polluting industries. Despite having 34 water polluting industrial units operating in the State, there is no ETP installed so far. Implementation of 3 ETPs proposed at Takyelpat, Tera Urak & Kuraopokpi needs to be accelerated. Construction of drainage system from 5 industrial units to Common Effluent Treatment Plant at Nilakuthi Food Park may also be expedited. Status of proposal for rectification of existing non-operational 400 KLD capacity CETP may be apprised. Completion timeline for under construction 137 TPD MSW plants may be indicated.

Additional Chief Secretary (Environment), Manipur informed that 1 MLD under construction STP is 65% complete while the 16 MLD STP is 98% complete and is under trial run. Tender was floated for 49 MLD STP proposed under NDB funding and in a matter of a week the final compilation of bidding will be done for sending to High Tender Committee and by first week of October, 2022, tender will be finalized. 31 water polluting industries not having ETPs have been closed down. However, DPRs have been completed for setting up 3 ETPs

proposed at Takyelpat, Tera Urak & Kuraopokpi. Proposal for construction of drainage system from 5 industrial units and for rectification of non-functional 400 KLD capacity CETP amounting to Rs.1.77 crore is now pending with the State Finance Department for more than three months. Finance Secretary was requested to consider this matter on top priority so that implementation starts at the earliest. Out of under construction 137 TPD MSW facilities in the State, 100 TPD Waste to Compost plant at Lamdeng is complete and will be fully operational from October, 2022. Of the remaining 37 TPD of Compost pits and segregation sheds, 22 TPD is completed and the remaining 15 TPD will be completed by December, 2022. Further, it was informed that out of 9564 house connections to the existing 27 MLD STP at Imphal, 6144 connections have been completed and the remaining 35% house connections will be completed by October, 2022.

DG, NMCG requested State to expedite completion of 16 MLD STP as the same is likely to be inaugurated by Hon'ble Minister of Jal Shakti.

19. <u>Meghalaya</u>

Scientist B, NRCD highlighted that against 75 MLD of sewage generated in the State, treatment capacity of 2.6 MLD only exists. 0.04 MLD FSSM plant at Khliehriat is yet to be made operational. State needs to expedite implementation of 5 STPs of total capacity 13.42 MLD & 1 FSSM of 0.35 MLD at Shillong and 50 KLD FSTP at Jowai. Phyco-remediation funded project under MEPRF (Meghalaya Environment Protection and Restoration Fund) is complete for Lukha river but yet to be commissioned. Similar work has started for Kyrhukhla River. Status of the 5 ETPs of 0.002 MLD each at Tura is reported to be under construction since long. 4 Waste to Recovery Centres at Shillong of 2 TPD capacity each are existing. 1 unit is yet to be made operational. Status of the 2 Waste to Compost facilities– 50 TPD at Tura & 15 TPD at Nongpoh is same since past one year and these are yet to be made operational. Similarly, 1 Composting Plant of 0.1 TPD at Khliehriat is under trial since past one year.

State official informed that 75 MLD of sewage generation reported previously by the State was found to be on a higher side. The same was reworked by the State and came out to be 51 MLD and will be placed before the State Technical Level for approval. Thus, taking this revised total sewage generation in the State, the gap in sewage treatment will be 21.86 MLD after taking into account the ongoing and proposed sewerage projects of 30.86 MLD.

Updated data will be submitted in the next MPR. The 0.04 MLD FSTP at Khliehriat is now operational and cess pool vehicles are already in place. The progress of setting up 5 onsite STPs (13.42 MLD total capacity) is now 50% and expected to complete by March, 2023. 0.35 MLD FSTP at Shillong is 80% complete and is expected to be completed before March, 2023. 50 KLD FSTP at Jowai is having 35% progress and is expected to be completed by March, 2023. Work is under way for Phyco-remediation of Lukha river and Kyrhukhla river, as there has been extension of stretch by 36 km. Progress of work also got affected by heavy monsoon. All 4 Waste to Recovery Centres of 2 TPD capacity each at Shillong are operational. A new Waste to Energy facility is also going to be installed in the same location as 50 TPD Waste to Compost facility at Tura and an agreement has been made with the private agency for operation and maintenance of the same. Not much progress has been achieved with regard to 15 TPD compost plant at Nongpoh, training of operators will be completed at the earliest for making it operational. Composting Plant of 0.1 TPD capacity at Khliehriat is now operational. The State Government has requested NRCD to consider the new proposal submitted for insitu treatment of 11 drains at Jowai amounting to Rs.19.42 crore.

State needs to provide updated information in their MPRs. Regarding the proposal submitted by the State for insitu treatment of 11 drains, it was informed that the proposal has been examined at NRCD and observations of the same have been communicated to the State for necessary action.

20. <u>Nagaland</u>

It was informed that due to State Legislative Assembly, higher officials of the State could not attend the CMC meeting. **As the last MPR from the State was received for the month of February 2022, which has already been discussed in previous meetings of CMC, State was not taken up for consideration and was directed to ensure timely submission of MPRs.**

21. <u>Daman, Diu & Dadra Nagar Haveli</u>

The last MPR received from the UT was for November, 2021. Issue remains with regard to underutilized 13 MLD STP at DDNH, status of the proposed 16 MLD STP at Nani Daman and submission of Action Plan for Coastal Pollution. **UT was directed to ensure timely**

submission of updated MPRs and representation of higher officials of the UT in the CMC meetings.

22. Jammu & Kashmir

Director, NRCD informed that there are 9 polluted river stretches in the U.T. Sewage generation in the UT is 523 MLD for which there are 15 STPs of 139.40 MLD. The capacity utilization of the existing STPs is 88 MLD due to low coverage of HSC and other lateral sewers yet to be taken up. 86 MLD STPs are under construction and 123 MLD STPs are proposed. Huge gap of 384 MLD in sewage treatment exists at present. Considering the under construction and proposed STPs, the gap shall reduce to 175 MLD. State needs to indicate action proposed to bridge the gap in sewage treatment.

The status of 3 STPs in Jammu remains the same since long. The 10 MLD STP is under refurbishment while the utilization of other 27 MLD and 30 MLD STP is one third of its capacity. With regard to the Devika river project, it was informed that a site visit was undertaken by NRCD on 13th September, 2022. STP at Zone - 2 (4 MLD) & STP at Zone - 3 (1.6 MLD) are likely to be made operational by end of September, 2022 while works of STP at Zone – 1 (8 MLD) would remain in progress. 5 IPS are operational and within 15 to 30 days another 4 IPS would be made operational. The fund release for Devika project is on hold as UT needs to update the PFMS portal. 60 MLD under construction STP at Noorbag, Srinagar was previously funded through JNNURM is now being taken up by the UT from their funds. For making the plant operational, HSC and sewer network needs to be expedited. Solid waste generation in UT is 1500 TPD and the treatment facility is limited to 500 TPD.

