

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/UTs

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

RIVER KARAMANA, THIRUVANANTHAPURAM

ACTION PLAN FOR RIVER KARAMANA, KERALA - June 2023

1. Short term plan

No.	Activity	Implementing agency	Time line	Progress in the month of April-2023	Progress in the month of May-2023	Progress in the month of June 2023	% works completed	Details of works remaining
2.1.1	Pumping lines from the terminal pumping stations namely Kuriyathi, Pattoor, Kannammoola and Enchakkal pumping stations are to be connected directly to STP at Muttathara	Kerala Water Authority	May 2019				100%	100% work of Kuriathy completed. Pumping main of Pattoor, Kannammoola and Enchakkal included in long term works
				Thaliyil	100%	100%	100%	a. Completed
	Rehabilitation/upgradation of Thaliyal and							b. a) Providing RCC lining for the existing two



2.1.2	Aranoor Sewerage Pump house by rehabilitation of existing well, construction of new well and grit chamber, installation of new pump Sets	Kerala Water Authority	May 2020	Aranoor	97%	100%	100%		wells. Lining for first well completed. 2 Pump sets erected in first well and commissioned. Pumping main also completed. Lining for 2 nd well partly completed. b) Diesel generator – to be supplied by contractor. Work terminated at the risk and cost of the contractor. Work completed
2.1.3	5 MLD sewage treatment plant at Medical College	Kerala Water Authority	May 2020				100%		Work Completed on 8.8.21.
2.1.4	Installation of adequate pumps in Mudavanmughal and Enchakkal pumping stations.	Kerala Water Authority	March 2020				100%		Pump sets installation at Enchakkal and Mudavanmughal pump house completed.
2.1.5	DG sets in all lift and pumping stations – Mudavanmughal, Aranoor, Thaliyal,	Kerala Water	May 2020				100%		DG sets installation of seven pumping stations completed. Approval from Electrical inspectorate received. Work completed. Trial run also completed



	Kuriyathi, Pattoor, Kannammola, Pattom, Murinjapalam and Enchakkal	Authority	May 2020				100%	Completed. For Arannoor and Thaliyal. Erection of diesel generator is already included in the item mentioned 2.1.2. For Enchakkal already exists.
2.1.6	Reconnect sewer at Rajaji Nagar, stop outflow of sewage into Amayizhanchanthodu, control storm water entry into sewer 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	Kerala Water Authority	Dec 2020				100%	Work completed.
2.1.7	Discharge of sewage in Parayilkadavu shall be stopped as there is overflow of sewage reaches in houses having sewerage connection and this may lead to discharge of sewage into River Karamana	Kerala Water Authority	Completed				100 % completed	Rehabilitation work of existing pipe line is included in the work State Plan -2019-20- Rehabilitation of sewer line from Sathya Nagar to Karamana BHS and allied works. Works Completed.
2.1.8	Divert the sewer line from the School compound of Government Karamana High School	Kerala Water Authority	completed				100% completed	Work mentioned is same as the above work which is completed.
								Works completed – 75No.



2.1.9	Rehabilitation by laying new lines increasing size of undersized main and reconstruction by dilapidated manholes for the last 3 years	Kerala Water Authority	May 2020	98%	98%	98%	98%		(Rs. 15.41cr) AMRUT-44, State plan-28 MLA ADF/SDF-3 In progress – 1No. (Rs. 3.cr.) AMRUT-1, Expected to be completed by 30.09.2023 .
	Total works in progress/completed (76No.) Works dropped (2No.)							Dropped – 2 No. (Rs. 1.52cr.) State plan-2	Two works dropped due to not getting offers on repeated tenders and expiry of AS.
2.1.10	Extension of sewer network wherever technically feasible in new areas of existing blocks	Kerala Water Authority	May 2020	98	98.5%	98.5%	98.5%		Works completed - 24 No. (Rs. 17.21 cr.) AMRUT-12, State plan-11 MLA ADF/SDF-1
	In progress/Ongoing (24No.) Tendering/ To be arranged (1No.)							To be Land Acquisition in progress-3	Land acquisition process for three work completed and land handed over to KWA and AS obtained for arranging the work under State Plan 22-23 and one work arranged and one tendered. LA for one work in initial stage.(Details shown in excel sheet



	Land acquisition -1 In progress-3					arranged	Nos	attached) Direction from head office to cancel one work and recast the estimate and submit for new AS. Same has been approved in State Plan 2022-23 and tendered. Agreement Executed.Expected date of completion 30.09.23
2.1.11	Procurement of sewer cleaning machines and equipment maintenance	Kerala Water Authority	Mar 2020	100%	100%	100%	100%	Work completed.



The document is digitally approved. Hence signature is not needed.

2. Long Term Works

Sl No.	Long term measures proposed	Implementing agency	Amount Required (Rs.in Crore)	Time line	Progress in the month of February	Progress in the month of March	% works completed	Details of works remaining
3.1.1	Extension of sewerage system to Block F to G coastal belt							Consultant appointed for preparing Detailed Project Report for uncovered wards of the Thiruvananthapuram Corporation and rehabilitation of existing system was terminated from the contract due to breach of contract by the Superintending Engineer, Sewerage Circle, KWA, Thiruvananthapuram dated 31.05.2022, and to arrange the balance work at their risk and cost. As discussed in the Chief Secretary, GoK's meeting dated 21/06/2022, the work of Preparation of DPRs has to be done internally. DPR preparation of sewerage system to the uncovered areas of TMC is now being carried out internally by KWA. The total wards were divided into 10 clusters. Cluster 1 comprises of 5 wards
3.1.2	Extension of sewerage system to Block H to R							
3.1.3	Extension of sewerage system to newly added areas of corporation viz,							
3.1.4	Providing sewerage system in Block A to E							
	Rehabilitation of existing							





3.1.5	Network and pump house in block A to E							1 comprises of 3 wards - Attukal, Kalady,
3.1.6	Procurement of equipments for maintenance of sewerage system	Kerala Water Authority		Three years				Kallipankulam, Ambalathara and Kamaleswaram wards - The DPR for cluster 1 amounting to Rs 353.87 Crores was submitted to GoK on 15/10/2022 for obtaining AS. Later as per the direction from CS, the DPR of cluster 1 curtailed into 2 DPRS. DPR of cluster 1 Zone I&II has been submitted to the Secretary of Jalshakthi for funding under NRCP on 17/02/23.
3.1.7	Additional STP requirement							Zone 1 of cluster 3 is consisting of Puthenpally and Part of Muttathara is submitted for AS on 11.01.2023. The DPR of Cluster 3 Zone 2 and Zone 3 is prepared and is under scrutiny/revision. The DPR for cluster 2, is prepared and kept in shelf of projects as there is no fund available. The DPR for cluster 4 (Thirumala Thrikkannapuram and Punnakkamughal wards) is under scrutiny/revision. DPR for Cluster IX (priority wards - Vizhinjam and Harbour area) is in progress land for STP identified and the confirmation of the land to be transferred for which a meeting

National Mission for Clean Ganga
Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)
RIVER KARAMANA, THIRUVANANTHAPURAM

S. No.	Activity to be monitored	Timeline	Submission of progress by state/UT-Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none"> ● Specifying accountability of nodal authorities not below the Secretary level ● Chief Secretaries may have an accountable person attached in their office for this purpose. 		

	<ul style="list-style-type: none">● Monitoring at State level must take place		
6	<p>Progress report may be furnished by the State/UTs to</p> <ul style="list-style-type: none">● Secretary, Ministry of Jal Shakti● Member Secretary, CPCB		

.1 Progress Report may be comprised of details along with completion timelines on:

(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.

(II) Status of STPs, I&D and sewerage networks Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline

(III) Status of CETPs Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status

(iv) Status of Solid Waste Management & Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline

(v) Latest water quality of polluted river, its tributaries, drains with flow

ACTION PLAN FOR RIVER KARAMANA, KERALA

1. Short term plan

Maintenance and de-bottlenecking of existing sewerage network

No.	Activity	Implementing agency	Timeline	Progress in the month of May 2022	Progress in the month of June 2022	% works completed	Details of works remaining
2.1 .1	Pumping lines from the terminal pumping stations namely Kuriyathi, Pattoor, Kannammoola and Enchakkal pumping stations are to be connected directly to STP at Muttathara	Kerala Water Authority	May 2019				

	Kuriyath i pu mpi ng line						
2.1 .2	Rehabilitation/upgradation of Thaliyal and Aranoor Sewerage Pump house by rehabilitation of existing well, construction of new well and grit chamber, installation of new pump sets	Kerala Water Authority	May 2020				
2.1 .3	5 MLD sewage treatment plant at Medical College	Kerala Water Authority	May 2020				
2.1 .4	Installation of adequate pumps in Mudavanmugal and Enchakkal pumping stations	Kerala Water Authority	March 2020				

2.1 .5	DG sets in all lift and pumping stations – Mudavanmughal, Aranoor, Thaliyal, Kuriyathi, Pattoor, Kannammola, Pattom, Murinjapalam and Enchakkal	Kerala Water Authority	May 2020				
2.1 .6	<p>Reconnect sewer at Rajaji Nagar, stop outflow of sewage into Amayizhanchanthodu, control storm water entry into sewer to avoid overflow in Thampanoor area</p> <p>Sewage generated in Rajaji Nagar shall be diverted to main sewer line</p> <p>Sewage generated in Thoppil area shall be diverted main sewer line</p>	Kerala Water Authority	Dec 2020				

2.1 .7	Discharge of sewage in Parayilkadavu shall be stopped as there is overflow of sewage reaches in houses having sewerage connection and this may lead to discharge of sewage into River Karamana	Kerala Water Authority	Completed				
2.1 .8	Divert the sewer line from the School compound of Government Karamana High School	Kerala Water Authority	Awarded				
2.1 .9	Rehabilitation by laying new lines increasing size of undersized main and reconstruction by dilapidated manholes for the last 3 years	Kerala Water Authority	May 2020				

	Total works in progress (45No.) Works in tendering (33No.)						
2.1 .10	Extension of sewer network wherever technically feasible in new areas of existing blocks In progress (17No.) Tendering (12No.)	Kerala Water Authority	May 2020				
2.1 .11	Procurement of sewer cleaning machines and equipment maintenance	Kerala Water Authority	Mar2020				

Solid Waste Management Action Plan

Sl. No	Activity	Implementing Agency	Unit	Time for completion	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
---------------	-----------------	----------------------------	-------------	----------------------------	-------------------------------------	-----------------------------------	------------------------------------	-------------------	----------------------------

2.2.1	Slaughter house and poultry waste	Thiruvananthapuram Corporation	Rendering plant	Dec 2022	<p>Slaughter House- Slaughter house kunnukuzhy- Work started for construction of retaining wall, work ongoing for construction of security cabin and visitors lounge. Security cabin , roof slab casting completed, visitors lounge, structure completed, roof slab casting on progress. Work under progress. It will be completed on September 2023</p> <p>poultry waste- TMC has started collecting poultry waste coming under jurisdiction of 25 HI Office from 1st November 2019 with online tracking of vehicles. The entire poultry waste generated in whole Corporation area is collected and sent to rendering plant at Elloor.</p> <p>Report March 2023</p>	<p>Slaughter House- Slaughter house kunnukuzhy- Work started for construction of retaining wall, work ongoing for construction of security cabin and visitors lounge. Security cabin , roof slab casting completed, visitors lounge, structure completed, roof slab casting on progress. Work under progress. It will be completed on September 2023</p> <p>poultry waste- TMC has started collecting poultry waste coming under jurisdiction of 25 HI Office from 1st November 2019 with online tracking of vehicles. The entire poultry waste generated in whole Corporation area is collected and sent to rendering plant at Elloor.</p> <p>Report May 2023</p>	<p>Slaughter House- Slaughter house kunnukuzhy- Work started for construction of retaining wall, work ongoing for construction of security cabin and visitors lounge. Security cabin , roof slab casting completed, visitors lounge, structure completed, roof slab casting on progress. Work under progress. It will be completed on September 2023</p> <p>poultry waste- TMC has started collecting poultry waste coming under jurisdiction of 25 HI Office from 1st November 2019 with online tracking of vehicles. The entire poultry waste generated in whole Corporation area is collected and sent to rendering plant at Elloor.</p> <p>Report June 2023</p>	90	
-------	-----------------------------------	--------------------------------	-----------------	----------	---	---	--	----	--

2.2.2	Sanitation facility and treatment of waste water in the markets of Pangode, Kumarichanda		Treatment plant Portable aerobic bins	Dec 2023	<p>Kumarichanda: Market Renovation completed. Pilot project implemented for treatment of wastewater.</p> <p>Pangode: Selection notice issued to the agency on 13.06.2022. Reminder letter issued on 25.07.2022 to the agency stating to submit an agreement letter and DPR urgently .</p>	<p>Kumarichanda: Market Renovation completed. Pilot project implemented for treatment of wastewater.</p> <p>Pangode: DPR submitted by the agency .To be forwarded for getting technical sanction.</p>	<p>Kumarichanda: Market Renovation completed. Pilot project implemented for treatment of wastewater.</p> <p>Pangode: DPR submitted by the agency . Forwarded for getting technical sanction.</p>	100	
-------	--	--	--	----------	---	---	--	-----	--

2.2.3	Provide facility for the treatment of sewage, sullage and garbage generated in the Poonthura slum area between Karamana river and sea	Thiruvananthapuram Corporation	<p>Aerobins at various places(28)</p> <p>Proposed sites</p> <ol style="list-style-type: none"> 1. Moonnathumukku – Purampokku 2. Poonthura – HI Office 3. Cheriyanmuttam – Poonthura 4. Bemeenampal Colony 5. Tsunami Colony 6. Mother Theresa Colony 	March 2024	13 Location work completed, remaining location not available. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA	13 Location work completed, remaining location not available. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA	13 Location work completed, remaining location not available. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA	45%	
-------	---	--------------------------------	--	------------	---	---	---	-----	--

2.2.4	The discharge of waste water from the surrounding houses to the pond at Jagathy is to be stopped	Thiruvananthapuram Corporation	Pond desilting Issued notices to the household Project is prepared for desilting the pond	March 2020	Meeting was conducted on 30-07-21, convened by the Public Work Standing Committee Chairperson with KWA Officials, Tvpm Corporation officials and councilors ward to discuss this concern. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA.	Meeting was conducted on 30-07-21, convened by the Public Work Standing Committee Chairperson with KWA Officials, Tvpm Corporation officials and councillors to discuss this concern. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA.	meeting was conducted on 30-07-21, convened by the Public Work Standing Committee Chairperson with KWA Officials, Tvpm Corporation officials and councillors ward to discuss this concern. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA.		
-------	--	--------------------------------	---	------------	---	---	--	--	--

2.2.5	Around 155 Houses system	Thiruvananthapuram Corporation			Dropped. When the full capacity utilization of CSTP at Muttathara shall be ensured, this area will be covered as it is situated along the banks of Karamana - Killiyar River - KWA.	Dropped. When the full capacity utilization of CSTP at Muttathara shall be ensured, this area will be covered as it is situated along the banks of Karamana - Killiyar River - KWA.	Dropped. When the full capacity utilization of CSTP at Muttathara shall be ensured, this area will be covered as it is situated along the banks of Karamana - Killiyar River - KWA.		
2.2.5	Identification of illegal outlets into storm water drains and fine shall be imposed on such units	Thiruvananthapuram Corporation	Fine imposed and prosecution initiated		1959420 lakhs fine collected from 2019 to till date	1969430 lakhs fine collected from 2019 to till date	1979440 lakhs fine collected from 2019 to till date		

2.2. 6	Biodegradable waste	Thiruvananthapuram Corporation	Bio-Composter	Sep 2020	Installed 51,557 bins in total. Tender invited for installation of 25,000 bio compost bins. Proposal approved by the health standing committee. Proposal placed in the health standing committee and forwarded to purchase committee for negotiation	Installed 51,557 bins in total. Tender invited for installation of 25,000 bio compost bins. Proposal approved by the health standing committee. Proposal placed in the health standing committee and forwarded to purchase committee for negotiation	Installed 51,557 bins in total. Tender invited for installation of 50000 bio compost bins. Proposal approved by the health standing committee. Proposal placed in the health standing committee and forwarded to purchase committee for negotiation done, placed before council.	80%	
-----------	---------------------	--------------------------------	---------------	----------	--	--	--	------------	--