Chief Engineer, UED informed that gap in sewage treatment is proposed to be fulfilled through JICA funding under Integrated Water Supply and Sewerage Management Scheme for Jammu & Srinagar, wherein 125 MLD treatment capacity for Kashmir Valley and 75 MLD for Jammu city are proposed to be taken up. The projects have been flagged in the meeting under the Chairmanship of Secretary, Planning & Development Department. The projects are expected to start from next financial year. To resolve the issue of low capacity utilization of STPs, UT has floated 3-4 project under AMRUT 2 and UT Capex that envisage the balance of the HSC for sewerage networks. There are also projects being taken up for I&D of 13 nallahs. The civil works for STP 1 of the Devika river project is almost complete. The

sewerage scheme for 60 MLD STP at Noorbag is under execution and expected to be operational by December 2022.

The issue of PFMS portal related to transfer of funds has been taken up with NIC and Finance Department of the State and an official shall be deputed to the Central Government to finalize the issue, which is expected to be resolved within a few days.

On enquiry by DG NMCG, CE UED informed that the proposed 200 MLD STPs could not be taken up under AMRUT 2 as only Rs.856 crore was available under the sewerage, water supply, rejuvenation and administrative and office expenses under AMRUT 2.

DG, NMCG highlighted that one proposal for Banganga is with NRCD. With regard to the proposal, CE UED informed that land has been acquired from Shri Vaishnu Devi Mata Shrine Board and tenders floated for Project Management Consultants. The other plot is available from Katra Development Authority.

ED (Tech) NMCG highlighted that for industries without ETPs, closure orders were issued for 11 industries and proceedings were initiated for another 29 units. UT was directed to indicate the status for those 29 industries.

Commissioner Secretary (Forest), J&K informed that closure orders were issued to industries not complying with standards and without ETPs. 8 more units were further closed. CTO was not issued to those remaining industries without ETPs.

With regard to the 200 MLD proposed STPs, DG NMCG suggested that JICA funding is a time taking financial assistance and State may explore other options as well.

Secretary, DOWR, RD & GR, MoJS directed NRCD to write DO letter to Chief Secretary, J&K regarding the huge gap of sewage treatment in the UT. Though STPs are being proposed under JICA funding, however the issue needs to be reviewed and monitored regularly at CS level. As per the obligation in respect to the NGT order, the gap in sewage treatment should not have been there in the first place and since the gap persists, UT may take very quick steps to close this gap. The letter to also indicate that all the water polluting industries operating without ETPs should be closed down.

Commissioner Secretary (Forest), J&K further informed that 11 out of 34 industries without ETP have already been closed and closure proceeding for remaining 23 industries in Kashmir and 6 units in Jammu region, has been initiated.

23. Haryana

Senior Monitoring Expert, NMCG informed that State needs to submit MPRs regularly and timely. As per the MPR (May 2022), Haryana has sufficient sewage treatment capacity available. There is sewage generation of 1495 MLD in the State against the existing treatment capacity of 1834 MLD. In Yamuna basin, there is sewage generation of 1086 MLD against the existing 59 STPs of 1074 MLD. The main issue is non-compliance of STPs. Out of these 59 STPs, 26 STPs of 374 MLD are reported to be non-complying and discharge from these STPs is also affecting Delhi region. Of the 26 non-complying STPs (374 MLD) reported in Yamuna basin, 1 STPs in Kurkshetra, 4 STPs in Panipat, 4 STPs in Sonipat, 5 STPs in Rohtak, 5 STPs in Jhajjar/ Bahadurgarh, 8 STPs in Nuh & Palwal, 1 STP in Faridabad and 2 STPs in Gurugram are reported to be non-complying. Many STPs are non-complying with regard to Fecal Coliform (FC). The progress of two under-construction STPs in Faridabad is not satisfactory. Timelines for completion of projects are observed unrealistic, which needs to be revised on actual basis. Similarly, in Ghaggar river, 22 STPs out of 62 STPs are non-complying and in other areas, 20 STPs out of 35 STPs are non-complying. Also, many of the STPs are non-complying with regard to Fecal Coliform (FC). For industrial pollution, 19 CETPs of 190.1 MLD are operational and complying and 5 CETPs of 22 MLD are under construction and 5 CETPs of 145.5 MLD are at proposal stage.

ED (Tech), NMCG raised an issue of huge discharge of untreated municipal and industrial wastewater from Faridabad, Palwal & Hodal through drains into river Yamuna, which is affecting water quality of river Yamuna at Mathura-Vrindavan. Faridabad is generating approx. 200 MLD of municipal and industrial wastewater. There are two STPs of 52.5 (45+7.5) MLD and out of 2 STP, 45 MLD STP is non-complying. Similarly, Palwal is generating approx. 100 MLD wastewater flow and discharging into river Yamuna through Gaunchi drain. Palwal has 3 STPs of 16.5 MLD, all of which are non-complying. Same case is with Hodal also. There is an urgent need to add sufficient treatment capacity in these cities. Other issue is non- compliance of STPs w.r.t. Fecal Coliform. There are also coordination issues among different agencies (PHED, MCF, HSVP, ULB, Irrigation) in Haryana. For solid waste management, Haryana is processing 3115 TPD against generation of 5523 TPD of municipal solid waste (MSW). So there is a gap of 2408 TPD in processing of MSW.

DG, NMCG asked the Haryana State agency to clarify on the above issues.

Member Secretary, Haryana State Pollution Control Board informed that progress of all projects are reviewed regularly at the level of Chief Secretary, Haryana and all projects will be completed on time. HSPCB also informed that regular sampling of STPs are taken by their Regional Officers (ROs) and suitable actions have been taken against faulty plants.

Secretary, DoWR,RD&GR, MoJS suggested that a DO letter to Chief Secretary, Haryana may be put up highlighting the issues of gap in sewage treatment in few cities affecting the river water quality and non-compliance of the STPs.

24. Delhi

Senior Monitoring Expert, NMCG informed that estimated sewage generation in Delhi is 3491 MLD for which 35 STPs of 2874 MLD are in operation as per MPR of August 2022. The utilization capacity is reported to be 2410 MLD (84%). There is a gap of 618 MLD in sewage treatment at present and 1082 MLD untreated discharge is going into river Yamuna. In March 2022, only 8 STPs out of 34 STPs are reported to be complying. In current MPR (Aug, 2022), 22 STPs of 1936 MLD out of 33 STPs are reported to be non-complying and 04 STPs (Kondli IV, Nilothi-I, Pappankala-II, Mehrauli) are not meeting the design norms also. For industrial effluent control, 3 CETPs (Badli, Jhilmil and Lawrence Road) out of 13 are non-complying. Compliance of CETPs remains an issue. Now NEERI has submitted all reports and the upgradation work of all CETPs have to be transferred to DJB for further implementation of works. In solid waste management, Delhi is generating 11357 TPD municipal solid waste. Delhi is processing 5283 TPD against the existing processing facility of 5361 TPD. So there is a gap of 6074 TPD in MSW processing.

ED (Tech), NMCG added an issue of non-compliance of STPs and discharge of 3018 MLD (1082 MLD untreated + 1936 MLD from non-compliance STPs) into river Yamuna.

Delhi was directed to provide clarifications with regard observations made in the presentation.

Member Drainage, Delhi Jal Board informed that the sewage generation in Delhi is 768 MGD against the existing installed treatment capacity of 632 MGD and Delhi will have total treatment capacity of 931 MGD by Dec 2023. Till Dec 2022, 97 MGD treatment capacity through ongoing rehabilitation of STP projects will be added to have total 729 MGD treatment capacity in Delhi. As far as issue of non-compliance of STPs, these STPs were

designed on old norms. DJB has invited tenders of 5 packages for upgradation and enhancement of these STPs at design parameters of BOD-10 and TSS -10 mg/l. The work of two packages (I & III) was awarded on 14/07/2022 and scheduled to be completed by Aug 2023. Rest packages are under process of award. DJB has planned for upgradation and augmentation of all old existing STPs by Dec 2023 as per new norms through adding integrated fixed film activated sludge (IFAS), increased aeration, Disc Filter, UV disc filter, UV disinfection & odour control. The utilization capacity of the STPs shall increase after completion of the sewer lines in un-sewered areas.

DG, NMCG asked DJB about the status of ongoing Rithala, Okhla and Kondli STPs and status of installing around 50 decentralized modular STPs (DSTPs) based on Johkasou in different areas in Delhi.

Member Drainage, DJB informed that proposal of DSTPs work is in initial stage. Ongoing works of Okhla and Kondli will be completed by December 2022 and Rithala STP by March 2023.

ED (Tech), NMCG also asked status of transferring of all CETPs to DJB for management and upgradation of CETPs.

Commissioner (Industries), Delhi informed that approval of Hon'ble LG, Delhi has been received for transferring of CETPs to DJB and they are issuing notices to all CETP's societies within 15 days after handing over to DJB.

DG, NMCG directed DJB to take up works of upgradation of CETPs immediately and asked about the status of notices to pollution industries and closing or penalty on noncompliance of industries.

Member Secretary, DPCC informed that earlier they had imposed environmental compensation on 10 CETPs, and now non-compliance cases of CETPs have reduced to 3. Several societies have approached Hon'ble High Court and got the stay on environmental compensation.

25. <u>Himachal Pradesh</u>

Senior Monitoring Expert, NMCG informed that as per the MPR (August 2022), the estimated sewage generation in the State is 191 MLD for which 76 STPs of 126.02 MLD capacity (addition of 8 new STPs of total 4.783 MLD) are in operation. The utilization

capacity is reported to be 84.72 MLD. There is a gap of 64.5 MLD in treatment capacity. Through alternative technology (Soak Pits, Septic Tank), 106 MLD of sewage is being treated due to prevailing geographical conditions. Only 3 STPs out of 76 STPs are reported to be non-complying with HPPCB norms. For industrial effluent, 52.41 MLD treatment capacity (including 25 MLD CETP at Baddi) is available against the generation of 45.42 MLD industrial effluent in HP. There is one 25 MLD CETP at Baddi which is operational and complying. There is one CETP of 5 MLD at Kala Amb which is commissioned in May 2022. One CETP of 2 MLD capacity at Paonta Sahib is in proposal stage. In Markanda River polluted stretch, FC values are observed out of range.

Member Secretary, Himachal Pradesh Pollution Control Board informed that a gap of 64.5 MLD in treatment capacity is due to rural population and not from the urban population, which is being treated by alternative technology (Septic tanks, etc). Due to geographical locations, treatment of sewage from these rural areas are not viable to connect with existing STP in that area. In urban areas, more STPs are coming up and under approval stage. There is no direct discharge of sewage flow from urban area. There are 7 polluted river stretches (1 in Priority I, II & III each and 4 in Priority V) and as per latest monitoring data in all stretches, BOD values are less than 3. There is improvement in 2 polluted stretches i.e. Markanda river and Sirsa river, both connected to Haryana border. Further, the proposal of 2 MLD CETP at Paonta Sahib is in pipeline and is under process of getting funds from State Government. The connected ETPs in that area are monitored from time to time.

26. <u>Madhya Pradesh</u>

Assistant Civil Engineer, NMCG informed that the total sewage generation in the State is 2183.65 MLD. 51 STPs of total 1175.49 MLD capacity are operational. The present treatment capacity gap in the State is 1008.16 MLD. 54 STPs of 581.29 MLD are under construction, of which 6 STPs of 110 MLD are under trial run and 6 STPs of 30.05 MLD are under proposal/tender stage. A gap of 380 MLD in sewage treatment capacity exists, even after considering the under construction and proposed STPs. Functioning of the existing STPs are being reported to be satisfactory. However, 2 STPs at Indore (12 and 78 MLD) are reported to be non-complying. With regard to industrial pollution and solid waste management, the status is reported to be same as submitted in previous CMC meeting. There are 22 polluted river stretches in the State. As per the MPR for the month of July 2022

submitted by the State, water quality is not satisfactory in the stretch of river Betwa, river Chambal, river Kailsot, river Khan and river Kshipra. Water quality data is not reported for river Mandakini and river Kolar.

State official informed that 1 STP has recently completed in Bhopal of 20 MLD capacity, and thus the number of existing STPs has increased from 51 to 52 and treatment capacity increased from 1175.49 to 1195.49 MLD. To bridge the gap of 380 MLD in sewage treatment, projects will be taken up under AMRUT-2.

Secretary, DoWR,RD&GR, MoJS enquired whether the DPRs have been sanctioned or not for projects proposed under AMRUT 2. It was instructed that details about proposed plan may also be reflected in the MPRs.

State official informed that DPRs have been prepared, but in first phase water supply projects will be sanctioned and in second & third phase sewerage projects will be sanctioned. The 2 STPs at Indore reported to be non-compliant are stabilization ponds based on old treatment technologies. The same shall be dismantled and new STPs shall be constructed under AMRUT 2. State informed that DPRs for 3 I&D with STP projects for towns - Indore, Ujjain and Nagda have been submitted to NMCG.

DG, NMCG informed that a team of NMCG will visit the project sites to review the proposed works at Indore, Ujjain and Nagda. Based on the site visit report, NMCG shall take necessary action. Further, State needs to submit updated MPRs for proper review in the meetings.

27. <u>West Bengal</u>

State informed that there were 17 polluted river stretches in the State, out of which 1 river stretch falls in priority I (River Vidyadhari), 1 river stretch falls in priority II (River Mahananda), 3 river stretch fall in priority III (Churni, Dwarka & Ganga), 4 river stretches fall in priority IV (River Damodar, Kansi, Jalangi & Mathabhanga) & 8 river stretches fall in priority V (river Barakar, Silabati, Rupnarayan, Dwarkeswar, Mayurakshi, Kaljani, Karola & Teesta). Due to the continuous monitoring and supervision work, it is indicated in the latest draft CPCB report that West Bengal has been successful in de-listing 4 polluted river stretches, namely Kaljani, Karola, Mayurakshi and Silabati. The State is now having 13 polluted river stretches.