2.2. 7			Thumbo ormuzhi aerobic bins	<p>Total 154 locations Completed works (Total - 159 units) Santhikavadam - 3 units, Manathala - 3 units, ITI chackai – 11 bins Kalladimukham – 32 bins Neerazhi Market, Ulloor – 6 bins Thumba station kadavu – 4 units Womens college – 4 bins completed will be handovered soon. Sanskriti College – 5 bins Near Peroorkada Market-35 Kamaleshwaram, Karamana PRS opposite, Cotton hill LPS ,Cotton hill HSS-25 Poojapura-10 Inside Pratheeksha flat- 16 Manvila Market-5</p> <p>Work in progress Kuravankonam – 4 bins</p>	<p>Total 154 locations Completed works (Total - 159 units) Santhikavadam - 3 units, Manathala - 3 units, ITI chackai – 11 bins Kalladimukham – 32 bins Neerazhi Market, Ulloor – 6 bins Thumba station kadavu – 4 units Womens college – 4 bins completed will be handovered soon. Sanskriti College – 5 bins Near Peroorkada Market-35 Kamaleshwara m, Karamana PRS opposite, Cotton hill LPS ,Cotton hill HSS- 25 Poojapura-10 Inside Pratheeksha flat-16 Manvila Market- 5</p>	<p>Total 154 locations Completed works (Total - 159 units) Santhikavadam - 3 units, Manathala - 3 units, ITI chackai – 11 bins Kalladimukham – 32 bins Neerazhi Market, Ulloor – 6 bins Thumba station kadavu – 4 units Womens college – 4 bins completed will be handovered soon. Sanskriti College – 5 bins Near Peroorkada Market-35 Kamaleshwaram, Karamana PRS opposite, Cotton hill LPS ,Cotton hill HSS-25 Poojapura-10 Inside Pratheeksha flat- 16 Manvila Market-5</p> <p>Work in progress Kuravankonam – 4 bins</p>		
-----------	--	--	--------------------------------------	--	---	--	--	--

2.2. 8			Community biogas	Total 13 locations – Institutional Level. <u>Work completed – 6locations</u> Vanitha jail and Central jail, Poojapura - 100kg/day, Govt L P S, Kanjirampara - 100kg/day and Womens College, Vazhuthacaud - 500kg/day. Work at Law collage, Palayam -500 Kg/day, University campus, Palayam - 500Kg/day and Govt. High school, Kulathoor – 100Kg/day. Ongoing Works are : Mental Hospital, Oolampara – 500 kg/day General Hospital – 500 kg/day DPI, Jagathy – 100	Total 13 locations – Institutional Level. <u>Work completed – 6locations</u> Vanitha jail and Central jail, Poojapura - 100kg/day, Govt L P S, Kanjirampara - 100kg/day and Womens College, Vazhuthacaud - 500kg/day. Work at Law collage, Palayam -500 Kg/day, University campus, Palayam - 500Kg/day and Govt. High school, Kulathoor – 100Kg/day. Ongoing Works are : Mental Hospital, Oolampara – 500	Total 13 locations – Institutional Level. <u>Work completed – 6locations</u> Vanitha jail and Central jail, Poojapura - 100kg/day, Govt L P S, Kanjirampara - 100kg/day and Womens College, Vazhuthacaud - 500kg/day. Work at Law collage, Palayam -500 Kg/day, University campus, Palayam - 500Kg/day and Govt. High school, Kulathoor – 100Kg/day. Ongoing Works are : Mental Hospital, Oolampara – 500 kg/day General Hospital – 500 kg/day DPI, Jagathy – 100 kg/day. Govt Panchakarma Hospital - 100	60%
-----------	--	--	------------------	---	---	---	-----

2.2. 9			Organic Waste Converter		Dropped	Dropped	Dropped		
-----------	--	--	-------------------------------	--	---------	---------	---------	--	--

2.2.10		Thiruvananthapuram Corporation	Portable biogas		Dropped	Dropped	Dropped	
2.2.11		Thiruvananthapuram Corporation	Portable aerobic bins		28 more units installed. Total 125 units installed	Project completed	Project completed	
2.2.12		Thiruvananthapuram Corporation	Ring compost		Project implementation started. Installed 30 units. Site identified for installation of rest of 470 bins.	Project implementation started. Installed 125 units. Rest of the bins will be installed soon. Action on going	Project implementation started. Installed 350 units. Rest of the bins will be installed soon. Action on going	70%
2.2.13		Thiruvananthapuram Corporation	Segregation bins		Dropped	Dropped	Dropped	
2.2.14	Biodegradable waste	Thiruvananthapuram Corporation	RRC		Total 2 locations. (i) Work in Manacaud site completed. Tendering activities for electrification are in progress. (ii) Kalladimugham, Attukal ward - work will start soon after cutting 11 coconut trees. Council resolution took to cut down the trees.	Total 2 locations. (i) Work in Manacaud site completed. Tendering activities for electrification are in progress. (ii) Kalladimugham, site cleared after cutting 11 coconut trees. Work will be started soon.	Total 2 locations. (i) Work in Manacaud site completed. Tendering activities for electrification are in progress. (ii) Kalladimugham, site cleared after cutting 11 coconut trees. Work started, completed upto plinth level	99% Work on going, Construction under progress

2.2.15		Plastic Recycling unit		Site not yet identified	Site not yet identified. Project dropped	Site not yet identified. Project dropped	
2.2.16		Mobile MRF		Project dropped	Project dropped	Project dropped	
2.2.17		Electronic Weigh bridge		Project dropped	Project dropped	Project dropped	
2.2.18		Solar electrical cart		Work completed.	Work completed.	Work completed.	
2.2.19		Swaps shops		Work almost completed. Part bill submitted.	Work completed. Revised estimate approved by council.	Work completed. Revised estimate approved by council. Final part bill will be issued soon.	98% completed
2.2.20		PET bottle crushing		Project dropped	Project dropped	Project dropped	
2.2.21		Community level unit		During Trail run the unit is found to be incompetent	During Trail run the unit is found to be incompetent	During Trail run the unit is found to be incompetent	
		Napkin destroyer		158 Nos purchased and installed at various locations	158 Nos purchased and installed at various locations	158 Nos purchased and installed at various locations	

2.2.22	Thiruvananthapuram Corporation	Animal Crematorium at Kattela	May 2020	Project dropped	Project dropped	Project dropped	
2.2.23	Thiruvananthapuram Corporation	Urban Gardening		Project dropped	Project dropped	Project dropped	
2.2.24	Thiruvananthapuram Corporation	Upgradation of present facilities		Completed.	Completed.	Completed.	100% completed
2.2.25	Thiruvananthapuram Corporation	Capacity Building & IEC		Training for contingency workers scheduled from 06/06/2022 to 09.06/2022 and also from 10/06/2022 to 12/06/2022	Meeting conducted with participation of all thumburmuzhi workers on 31.06.2022.	A training programme was conducted for HI/JHI on May 6	
2.2.26	Thiruvananthapuram Corporation	Viability gap Fund			Issue of Sixst phase of VGF to Haritha Karma Sena completed	Issue of Seventh phase of VGF to Haritha Karma Sena completed	

2.2. 27	Prevent entry of storm water into sewer line along with KWA	Thiruvananthapuram Corporation	KWA is authorised to prepare and implement proper sewerage lines under Amrut scheme	May 2020	Close monitoring is done by health Squad and all Health Inspectors are directed to issue notice and prosecution.	Close monitoring is done by health Squad and all Health Inspectors are directed to issue notice and prosecution.	Close monitoring is done by health Squad and all Health Inspectors are directed to issue notice and prosecution.	
------------	---	--------------------------------	---	----------	--	--	--	--

2.2.28	Take steps to prevent the solid wastes in sewer line as reported by KWA	Thiruvananthapuram Corporation	Squad and Fines Special squad is formed at Corporation level. Health Inspectors are authorized for regularly monitoring and preventing the waste discharge	May 2020	Employees were placed at various spots during night to prevent dumping of solid waste in drains and fines are being charged. Regarding to waste throwing to public places Corporation collected an amount of Rs 1811380/- as fine from 01.01.2022.	Employees were placed at various spots during night to prevent dumping of solid waste in drains and fines are being charged. Regarding to waste throwing to public places Corporation collected an amount of Rs 1883050/- as fine from 01.01.2022.	Employees were placed at various spots during night to prevent dumping of solid waste in drains and fines are being charged. Regarding to waste throwing to public places Corporation collected an amount of Rs 1967880/- as fine from 01.01.2022.	June 84830
--------	---	--------------------------------	---	----------	--	--	--	------------

Monitoring

	Activity	Implementing agency	Time line	Water quality in July/ pre-monsoon	Water quality in August/ monsoon	Water quality in post-monsoon
2.3.1	River water quality monitoring - Killiyar, Karamana, Parvathiputhanar, Akkulam-Veli lake	Kerala State Pollution Control Board	Ongoing; monthly			
2.3.2	Storm drains monitoring - Amayizhan chanthodu, Ulloorthodu, Pattomthodu, Kannamoolathodu, Thekkanakkar canal	Kerala State Pollution Control Board	Ongoing Seasonal monitoring – pre-monsoon, monsoon, post-monsoon			

3.1 .1	Extension of sewerage system to Block F to G coastal belt	Kerala Water Authority	200	Three years					
3.1 .2	Extension of sewerage system to Block H to R	Kerala Water Authority	700						
3.1 .3	Extension of sewerage system to Newly added areas of	Kerala Water Authority	300						
3.1 .4	Providing sewerage system in Block A to E	Kerala Water Authority	100						
3.1 .5	Rehabilitation of existing Network and pump house in block A to E	Kerala Water Authority	100						
3.1 .6	Procurements of equipments for maintenance sewerage system	Kerala Water Authority	10						
3.1 .7	Additional STP requirement	Kerala Water Authority	60						

3.1.8	Total Amount required	Kerala Water Authority	1470 Crores						
-------	-----------------------	------------------------	-------------	--	--	--	--	--	--

Solid waste management

	Long term measures proposed by Thiruvananthapuram	Implementing agency	Timeline	Progress in the month of January 2022	Progress in the month of February 2022	Progress in the month of March 2022	% works completed	Details of works remaining
3.2.1	Acquire 58 acres of land and rehabilitate 8150 families from the banks of River	Thiruvananthapuram Corporation	5 years	Project Dropped				

De-silting and development

No.	Activity	Implementing agency	Timeline	Progress in the month of April 2022	Progress in the month of May 2022	Progress in the month of June 2022	% works completed	Details of works remaining
3.3.1	Development package for Parvathy Puthanar	Irrigation department Included in KIFB by KWIL includes cleaning of canal	3 years					

3.3.2	De-silting and development of AmayizhanchanThodu	Irrigation Department	1.5 years					
3.3.3	Improvements to Thekkenekara canal and de-silting-	Irrigation Department	1 year					
3.3.4	Karimadam tank improvements, de-silting sheet piling/under preparation and providing fencing	Irrigation Department	1.5 years					
3.3.5	Development of Karamana basin	Irrigation Department	1.5 years					

Date- 05/07/2023

Secretary
(Sd/-)

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PAMBA, PATHANAMTHITTA

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT-Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		NA
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		NA
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		NA
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level		NA

	<ul style="list-style-type: none"> Chief Secretaries may have an accountable person attached in their office for this purpose 		
	<ul style="list-style-type: none"> Monitoring at State level must take place 		
6	<p>Progress report may be furnished by the State/UTs to</p> <ul style="list-style-type: none"> Secretary, Ministry of Jal Shakti Member Secretary, CPCB 	<p>Monthly (preferably before 20th of every month)</p>	NA

<p>6.1</p>	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p>	<p>2019-2020</p>	<p>Drains contributing to river pollution were Identified-The drains are seasonal and water quality is above the required limit, no in-situ Treatment is required</p> <p>Since the area does not contain any industry and so do not require any CETP, this action point is revised</p> <p>The adjoining local bodies are in the stage of developing and establishing adequate solid waste management facilities. Also, the solid waste dumping issues were not identified in the stretch during the field visit held during past one year.</p> <p>Water quality analysis results of April 2023 is enclosed.</p>
------------	--	------------------	---

	<p>(iv)<u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure,Gap Analysis, Proposed along with completion timeline</p> <p>(v)Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi)Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p>		<p>Awareness campaign to be initiated</p> <p>No ground water pollution is noted in the area so action yet to be initiated.</p> <p>Adopted.</p> <p>Action will be initiated.</p> <p>Action will be initiated.</p> <p>Action will be initiated.</p> <p>Action will be initiated.</p>
--	--	--	--

	<p>(vii)Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of food plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi)Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii)Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	---	--	--

ACTION PLAN FOR RIVER PAMBA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of Apr 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
A(a)	No industries	-	-				-	-
A(a)	Monitoring of river water quality	Kerala State Pollution Control Board	Continuing project				100%	Nil
C(ii)	Establishment of de-centralized solid waste treatment facility	Mannar Panchayat, Panchayath	31.02.2023	Construction of 2 aerobic compost units completed (One each in Grama Panchayat Office compound and near Mannar	Construction of 2 aerobic compost units completed (One each in Grama Panchayat Office compound and near		100%	Inauguration of functioning.

				<p>Private Bus Stand. The work was executed by M/s Floret Technologies, Thiruvananthapuram. An amount of Rs. 13,60,000/- was allocated in the annual plan of Mannar GP for this project. Action Plan on solid waste Management is approved by Grama Panchayat Committee on</p>	<p>Mannar Private Bus Stand. The work was executed by M/s Floret Technologies, Thiruvananthapuram. An amount of Rs. 13,60,000/- was allocated in the annual plan of Mannar GP for this project. Action Plan on solid waste Management is</p>			
--	--	--	--	--	--	--	--	--

				27/08/2021	approved by Grama Panchayat Committee on 27/08/2021			
C	Establishment of Material Collection Facility	Mannar Panchayat,	31.02.2023	Collection of Non-biodegradable plastic materials from houses and institutions is conducted by Haritha Karma Sena(HKS). Non-biodegradable plastic materials has bCollection, segregation and	Collection of Non-biodegradable plastic materials from houses and institutions is conducted by Haritha Karma Sena(HKS). Non-biodegradable plastic materials has bCollection,		100%	Construction of permanent MCF building.

				<p>transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Construction of Two mini MCFs in each ward in all</p>	<p>segregation and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Construction</p>			
--	--	--	--	---	--	--	--	--

				the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021.	n of Two mini MCFs in each ward in all the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021.			
C	Resource Recovery Facility	Mannar Panchayat, Panchayath	31.02.2023	As there is no RRF in Mavelikkara Block Panchayat in which Mannar GP	As there is no RRF in Mavelikkara Block Panchayat in which Mannar GP		100%	

				belongs, nearby Chengannur Block Panchayat has agreed to receive the plastic materials collected and transported by Mannar GP. Mannar GP has started stockpiling of plastic waste materials collected through HKS in a hall above the Vridhdhasada nam owned by GP and	belongs, nearby Chengannur Block Panchayat has agreed to receive the plastic materials collected and transported by Mannar GP. Mannar GP has started stockpiling of plastic waste materials collected through HKS in a hall above the Vridhdhasad			
--	--	--	--	--	---	--	--	--

				segregated and transported to Clen Kerala company. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021.	anam owned by GP and segregated and transported to Clen Kerala company. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021.			
C	Installing household and community level solid waste management units	Mannar Panchayat	31.02.2023	Collection of Non-biodegradable plastic materials from houses and	Collection of Non-biodegradable plastic materials from houses and		100%	Operation of Aerobic compost unit.

				<p>institutions is conducted by Haritha Karma Sena(HKS). Collection, segregation and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic</p>	<p>institutions is conducted by Haritha Karma Sena(HKS). Collection, segregation and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500</p>			
--	--	--	--	---	---	--	--	--

				<p>materials is kept ready for transportation. Construction of Two mini MCFs in each ward in all the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021. Action Plan on solid waste Management is approved by Grama</p>	<p>kg of plastic materials is kept ready for transportation. Construction of Two mini MCFs in each ward in all the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw (Final) has been passed by Mannar GP on 19/06/2021.</p>			
--	--	--	--	--	---	--	--	--

				Panchayat Committee on 27/08/2021.	Action Plan on solid waste Management is approved by Grama Panchayat Committee on 27/08/2021.			
C	Door to door collection and transportation of municipal solid waste	Mannar Panchayat	31.02.2023	Collection of Non-biodegradable plastic materials from houses and institutions is conducted by Haritha Karma Sena(HKS). Collection, segregation	Collection of Non-biodegradable plastic materials from houses and institutions is conducted by Haritha Karma Sena(HKS). Collection,		100%	The process has to be repeated through the year.

				<p>and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Construction of Two mini MCFs in each</p>	<p>segregation and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Construction</p>			
--	--	--	--	---	--	--	--	--

				<p>ward in all the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw(final) has been passed by Mannar GP on 19/06/2021. Action Plan on solid waste Management is approved by Grama Panchayat Committee on 27/08/2021.</p>	<p>n of Two mini MCFs in each ward in all the 18 wards of Mannar GP is completed. Plastic Waste management Bylaw(final) has been passed by Mannar GP on 19/06/2021. Action Plan on solid waste Management is approved by</p>			
--	--	--	--	--	--	--	--	--

					Grama Panchayat Committee on 27/08/2021.			
C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of Parumala Town	Kadapra Panchayat	31.12.2020					
C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of Mannar Town	Mannar Panchayat	30.09.2020	Due to the lack of space and fund, construction of small STP is not included in the annual plan of Mannar Grama Panchayat. It will be suitable if the Govt . takes necessary	Due to the lack of space and fund, construction of small STP is not included in the annual plan of Mannar Grama Panchayat. It will be suitable if		0%	Not applicable

				steps in this matter.	the Govt . takes necessary steps in this matter.			
C	Construction of compound wall with fencing	Irrigation department	31.03.2021					
C	Removing light jungle and muddies from river courses	Irrigation department	31.03.2021					
C	Electrical-Light arrangements and Surveillance cameras	Irrigation department	31.03.2021					
C	Regualting activites in flood plain zone, protection and management of flood plain zone	Irrigation department	31.03.2021					
	Greenery developmentPlantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment	Irrigation department	31.03.2021					
C (b) (ii)	Green Protocol implementation in all Offices institution & Public function	Mannar, Panchayat	31.01.2023	Green Protocol is strictly observed in Mannar GP and other offices as well as public functions .	Green Protocol is strictly observed in Mannar GP and other offices as well as public		100%	Continuation of Green Protocol .

				<p>Strict instruction in writing is given to owners of auditoriums , assembly halls, etc to comply with Green protocol while conducting ceremonies. Rs. 1,50,000/- has been allocated for a project for the setting up of cloth bag/paper bag unit so that use of plastic carry bags can be discouraged . Green Audit was conducted in Mannar GP Office and other 13 Government Offices within the</p>	<p>functions . Strict instruction in writing is given to owners of auditoriums , assembly halls, etc to comply with Green protocol while conducting ceremonies. Rs. 1,50,000/- has been allocated for a project for the setting up of cloth bag/paper bag unit so that use of plastic carry bags can be discouraged . Green Audit was conducted in Mannar GP Office</p>			
--	--	--	--	--	---	--	--	--

				<p>Panchayat Area. 11 offices were certified to have fulfilled Green Audit parameters. Certificates were awarded to the successful offices and Suchitwa Padavi Declaration in Mannar GP was conducted 26/01/2021.</p>	<p>and other 13 Government Offices within the Panchayat Area. 11 offices were certified to have fulfilled Green Audit parameters. Certificates were awarded to the successful offices and Suchitwa Padavi Declaration in Mannar GP was</p>			
--	--	--	--	---	--	--	--	--

					conducted 26/01/2021.			
D(a)	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation department	30.11.2020					
D (b)	Irrigation practices	Irrigation department	30.04.2020					
E	Awareness programmes for sections of public	Kerala State Pollution Control Board	31.05.2020				100%	
C	Management of municipal, plastic, hazardous, biomedical and electrical waste	LSGD	31.03.2021	Draft by-law of Plastic Waste Handling has been passed by the Grama panchayat Committee on 05/02/2021. Collection, segregation and	Draft by-law of Plastic Waste Handling has been passed by the Grama panchayat Committee on 05/02/2021. Collection, segregation		100%	The process is to be repeated periodically.

				<p>transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Socio-Economic Unit (SEU) has been</p>	<p>and transportation of non-biodegradable plastic materials is continuing. About 12 tonnes of plastic materials handed over to Clean Kerala Company(CKC) so far. About 500 kg of plastic materials is kept ready for transportation. Socio-Economic Unit (SEU)</p>			
--	--	--	--	--	---	--	--	--

				selected as implementing agency for the construction Two mini MCFs in each ward in all the 18 wards of Mannar GP.For the management of electrical, electronic and hazardous waste, the Grama Panchayat has reached in an agreement with Clean Kerala Company.	has been selected as implementing agency for the construction Two mini MCFs in each ward in all the 18 wards of Mannar GP.For the management of electrical, electronic and hazardous waste, the Grama Panchayat has reached in an agreement			
--	--	--	--	---	---	--	--	--

				<p>Collection and handing over of electrical, electronic and hazardous waste will start. Biomedical waste is being collected from source and transported for processing by IMAGE (IMA Goes + Eco-friendly), an initiative run by IMA (Indian Medical Association).</p>	<p>with Clean Kerala Company. Collection and handing over of electrical, electronic and hazardous waste will start. Biomedical waste is being collected from source and transported for processing by IMAGE (IMA Goes + Eco-friendly), an</p>			
--	--	--	--	--	---	--	--	--

					initiative run by IMA (Indian Medical Association)			
--	--	--	--	--	--	--	--	--

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

Analysis Result of Drains Joining to Mannar-Thakazhi Stretch of Pamba River (2022-2023)

Sl. No	Name of Drain	Parameters														
		pH			Electrical Conductivity(µS/cm)			BOD(mg/l)			TC(Nos/100ml)			FC		
	Months	APR	MAY	JUN	APR	MAY	JUN	APR	MAY	JUN	APR	MAY	JUN	APR	MAY	JUN
1	Parumala Drain	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	MannarTown Drain	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Kuriyathkadavu Thodu	Nil	Nil	6.66	Nil	Nil	170.1	Nil	Nil	12.6	Nil	Nil	6000	Nil	Nil	300
4	Karuvellil Thodu	7.55	7.02	7.03	42.84	140.8	63.45	0.9	4.2	2.2	3000	2000	7000	1200	800	350
5	Nochithodu	7.4	6.74	6.84	65.98	181.6	132.2	0.3	5.4	4.1	2200	3000	4000	800	1200	200
6	Pattaparambil Thodu	7.2	6.87	7.08	39.81	76.84	64.04	0.4	0.7	2.5	300	1200	2000	0	300	100
7	Kappiyarissery Thodu	Nil	6.99	7.08	Nil	111.1	166.5	Nil	7.5	7.2	Nil	2200	12000	Nil	600	600
8	Kombankery Thodu	7.2	7.06	6.8	35.39	53.42	66.39	0.5	1.8	2.6	600	700	7500	0	100	300
9	Perackalthodu	7.23	6.77	6.92	33.04	48.78	88.06	0.3	2.7	3.2	1500	3000	2500	100	1200	150
10	Erathodu	7.16	6.9	7.09	49.9	51.33	60.51	0.1	1.9	0.7	2000	2800	600	400	1000	50
11	Kolarayaru	7.2	6.85	6.91	31.17	49.48	42.68	0.5	2.1	0.4	500	600	0	0	0	0

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER MANIMALA, ALAPPUZHA

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2021	NIL
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	Since Large Land holding by local residents on the bank, No
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	22.01.2020	Such issues arises, no need of steps since
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose	22.01.2020	No industry/commercial activity
	<ul style="list-style-type: none">• Monitoring at State level must take place	22.01.2020	NIL
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB	22.01.2020 Fortnightly commencing	NIL

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic</p>	<p>21.12.2019</p> <p>2020-2021</p> <p>2019-2020</p> <p>2020-2021</p> <p>2020-2021</p>	<p>Drains contributing to river pollution were identified. The drains are seasonal and water quality is above the require limit, no in situ.</p> <p>Proposal for setting up an FSTP by Chengannur municipality is initiated.</p> <p>Since the area does not contain any industry no requirement of any CETP, this action. Plan revised.</p> <p>The adjoining local bodies are in the stage of developing and establishing adequate solid waste management facilities also the solid waste during issues were not identified in the stretch during field visit held during past 1 year. Water quality analysis result of the stretch up to JUN 2023 is enclosed. Awareness campaigns initiated.</p> <p>No groundwater pollution is noted in the area action yet to be initiated.</p>
-----	--	---	---

ACTION PLAN FOR RIVER PAMBA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
A(a)	Monitoring of river water quality	Kerala State Pollution Control Board	Continuing project	Result attached	Result attached		100%	NIL
A(b)	Rendering Plant at Eraviperoor or Thiruvalla	Eraviperoor/ Thiruvalla local body	31.03.2021				0%	Work to be initiated
C(ii)	Fencing of bridges, desilting, dredging and protection works, surveillance cameras at vantage points	Irrigation department	31.03.2021				0%	Work to be initiated
C	Preventing illegal discharge of septage and other waste water into the river. Formation of River Protection Group	Panchayath, Police , KSPCB	31.05.2020.	NIL	NIL		0%	Work pending due to COVID pandemic
C	Greenery development Plantation on both sides of the river, setting up biodiversity parks in flood plains and removing encroachment	Irrigation department in association with panchayath	31.03.2021				0%	Yet to be initiated
C(b)(ii)	Green Protocol implementation in all offices, institution & public functions	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.03.2020				100%	0

D(a)	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation department, Hydrographic survey department	31.03.2021					Work to be initiated
C(ii)	Establishment of decentralized solid waste treatment facilities	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020				100%	0
C	Installing household & community level solid and domestic sewage waste management	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020				NA	NA
C	Door to door collection of solid waste & Material Collection Facilities (MCF) & Resource Recovery Facilities (RRF)	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020				NA	NA

ACTION BY GROUND WATER DEPARTMENT

Sl. No	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Timeline	Progress in the month of April 2023	Progress in the month of May2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	31.03.2021					
2	B(ii)	Ground water recharging / rain water harvesting in Govt offices	31.03.2021					
3	NGT order in O.A no.496/2016 Identification of illegal bore wells in the catchment area.	NGT order in O.A no.496/2016 Identification of illegal bore wells in the catchment area.	31.03.2021					

**ANALYSIS REPORT OF DRAINS OF MANIMALA BETWEEN KALLOOPARA AND THONDRA
JUN-2023**

SI NO	BOTTLE NO.	Name of Drains	PH	BOD	TC	FC
1	TK1	Panayampalathodu	6.6	1.2	5000	1500
2	TK2	PadathupalamThodu	6.8	0.4	4000	1100
3	TK3	Thottappuzha	7.2	1.4	1000	200
4	TK4	Kuttapuzha under Kattodubridge	6.6	0.4	300	0
5	TK5	Kadavumbara	6.5	2.4	5000	1300
6	TK6	Drain under Varappalam Bridge	Nil	Nil	Nil	Nil
7	TK7	Drain under kallupalam Bridge	6.8	0.8	1400	500
8	TK8	Komalamthodu	6.9	1	2200	600
9	TK9	Vennikulam Valiyathodu	7	1	1800	200
10	TK10	Paduthodu	7	0.7	6500	1600
11	TK11	Mallappally Valiyathodu	6.6	1.2	2500	300

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/UTs

(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019) **RIVER PAMBA, PATHANAMTHITTA**

S. No	Activity to be monitored	Timeline	Submission of progress by State/UT-Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary,Ministry of Jal Shakti• Member Secretary,CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure,Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure,Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv)<u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure,Gap Analysis, Proposed along with completion timeline</p> <p>(v)Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi)Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii)Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of food plain Zones (FPZ)</p>		
-----	---	--	--

(x) Rain water harvesting

(xi) Maintaining minimum Environmental flow of river

(xii) Plantation on both sides of the river

(xiii) Setting up biodiversity parks on flood plains by removing encroachment

ACTION PLAN FOR RIVER PAMBA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May- 2023	Progress in the month of June-2023	% works completed	Details of works remaining
A(a)	No industries	-	-	-	-	-	-
A(a)	Monitoring of river water quality	Kerala State Pollution Control Board	Continuing project				
C(ii)	Establishment of de- centralized solid waste treatment facility	Mannar Panchayat, Kadapra/ Niranam Panchayath	31.03.2021	Not submitted report	Not submitted report		Inauguration of functioning.

				<p>Kadapra Panchayath has resolved to identify all polluting sources involved in pollution of river resources and initiation of penal action against them</p> <p>Not submitted report</p>	<p>Kadapra Panchayath has resolved to identify all polluting sources involved in pollution of river resources and initiation of penal action against them</p> <p>Niranam Gramapanchayat is an upper Kuttanad area , so no such dry land suitable for solid waste treatment plant is available</p>		
--	--	--	--	---	---	--	--

C	Establishment of Material Collection Facility	Mannar Panchayat, Kadapra/ Niranam Panchayath	31.03.2021	Not submitted report	Not submitted report		Construction of permanent MCF building, collection and transportation of Non-bio degradable Materials to RRF for processing.

				Material Collection Facility is fully functional in Kadapra Grama Panchayath	Material Collection Facility is fully functional in Kadapra Grama Panchayath		
				Not submitted report	MCF construction completed 13 mini MCF implimentedc in all wards in Niranam Panchayath		

--	--	--	--	--	--	--	--	--

C	Resource Recovery Facility	Mannar Panchayat, Kadapra/ Niranam Panchayath	31.03.2021	Not submitted report	Not submitted report	100%	Collection and transportation of Non-bio degradable Materials to RRF for processing
				Resource recovery facility is working as a centralised arrangement at BlockPanchayath level in Kadapra Grama Panchayath	Resource recovery facility is working as a centralised arrangement at BlockPanchayath level in Kadapra Grama Panchayath		

				Not submitted report	It will be suitable if RRF is established at Block level in Niranam Grama Panchayath		
--	--	--	--	----------------------	--	--	--

C	Installing household and community level solid waste management units	Mannar Panchayat	31.03.2021	Not submitted report	Not submitted report	100%	Construction and operation of Aerobic compost unit.
C	Door to door collection and transportation of municipal solid waste	Mannar Panchayat	31.03.2021	Not submitted report	Not submitted report		Continuing
C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of Parumala Town	Kadapra Panchayat	31.12.2020	The Panchayat is considered is sewage treatment plants is currently not need with in panchayat area around Parumala	The Panchayat is considered is sewage treatment plants is currently not need with in panchayat area around Parumala		

C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of Mannar Town	Mannar Panchayat	31.12.2020	Not submitted report	Not submitted report	0%	Not applicable
C	Construction of compound wall with fencing	Irrigation department	31.03.2021	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government		
C	Removing light jungle and muddies from river courses	Irrigation department	31.03.2021				
C	Electrical-Light arrangements and Surveillance cameras	Irrigation department	31.03.2021				
C	Regulating activities in flood plain zone, protection and management of flood plain zone	Irrigation department	31.03.2021	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government		
	Greenery development Plantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment	Irrigation department	31.03.2021				

C (b) (ii)	Green Protocol implementation in all Offices institution & Public function	Mannar, Kadapra/ Niranam Panchayat	31.05.2020	<p>Not submitted report</p> <p>Green protocol has been implemented in Public offices of Kadapra Gramapanchayat</p> <p>Not submitted report</p>	<p>Not submitted report</p> <p>Green protocol has been implemented in Public offices of Kadapra Gramapanchayat</p> <p>Necessary instruction are given to all offices and institution to strictly comply with the green protocol and is regularly monitored in Niranam Grama Panchayath</p>	100%	Continuation of Green Protocol .
------------	--	------------------------------------	------------	--	--	------	----------------------------------

D(a)	Issues relating to E-flow,maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation department	30.11.2020	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government	Detailed project report for the Holistic rejuvenation of the reaches is prepared and submitted to Government		
D (b)	Irrigation practices	Irrigation department	30.04.2020				
E	Awareness programmes for sections of public	Kerala State Pollution Control Board	31.05.2020				
C	Management of municipal, plastic, hazardous, biomedical and electrical waste	LSGD	31.03.2021	Not submitted report	Not submitted report		

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of May,2023	Progress in the month of June,2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	NOC has not been issued to industries for Ground Water extraction during May 2023	1 NOC has been issued to industries for Ground Water extraction during June 2023	Demand based	1.As per the GEC estimation all the blocks in the District has been categorized as SAFE. 2.Provisions of GW (control & Regulation) Act 2002 is implementing strictly for regulating extraction of GW resource in the district
2	B(ii)	Ground water recharging / rain water harvesting	Artificial Recharge Structure 3 sites work completed and 6 sites Selection notice issued.	Artificial Recharge Structure 6 sites completed	Demand based	All the blocks in the district is categorized as SAFE as per GEC estimation. Kadapra-Niranam Area is not feasible for Ground Water Recharge. However, GW recharging programme is taken up in some pockets in the midland area including Manimala basin. Where seasonal GW level fluctuation is noticed.