The total sewage generation in the State is 2758.07 MLD. A total of 46 STPs, including EKW, with cumulative capacity of 1745.35 MLD are operational, 11 nos. STPs (196.85 MLD) are under construction, 6 nos. STPs (246.70 MLD) are under renovation and 30 nos. STPs (678 MLD) are under proposal/tender stage. The present treatment capacity gap in the State is 569.45 MLD. It was informed that after completing the STPs which are under proposal/tender stage, the capacity gap will be filled. 20 MLD STP capacity exists as private STP of an industrial township and housing complex.

State informed that Karola River has been adopted as Model River for in-situ treatment process, which has been successfully completed and disinfection process is going on. Similar in-situ treatment for pollution abatement of other 8 rivers have been replicated for treating 95 MLD, namely Kaljani/ Karola/ Mayurakshi/ Dwarkeswar/ Shilabati / Kansi/ Rupnarayan/ Jalangi Rivers.

State informed that Department of UD & MA has framed a policy on Faecal Sludge and Septage Management for the urban areas of West Bengal. As pilot projects, two FSTPs will be setup in Kharagpur and Siliguri with technical guidance of IIT-Kharagpur.

With regard to Ghat projects, it was informed that 11 nos. of Ghats have been completed in Garulia (Executed by EPIL), Kalna (Executed by KMDA) and Katwa (Executed by KMDA) and have already been handed over to the respective Municipalities during quarter June 2021. Two Ghats under KMDA execution at Agradwip and Dainhat are in progress.

With regard to Solid Waste Management intervention, bio-mining of legacy waste has already been undertaken in 90 out of 107 legacy dumpsites in the State. House to house collection of solid waste has already reached 99% level and segregation at source has reached 45% so far. DG, NMCG enquired about the legacy dump of Kamarhati-Baranagar STP site. Principal Secretary, UD&MA informed that removal of legacy dump next to Baranagar in Promod Nagar has started.

Principal Secretary, UD&MA raised the issue that since the calorific value of solid waste is very low, they are not getting the good partners for RDF Pellet technology for waste to wealth plants. It was also informed that 6 nos. STPs have been sanctioned in AMRUT 2 nos. for Mahananda, 1 each for Vidhyadhari, Baranagar, South Dum-Dum and North Dum-Dum.

DG, NMCG stated that an alternative option may also be explored, e.g. pavement bricks can be made through solid waste and may be used in ongoing construction works. It was also

informed that an MoU is being signed with Power Ministry by NMCG for re-using the treated wastewater.

PS, UD&MA also raised the issue of RDF fuel being generated in solid waste processing. It was also suggested that utilization of the fuel may also be stressed with the energy utilizing Power Plant sectors.

ED (Tech), NMCG raised the issue about the water quality of Ganga stretch in West Bengal which has high BOD and unacceptable faecal coliform levels and there is not much significant improvement in this area. In West Bengal, 220 nos drains have been tapped and 477 nos drains are yet to be tapped. This has been made part of report submitted to NGT. Action Plan may be submitted for tapping these 477 drains. Further, there are number of projects going on, State may provide the details of drains being tapped in these projects.

Principal Secretary (UD&MA), West Bengal stated that earlier the liquid waste was treated at STPs and sludge was dumped to open land. The treatment of septage and transportation of septage from septic tank was not in good condition. Fecal coliform is really the matter of concern and to treat the septage, State has adopted the FSTP policy to treat the septage and this will help to reduce the faecal coliform levels. DPRs for 2 FSTPs have been submitted to NMCG.

DG, NMCG stated that State may look-up the feasibility of FSTP as due to heavy rainfall in West Bengal, FSTP may not suitable for the location. PS, UD&MA informed that two FSTPs are functional one in Pramod Nagar and other is North Dum Dum capacity 30 KLD each and both are functioning well. 1 FSTP at Baidyabati of capacity of 120 KLD to cater to nearby 6 Municipalities is under repairing stage. Faecal Sludge is now being co-treated in the existing STPs at Barrackpore and Gayeshpur Municipalities.

28. Uttarakhand

Senior Environment Specialist, NMCG informed that the State generates approximately 329 MLD of sewage. 67 STPs of 397 MLD exist, which are being utilized at 236 MLD capacity (approx. 60%). Out of 67, 64 STPs are reported to be operational and 63 STPs are compliant. 3 STPs are non-operational, of which 1 STP at Rudrapryag was damaged due to natural calamity. Over all treatment of 236 MLD is quite satisfactory. 16 STPs of 135 MLD are under construction, 6 STPs of 15.05 MLD are under tendering and 9 STPs of 11.06 MLD are

proposed. Further, it is informed that all 3 CETPs existing in the State are complying. It is also informed that NMCG has provided financial approval for restoration of the affected units of STPs damaged due to natural calamity at Devprayag, Karanprayag, Nandprayag and Chamoli- Gopeshwar.

ED (Tech), NMCG informed that all 63 STPs are found to be complying with standard notified by MoEF &CC. However as per standard prescribed by Hon'ble NGT, 50 STPs are complying with the discharge norms, while 14 STPs with majority in Kumaon Mandal (10 old STPs) are non-complying to the parameters of BOD, TSS & Fecal Coliform as per norm prescribed by Hon'ble NGT. It is also directed that SPMG /UKPJN should organise surprise inspection of Hotels/ Restaurants & Dharmsalas/ Ashrams close to the river bank and issue show cause notices to the defaulter Hotels & Dharmasalas / Ashrams discharging waste water directly into Ganga & its tributaries.

DG, NMCG expressed his displeasure over the unavailability of land for 3 STP sites at Kichha, Sitarganj & Hempur Ismile, which still remains unresolved in the ongoing project of Udham Singh Nagar under Namami Gange programme and directed that SPMG/ UKPJN should ensure availability of required land with proper approach road for STP/SPS and I&D project prior to the bidding. Status of solid waste management in the State, especially with regard to solid waste dumps in Uttarkashi was sought.

Member Secretary, Uttarakhand Pollution Control Board informed that UPJN has conducted surprise inspection visit on regular basis and till now show cause notices have been issued to defaulting five Hotels. With respect to Udham Singh Nagar project, land has been identified at 08 STP sites and 07 STP sites handed over to executing agency, 01 STP site is to be transferred from Pantngar Agriculture University. Land for Kichha STP will be purchased by October, 2022. State PCB had allotted funds to all District Magistrates and as per the directions of Chief Secretary, Uttarakhand a drive was carried out with regard to solid waste dumps along the road side.

Official from Urban Development Department, Uttarakhand informed that solid waste dumps in Uttarkashi is being taken to alternate land at Ghazipur and boundary has been made at the existing site. Manpower has also been deployed for segregation of waste and transferred 200 tonnes of compost soil to gardens and parks.

DG, NMCG suggested that SPMG /UKPJN may prepare a master list of DPR on priority basis, especially for Kumaon Mandal. The prepared DPR should have basic and bankable data for necessitating conceptualization of project for abatement of pollution in river Yamuna. It is also instructed that State may explore the sites wherever STPs based on Johkasou technology can be installed.