3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps	Groundwater sample collection during the month of May 2023 from monitoring wells (borewells and open wells) collected and sent to Analytical Lab Thiruvananthapuram for chemical analysis soon.	Groundwater sample collection during the month of April 2023 from monitoring wells (borewells and open wells) collected and sent to Analytical Lab Thiruvananthapuram for chemical analysis soon.	Periodical assessment(Regular programme) Chemical analysis result ofgroundwater samples collected during November-2020 reveals that the gw quality is good and potable.	(i)Maintaining a network of observation wells in various hydrogeomorphic units throughout the district from which water level and water samples have been collected periodically and analysed. (ii)generally groundwater quality is good and potable
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices	Borewell/ tube well construction is regulated in the district by insisting permit of local bodies based on the feasibility report ii) Promoting conjunctive use of groundwater and surface water for irrigation purpose.	Borewell/ tube well construction is regulated in the district by insisting permit of local bodies based on the feasibility report ii) Promoting conjunctive use of groundwater and surface water for irrigation purpose.	Continuing programme	i)Borewell/tube well construction is regulated in the district by insisting permit of local bodies based on the feasibility report of GWD ii) Promoting conjunctive use of groundwater and surface water for irrigation purpose. iii)Awareness programmes organised to the public to adopt rainwater harvesting measures

WATER QUALITY DATA OF POLLUTED RIVER STRETCHES JUNE-2023**DISTRICT OFFICE, PATHANAMTHITTA****Date of Sampling: 02.06.2023**

Sl. No	PARAMETERS	THAKZHY	EDATHUA	MANNAR
1	Temperature, °C	28	26	28
2	pH	6.4	6.2	6.8
3	Conductivity, µmhos/cm	60	66	46
4	Turbidity, NTU	1.6	2.3	2.0
5	Phenolphthalein Alkalinity, as CaCO ₃	Nil	Nil	Nil
6	Total Alkalinity, as CaCO ₃	10	11	9
7	Chloride, mg/l	10	10	8
8	COD, mg/l	3.4	3.2	3.4
9	TKN, mg/l	0.25	0.15	0.18
10	Ammoniacal-N, mg/l	0.162	0.153	BDL
11	Hardness, as CaCO ₃ mg/l	20	22	18
12	Calcium, as CaCO ₃ mg/l	14	12	10
13	Magnesium as CaCO ₃ , mg/l	6	10	8
14	Sulphate, mg/l	3.3	2.2	2.1
15	Sodium, mg/l	5.3	6.2	4.4
16	Total Dissolved Solids, mg/l	38	40	32
17	Total Fixed Solids, mg/l	33	35	27
18	Total Suspended Solids, mg/l	28	30	23
19	Phosphate, mg/l	BDL	BDL	BDL
20	Boron, mg/l	BDL	BDL	BDL
21	Potassium, mg/l	0.521	0.712	0.425
22	BOD, mg/l	0.9	1.4	0.6
23	Fluoride, mg/l	0.25	0.2	0.2
24	Dissolved Oxygen, mg/l	6.1	5.4	6.5
25	Nitrate-N, mg/l	0.158	0.165	0.211
26	Total Coliform, CFU/100 ml	200	340	220
27	Faecal Coliform, CFU/100 ml	60	100	70
28	SAR	0.515268	0.57471	0.450909
29	% of sodium	16.0463	15.769391	14.07207
30	Faecal Strepto Coccus, CFU/100 ml	Nil	Nil	Nil

**MONTHLY ANALYSIS REPORT OF POLLUTED RIVER
STRETCHES JUNE-2023**

STATION: MANNAR

SamplingDate: 02.06.2023

Sl.No	PARAMETERS	ITTINAYARKKADAVU BRIDGE KUTTAMPEROOR	KOTTAKAL KADAVU BRIDGE KORATTIKADAVU	PARUMALA BRIDGE	MANNAR BRIDGE
1	Temp. (°C)	28	27	28	29
2	pH	6.6	6.8	6.7	6.7
3	Conductivity (µS/cm)	61.05	55.48	74.72	46.15
4	DO (mg/L)	4.2	3.4	4.4	5.1
5	BOD (mg/L)	1.9	2.1	1.6	1.2
6	COD (mg/L)	6.4	6.4	6.4	6.4
7	TDS (mg/L)	42	36	52	32
8	TC (CFU/100ml)	800	450	610	150
9	FC (CFU/100ml)	260	150	200	50
10	FSC(CFU/100ml)	Nil	Nil	Nil	Nil

Analysis report of polluted river stretches-R Periyar, R- Chithrapuzha,R-Kadambrayar, R-Chalakudy For the month of JUNE 2023

STNCode	Sampling Date	Sampling Time	StnName	TypeWaterBody	NameOf WaterBody	RiverBasin
17	02.06.2023	10:10	Periyar at Eloor	River	Periyar River	
1338	17.06.2023	10:10	Periyar at SDP Aluva	River	Periyar River	
2334	20.06.2023	10:50	Periyar at Pathalam	River	Periyar River	
2335	20.06.2023	12:00	Periyar at Kalamassery	River	Periyar River	
3468	17.06.2023	10:25	Periyar at KWA Aluva	River	Periyar River	
2337	NO SAMPLING		Kadambrayar At Brahmapuram	River	Kadambrayar River	
2338	03.06.2023	11:10	Kadambrayar At Manackakadavu	River	Kadambrayar River	
1573	03.06.2023	11:50	Chithrapuzha At Irumpanam	River	Chithrapuzha River	
1154	17.06.2023	1:10	Chalakudy at Pulikkakadavu	River	Chalakudy River	

Sl. No.	Parameters	Values									
		Station Code						2337	2338	1573	1154
		17	1338	2334	2335	3468					
1	Temperature, °C	2.8	27	28	28	26	N o S A M P L I N G	29	30	28	
2	Dissolved Oxygen, mg/l	4.3	5.5	6.8	4.3	7		3.2	1.9	7	
3	pH	7.4	6.5	6.7	6.5	7.2		6.6	6.5	7.2	
4	Conductivity, µmhos/cm	1554	90	1011	64	46		110	1023	74	
5	BOD, mg/l	1.4	2.3	2.8	1.2	1.8		2.3	2.6	1.9	
6	Nitrate-N, mg/l	0	0.34	0.63	0.07	0.09		0	6.43	0	
7	Turbidity, NTU	3.2	1.6	2.6	1	1.2		13.7	5.3	1.4	
8	Total Alkalinity, as CaCO ₃	16	18	16	20	15		22	40	17	
9	Chloride, mg/l	390	13	270	6.5	4.8		17	180	12	
10	COD, mg/l	4.8	5.6	6.4	5.6	4		6.4	8	4.8	
11	TKN, mg/l	0	0.95	1.5	1	1.2		0	1.1	0.8	
12	Ammoniacal-N, mg/l	0	0.1	0.8	0	0		0	9	0	
13	Total Hardness, as CaCO ₃ mg/l	135	20	250	18	12		20	95	22	
14	Calcium, as CaCO ₃ mg/l	80	14	150	10	7		15	65	16	
15	Magnesium as CaCO ₃ , mg/l	55	6	100	8	3		5	30	6	
16	Sulphate, mg/l	66.5	1.3	57	0	0		0	134	0	
17	Sodium, mg/l	211.9	7.36	140	3.41	3		9.95	125.3	6.25	
18	Total Dissolved Solids, mg/l	848	50	600	35	26		60	582	41	
19	Total Fixed Solids, mg/l	650	38	460	26	20		45	452	30	
20	Total Suspended Solids, mg/l	24	12	23	12	10		13	22	11	
21	Phosphate, mg/l	0.1	0.2	0.5	0.2	0.2		0.2	40	0.2	
22	Boron, mg/l	NA	NA	NA	NA	NA		NA	NA	NA	
23	Potassium, mg/l	9.9	1.79	3.18	1.13	0.85		3.59	5.8	0.57	
24	Fluoride, mg/l	0.2	0.4	0.3	0.3	0.2		0.2	0.8	0.2	
25	Total Coliform, MPN/100 ml	43000	3800	1400	7000	2400		3500	12000	2100	
26	Feecal Coliform, MPN/100 ml	7900	1200	1000	3200	1100		130	7900	170	
27	Feecal Streptococci, MPN/100ml	790	40	240	130	10		84	480	12	

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PERIYAR, ERNAKULAM

Sl. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p>		
-----	--	--	--

	<p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	---	--	--

**ACTION PLAN FOR RIVER PERIYAR, KERALA
SHORT TERM MEASURES**

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the months of January 2022	Progress in the months of February 2022	% works completed	Details of works remaining
1.A(b)	Augmentation and Revamping of existing STP at near AdwaitaAshramam and to increase the capacity of STP so as to treat more sewage generated in the municipality	Aluva Municipality	Dec 2019	Civil work has been tendered. Estimate for electrical work has been prepared but T.S is not yet received. Estimate for Mechanical work has been prepared by Dredger Division. Tender procedures will be started soon.	Upgradation of existing STP at Advaita Ashram is in progress. It is decided to complete the civil, mechanical and electrical works together. Agreement status of civil works has been completed. The tender for the electrical work has not been completed. CFC fund for mechanical work will be arranged soon.		
2.A(b)	Augmentation and Revamping of existing ETP at Aluva Market and to increase the capacity of ETP so as to treat more sewage generated in the municipality	Aluva Municipality	2021	There is an existing ETP project. DPR of 3 Lakhs rupees has been approved by DPC. Tender procedures in progress ETP project is under consideration. Project has been	As the existing ETP field has become unusable during flood, renovation works are being carried out.		

				move forward to prepare DPR of Rs 3 lakhs. Tender has been called for the work but no one have taken the tender. Directions has been given to accredited agency via letter to prepare estimate including DPR in the Nagarasanjiplan. The estimate is under process.			
3.A(b)	Discharge of sewage from Hotels to the River through drain near Periyar	Aluva Municipality	2020	Health Squad inspection in progress.	Perikathod, which is connected to Periyar which COMES under Ward 23, falls under Kadungallur Panchayat. A letter has been sent to the Kadungallur Panchayat Secretary as part of taking action against those who discharge sewage there.	10	
4.A(b)	Identification of the establishments/commercial complexes/flats/houses/hotels etc who is discharging the sewage to the public drain and to collect fine based on polluter pay principle	Aluva Municipality, KSPCB	2020	Inspection in progress. Identified 140 households and 124 establishments discharging waste water to public drain. Outlets of 14 establishments have been closed.		0%	

5.A(a)(iv)	Periodical inspection in the Industries, Flats, hotels monitoring of STP,ETP	KSPCB	Periodical	Aluva Municipality has no industries	Aluva Municipality has no industries		
6.C(ii)	Installation of modern abattoirs	Aluva Municipality	March 2021	For the establishment of modern abattoirs, a structural work completed building has been identified. For the preparation of DPR, it has been put up for council approval. Establishment of abattoir will include in this year's project.	For installation of machines ,DPR submitted		
7.A(b)	Procurement of sewer cleaning machines and equipment maintenance	Aluva Municipality	March 2020	Purchased sewer cleaning machines. Cleaning work in progress.	80% of drainage clearing operations have been completed. Further works is inprogress.		

8.E	Installation of cameras at the waste dumping spots	Aluva Municipality	2020	Cameras are being installed by Health wing as purchase. No need of Technical sanction. 25 Lakhs rupees have been approved by DPC. 52 points have been identified for installing camera. E-Tender has been invited.	As part of monitoring of dumping sites. 53 cameras are to be installed, where 47 cameras are currently operational. The installation of rest of the cameras are in progress.		
9.A(b)	Construction of retaining wall with HDPE liner at Kalamassery dumping yard in order to prevent the leachate discharge from the yard to Thoombungal Thodu	Kalamassery Municipality	Sept 2019	Completed	Completed	10 0%	
10.C(ii)	Installation of plastic shredding unit	Kalamassery Municipality	June 2019	One plant is already installed and functioning.	One plant is already installed and functioning.	10 0%	
11.A(a)(iv)	Constitution of squads for night surveillance for finding the unauthorized dumping of sewage at NAD wet lands Kalamassery	Kalamassery Municipality, Police department	2020	.Culprits who were dumping wastes were identified using the cameras installed by municipality. Rs 6000 were imposed	.Culprits who were dumping wastes were identified using the cameras installed by municipality. 14,34,301/- has been collected till date as fine. 2,25,500/- collected so far in the month of June.		

				as fine in this month. Rs 74560/- were imposed from culprits who had thrown plastic wastes near roads..		
12.A(b)	Installation of common STP for Kalamassery Municipality and ETP at Municipal Market	Kalamassery Municipality	December 2019	75 cents land identified at North Kalamassery for sewage and septagetreatment plant. Procedures for soil testing in progress. DPR is prepared by KWA. DPR procedures in progress	ETP is working in the market. Findingthe place to set up common STP . The prepared DPR has been submitted to the Water Authority for approval.	
13.A(a)(iv)	Monitoring and surveillance of industries in Kalamassery Industrial Estate in order to prevent unauthorized discharges to Muttar River	Kalamassery Municipality	2019	Inspection conducted in 8 establishments and one unit was found having unauthorized discharge. Notice has been issued for the same.	Out of 55 houses found in last month's inspection, 23 houses have complied with the directive	
14.C(ii)	Installation of modern abattoirs including poultry and meat rendering plants.	Kalamassery Municipality, Industries Department (for land allotment)	2021	Industries department has informed that land is not available in the industrial estate. This has	A site has been identified for setting up a modern slaughterhouse. Efforts are being made to convey information regarding this from the municipal council to	

				been informed the collector via letter. It has been instructed to report the same to the Government.	the government		
15.A(b)	Identification of the establishments/commercial complexes/flats/houses/hotelse tc who is discharging the sewage to the public drain	Kalamassery Municipality	2020	During the inspection conducted in August month, 54 households were found having unauthorized discharge and notice was issued. 13 units have cleared the violation.	Outlet for discharge is visible from many houses.		
16.E	Installation of cameras at the waste dumping spots	Kalamassery Municipality	2020	Camera installed on 10 locations. 2 portable (mobile) cameras has installed for identifying waste dumping spot. RsRs 1000/- has been imposed as fine in the month of January. Total amount of Rs.31,560/- have been levied as fine..	10 permanent cameras have been established. Fines are collected from the people by checking the visuals of 2 Movable cameras installed in the waste dumping premises. 36,521 was collected underfines . More time is needed to install more cameras.		

17.A(b)	Identification of sources of sewage discharged to drain near Pathalam bridge and action to stop the discharge which reach river Periyar from hotels, labour camps etc. In case the quantity of sewage generated is assessed to be more STP need to be installed	Eloor Municipality, KSPCB (for monitoring)	2020	Inspection in progress. Notices have been given to shops. Reply from their end has received. Unauthorized outlets are closed. Septic tank – soak pit facility is recommended for all the newly sanctioned commercial buildings.	Arrangements have been made to drain the waste water discharged from the shopping complexes, shops etc. into the sockpit. Municipality constructed soakpits for that purpose.		
18.E	Installation of cameras at the waste dumping spots	Eloor Municipality	2020	The Cameras were installed in the land near HIL & Arattukadavu which was found as Dump sites. But presently those dump sites were cleared without any waste dumping. An amount of Rs.13,020/- were imposed on culprits who dumped wastes during the month of January.	Cameras are currently installed. But the images obtained from them are not clear. Keltron is a company in contract for the purpose. They have been asked several times to fix the existing problem.		

19.A(a)(i) v)	Periodical inspection in the Industries, Flats, hotels for monitoring of STP,ETP located in Cochin corporation	Kochi Municipal Corporation	Periodical	<p>An amount of Rs. 8,00,000/- were imposed as fine from culprits. Total amount of Rs. 46,02,300/- was collected as fine till date. Under OA147case,it is insrtructed to monitor the wghole stretch of the canal.16 houses and 18 establishments were identified.As a result 11 flats, 4 houses and 3 hotels were closed. Collected Rs31,00,000/ as fine from 6 hotels due to unauthorized discharge.92 new establishments are also identified where notice is issued to 16 establishments and rest of them are yet to issued.</p>	Representative from concerned local body has not attended the meeting		
------------------	--	-----------------------------	------------	--	---	--	--

20.A(a)	Inventory of sources of pollution through a rapid study/Study for identification of pollution sources at Edappallythodu	Kochi Municipal Corporation	3 months	Survey completed by HI and JHI of KMC. Location of waste disposal in TP canals and Edappallythodu was identified. Closing of outlet exposed to drains of TP canals is taken as a joint work by Engineering and Health wing of KMC. Work mainly focused on four zones. They are Central zone,Edappallyzone,Pachalam zone and Vytilla zone.	Representative from concerned local body has not attended the meeting		
21.E	Issuing notice to the defaulters	Kochi Municipal Corporation	4 months	Inspection is going on. Further actions are taken.	Representative from concerned local body has not attended the meeting		
22.A(a)(iv)	Periodical inspection in the flats, hotels, shops located along the river	Kochi Municipal Corporation	Periodical	Inspection in progress			Being carried out periodically
23.A(b)	Identification of natural drains/thodu reaching river Periyar and cleaning of weeds,	Irrigation department	2 years	4 polluted streams have been identified. The	4 polluted streams have been identified. The Estimate has been submitted for restoration		Detailed estimate submitte

	grasses etc.			Estimate has been submitted for restoration works. Financial sanction was not yet received. Onjithodu soil test conducted. Streams have been included in Operation Vahini.	works. Financial sanction was not yet received. Onjithodu soil test conducted. Streams have been included in Operation Vahini.		d to higher authority for FS. FS not obtained .
24.C(iii)	Clearing of weeds, grasses at the river bank in order to ensure the smooth flow of water	Irrigation department	3 years	The cleaning of river tributaries and desilting is jointly implemented by Local self government department and irrigation through Operation Vahini. Once this cleaning and desilting is completed the water table will increase and which in turn reduces the pollution. Measures are being taken to ensure the natural flow of the river. Desilting work in progress. For the remaining work, request have been submitted to RRC along with the DPR. Financial sanction to be	Operation Vahini in association with panchayats is carrying out cleaning and desilting of hand drains. The activities which are a part of Operation Vahini project are in final stage. We have been given an estimate for the rest of the work. If approved, work will be completed. The construction work of surviellance road for monitoring has been put up for approval.		

				received. The DIC has informed to clear off the grasses and weeds which are obstructing the smooth flow of drains in the industrial estate. DIC has reported that they have directed Estate Manager to ensure that the units near Periyar river banks are clearing the grass in their unit premises periodically.			
25.D(a)	Maintaining of Minimum flow in river during lean period and periodical operation of Regulators at River in-order to maintain minimum flow.	Irrigation department	3 years	Shutters are being operated periodically at the Pathalam lock cum regulator to maintain the flow of river	Shutters are being operated periodically at the Pathalam lock cum regulator to maintain the flow of river		
26.A(b)	Common Effluent Treatment Plant at Edayar Industrial Estate	Industries department	2022	For the establishment of CETP a government order has come sanctioning Rs. 37.5 Crore to DIC. KWA is entrusted to	The Government has sanctioned Rs 37.5 crore to the Industries Department for setting up a Common Effluent Treatment Plant. The project is being implemented by KWA. DPR of this has been submitted. Project		

				<p>implement the project. DPR for the same has been submitted. The project is under Government consideration. In the approved amount operational maintenance cost and GST was not included. In the Chief Secretary's meeting held on 23.08.2022, for the revision of CETP project proposal 3 months time has been allotted.</p>	<p>proposals under revision, the said project is under consideration of Govt. There was no first approval for amount of operational maintenance and GST. In the Chief Secretary's meeting held on 23.08.2022, three months time has been allotted for revising the CETP Project Proposal.</p>		
27.A(b)	Construction of internal roads and proper drainage in Edayar industrial estate	Industries department	Work progressing	<p>For the construction of internal roads and drainage in Edayar industrial estate, Rs. 6.54 crore has been handed over to PWD. The work</p>	<p>The construction of roads & drains in Industrial Development Area in Edayar was not yet started. A meeting was arranged with P.W.D on 23.01.2023. They have intimated that the work will be started soon.</p>		

				will be starting soon.			
28.A(b)	Installation of common discharge pipe line at downstream of Pathalam Regulator Bridge	Industries department, Irrigation department	3 years	It was decided to include the project of installing the common discharge pipeline in the DPR of CETP. Under this circumstance, the work comes under the responsibility of KWA.	It was decided to include the project of installing the common discharge pipeline in the DPR of CETP. Under this circumstance, the work comes under the responsibility of KWA.		
29.E	Installation of Night vision surveillance cameras at the River Bank side	KSPCB	2020	The CCTV cameras and accessories have been installed. 7 new cameras have been installed. Maintenance of two cameras in progress.	The CCTV cameras and accessories have been installed. 7 cameras have been installed. New two cameras is yet to be installed. It will be fixed soon.		
30.A(a)(iv)	Periodical Monitoring of Eloor, Edayar, Kalamassery Industrial belts	KSPCB	2020	Routine inspection is going on. Night Surveillance also carried out continuously.	Routine inspection is going on. Night Surveillance also carried out continuously.		
31.A(a)(iv)	Monitoring of quality of water at various intake point	Kerala Water Authority	2020	Status not reported	Status not reported		
32.A(a)(iv)	Installation of additional continuous online River water monitoring station	KSPCB	2022	The maintenance works of Online monitoring station in the downstream side of	The maintenance works of Online monitoring station in the downstream side of		

				Pathalam Bund have been completed and is working. Online monitoring station in the upstream side has been installed. Connection work to display board in progress.	PathalamBundhave been completed and is working. Online monitoring station in the upstream side has been installed. Display board work is in progress. Quality of water at upstream is satisfactory.		
33.A(b)	Identification of the establishments/commercial complexes/flats/houses/hotels etc who is discharging the sewage to the public drain	Kadungallur Panchayath	2020	Joint inspections were done by Heath Inspector & Asha workers	A total fine of Rs.2500/- will be collected against those who were spotted		
34.E	Installation of cameras at the waste dumping spots	Kadungallur Panchayath	2020	6 cameras have been installed near Onjithodu. Total Rs. 25000/- have been levied as fine.	A total fine of Rs.36521/- will be collected against those who were spotted through the surveillance camera but till date they have not paid it.		
35.A(b)	Identification of the establishments/commercial complexes/flats/houses/hotelse tc. who is discharging the sewage to the public drain	Choornikkara Panchayath	2020	Inspection and monitoring is performed regularly to identify the offenders. Issual of notice to those offenders is also being done regularly. 4 flats have been identified and reported to KSPCB..	5 Flats were identified and provided instructions.By concealing the number plates litterers cannot be identified, the litterers cannot be detected by CCTV. Arrangements will be made for installing soak pits in the houses		

36.E	Installation of cameras at the waste dumping spots	Choorikkara Panchayath	2020	12 Cameras have been already installed on waste dumping spots. One more camera installation is left. The fund for remaining camera will be arranged through sponsorship.	Project has been postponed ,since more time is required to install more cameras.		
------	--	------------------------	------	--	--	--	--

LONG TERM MEASURES

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of November2022	Progress in the month of December 2022	% works completed	Details of works remaining
1.A(b)	Construction of walkway, ring roads etc at the Periyar River bank at industrial belt.	Irrigation department	4 years	Investigation and detailed Estimate Submitted and waiting for FS	Investigation and detailed Estimate Submitted and waiting for FS		FS not obtained for the work
2.C(i)	Fencing of the river banks along the stretches of waste disposal (Edamula stretch)	Cochin Municipal Corporation	1-2 years	ppallyThodu, which is a tributary of Periyar river touches Cochin Corporation Boundary for a small stretch. The other side of this thodu is belonging to LSGs like	Representative from concerned local body has not attended the meeting		

				<p>Kalamassery, Thrikkakkara, Eloor etc. The work of rejuvenation of Edappally Thodu is included under the IURWTS project of Kochi Metro Rail Limited. The progress of the works undertaken by KMRL is reported as follows.</p> <p>a) Applied for land acquisition works for various canal, it's on processing under revenue department.</p> <p>b) As no land acquisition is needed for market canal, work of it will be carried out this year. KIIFB is the funding agency for the work. Tender process for the work is going on.</p>			
3.C(iii)	Beautification of the river stretches (Edamula stretch)	Cochin Municipal Corporation	1-2 years	Beautification work has been included in the KMRL IURWTS project. Due to the prevailing public protest, land acquisition procedure is being	Representative from concerned local body has not attended the meeting		

				delayed. DPR will be prepared by Coastal Shipping Inland Navigation. The work will be commenced as soon as T.S is obtained.			
--	--	--	--	---	--	--	--

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of October 2022	Progress in the month of November2022	Progress in the month of December2022	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, FLOOR
ANALYSIS REPORT OF RIVER PERIYAR - JUNE 2023
Sampling point: PATHALAM BRIDGE

Sl. No	Parameter	Unit	05.06.2023	25.06.2023
1	Temp	°C	32.1	24.4
2	pH		6.8	7.0
3	Conductivity	µS/cm	124.80	179.60
4	Turbidity	NTU	*	*
5	Chlorides	mg/L	31.8	27.8
6	Hardness	"	25.0	31.0
7	D.O.	"	5.0	5.7
8	Calcium	"	7.2	9.2
9	Magnesium	"	1.701	1.944
10	Ammoniacal Nitrogen	"	0.737	0.419
11	Phosphate	"	BDL	BDL
12	Total alkalinity	"	50.0	38.0
13	BOD	"	2.4	2.5
14	Sulphate	"	BDL	4.650
15	Nitrates	"	0.923	1.218
16	TC	cfu/100ml	400.0	300.0
17	FC	"	NIL	NIL
18	FS	"	NIL	NIL

* TURBIDITY METER IS OUT OF ORDER

**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, FLOOR
ANALYSIS REPORT OF RIVER PERIYAR - JUNE 2023
Sampling point: MANJUMMAL BUND**

Sl. No	Parameter	Unit	05.06.2023	25.06.2023
1	Temp	°C	31.2	29.2
2	pH		6.9	7.0
3	Conductivity	µS/cm	63.16	78.49
4	Turbidity	NTU	*	*
5	Chlorides	mg/L	17.9	15.9
6	Hardness	"	14.0	20.0
7	D.O.	"	6.0	5.5
8	Calcium	"	4.4	5.2
9	Magnesium	"	0.729	1.701
10	Ammoniacal Nitrogen	"	0.402	0.346
11	Phosphate	"	BDL	BDL
12	Total alkalinity	"	40.0	48.0
13	BOD	"	3.1	1.8
14	Sulphate	"	BDL	1.465
15	Nitrates	"	0.769	0.969
16	TC	cfu/100ml	1100.0	700.0
17	FC	"	300.0	200.0
18	FS	"	NIL	NIL

* TURBIDITY METER IS OUT OF ORDER

**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, FLOOR
ANALYSIS REPORT OF RIVER PERIYAR - JUNE 2023
Sampling point: PATHALAM BUND D/S**

Sl. No	Parameter	Unit	05.06.2023	25.06.2023
1	Temp	°C	31.4	24.4
2	pH		7.0	7.0
3	Conductivity	µS/cm	4910.0	893.6
4	Turbidity	NTU	*	*
5	Chlorides	mg/L	1787.2	297.9
6	Hardness	"	1000.0	200.0
7	D.O.	"	4.0	9.0
8	Calcium	"	320.0	68.0
9	Magnesium	"	48.600	7.290
10	Ammoniacal Nitrogen	"	1.730	0.809
11	Phosphate	"	BDL	0.253
12	Total alkalinity	"	66.0	54.0
13	BOD	"	3.5	4.4
14	Sulphate	"	24.000	14.590
15	Nitrates	"	1.754	1.496
16	TC	cfu/100ml	400.0	200.0
17	FC	"	NIL	NIL
18	FS	"	NIL	NIL

* TURBIDITY METER IS OUT OF ORDER

**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, FLOOR
ANALYSIS REPORT OF RIVER PERIYAR - JUNE 2023
Sampling point: PATHALAM BUND U/S**

Sl. No	Parameter	Unit	05.06.2023	25.06.2023
1	Temp	°C	32.0	24.3
2	pH		7.0	6.8
3	Conductivity	µS/cm	196.70	123.10
4	Turbidity	NTU	*	*
5	Chlorides	mg/L	48.7	34.8
6	Hardness	"	34.0	33.0
7	D.O.	"	3.4	6.2
8	Calcium	"	10.0	9.6
9	Magnesium	"	2.187	2.187
10	Ammoniacal Nitrogen	"	1.730	0.357
11	Phosphate	"	BDL	BDL
12	Total alkalinity	"	54.0	40.0
13	BOD	"	2.9	2.6
14	Sulphate	"	BDL	4.904
15	Nitrates	"	0.961	1.281
16	TC	cfu/100ml	500.0	300.0
17	FC	"	NIL	NIL
18	FS	"	NIL	NIL

* TURBIDITY METER IS OUT OF ORDER

**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, FLOOR
ANALYSIS REPORT OF RIVER PERIYAR - JUNE 2023
Sampling point: PUTHALAM KADAVU**

Sl. No	Parameter	Unit	05.06.2023	25.06.2023
1	Temp	°C	32.1	24.4
2	pH		6.8	6.9
3	Conductivity	µS/cm	57.50	66.52
4	Turbidity	NTU	*	*
5	Chlorides	mg/L	22.8	20.9
6	Hardness	"	13.0	17.0
7	D.O.	"	6.2	5.1
8	Calcium	"	4.0	4.0
9	Magnesium	"	0.729	1.701
10	Ammoniacal Nitrogen	"	0.167	0.413
11	Phosphate	"	BDL	BDL
12	Total alkalinity	"	42.0	34.0
13	BOD	"	2.2	0.2
14	Sulphate	"	BDL	1.592
15	Nitrates	"	0.642	0.582
16	TC	cfu/100ml	700.0	500.0
17	FC	"	100.0	100.0
18	FS	"	NIL	NIL

* TURBIDITY METER IS OUT OF ORDER

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER KARUVANNUR, THRISSUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic</p>		
-----	--	--	--

	<p>waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	--	--	--

**ACTION PLAN FOR RIVER KARUVANNUR, KERALA
SHORT TERM MEASURES**

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April2023	Progress in the month Of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
Thirukuzhy thodu								
A(a)(iv)	Surveillance to restrict dumping of wastes into river and its branches	Vallachira Panchayat with the help of Police		-	-	-		
E	Cleaning and desilting of canal	Irrigation Department and Vallachira Panchayat	4months			-	100	nil
Thodu near Kadalassery bridge								
A(b)	Identification of pollution sources and surveillance to restrict dumping of wastes	Vallachira, Pudukad & Nenmanikkara Panchayats	1 month	Ongoing	Ongoing	Not included in the Nenmanikkara Gramma panch	100	0

						ayath		
E	Cleaning and desilting	Irrigation Department and Vallachira Panchayat	4months	nil	nil	nil	100	0
Neerolithodu								
E	Cleaning and desilting	Irrigation Department	4months	<p>തുശ്ശൂർ കെ എൽ ഡി സി വിഭാഗത്തിന് റീബിൽഡ് കേരള എന്ന പദ്ധതിയിൽ ഉൾപ്പെടുത്തി നീരോലിതോടിന്റെ ഡിസിൽറ്റേഷൻ പ്രവൃത്തിക്ക് ഭരണാനുമതി ലഭ്യമായിട്ടുള്ളതും ആയതിനാൽ 2022-23 സാമ്പത്തിക വർഷത്തെ എൻ ജി ടി ആക്ഷൻ പ്ലാനിൽ നീരോലിതോടിന്റെ ഡിസിൽറ്റേഷൻ പ്രവൃത്തി നിലവിൽ ഉൾപ്പെടുത്തേണ്ട സാഹചര്യം ഇല്ലായെന്ന് ബന്ധപ്പെട്ട എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ, എം.ഐ.ഡിവിഷൻ ഇരിങ്ങാലക്കുട റിപ്പോർട്ട് ചെയ്തിട്ടുണ്ട്.</p>				
Painkilkayal thodu								
E	Cleaning and desilting	Irrigation Department and Vallachira Panchayat	4months	<p>. തുശ്ശൂർ കെ എൽ ഡി സി വിഭാഗത്തിന് റീബിൽഡ് കേരള എന്ന പദ്ധതിയിൽ ഉൾപ്പെടുത്തി പൈകിലികായൽതോടിന്റെ ഡിസിൽറ്റേഷൻ പ്രവൃത്തിക്ക് ഭരണാനുമതി ലഭ്യമായിട്ടുള്ളതും ആയതിനാൽ 2022-23 സാമ്പത്തിക വർഷത്തെ എൻ ജി ടി ആക്ഷൻ പ്ലാനിൽ പൈകിലികായൽതോടിന്റെ ഡിസിൽറ്റേഷൻ പ്രവൃത്തി നിലവിൽ ഉൾപ്പെടുത്തേണ്ട സാഹചര്യം ഇല്ലായെന്ന് ബന്ധപ്പെട്ട എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ, എം.ഐ.ഡിവിഷൻ ഇരിങ്ങാലക്കുട റിപ്പോർട്ട് ചെയ്തിട്ടുണ്ട്.</p>				
Kadathodu								
A(b)	Identification of pollution sources and surveillance to restrict the dumping of wastes	Vallachira & Nenmanikkara	1 month	Ongoing	Ongoing	Not included in	100	0

		Panchayats				the Nenmanikkara Gramma panch ayath		
E	Cleaning and desilting	Irrigation Department	4months	<p>പ്രസ്തുത പ്രവൃത്തിയ്ക്ക് 20/03/2023 തീയതിയിലെ ജലസേചനവും ഭരണവും, ചീഫ് എഞ്ചിനീയറുടെ ഉത്തരവ് നം. AS/59D/22/25940 പ്രകാരം 9.5 ലക്ഷം രൂപയ്ക്ക് 2702-01-800-86-00-00-00-P-V എന്ന ഹെഡിൽ ഭരണാനുമതി ലഭിച്ചിട്ടുണ്ട്. പ്രസ്തുത തോട് വല്ലൂരി പഞ്ചായത്തിന്റെ അധീനതയിൽ ആയതിനാൽ പ്രവൃത്തിക്ക് സാങ്കേതികാനുമതി നൽകുന്നതിന് പഞ്ചായത്തിന്റെ resolution ആവശ്യമാണ്. പ്രസ്തുത resolution ലഭ്യമാകുന്നതിനായി പഞ്ചായത്ത് സെക്രട്ടറിയുടെ കത്ത് സമർപ്പിച്ചിട്ടുണ്ട്</p>				
Main Stream –along Karuvannur								
A(a)(iv)	Periodic Surveillance to restrict the dumping of waste into river and imposing Fine	Irinjalakkuda Municipality, Police Dept.		Presently no such dumping of waste. Square inspection ongoing well including night squad	Presently no such dumping of waste. Squad inspection ongoing well including night squad.	Presently no such dumping of waste. Squad inspection ongoing well including night squad.		
A(b)	Sanitation Survey	Irinjalakkuda Municipality	3 Months	100% Completed	100% Completed	100% Completed		

A(b)	Closing of all un authorized outlets leading to the river	Irinjalakkuda Municipality		Inspection is going on. There is no unauthorized outlets leading to the river.	Inspection is going on. There is no unauthorized outlets leading to the river.	Inspection is going on. There is no unauthorized outlets leading to the river		
A(b)	Closing of all un authorized outlets in the drain leading to the river	Irinjalakkuda Municipality		There is no unauthorized outlets in the drain leading to the river.	There is no unauthorized outlets in the drain leading to the river	There is no unauthorized outlets in the drain leading to the river.		
E	Boards to display slogans against littering waste in various Places other IEC Activities Like posters, notices and classes	Irinjalakkuda Municipality	6 months	Installed boards along Karuvannur river side against littering waste and animal bath. Board installation process is going on in various	Installed boards along Karuvannur river side against littering waste and animal bath. Board installation process is	Installed boards along Karuvannur river side against littering waste and animal bath. Board installation process is going on in various		

				places of municipal area. We used tp conduct surveys, distributed notices to all the houses near to the riverside.	going on in various places of municipal area. We used tp conduct surveys, distributed notices to all the houses near to the riverside.	places of municipal area. We used tp conduct surveys, distributed notices to all the houses near to the riverside.		
Monitoring								
A(a)(iv)	River water quality monitoring	KSPCB	Ongoing; monthly frequency	Monitoring is going on April monthly basis	Monitoring is going on May monthly basis	Monitoring is going on monthly basis		
A(b)	Inspection & effluent quality monitoring of the Flats, industrial units, service stations, hospitals,hotels etc	KSPCB	Ongoing	Going on monthly basis.	Going on monthly basis.	Going on monthly basis		
Long Term Plan								
A(b)	Sewage treatment facilities to all house holds	Vallachira Grama Panachayat	1 yr	Nil	Nil	nil	100	0