29. Uttar Pradesh

ED (Tech), NMCG informed that against estimated sewage generation of 5500 MLD, 3659 MLD is being treated through 118 STPs. Out of these 118 STPs, 114 STPs are operational with 78% capacity utilization. 27 projects (47 STPs) having 962 MLD capacity are under construction. Another 2 STPs at Meerut & Saharanpur of 355 MLD are under tendering, thereby leaving a treatment capacity gap of 508 MLD. To bridge the gap, 16 projects of 969 MLD are under DPR preparation stage.

Further, critical issues were also highlighted such as (i) increase in number of non-compliant STPs from previously reported 25 to 30; (ii) non submission of MPRs on a monthly basis; (iii) timelines for completion of 10 STPs of 328 MLD capacity by Sep/ Dec'22 (needs close monitoring).

With respect to industrial pollution management, it was informed that 4 CETPs out of 7 are reported to be compliant and 1 CETP at Jajmau is under construction. However, ED (Tech), NMCG indicated that as per inspections carried by CPCB, only 1 CETP at Pilkhaun, Hapur is compliant. This implies variation in data between CPCB and State PCB

With respect to municipal solid waste, it was informed that out of total 14710 TPD MSW generation, 10433 TPD is being processed. 18 waste processing plants are functional having 6020 TPD treatment capacity. 5 plants of 325 TPD capacity at Fatehpur, Sambhal, Badaun, Mirzapur & Ballia are reported to in dispute with the operator and revival plans for Sambhal, Badaun, Mirzapur & Ballia are being prepared by C&DS – Jal Nigam. The land disputes for 2 plants at Kasganj & Basti are being resolved. Further, 36 plants of 4305 TPD capacity are under construction for which timelines have been revised from Dec'22 to Mar'23.

Secretary, DoWR, RD&GR, MoJS highlighted about the plan for Hindon project, projects at Prayagraj & Lucknow and requested State to respond on the progress of these projects.

With respect to E-flow, no change has been reported since last review. Regarding floodplain demarcation, it was indicated that 12648 out of 15293 pillars have been placed from Kannauj to Unnao and floodplains have been decided for river Hindon, Yamuna, Varuna, Gomti, Kali East, Ramganga, Betwa, Ghagra, Rapti, Sai & Sarayu. Secretary, DoWR, RD&GR, MoJS requested that details of demarcation may be shared with Commissioner (FM), MoJS.

With respect to projects undertaken though alternate technologies, it was informed that (i) bio-remediation is being carried out in 110 drains of Prayagraj, Varanasi, Kanpur Nagar, Noida, Raebareily, Ghazipur, Sonbhadra, Mirzapur & Pratapgarh; (ii) 1 wetland pilot project by Noida authority through UP Irrigation department has been completed; (iii) work is in progress for 2 in-situ remediation wetlands in Noida, scheduled for completion by Dec'22; and (iv) appointment of NEERI by Noida for preparation of DPR for construction of in-situ/ ex-situ wetland and construction of minor STPs over drains.

CE – Ganga, UPJN (Rural) informed that 31 STPs are under the purview of UPJN (Rural) and another 3 STPs have been commissioned but trial run has not started. It was further informed that 44 STPs are being maintained by UPJN (Urban) whereas 39 STPs are maintained by various development authorities. Regarding non-complying STPs, it was informed that majority of STPs under Development Authorities are not complying. Against the sewage treatment gap, it was indicated that 41 STPs of 684 MLD are under construction and 2 STPs of 355 MLD are under tendering. Further, 15 DPRs have been submitted to NMCG and another 17 DPRs are under preparation & will be submitted within a month. The DPRs for Prayagraj have been submitted to NMCG and for Lucknow, 1 DPR has been submitted to NMCG while another DPR is under revision & 1 DPR is under preparation.

JMD, UPJN (Urban) informed that there are 50 STPs under the purview of UPJN (Urban) and presently 46 STPs are operational. All STPs were reported to be complying. 4 STPs (3 at Rampur & 1 at Baniyapurwa) were non-operational due to collapsed trunk sewer line and proposal to repair the same is under consideration. 9 STPs were reported to be under construction and are progressing as per scheduled timelines.

DG, NMCG appreciated the efforts of State and re-iterated that the DPRs being sent to NMCG must be comprehensive and must ensure that all drains are tapped, capacity requirement & water quality of drains is properly assessed. Further, any variation due to land non-availability/ change in scope of work will be borne by the State Govt.

CE– Ganga, UPJN (Rural), informed that pollution in Hindon river is primarily due to discharge of untreated sewage in Kali River. Post completion of projects in Budhana, Muzzafarnagar, Kairana, Saharanpur & Meerut the pollution abatement in Hindon will be achieved. Further, it was informed that about 25 drains having industrial waste are discharging into river Hindon, for which CETP needs to be installed.

Secretary, DoWR,RD&GR, MoJS directed that a plan for Hindon river must be submitted indicating responsibilities of various agencies involved and a meeting with Chief Secretary, GoUP may be held along with concerned agencies to tackle the pollution in Hindon river in a defined timeframe.

ED (Tech), NMCG informed that 496 drains have been tapped through sewerage intervention projects and 174 drains from Ganga or its tributaries are yet to be tapped. State was requested to indicate the status of 174 untapped drains through the projects being planned/ proposed. DG, NMCG further indicated that District Ganga Committees may also verify the status of drains flowing into Ganga or its tributaries.

30. <u>Rajasthan</u>

ED (Tech), NMCG informed that against estimated sewage generation of 1551 MLD, 1084 MLD is being treated through 110 STPs and 1 STP has been completed since last review. In addition, 64 STPs of 638 MLD have been reported under construction, of which (i) 43 are under construction; (ii) 1 is held up due to Court case; (iii) 6 are ready for commissioning/ under commissioning; and (iv) 14 are under tendering. The capacity utilization was reported to be 64.5% (~700 MLD capacity is being utilized). 15 STPs have been reported non-complying against which (i) 3 STPs at Ajmer, Fatehpur Shekhawati & Kushalgarh are complying since last review; (ii) CTO is pending for 3 STPs at Balotra, Deedwana & Makrana; (iii) 1 STP at Nagaur is being upgraded under AMRUT; (iv) 4 STPs will be upgraded under AMRUT/ RUIDP; and (v) upgradation of 7 STPs is yet to be proposed under AMRUT/ RUIDP.

Further critical issues were highlighted such as (i) non-compliant STPs (15 nos.) and CETPs (3 nos.); (ii) only 54% processing of municipal solid waste; (iii) development of mechanism for assessment & reporting of capacity utilization & compliance status of STPs/ CETPS; (iv) payment/ legal/ land allotment issues for STPs; (v) no progress for 6 under construction

STPs; (vi) revision in timelines of 13 under construction STPs; and (vii) completion of 4 STPs having achieved more than 90% progress.