A(b)	Construction of FSTP and STP	Irinjalakkuda Municipality	2 years	Construction of STP plant at General Hospital, Irinjalakuda – DPR approved by Suchitwa Mission	Construction of STP plant at General Hospital, Irinjalakuda – DPR approved by Suchitwa Mission	Construction of STP plant at General Hospital, Irinjalakuda – DPR approved by Suchitwa Mission		
C(ii)	Setting up of a modern crematorium at Mandarakkadavu, Arattupuzha	Vallachira Grama Panachayat	2 years	No Fund	No fund	No fund		100
C(ii)	Solid waste treatment facility	Vallachira Grama Panachayat	2 years		100%		Mini MCF	
C(ii)	Construction of Windrow composting plant	Irinjalakkuda Municipality	2 years	Windrow Compost plant having 4 ton capacity. Construction has been already completed. Presently it is functioning well and	Windrow Compost plant having 4 ton capacity. Construction has been already completed. Presently it is functioning	Windrow Compost plant having 4 ton capacity. Construction has been already completed. Presently it is functioning well and producing Bio		

1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.		
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps	Water level data collected from GWD observation wells.	Water level data collected from GWD observation wells.	Water level data collected from GWD observation wells.		
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices		Awareness class on groundwater resource conservation and management conducted for the elected representatives officials, public and students in Vellangallur	-	-	-

				Block			
--	--	--	--	-------	--	--	--

ACTION PLAN BY GRAMAPANCHAYATH

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
C	MANALIPUZHA RIVER PROTECTION -Jalaraksha Jeevaraksha - Manalipuzha conservation	Vallachira Grama Panchayath	1 year	Nil	Nil	Nil	1000m	500m
C	Setting up of Nursery for Bamboo seedlings in Kadalassery	MGNREGS	31.03.2020	TS SAN CTIONED, BUT NOT PUBL IC PLAC E	TS SANCTI ONED, BUT NOT PUBLIC PLACE	nil	25	75
C	Side protection of Manalippuzha with organic materials available locally	MGNREGS	31.03.2020	Nil	Nil	nil	25	75
C	Side Protection of Manalippuzha with Bamboo plants	MGNREGS	31.03.2020	Nil	Nil	nil	100	0

C	Deepening & Protecting Muttikkal Thodu by Spreading Geo Textiles	MGNREGS	31.03.2020	600 m	600 m	nil	100	0
C	Cluster 2-Kurumaly puzha sub river bed -Project document preparation	Puthukkad Panchayath	1 year	Documentation completed	Documentation completed		100	Documentation completed
C	Manalippuzha River Protection-Jala Raksha, Jeeva Raksha , Survey and Tree Plantation	Nenmenikkara Grama Panchayat	31.03.2020	3.5 km survey out of 7 k.m have been completed and survey posts have been fixed	3.5 km survey out of 7 k.m. have been completed and survey posts have been fixed.	3.5 km survey out of 7 k.m. have been completed & survey posts have been fixed.	50 %	3.5 k.m. survey yet to be completed

C	Manalipuzha River protection	MGNREGS	31.03.2020	3.5 km survey out of 7 k.m have been completed and survey posts have been fixed	3.5 km survey out of 7 k.m have been completed and survey posts have been fixed.	3.5 km survey out of 7 k.m. have been completed & survey posts have been fixed		As survey did not complete
A(b)	Protection and reconstruction and protection of Paliyekkara Kayalathod	MGNREGS	31.03.2020	COMPLETED	COMPLETED	Completed	100 %	COMPLETED
A(b)	Reconstruction and protection of Paliyekkara Karama Thodu	MGNREGS	31.03.2020	COMPLETED	COMPLETED	Completed	100 %	COMPLETED

KARUVANUR

Date of sampling

06.06.2023

SL. NO	PARAMETER	UNIT	KT	MRK	KND	MDK	THR	KRV
1	PH		7.46	7.56	8.08	7.88	8.5	7.21
2	EC	μ/cm	70.61	60.31	105.3	127.5	83.86	74.75
3	BOD	mg/L	2.45	1.33	1.44	1.7	2.82	2.24
4	DO	mg/L	4.16	5.6	2.66	4.17	6.02	2.24
5	COD	mg/L	16	4	4	12	4	4
6	TC	CFU/100ml	500	100	200	100	50	600
7	FC	CFU/100ml	100	50	50	NIL	NIL	400
8	FSC	CFU/100ml	NIL	NIL	NIL	NIL	NIL	NIL

KT - KANAKKAN KADAVU, KARUVANNUR

MRK - NEEROLI THODU

KND - KANATHODU, KARUVANNUR

MDK - MUTTIKKAL DAM, KARUVANNUR

THR- THIRUKUZHY, KARUVANNUR

KRV - PAINKILIKAYAL THODU, KARUVANNUR

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER KECHERY, THRISSUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic</p>		
-----	--	--	--

	<p>waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	--	--	--

ACTION PLAN FOR RIVER KECHERY, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June2023	% works complete d	Details of works remaining
WADAKKENCHERY RIVER -SHORT TERM MEASURES								
A(b)	Identification of illegal outlets from houses and shops/other establishments in town and imposing fine	Wadakkanchery Municipality, Ayyakali Urban Employment Guarantee Scheme & health squad	Completed	Polluting Sources & Illegal outlets were identified, notice issued as per Kerala Municipal Act and removed. Doing regular	Polluting Sources & Illegal outlets were identified, notice issued as per Kerala Municipal Act and removed. Doing regular	Completed		

				r inspec tion	inspecti on.			
E	Installat ion of CCTV s on the bank of river in town	Wadakkanchery Municipality	31.03.2022		It has been informe d that steps have been taken to obtain approv al from the councili l to get funds for setting up CCTV		0%	Work not started due to scarcity of Municipal fund

C(ii)	Material recovery facility	Wadakkanchery Municipality	Completed					
C(ii)	Resource recovery facility	Wadakkanchery Municipality	Completed					
C(ii)	Renovation of existing biogas plant	Wadakkanchery Municipality	Completed					Presently functioning well
Monitoring								
A(a)(iv)	River water quality monitoring	KSPCB	Monthly Monitoring in progress	Analysis report for the month of April	Analysis report for the month of may	Analysis report for the month of June enclosed herewith		Continuing
A(b)	Inspection & effluent quality monitoring of the Flats, industrial units, service stations, hospitals,hotels etc	KSPCB	Ongoing	Ongoing	Ongoing	Ongoing		Continuing
Long Term Plan								
E	Identification and cleaning of polluted drains reaching wadakkancheri river	Irrigation Dept	30-03-2022	Estimate submitted for fund	Estimate submitted for FS.	ടി പ്രവൃത്തിയുടെ എസ്റ്റിമേറ്റ് സാമ്പത്തികാനുമതി		A.S obtained

						<p>മതി ക്കാ യി ജലം സമ നവും ദരണ വും ചിപ് എ ഞ്ചിന ിയർ ക്ക് അയ ച്ചിട്ടു ണ്ട്. കൂടാ തെ ടി പ്രവൃ ത്തി “Res tori ng poll uted stre tche s of river s base</p>		
--	--	--	--	--	--	---	--	--

						ബിന യർ ക്ക് സമർ പ്പിച്ചി ട്ടുണ്ട്.		
A (b)	Common STP	Wadakkanchery Municipality, Kerala Infrastructure Investment Fund Board	March 2022	Topographical survey completed . Site identified and report submitted before Hon. District Collector for getting land	Topographical survey completed . Site identified and report submitted before Hon. District Collector for getting land.			Site for one STP identified. Applied for NOC from District Collector (Land is Puzha Puramboke and Irrigation Department Canal Puramboke)
C(iii)	Windrow composting at Kumbalangad yard	Wadakkanchery Municipality	March 2022	Construction of windrow compost plant work completed and	Construction of windrow compost plant work completed		90% work completed	Construction of windrow compost plant work completed and trial run

				trial run started				started
C(ii)	Modern slaughter House	Wadakkanchery Municipality, Kerala Infrastructure Investment Fund Board	March 2022	Lack of suitable site for the project	Lack of suitable site for the project			Lack of suitable site for the project
E	Forestation, desilting & deepening of Wadakkanchery river and fitting river side with coir geo net	Wadakkanchery Municipality	desilting deepening of Wadkanchery River 3 km in Municipal area completed 7655m ³ desilt removed	Fitting river side with Coir Geo Net. Awaiting Municipal Council Decision for fund allocation	Fitting river side with Coir Geo Net. Awaiting Municipal Council Decision for fund allocation	Fitting river side with Coir Geo Net. Awaiting Municipal Council Decision for fund allocation		Fitting river side with Coir Geo Net. Awaiting Municipal Council Decision for fund allocation

	Rain water harvesting	Wadakkanchery Municipality	Ongoing work					
	Ground water recharge	Wadakkanchery Municipality	Ongoing work					
	River survey	Wadakkanchery Municipality	Ongoing work					
	Regulating activities in flood plain zone, protection and management of flood plain zone	Wadakkanchery Municipality	30-03-2022	As part of the action plan prepared in relation to the revival of Kecheri River, the plastic wastes that have fallen into	As part of the action plan prepared in relation to the revival of Kecheri River, the plastic wastes that have fallen into the river			

				the river have been included in the Job Guarantee Project and removed. 913741 rupees were spent in this work. Garbage that fell due to rain was removed	have been included in the Job Guarantee Project and removed. 913741 rupees were spent in this work. Garbage that fell due to rain was removed in many places.			
--	--	--	--	---	---	--	--	--

				ed in many places.				
	Greenery development Plantation plan. Plantation on both sides of the river, settling up biodiversity parks on flood plains by removing encroachment	Wadakkanchery Municipality	30-03-2022	Bambo o sapling s were plante d on both sides of the river throug h "Wada kanch erry riversi de affores tation" . 15597 6 rupees were spente	Bambo o sapling s were planted on both sides of the river throug h "Wada kanche rry riversid e afforest ation". 155976 rupees were spente d for this work.			

				d for this work. The garbage in the flood-prone areas has been removed and the flow has been facilitated.	The garbage in the flood-prone areas has been removed and the flow has been facilitated.			
Short term plan (Kecheri river)								
E	Installation of CCTV in different locations along river side	PWD Electronic division		Progress has not been reported	Progress has not been reported			Including 2023-24 pr

								oject
E	Fixing Boards	Choondal Grama Panchayat	Completed					Board fixed (including 2021-22 project)
A(a)(iv)	Surveillance to prevent flow of sewage /effluent to river	Choondal Grama Panchayat	Ongoing					Action taken
A(b)	Stoppage of effluent from residential apartment (Shajan's flat) and pig farm into the river	Choondal Grama Panchayat	Action taken					Stop Memo Had been Given to Concerned persons
Long Term Plan (Kecheri river)								
E	Side protection by fixing coir geo nets	Choondal Grama Panchayat	Not started	Not started	Primary action started			
E	Survey process of Kechery river portion belong to Choondal Grama Panchayat to mark the boundary and encroachment	Revenue Department	completed	completed	completed			
E	Laying of survey station	Choondal Grama Panchayat	completed	completed	Completed			

E	Digital mapping and seminar on pollution control	Forestry College, Vellanikkara	31/05/2020		completed			
---	--	--------------------------------	------------	--	-----------	--	--	--

IRRIGATION DEPARTMENT

No.	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation Department	30-03-2022	കേച്ചേരി പുഴയുടെ പാരിസ്ഥിതിക നീരൊഴുക്ക് പഠനം (E-flow) പൂർത്തിയാക്കി റിപ്പോർട്ട് 18/05/2022 ന് ചീഫ് എഞ്ചിനീയർ, ജലസേചനവും ഭരണവും, തിരുവനന്തപുരത്ത് സമർപ്പിച്ചിട്ടുണ്ട്.	കേച്ചേരി പുഴയുടെ പാരിസ്ഥിതിക നീരൊഴുക്ക് പഠനം (E-flow) പൂർത്തിയാക്കി റിപ്പോർട്ട് 18/05/2022 ന് ചീഫ് എഞ്ചിനീയർ, ജലസേചനവും ഭരണവും, തിരുവനന്തപുരത്ത് സമർപ്പിച്ചിട്ടുണ്ട്.	കേച്ചേരി പുഴയുടെ പാരിസ്ഥിതിക നീരൊഴുക്ക് പഠനം (E-flow) പൂർത്തിയാക്കി റിപ്പോർട്ട് 18/05/2022 ന് ചീഫ് എഞ്ചിനീയർ, ജലസേചനവും ഭരണവും, തിരുവനന്തപുരത്ത് സമർപ്പിച്ചിട്ടുണ്ട്.		

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of April 2023	Progress in the month of May2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt		
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps	Water level data collected from GWD observation wells	Water level data collected from GWD observation wells	Water level data collected from GWD observation wells		
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
C	Punarjani Kecherri river	Choondal Grama Panchayat	Completed	-	-	-		Flood Wastes from the river has been removed and made water flow easily which reduced chances of flood .
C(ii)	Surveying of river side, eviction and planting trees	Choondal Grama Panchayat		-	-	-		Survey completed
C	Side Protection	Choondal Grama Panchayat	Completed	-	-	-		
C	Bio fencing related to river bank protection –	MGNRES	Not started					

	water and soil Conservation project ward 3,4,7							
--	--	--	--	--	--	--	--	--

KECHERI RIVER				
Date of sampling -13.06.2023				
SL. NO	PARAMETER	UNIT	VAD1	VAD2
1	pH	-	8.18	
2	Electrical Conductivity	µs/cm	230.7	
3	BOD	mg/L	0.53	
4	DO	mg/L	4.26	
5	COD	mg/L	4	
6	TC	CFU/100ml	200	
7	F C	CFU/100ml	100	
8	FSC	CFU/100ml	NIL	
VAD1 - WADAKKANCHERY PUZHA (WADAKKANCHERY BRIDGE), KECHERY				
VAD2 - WADAKKANCHERY PUZHA(CHALIPPADAM ROAD), KECHERY				

VAD2- Samples Not Collected Because The Unavailability Of Water

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PUZHAKKAL, THRISSUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation	31.05.2023	In progress
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.05.2023	In progress
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		STP completed initial PCB NOC obtained.
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		1. 360 KLD Sewage Treatment Plant for General Hospital, Thrissur Administrative Sanction has been accorded for this project vide GO (Rt) No. 5/2018/LSGD dated 01/01/2018 for Rs. 3.52Cr.TS accorded for Rs. 3.52Cr from the technical committee constituted for AMRUT sewerage projects. Work has

			<p>been awarded to M/s Green Eco Water Systems, Hyderabad. Agreement executed on 14/10/2020. Consent to establish obtained from PCB on 17/12/2020. Even after conducting several meetings with the contractor, contractor has not started the work. Hon.Council dated 29.01.2022 decided to terminate the</p> <p>contract under risk and cost of the contractor and also to black list the contractor. It has been also decided by the council to invite limited tender from accredited agencies as per rules. Now the schedule of rate changed from approved estimate. Corporation council dated 31.08.2022 approved the recasted estimate amounting to Rs. 4.50 cr. Revised AS obtained for Rs. 4.5 cr. vide GO(Rt) No. 3222/22/LSGD dtd:</p>
--	--	--	---

			<p>27.12.2022. Revised technical sanction obtained for Rs. 4.50 Cr. on 18.12.2022 open technology tender invited on 21.12.2022. Agreement executed on 28.03.2023 with M/s Green Method. Work in progress.,50 % completed</p> <p>100KLD Septage Treatment Plant at Ramavarmapuram,Thrissur</p> <p>Administrative Sanction has been accorded for this project vide GO (Rt) No. 5/2018/LSGD dated 01/01/2018 for Rs. 3.50Cr.TS accorded for Rs. 3.10 Cr from the technical committee constituted for AMRUT sewerage projects. Selection memo has been issued to M/s Green Eco Water Systems, Hyderabad. Hon. Council has decided to get the consent to establish from PCB first and then to proceed for further steps of executing agreement. Consent to establish obtained from PCB on 28/05/2021. Contractor has not executed the agreement even after</p>
--	--	--	--

			<p>issuing several notices in this regard.</p> <p>Hon.Council dated 29.01.2022 decided to terminate the contract under risk and cost of the contractor and also</p> <p>to black list the contractor. It has been also decided by the council to invite limited tender from accredited agencies as per rules. Now the schedule of rate changed from approved estimate. Revised technical sanction for the recast estimate amounting to Rs. 3.5 Cr. obtained on 18.12.2022. Open technology tender invited on 21.12.2022. Single tender received and hence retendered. Single tender received again, quotation invited. 3 bids received, technical bid evaluation is in progress.</p>
	<ul style="list-style-type: none"> Monitoring at State level must take place 		NA
6	Progress report may be furnished by the State/UTs to		