Secretary (LSG), Rajasthan informed that 14 new STP projects have been tendered since last review. Regarding 15 non-compliant STPs, upgradation of 12 STPs have been taken up under AMRUT/ ADB and are expected to be completed within 1 year. For the remaining 3 STPs, the issue of funding towards O&M have been resolved and will be compliant by 15th October 2022. Regarding land allotment issue, it was informed that land has been allotted for Kota project and for Sadar Shahr project, the land will be allotted within a week. Further, regarding developing a mechanism for capacity utilization & compliance status of STPs/ CETPs, it was informed that OCEMS is being installed in existing/ new STPs/ CETPs and necessary training for concerned senior officials has been completed. It was also informed that the waste processing has increased and during the last SHPC of Swaccha Bharat Mission, processing plants for remaining ULBs have been approved. The timelines for these projects will be shared in the MPR.

Member Secretary, RSPCB informed that for existing CETPs, OCEMS are already in place and regular monitoring is being done. Regarding 3 non-operational CETPs, it was informed that the CETPs and the connecting units have been shut down. Out of these, 1 has requested for operating the CETP, and permission for operating the CETP and related units will be approved.

ED (Tech), NMCG indicated that though on a macro level, the status appears to be satisfactory but the rivers in major towns appears to be drains. The status of monitoring of STPs on river Dravyavati and water quality in Jaipur was sought from the State by DG, NMCG.

Member Secretary, RSPCB informed that though STPs are functioning properly and regular monitoring is being done but during certain period the STPs do not comply and necessary notices are being issued to make them complaint.

Secretary, LSG informed that 3 STPs of capacities 62.5 MLD, 90 MLD and 62.5 MLD have been sanctioned on the bank of river Dravyavati, out of which 1 STP of 62.5 MLD has been completed and 2 STPs of 90 & 62.5 MLD are under construction. It was further informed that the work for river Ayad in Udaipur has been taken up under Udaipur Smart City Limited. Regarding Jojri river in Jodhpur, it was informed that post completion of projects in Jodhpur,

the water quality of Jojri river would improve. Recently sewerage projects for Rs. 3000 Crore have been sanctioned for Jodhpur with financial assistance from ADB and post completion of the projects, all sewage draining into the river would be tapped.

31. Bihar

Senior Environmental Specialist, NMCG highlighted that approximately 1100 MLD of sewage is generated in the State. Under Namami Gange, 7 new STPs of 224.5 MLD have been completed, of which 4 STPs are operational and 3 STPs are recently commissioned. 444.5 MLD STPs are further sanctioned under Namami Gange and 113 MLD STPs are sanctioned under other schemes. STPs of 396 MLD are ongoing, 49 MLD STPs are under tendering and for bridging the gap, STPs/ FSSM projects of 396 MLD are proposed for remaining towns. Further, 541 MLD of sewage (in 89 drains) is proposed to be treated through bio-remediation. Land NOC is a common problem in all the projects in Bihar; DPR can be sanctioned once the land NOC is available under Namami Gange – II. DPR for the PRS stretch Raxaul is yet to be finalized. Work needs to be expedited for the Phulwarishariff and Fatuha projects. Updated status with regard to present and proposed solid waste management facilities needs to be provided in the MPR.

MD, BUIDCO informed that the sanctioned projects are being expedited and land is being ensured for projects at proposal stage. It was assured that DPR for Raxaul shall be finalized soon and submitted. Works of Phulwarishariff and Fatuha projects shall be expedited.

Director General, NMCG directed State to ensure the quality of the DPRs being submitted for sanctioning. Any deviation in cost of the project due to poor quality of DPRs after sanctioning of the project is to be borne by the State. It was also highlighted that sewer network projects need to be taken up by the State municipalities. For smaller towns, decentralized STPs can be adopted.

32. Chhattisgarh

Senior Environmental Specialist, NMCG highlighted that the installed sewage treatment capacity has increased from 71 MLD to 236.1 MLD in the past one year. However, due to pending 2.77 kms sewer line network connections (expected by December 2022), the utilization capacity of the STPs is 109.9 MLD. STPs of 106 MLD have just been completed

and needs to be commissioned. 2 STPs of 100.5 MLD are proposed and 3.94 MLD of septage from 166 ULBs is treated through FSTP. **Model River is yet to be identified by the State.**

DG, NMCG directed to provide details of action proposed for bridging the gap in sewage treatment and to identify Model River in the State as per the directions of NGT.

Member Secretary, Chhattisgarh Environment Conservation Board attended the meeting along with State officials. Chief Engineer, UAD, Chhattisgarh informed that under AMRUT 2.0, STPs of approximately 200 MLD capacity are proposed in 04 AMRUT cities namely Durb, Bhilai, Risali and Ambikapur.

33. Jharkhand

Senior Environmental Specialist, NMCG informed that 452 MLD of sewage is generated in the State. 35 STPs of 123.74 MLD are operational with total 69% utilization capacity. 89 MLD STPs are under construction and 442 MLD capacity STPs are proposed. The gap in sewage treatment capacity shall be addressed by ongoing and proposed projects. Not much progress has been observed in the ongoing projects. Status of revised DPR and details of Alternative Funding for Mango town and Ranchi 200 MLD proposed STP are not clear. **Details of floodplain management, e-flow management and water quality monitoring data of the rivers are not provided in the MPR.**

Director, SUDA informed that 16 MLD on-going STP at Ranchi is almost complete and trial run of the STP shall start next month. 37 MLD STP at Ranchi and 36 MLD STP at Adityapur shall be completed by February and March 2023 respectively. In smaller 34 ULBs, 17 FSTP projects are being taken up under State funds. DPR for Ramgarh shall be taken up in 45th EC meeting of NMCG for funding under Namami Gange and it was requested that DPR for Dhanbad, which is currently under TPA may also be taken up in the upcoming 45th EC meeting of NMCG. DPR for STP at Mango is proposed to be funded under EAP as financial assistance could not be sought from TATA Steel. It was also informed that floodplain mapping of River Ganga and Damodar have been completed by State WRD and for remaining rivers, it is proposed to be taken up under National Hydrology Project. With regard to water quality monitoring data, it was informed that the data is received monthly from State PCB and only River Garga has BOD of 5 mg/l and rest 6 river stretches are achieving BOD of less than 3 mg/l. 65 % of the municipal solid waste generated in the State is being

processed. For remaining, 4 Integrated SWM and bioremediation of legacy wastes is proposed to be taken up under SBM-II.

Director General, NMCG highlighted that DPR for STP at Dhanbad may be expedited.

The meeting ended with thanks to the Chair.