	<ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		
--	--	--	--

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic</p>		
-----	--	--	--

	<p>waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	--	--	--

**ACTION PLAN FOR RIVER PUZHAKKAL, KERALA
SHORT TERM MEASURES**

No. (as per Action Plan)	Activity	Implementin g agency	Time line	Progress in the month of April2023	Progress in the month of may2023	Progress in the month of June2023	% wor ks com plet ed	Details of works remaining
A(b)	Identification of illegal outlets into the Panchikkal thodu and subsidiary drains	Thrissur Corporation	3 month s			0	8 7 %	
A(b)	Stoppage of discharge of waste water from the surrounding houses and institutions to the drains which leads to Panchikkal thodu	Thrissur Corporation	6 month s	15	12	8	9 0 %	0
A(b)	Ensure adequate treatment facility is provided for waste water and solid waste generated from Sri Dharma Sastha temple situated on the banks of the river	Adat Grama Panchayat						Instruction has been provide to temple authorities for construction of waste disposal facilities accordance

								with swm2016
E	Desilting of Karakattuchal near Green field to Puzhakkal (Green field)	Irrigation Department	4 months	ടി പ്രവൃത്തിക്കായി 10 ലക്ഷം രൂപയുടെ എസ്റ്റിമേറ്റ് പ്രൈസ് 3 യിൽ തയ്യാറാക്കി പ്രദേശ സാമ്പത്തികാനുമതി ലഭിക്കുന്നതിനായി സൂപ്രണ്ട് എഞ്ചിനീയർ, മൈനർ ഇറിഗേഷൻ സെൻട്രൽ സർക്കിൾ	ടി പ്രവൃത്തിയ്ക്കായി 10.00 ലക്ഷം രൂപയുടെ എസ്റ്റിമേറ്റ് ജ്യോദല 3.0 ൽ തയ്യാറാക്കി 15/09/2022 ന് ചീഫ് എഞ്ചിനീയർ, ജലസേചനവും ഭരണവും തിരുവനന്തപുരത്തിൽ സാമ്പത്തിക	. Tendering stage for financial year 2023-24	0	

				എറണാകുളത്തി നഗര, സുപ്രണ്ടിൻ എഞ്ചിനീയർ, ഇറിഗേഷൻ സെൻട്രൽ സർക്കിൾ, തൃശ്ശൂരിനഗര സമർപ്പിച്ചിട്ടുണ്ട്. പ്രവൃത്തി നടപ്പിലാക്കുന്നതിന് ഫണ്ട് ലഭ്യമായിട്ടില്ല.	നൂമതിയ്ക്കായി സമർപ്പിച്ചിട്ടുണ്ട്			
E	Desilting of Panchikkal thodu	Irrigation Department	4 months	Work completed	Work completed	Work completed	100	
E	Desilting of Kurinjikkal thuruth	Irrigation Department	4 months		Estimate submitted for fund			AS OBTAINED

E	Desilting of Muppuzha(Cleaning and deepening of feeder canal from railway bridge near Vanchikulam to diversion of Karanchira and Enamakkal feeder canal near Nedupuzhakadavu)	Irrigation Department	4 months	Work completed	100% work completed	100% work completed	100	
E	Side protection, desilting and deepening work of vanchikulam thodu at Poothole of length about 40 km (work in progress).	Thrissur Corporation	3 months	550 meter side protection wall completed. 642 meter protection wall proposed and work in progress.	660 meter side protection wall completed. 460 meter protection wall proposed and work in progress.	995 meter side protection wall completed. 25 meter protection wall proposed and work in progress. 130 Nos. Works are proposed and work not started.		

					ess.			
E	Annual desilting, cleaning of main drains and canals within the corporation area (work in progress).	Thrissur Corporation	3 months	195 Nos. Works are proposed for thodu cleaning works are completed	195 Nos. Works are proposed for thodu cleaning works are completed	186 Nos. Works are proposed in 23-24 annual plan and 181 works completed	97%	
Monitoring								

A(a)(iv)	River water quality monitoring	KSPCB	Ongoing; monthly frequency	Analysis report for the month of October submitted	Analysis report for the month of May is enclosed herewith			Continuing
A(b)	Inspection & effluent quality monitoring of the Flats, industrial units, service stations, hospitals,hotels etc	KSPCB	Ongoing	Ongoing	Ongoing			Continuing
Long Term Plan								
A(b)	Ensuring installation of treatment facilities for at least 50% of the identified establishments	Thrissur Corporation	18 months					
A(b)	100% completion of treatment facilities for targeted institutions/ buildings	Thrissur Corporation	24 months					
A(b)	Construction of a drain 40 km with covering slabs to avoid the direct disposal of waste in to the open drain	Thrissur Corporation	24 months	35.05 KM of drain work and 5.80 KM of coveri ng slabs comp leted and More works propo	35.30 KM of drain work and 5.85 KM of coveri ng slabs compl eted and More works	38.5 KM of drain work and 7.10 KM of covering slabs completed and More works proposed under annual plan 2023- 24.		

				sed under annual plan and 48 numbers of work completed.	proposed under annual plan 2022-23 and 46 numbers of work completed			
A(b)	Construction of a drain 9000 m with covering slabs to avoid the direct disposal of waste in to the open drain	Thrissur Corporation	24 months	35.30 KM of drain work and 5.85 KM of	37.10 KM of drain work and 6.70 KM of covering	38.5 KM of drain work and 7.10 KM of covering slabs completed and		

				cover ing slabs com plete d and More work s prop osed unde r annu al plan 2022 -23 and 46 num bers of work com plete d	slabs compl eted and More works propo sed under annua l plan 2022- 23.	More works proposed under annual plan 2023-24.		
--	--	--	--	---	--	--	--	--

A(b)	Construction of sewage treatment plant of 100 KLD and 360 KLD at Ramavarmapura m and District Hospital, Thrissur in Amrut Project	Thrissur Corporation	24 months			<p>1) 100KLD Septage Treatment Plant at Ramavarmapuram, Thrissur</p> <p>Administrative Sanction has been accorded for this project vide GO (Rt) No. 5/2018/LSGD dated 01/01/2018 for Rs. 3.5Cr.TS accorded for Rs. 3.10 Cr from the technical committee constituted for AMRUT sewerage projects. Selection memo has been issued to M/s Green Eco Water Systems, Hyderabad. Hon. Council has decided to get the consent to establish from PCB first and then to proceed for further steps of executing agreement. Consent to establish obtained from PCB on 28/05/2021. Contractor has not executed the agreement even after issuing several notices</p>
------	---	----------------------	-----------	--	--	--

						<p>in this regard. Hon.Council dated 29.01.2022 decided to terminate the contract under risk and cost of the contractor and also to black list the contractor. It has been also decided by the council to invite limited tender from accredited agencies as per rules. Now the schedule of rate changed from approved estimate. Revised technical sanction for the recast estimate amounting to Rs. 3.5 Cr. obtained on 18.12.2022. Open technology tender invited on 21.12.2022. Single tender received and hence retendered. Single tender received again, quotation invited. 3 bids received, technical bid evaluation is in progress.</p>
--	--	--	--	--	--	---

						<p style="text-align: center;">2. 360 KLD Sewage Treatment Plant for General Hospital, Thrissur</p> <p>Administrative Sanction has been accorded for this project vide GO (Rt) No. 5/2018/LSGD dated 01/01/2018 for Rs. 3.52Cr.TS accorded for Rs. 3.52Cr from the technical committee constituted for AMRUT sewerage projects. Work has been awarded to M/s Green Eco Water Systems, Hyderabad. Agreement executed on 14/10/2020. Consent to establish obtained from PCB on 17/12/2020. Even after conducting several</p>
--	--	--	--	--	--	---

						<p>meetings with the contractor, contractor has not started the work. Hon.Council dated 29.01.2022 decided to terminate the contract under risk and cost of the contractor and also to black list the contractor. It has been also decided by the council to invite limited tender from accredited agencies as per rules. Now the schedule of rate changed from approved estimate. Corporation Council dtd. 31.08.2022 approved the recasted estimate amounting to Rs. 4.50 cr. Revised AS obtained for Rs. 4.5 cr. vide GO(Rt) No. 3222/22/LSGD dtd: 27.12.2022. Revised technical sanction obtained for Rs. 4.50 Cr. on 18.12.2022 open technology tender invited</p>
--	--	--	--	--	--	---

						on 21.12.2022. Agreement executed on 28.03.2023 with M/s Green Method. Work in progress.		
A(b)	Constructing decentralised sewerage scheme at Vachikulam covering most populated 7 divisions of Thrissur Corporation and more than 10000 houses & institutions	Thrissur Corporation	24 months	Project cancelled in AMR UT-1 and proposed in AMR UT 2.0				2.50 MLD MLD : Corporation Council decided to cancel the project in AMRUT -1 and proposed the same in AMRUT 2.0. vid Council resolution 78-A1 dtd. 08.12.2022. 26 th SLTC of AMRUT-1

								held on 20.12.202 2 and 24.12.202 2 approved the same and recomme nded to SHPSC. 32 nd SHPSC dated 23.01.202 3 approved the same. The same was approved by G.O (Rt) No. 660/2023 /LSG dtd: 20.03.202 3. Corporati on
--	--	--	--	--	--	--	--	--

								submitted the application for land conversion in LLMC held on 20.02.2023 and 21.03.2023, but clearance is yet to be obtained. Honble Mayor has sent letter on 28.04.2023 to Agricultural Officer for producing proof for inclusion of the proposed
--	--	--	--	--	--	--	--	--

								land in RAMSAR site. Reminder letter sent on 08.05.202 3.
--	--	--	--	--	--	--	--	--

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of April	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.	According to the latest GEC report there is no critical / over exploited blocks in Thrissur Dt.		
2	B(ii)	Ground water recharging / rain water	Proposal for two	Three artificial	Three		

		harvesting	artificial recharge schemes(dug well recharge) submitted for technical sanction. Two artificial recharge schemes tendered.	recharge sites selected and one proposal sent for technical sanction .Two artificial recharge schemes completed.	artificial recharge sites selected and one proposal sent for technical sanction.		
3	B(iii)	Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps	Water level data collected from GWD observation wells.		Water level data collected from GWD observation wells.		
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

ACTION PLAN BY GRAMAPANCHAYATH

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of March2023	Progress in the month of April 2023	Progress in the month of May 2023	% works completed	Details of works remaining
C	Removing weeds in Puzhakkal River	Adat Gramapanchayath	31.03.2020				100 %	com plet ed
C(ii)	Removing waste from all wards through kudumbasree	KUDUMBASREE	31.03.2020				100 %	com plet ed
C	water conservation projects-- tree plantation under GA in18 wards 100000/ each	MGNREGS	31.03.2020				79%	21
C	ward 14 pachthurthu comstruction	Haritha Keralam Mission	31.03.2020				100 %	com plet ed
C	side protection to water bodies coir geo textile	MGNREGS	31.03.2020				80%	20

PUZHAKKAL						
Date of sampling – 08.06.2023						
SL. NO	PARAMETER	UNIT	SBA	KTH	PTU	MP
1	PH		7.45	7.5	7.96	8.14
2	EC	µs/cm	19.5	476.8	283.4	196.2
3	BOD	mg/L	1.96	0.58	2.2	1.97
4	DO	mg/L	3.68	5.86	5.44	3.57
5	COD	mg/L	4	4	8	8
6	TC	CFU/100ml	100	500	200	100
7	F C	CFU/100ml	50	350	50	NIL
8	FSC	CFU/100ml	NIL	NIL	NIL	NIL
SBA - NEAR SOBHA CITY, KIZHAKKUMMURI ROAD , PUZHAKKAL KTH - KURINJAKKAL THODU, PUZHAKKAL PTU - PANCHIKKAL THODU, PUZHAKKAL MP - MUPPUZHA, PUZHAKAL						

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER BHARATHAPUZHA, PALAKKAD – JUNE 2023

S. No	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation	March 2021	Field Survey was completed and the location was identified for STP. Kerala Water Authority is preparing a DPR for sewerage network and STP for Pattambi Municipality.
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	Not proposed	Not Applicable
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	March 2021 (Primary STP and Septage Treatment Plant proposed, not STP)	Kerala Water Authority is preparing a DPR for sewerage network and STP.
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none"> • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose 	Applicable at State level	Not Applicable
	<ul style="list-style-type: none"> • Monitoring at State level must take place 	Applicable at State level	Not Applicable
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB 	Applicable at State level	Not Applicable

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv)<u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p>	<p>Primary STP (oil and grease trap with grit chamber)- March 2021</p> <p>Not Proposed</p> <p>Not proposed</p> <p>MSW treatment Plant – March 2021</p> <p>March 2021</p> <p>Implemented by January 2020</p> <p>No specific proposal</p>	<p>Kerala Water Authority is preparing a DPR for sewerage network and STP.</p> <p>Not Applicable</p> <p>Not Applicable</p> <p>Implemented</p> <p>Water quality monitoring of polluted river stretch and two additional points were completed until JANUARY 2022. Results are complying with outdoor bathing standards.</p> <p>Management of dry wastes were achieved through the MCF and RCF facilities, BMW by CBWTF, E-Waste by authorised collection agencies.</p> <p>Not Applicable</p>
-----	--	---	---

(viii) Adopting good irrigation practices	No specific proposal	Not Applicable
(ix) Protection and management of food plain Zones (FPZ)	March 2021	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government
(x) Rain water harvesting	No specific proposal	Not Applicable
(xi) Maintaining minimum Environmental flow of river	March 2021	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government
(xii) Plantation on both sides of the river	No specific proposal	Not applicable
(xiii) Setting up biodiversity parks on flood plains by removing encroachment	No specific proposal	Not applicable

ACTION PLAN FOR RIVER BHARATHAPUZHA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
1	Establishment and Modernisation of MSW treatment Plant (Solid Waste Management)	Pattambi Municipality	March 2021	Implemented	Implemented	100% work completed	Nil
2	Material collection Facility (Solid Waste Management)	Pattambi Municipality	Implemented by January 2020	Implemented	Implemented	100% implemented	Nil
3	Resource recovery facility (Solid Waste Management)	Pattambi Municipality	Implemented by January 2020	Implemented	Implemented	100% implemented	Nil
4	Installing house hold and community level solid waste management units	Pattambi Municipality	March 2021	Household level project Technical Sanction approved	Tendering work is in progress	79% implemented	21% implementation remaining
5	Door to Door Collection and Transportation of MSW	Pattambi Municipality	December 2020	Implemented	Implemented	Implemented	Nil
6	Regulating activities in flood plain zone protection and management of flood plain zone including side bank protection and greenery development	Irrigation department	March 2021	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government. Planning Board	Implementation not started	Full implementation remaining

					approved budget of 500 Crore for NGT related projects. That fund may be utilised for the implementation of DPR.		
7	Issues relating to E-flow, maintaining minimum environmental flow of river(by having watershed management provisions) including removal of light jungles and muddies from river courses	Irrigation department	March 2021	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government	A more comprehensive DPR by Irrigation Department and submitted for approval of State Government	Implementation not started	Full implementation remaining
8	Management of Municipal plastics, hazardous, biomedical and electrical and electronic wastes	Panchayath Municipality	Implemented by January 2020	Implemented	Implemented	100% Implemented	Nil
9	Awareness programmes for sections of public	KSPCB	March 2021	Implemented	Implemented	100% Implemented	Nil
10	Monitoring of river water quality by sampling	KSPCB	2020-2021	Water quality monitoring in Bharathapuzha at Pattambi and two additional points were completed until May 2023	Water quality monitoring in Bharathapuzha at Pattambi and two additional points were completed until June 2023	Implemented.	Implemented. Will continue up to the full implementation of the action plan. Consistently achieving

							bathing standards
11	Primary Sewage Treatment Plant and Septage Treatment plant	Pattambi Municipality	March 2021	KWA has proposed a plan to construct a STP	Field Survey was completed and the location was identified for STP. Kerala Water Authority is preparing a DPR for sewerage network and STP for Pattambi Municipality.	20% implemented	80% remaining
12	Installation of Modern Slaughter House and Rendering Plant	Pattambi Municipality	March 2021	Project submitted before DPC for purchasing land for slaughter house	Project submitted before DPC for purchasing land for slaughter house.	10% implemented	90% remaining
13	Construction of Sanitary Complex in Public Place	Pattambi Municipality	March 2021	DPR preparation on the renovation of two sanitary complexes and four new sanitary complexes at Pattambi Municipality is in progress.	DPR preparation on the renovation of two sanitary complexes and four new sanitary complexes at Pattambi Municipality is in progress.	15% implemented	85% remaining
14	Green Protocol implementation in all offices institution & public function	Pattambi Municipality	March 2021	Implemented	Implemented	100% Implemented	Nil

**POLLUTED RIVER STRETCH MONITORING PROGRAMME
(DATA SHEET JUNE 2023)**

Nhangatiri Temple (U/S of NWMP-2)