****

Annexure-I

List of participants:

1. Shri Pankaj Kumar, Secretary, DoWR,RD&GR, Ministry of Jal Shakti – *in Chair*
2. Shri G Asok Kumar, Director General, NMCG cum Project Director, NRCD
3. Shri Anand Mohan, Joint Secretary, NRCD
4. Shri Himanshu Badoni, Executive Director (Project), NMCG
5. Shri D.P. Mathuria, Executive Director (Technical), NMCG
6. Shri Brijesh Sikka, Senior Consultant, NMCG
7. Dr. Anupama, Director (SBM-III), Drinking Water & Sanitation, MoJS
8. Shri P K Mishra, Scientist E, CPCB
9. Shri Vishal Gandhi, Scientist D, CPCB
10. Shri J.B.Ravinder, Deputy Adviser, MoHUA
11. Shri S.K. Srivastava, Director, NRCD
12. Shri A.P. Singh, Additional Director, NRCD
13. Dr. Sabita Madhvi Singh, Joint Director, NRCD
14. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
15. Dr. P.N.Rymbai, Scientist B, NRCD
16. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
17. Shri Sandeep Gupta, Senior Monitoring Expert, NMCG
18. Shri Mahender Singh, Monitoring Expert, NMCG
19. Shri Rachit Andley, Project Manager, NMCG
20. Mrs. Ruby Raju, Senior Project Engineer, NMCG
21. Ms. Preeti Sinha, Research Associate, NRCD
22. Shri Debarshi Ghosh, Research Associate, NRCD

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

GOVERNMENT OF KERALA
Environment (A) Department

No. [illegible] Dated [illegible]

Thiruvananthapuram,
Dated: [illegible]

From

Additional Chief Secretary to Government

To

The Director
Department of Environment & Climate Change, Thiruvananthapuram

The Director, Directorate of Urban Affairs, Thiruvananthapuram

The Director, Directorate of Industries, Thiruvananthapuram

The Managing Director, Kerala Water Authority, Thiruvananthapuram

The Chief Engineer, Irrigation & Administration, Thiruvananthapuram

The Member Secretary, Kerala State Pollution Control Board
Thiruvananthapuram

Sir,

Sub: Environment Department – Kerala Rejuvenation Council (KRC) constituted by Additional Chief Secretary, Environment on 13.10.2022 in the matter of Nalukettu Sabha – Related Orders in PIL No. [illegible] of 2018 – Regarding [illegible]

Ref: Minutes of KRC Meeting held on 13-10-2022

I am to forward the minutes of the KRC meeting held in Additional Chief Secretary's Chamber on 13-10-2022 in the matter of NGT Order in PIL No. [illegible] of 2018 for taking [illegible] action.

Yours faithfully,
GEETHA GOPINATH
Under Secretary
for Additional Chief Secretary to Government

Approved for issue,

Section Officer

Minutes of the BOC meeting held by Adelmanal Chief Secretary, Environment on 13.10.2020 in the matter of WP Order in O.A. 67/2018

The meeting commenced at 11 am with Adelmanal Chief Secretary, Environment Department in the chair. The Principal Commissioner, Urban Affairs, Director Environment & Climate Change, Officer from PWD, Information Technology and Environment Department, Chief Municipal Engineer, ICT Cell and Project Director, Solid Waste Management (SWM) attended the meeting. The following minutes were discussed and decisions taken:

1. Tabling: Corporation: Decentralized Awareness Programme Solution (assessing the nature of proposed app)

The Principal Urban Affairs reported that it demands a solution to monitor the progress of efforts demanding the impact by JNI. [illegible] to report the illegals beyond creating up the progress the dumps of the residents so that regard could not be [illegible]

(Gurdas Thevenor, Urban Affairs)

2. Operationalization of Bio-methanation (BM) Mini Sewage treatment plant in Chakkulathukavu

Activities of the building the work is in progress. Even last extension is to render the work and all by remaining of the estimate of the period. The Chief Engineer PWD informed that it would take to complete the remaining of estimate by 15th December and completing the work by 31st [illegible].

(Anjana [illegible] PWD, Director, Urban Affairs)

3. Resolution Corporation Sewerage system & Zero Liquid Discharge

Zero Liquid Discharge

The Director, DMA informed that the project would cause [illegible] budget of the DMA [illegible] Additional Chief Secretary [illegible] and the Director [illegible] the [illegible] the project [illegible] in the Chief Secretary's meeting with [illegible] [illegible] the work

(Rajeevan Director, Urban Affairs)

4. STP at Pallipuram, Thiruthiri. Director Environment, KSPCB, informed that Judgement of the Hon. High Court is awaited by the CPR. The Director, DMA is requested to

review the progress of the plant to the Member Secretary, Kerala State Pollution Control Board.

(Action : Director, [illegible])

5. CETP-Edayar

The Member Secretary, KSPCB informed that the Engineer from the Pollution Control Board, [illegible] office has taken water sample from the stream which discharges [illegible] into River Periyar. The Board has furnished 3 months report [illegible] KSIDC.

(Action : M.D. [illegible], Director Industries, Member Secretary, Kerala State Pollution Control Board)

6. CETP-Aroor

Additional Director, Industries Department said that [illegible]

(Action : Director, Urban Affairs)

7. CETP [illegible] and [illegible]

(a) [illegible]: The Director, [illegible] reported that [illegible] are being taken for implementation [illegible]. The work is in progress.

(b) [illegible]: The [illegible] mechanical and [illegible] work related to the plant is completed and [illegible]. The physical progress of the plant is around [illegible]. [illegible] The Local body has [illegible] Crore [illegible]. The Member Secretary, KSPCB [illegible] Additional Chief Secretary [illegible] coordination of [illegible] departments [illegible] and the concerned Local body.

(Action : M.D. Kerala State Pollution Control Board, M.D. Kerala Water Authority, Director, Urban Affairs)

8. Additional [illegible]

KWA informed that DPR preparation of Phase 1 [illegible] [illegible] [illegible] [illegible] [illegible] before [illegible] October [illegible]. [illegible]

(Action- MD, KWA, Member Secretary, Kerala State Pollution Control Board, Director, Urban Affairs)

9. [illegible]

The CE, Irrigation reported that [illegible]

(Action - CE, Irrigation)

10. Polluted river stretches

The Member Secretary, KSPCB informed that [illegible]

(Action - MS, KSPCB)

The meeting came to a close [illegible]

[illegible]

[illegible]

[illegible]

GOVERNMENT OF KERALA
Environment (A) Department

No. [illegible] Dated [illegible]

Thiruvananthapuram,
Dated: [illegible]

From

Additional Chief Secretary to Government

To

The Director
Department of Environment & Climate Change, Thiruvananthapuram

The Director, Directorate of Urban Affairs, Thiruvananthapuram

The Director, Directorate of Industries, Thiruvananthapuram

The Managing Director, Kerala Water Authority, Thiruvananthapuram

The Chief Engineer, Irrigation & Administration, Thiruvananthapuram

The Member Secretary, Kerala State Pollution Control Board
Thiruvananthapuram

Sir,

Sub: Environment Department – Kerala Rejuvenation Council (KRC) constituted by Additional Chief Secretary, Environment on 13.10.2022 in the matter of Nalukettu Sabha – Related Orders in PIL No. [illegible] of 2018 – Regarding [illegible]

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Yours faithfully,
GEETHA GOPINATH
Under Secretary
for Additional Chief Secretary to Government

Approved for issue,

Section Officer

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The Principal Urban Affairs reported that it demands a solution to monitor the progress of efforts demanding the impact by JNI. [illegible] to report the illegals beyond creating up the progress the dumps of the residents so that regard could not be [illegible]

(Gurdas Thevenor, Urban Affairs)

2. Operationalization of Bio-methanation (BM) Mini Sewage treatment plant in Chakkulathukavu

Activities of the building the work is in progress. Even last extension is to render the work and all by remaining of the estimate of the period. The Chief Engineer PWD informed that it would take to complete the remaining of estimate by 15th December and completing the work by 31st [illegible].

(Anjana [illegible] PWD, Director, Urban Affairs)

3. Resolution Corporation Sewerage system & Zero Liquid Discharge

Zero Liquid Discharge

The Director, DMA informed that the project would cause [illegible] budget of the DMA [illegible] Additional Chief Secretary [illegible] and the Director [illegible] the [illegible] the project [illegible] in the Chief Secretary's meeting with [illegible] [illegible] the work

(Rajeevan Director, Urban Affairs)

4. STP at Pallipuram, Thiruthiri. Director Environment, KSPCB, informed that Judgement of the Hon. High Court is awaited by the CPR. The Director, DMA is requested to

review the progress of the plant [illegible] the Member Secretary, Kerala State Pollution Control Board.

(Action : [illegible])

5. CETP-Edayar

The Member Secretary, KSPCB informed that the Engineer from the Pollution Control Board, [illegible] office has taken water sample from the stream which [illegible]. The Board has furnished [illegible] report [illegible] KINFRA.

(Action :- M.D. KSIDC, Director Industries, Member Secretary, Kerala State Pollution Control Board)

6. CETP-Aroor

Additional Director, Industries Department said that [illegible]

(Action: Director, Urban affairs)

7. CETP Kanjikode and Kinalur

(a) Kanjikode: The Director, [illegible] reported that [illegible] are being taken for implementation by KINFRA [illegible]. The work is in progress.

(b) Kinalur: The [illegible] mechanical and Electrical work related to the plant is completed [illegible]. The physical progress of the plant is around [illegible]. [illegible] The Member Secretary, KSPCB [illegible] Additional Chief Secretary [illegible] departments [illegible] local body.

(Action: MS, Kerala State Pollution Control Board, MD, Kerala Water Authority, Director, Urban Affairs)

8. [illegible] [illegible] [illegible]

KSPCB informed that DPR preparation of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible] before 15th October 2022. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] to the Government.

(Action- MD, KWA, Member Secretary, Kerala State Pollution Control Board, Director, Urban Affairs)

9. [illegible] [illegible] [illegible] [illegible] e-flow calculation

The CE, Irrigation reported that [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ACS directed the CE [illegible] [illegible] [illegible] [illegible] report in this regard [illegible] [illegible] [illegible]. CE, Irrigation informed that e-flow calculation of [illegible] ACS [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

(Action - CE, Irrigation)

10. Polluted river stretches

The Member Secretary, KSPCB informed that [illegible] [illegible] [illegible] [illegible] [illegible] CPCB regarding polluted river stretches [illegible].

(Action - MS, KSPCB)

The meeting came to a close [illegible] [illegible]

GOVERNMENT OF KERALA

Revenue (A) Department

A2/104/2018/Rev(A) 14-11-2022, Thiruvananthapuram

From

Additional Chief Secretary to Government

To

The Additional Chief Secretary, Water Resources Department

The Additional Chief Secretary, Local Self Government Department

The Additional Chief Secretary, Finance Department

The Additional Chief Secretary, Health Department

The Additional Chief Secretary, Planning & Economic Affairs Department

The Additional Chief Secretary, Agriculture Department

The Secretary, Revenue (Disaster Management)

The Secretary, Public Works Department

The Secretary, Law Department

The Director, Directorate of Urban Affairs, Thiruvananthapuram

The Director, Directorate of Industries, Thiruvananthapuram

The Director, Directorate of Fisheries, Thiruvananthapuram

All District Collectors (through the Land Revenue Commissioner, Land Revenue Commissionerate, Thiruvananthapuram)

The Land Revenue Commissioner, Land Revenue
Commissionerate, Vazhuthacaud

The Secretary, Municipal Corporation, Thiruvananthapuram, Kerala
Thyaud Palace Road Corporation, Kowdiar, Kerala

The Managing Director, Kerala Water Authority, Vellayambalam
Thiruvananthapuram

The Chief Engineer Irrigation & Administration, Thiruvananthapuram

The Commissioner for Rural Development
Vazhuthacaud, Thiruvananthapuram

The City Police Commissioner, Ernakulam, Kochi-682011

The Executive Director, Sabarimala Master Plan, Thiruvananthapuram

The Manager, Universal ASHRAYA Private Limited Partnership
Ashraya, Mavelikkara Road, Ashraya Building, Opposite Government
Hospital, Thycattu, Thiruvananthapuram

The Member Secretary, Kerala State Pollution Control
Board, Thiruvananthapuram

Sir,

Sub: Environmental Impact assessment - Chief Secretary's meeting with RRC Stakeholder departments held on the matter of NGT Order in O.A.No.673/2018 held on 18.10.2022 - Minutes - Proceedings of - Reg

Ref: Minutes of the meeting held on 18.10.2022

I am directed to provide the minutes in the reference cited and information herewith in respect of the minutes of the meeting held by the Chief Secretary with RRC, Stakeholder Departments and Authorities on 18.10.2022 in the matter of NGT Order in OA No.673 of 2018 for approximately seven months.

The proceedings report may be furnished at the earliest.

Yours faithfully,
DEEPA GUPTA IAS
UNDER SECRETARY

For Additional Chief Secretary to Government

Approved for issue.

Signed by [illegible]
Date: 24-11-2022 15:11:40

Revenue Officer

Copy to-The Nodal Officer [illegible]
DMC
Forest Conservator [illegible] Department, Environment [illegible]

[illegible]

[illegible]

[illegible]

[illegible]:

1. [illegible]

   [illegible]

   [illegible]

[illegible]

[illegible] Department, [illegible] Department, Kerala [illegible]
[illegible]

2 [illegible] signal [illegible]

[illegible]

[illegible] Department, [illegible] Department
[illegible] Department: [illegible], [illegible]
[illegible]

3 SIP-HTTP [illegible]

3.1 [illegible] Scheme

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[illegible] Department [illegible]

[illegible] Municipality

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[illegible] Department [illegible] Local Self Government Department [illegible]

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[illegible] Local Self Government Department [illegible]

[illegible] Corporation [illegible]

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[illegible] Local Self Government Department, [illegible]

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[illegible] Local Self Government Department, Kerala Water Authority, [illegible] Kerala State Pollution Control Board

3. [illegible]

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8. [illegible]

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9. [illegible]

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10. [illegible]

[illegible]

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[illegible]

[illegible]

[illegible]

Section: Local Self-Government Department, Water Resources Department, Forest Conservation, Kerala State Pollution Control Board, Local Bodies, Government

13 Solid Waste Management

[illegible]

[illegible]

14 Energy: Kerala

[illegible]

[illegible]

[illegible] Government Department, Thomas Gallimore, Secretary,

Tarakabade Kalkam Revenue Inspector and Palakkad [illegible] Government.

14. [illegible]

[illegible]

[illegible] Water Resources Department.

15. [illegible]

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DEPUTY COLLECTOR (LR)
Cuttack, Paradeep

[illegible]

[illegible]