Station Name		RIVER BHARATHAPUZHA AT PATTAMBI (NWMP-2)									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	2	3	3	2						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/6/2023									
		1	0	:	4	5					
3	Weather	Cloudy			Clear ✓			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm ✓			>100 cm		Flood	
5	Color & Intensity	Clear ✓			Turbid			Green		Brown	
		1 = Light			2 = Moderate ✓			3 = High			
6	Odour	None ✓			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None ✓			
9	Human activities around the station	Cattle wading			Tourism spot			Fishing	Bathing ✓		Other
10	Location details	U/s of town or industrial area ✓			D/s of town or industrial area			Pilgrim center/Bathing Ghat/Water intake		None	
11	Flow rate	20.16m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None ✓		Other		
13	Uses of water in downstream	Irrigation			Drinking water source ✓			Fishing		Domestic	
		Organized water source			Cultivation			Bathing Ghat		Others	

Sl.No	Determinants	Values
1	Temperature, 0C	29
2	Dissolved Oxygen, mg/l	7.06
3	pH	7.23
4	Conductivity, µmhos/cm	160
5	BOD, mg/l	2.33
6	Nitrate-N, mg/l	0.226
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	69
10	Chloride, mg/l	9.99
11	COD, mg/l	5.32
12	TKN, mg/l	0.004
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO ₃ , mg/l	72
15	Calcium as CaCO ₃ , mg/l	46
16	Magnesium as CaCO ₃ , mg/l	26
17	Sulphate, mg/l	3.47
18	Calcium (Ca ²⁺), mg/l	18.4
19	Magnesium (Mg ²⁺), mg/l	6.318
20	Sodium, mg/l	6
21	Total Dissolved Solids, mg/l	90
22	Total Fixed Solids, mg/l	58.5
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	2
27	Fluoride, mg/l	0.03
28	Total Coliform, MPN/100 ml	500
29	Fecal Coliform, MPN/100 ml	400
30	Fecal Streptococcus, MPN/100 ml	20
31	% SODIUM	14.88
32	SAR	0.31

**POLLUTED RIVER STRETCH MONITORING PROGRAMME
(DATA SHEET JUNE 2023)**

Veliamkallu regulator (D/S of NWMP-2)

Station Name		BHARATHAPUZHA AT PATTAMBI									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	2	3	3	2						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/6/2023									
3	Weather	1	1	:	1	5					
		Cloudy			Clear ✓			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm ✓		Flood	
5	Color & Intensity	Clear ✓			Turbid			Green		Brown	
		1 = Light			2 = Moderate ✓			3 = High			
6	Odour	None ✓			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None ✓			
9	Human activities around the station	Cattle wading			Tourism spot			Fishing	Bathing ✓	Other	
10	Location details	U/s of town or industrial area			D/s of town or industrial area ✓			Pilgrim center/Bathing Ghat/Water intake		None	
11	Flow rate	222.4 m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None ✓		Other		
13	Uses of water in downstream	Irrigation			Drinking water source ✓			Fishing	Domestic		
		Organized water source			Cultivation		Bathing Ghat		Others		

Sl.No	Determinants	Values
1	Temperature, 0C	29
2	Dissolved Oxygen, mg/l	7.8
3	pH	7.86
4	Conductivity, µmhos/cm	249
5	BOD, mg/l	2.93
6	Nitrate-N, mg/l	0.264
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	85
10	Chloride, mg/l	20.99
11	COD, mg/l	5.42
12	TKN, mg/l	0.005
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO ₃ , mg/l	84
15	Calcium as CaCO ₃ , mg/l	53
16	Magnesium as CaCO ₃ , mg/l	31
17	Sulphate, mg/l	11.04
18	Calcium (Ca ²⁺), mg/l	21.2
19	Magnesium (Mg ²⁺), mg/l	6.318
20	Sodium, mg/l	19
21	Total Dissolved Solids, mg/l	161
22	Total Fixed Solids, mg/l	101.4
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	5
27	Fluoride, mg/l	0.211
28	Total Coliform, MPN/100 ml	200
29	Fecal Coliform, MPN/100 ml	100
30	Fecal Streptococcus, MPN/100 ml	ABSENT
31	% SODIUM	31.36
32	SAR	0.9

**NATIONAL WATER QUALITY MONITORING PROGRAMME
(NWMP -2 DATA- JUNE 2023)**

Station Name		BHARATHAPUZHA AT PATTAMBI									
Type of Water body		RIVER									
Completed by		DO, PALAKAKD									
Agency		Kerala State Pollution Control Board									
1	Station Code	2	3	3	2						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/6/2023									
		1	0	:	3	0					
3	Weather	Cloudy			Clear ✓			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm ✓		Flood	
5	Color & Intensity	Clear ✓			Turbid			Green		Brown	
		1 = Light			2 = Moderate ✓			3 = High			
6	Odour	None ✓			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage ✓			None			
9	Human activities around the station	Cattle wading			Tourism spot			Fishing	Bathing ✓	Other	
10	Location details	U/s of town or			D/s of town or			Pilgrim center/Bathing		None	
11	Flow rate	35 m ³ /s									
12	Major polluting source	Industrial effluent			MSW ✓	PW	None	Other			
13	Uses of water in downstream	Irrigation			Drinking water source ✓			Fishing	Domestic		
		Organized water source			Cultivation	Bathing Ghat		Others			

Sl.No	Determinant	Value
1	Temperature, °C	28
2	Dissolved Oxygen, mg/l	7.06
3	pH	7.85
4	Conductivity, µmhos/cm	271
5	BOD, mg/l	3
6	Nitrate-N, mg/l	0.286
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, as CaCO ₃ mg/l	BDL
9	Total Alkalinity, as CaCO ₃ mg/l	89
10	Chloride, mg/l	27.99
11	COD, mg/l	8.6
12	TKN, mg/l	0.008
13	Ammoniacal-N, mg/l	BDL
14	Hardness, as CaCO ₃ mg/l	100
15	Calcium, as CaCO ₃ mg/l	54
16	Magnesium as CaCO ₃ , mg/l	46
17	Sulphate, mg/l	13.29
18	Calcium (Ca ²⁺), mg/l	21.6
19	Magnesium (mg ²⁺), mg/l	11.178
20	Sodium, mg/l	14
21	Total Dissolved Solids, mg/l	170
22	Total Fixed Solids, mg/l	110
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	7
27	Fluoride, mg/l	0.301
28	Total Coliform, MPN/100 ml	500
29	Fecal Coliform, MPN/100 ml	200
30	Fecal streptococci, MPN/100 ml	20
31	% Sodium	21.86
32	SAR	0.61

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER BHAVANI, PALAKKAD- JUNE 2023

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation	March 2020. Target achieved	Action plan completed. Septic tank systems are adopted for entire sewage treatment
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	Not proposed	Not Applicable
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	STP not Proposed	Septic tank systems are adopted for entire sewage treatment
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none"> • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose 	Applicable at State level	Not Applicable
	<ul style="list-style-type: none"> • Monitoring at State level must take place 	Applicable at State level	Not Applicable
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none"> • Secretary,Ministry of Jal Shakti • Member Secretary,CPCB 	Applicable at State level	Not Applicable

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p>	<p>Drains contributing pollution to the River were not identified</p> <p>Not Proposed</p> <p>Not proposed</p> <p>Dec 2020</p>	<p>Not Applicable</p> <p>Not Applicable</p> <p>Not Applicable</p> <p>Dry waste- Implemented. Material Collection Facility and 80% of work completed for MSW treatment plant. Wet waste- 100% Managed at source level</p>
-----	---	---	--

<p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p>	<p>March 2021</p>	<p>Water quality monitoring of polluted river stretch and three additional points were completed until JANUARY 2022</p>
<p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p>	<p>Implemented by January 2020</p>	<p>Not applicable</p>
<p>(vii) Ground water regulation</p>	<p>No specific proposal</p>	<p>Not applicable</p>
<p>(viii) Adopting good irrigation practices</p>	<p>No specific proposal</p>	<p>Not applicable</p>
<p>(ix) Protection and management of food plain Zones (FPZ)</p>	<p>March 2021</p>	<p>A more comprehensive DPR prepared and submitted for approval by Irrigation Department -Check dams at Bhoothivazhi, Anakkal and Chemmanur are proposed in the DPR.</p>
<p>(x) Rain water harvesting</p>	<p>No specific proposal</p>	<p>Not applicable</p>

	(xi) Maintaining minimum Environmental flow of river	March 2021	A more comprehensive DPR prepared and submitted for approval by Irrigation Department
	(xii) Plantation on both sides of the river	No specific proposal	Not applicable
	(xiii) Setting up biodiversity parks on flood plains by removing encroachment	No specific proposal	Not applicable

ACTION PLAN FOR RIVER BHAVANI, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2023	Progress in the month June 2023	% works completed	Details of works remaining
C(ii)	Establishment of MSW treatment Plant (Solid Waste Management)	Pudur Grama Panchayath	2019-2020	Own fund position insufficient for doing the project	Own fund position insufficient for completing the project	80% implemented	20% - installation of treatment equipment/ facilities are remaining
C(ii)	Material collection Facility (Solid Waste Management)	Pudur Grama Panchayath	2019-2020	Implemented	Implemented	100% Implemented	Nil
C(ii)	Construction of Compound wall Material collection Facility Plant	Pudur Grama Panchayath	2019-2020	Implemented	Implemented	Implemented	Nil
C(ii)	Installing of waste Bin in Colonies	Pudur Grama Panchayath	2019-2020	Minis MCF in the colonies of Pudur Panchayath were started as an alternative of installation of waste bin in the colonies. Mini MCF facility were installed in the four	Minis MCF in the colonies of Pudur Panchayath were started as an alternative of installation of waste bin in the colonies. Mini MCF facility were	62% implemented	38 % implementation remaining

				wards and its coverage will be extend over all the 13 wards	installed in the 8 wards and its coverage will be extend over all the 13 wards		
C(ii)	Preliminary expenses met for "harithakarmasena"	Pudur Grama Panchayath	2019-2020	Implemented	Implemented	100% implemented	Nil
A(b)	Construction of Community Toilets	Pudur Grama Panchayath	2019-2020	Construction of sanitary complex at Chavadiyururu under the "Take a Break Project" was completed	Construction of sanitary complex at Chavadiyururu under the "Take a Break Project" was completed	100 %	The community toilet underway is over and above action plan
A(b)	Repair of Community toilets	Pudur Grama Panchayath	2019-2020	Not Applicable	Not Applicable	Nil	Nil
C(i)	Construction of Protection wall with fencing	Irrigation department	2020-21	River side protection of Thekkuvattathode(stream) was completed. Agreement executed for a new work on River Bhavani at Thekkuvatta LIS.	Side protection work near to Thekkuvatta LIS to be started	85%	15 %
C(i)	Seasonal clearance of jungle and muddies from river courses	Irrigation department	2020 - 21	Work in this season at two locations at Pampanthode & Ranganathapuram were	Implemented	100	NIL

				completed			
D	Construction of Check dams at the identified locations	Irrigation department	2020 - 21	Checkdam at Boothivazhy, Anakkal&Chemmannura re proposed in the DPR	Checkdam at Boothivazhy, Anakkal&Chemmanur are proposed in the DPR	75%	25 %
D	Issues relating to Eflow, maintaining minimum environmental flow of river(by having watershed management provisions)	Irrigation department	2020 - 21	DPR prepared for comprehensive solution	DPR prepared for comprehensive solution	Implementation not started	Full implementation remaining
E	Information Education and Communication (IEC)	Pudur Grama Panchayath	2019 -20	Awareness programs conducted	Implemented	Implemented	Implemented
A(a)	Monitoring of river water quality by sampling	KSPCB	2019 -20	Water quality monitoring in Bhavani at Elachivazhi and three additional points were completed until May2023	Water quality monitoring in Bhavani at Elachivazhi and three additional points were completed until June 2023	Implemented. Will continue up to the full implementation of the action plan.	Implemented.

**POLLUTED RIVER STRETCH MONITORING PROGRAMME
(DATA SHEET JUNE 2023)**

Cheerakuzhi (U/S of NWMP-6)

Station Name		RIVER BHAVANI AT ELACHIVAZHI									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	1	2	0	8						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/7/2023									
		1	2	:	1	0					
3	Weather	Cloudy			Clear ✓			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm ✓			>100 cm		Flood	
5	Color & Intensity	Clear ✓			Turbid			Green		Brown	
		1 = Light ✓			2 = Moderate			3 = High			
6	Odour	None ✓			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None ✓			
9	Human activities around the station	Cattle wading ✓			Tourism spot			Fishing	Bathing ✓	Other	
10	Location details	U/s of town or			D/s of town or			Pilgrim center/Bathing		None ✓	
11	Flow rate	9.24 m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None ✓		Other		
13	Uses of water in downstream	Irrigation ✓			Drinking water source ✓			Fishing	Domestic ✓		
		Organized water source			Cultivation		Bathing Ghat		Others		

Sl.No	Determinants	Values
1	Temperature, 0C	29
2	Dissolved Oxygen, mg/l	7.26
3	pH	7.85
4	Conductivity, µmhos/cm	161
5	BOD, mg/l	0.93
6	Nitrate-N, mg/l	0.216
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	61
10	Chloride, mg/l	7.99
11	COD, mg/l	3.1
12	TKN, mg/l	0.003
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO ₃ , mg/l	68
15	Calcium as CaCO ₃ , mg/l	40
16	Magnesium as CaCO ₃ , mg/l	28
17	Sulphate, mg/l	11.96
18	Calcium (Ca ²⁺), mg/l	16
19	Magnesium (Mg ²⁺), mg/l	7.53
20	Sodium, mg/l	6
21	Total Dissolved Solids, mg/l	95
22	Total Fixed Solids, mg/l	63
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	2
27	Fluoride, mg/l	0.213
28	Total Coliform, MPN/100 ml	500
29	Fecal Coliform, MPN/100 ml	200
30	Fecal Streptococcus, MPN/100 ml	ABSENT
31	% SODIUM	15.6
32	SAR	0.32

**POLLUTED RIVER STRETCH MONITORING PROGRAMME
(DATA SHEET JUNE 2023)**

Chalatur Uru (U/S of NWMP-6)

Station Name		RIVER BHAVANI AT ELACHIVAZHI									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	1	2	0	8						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/7/2023									
3	Weather	Cloudy			Clear ✓			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm ✓			>100 cm		Flood	
5	Color & Intensity	Clear ✓			Turbid			Green		Brown	
		1 = Light ✓			2 = Moderate			3 = High			
6	Odour	None ✓			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None ✓			
9	Human activities around the station	Cattle wading ✓			Tourism spot			Fishing	Bathing ✓		Other
10	Location details	U/s of town or			D/s of town or			Pilgrim center/Bathing		None ✓	
11	Flow rate	12.96m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None ✓		Other		
13	Uses of water in downstream	Irrigation ✓			Drinking water source ✓			Fishing	Domestic ✓		
		Organized water source			Cultivation	Bathing Ghat		Others			

Sl.No	Determinants	Values
1	Temperature, 0C	29
2	Dissolved Oxygen, mg/l	7.13
3	pH	7.97
4	Conductivity, µmhos/cm	235
5	BOD, mg/l	1.06
6	Nitrate-N, mg/l	0.101
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	105
10	Chloride, mg/l	10.99
11	COD, mg/l	3.3
12	TKN, mg/l	0.002
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO ₃ , mg/l	111
15	Calcium as CaCO ₃ , mg/l	77
16	Magnesium as CaCO ₃ , mg/l	34
17	Sulphate, mg/l	7.2
18	Calcium (Ca ²⁺), mg/l	30.8
19	Magnesium (Mg ²⁺), mg/l	6.804
20	Sodium, mg/l	6.8
21	Total Dissolved Solids, mg/l	150
22	Total Fixed Solids, mg/l	97.5
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	1.5
27	Fluoride, mg/l	0.198
28	Total Coliform, MPN/100 ml	600
29	Fecal Coliform, MPN/100 ml	300
30	Fecal Streptococcus, MPN/100 ml	40
31	% SODIUM	11.57
32	SAR	0.28

**POLLUTED RIVER STRETCH MONITORING PROGRAMME
(DATA SHEET JUNE 2023)**

Karathur (D/S of NWMP-6)

Station Name		RIVER BHAVANI AT ELACHIVAZHI									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	1	2	0	8						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/7/2023									
		1	2	:	5	0					
3	Weather	Cloudy			Clear <input checked="" type="checkbox"/>			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm <input checked="" type="checkbox"/>		Flood	
5	Color & Intensity	Clear <input checked="" type="checkbox"/>			Turbid			Green		Brown	
		1 = Light <input checked="" type="checkbox"/>			2 = Moderate			3 = High			
6	Odour	None <input checked="" type="checkbox"/>			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None <input checked="" type="checkbox"/>			
9	Human activities around the station	Cattle wading <input checked="" type="checkbox"/>			Tourism spot			Fishing	Bathing <input checked="" type="checkbox"/>		Other
10	Location details	U/s of town or			D/s of town or			Pilgrim center/Bathing		None <input checked="" type="checkbox"/>	
11	Flow rate	25.2 m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None <input checked="" type="checkbox"/>		Other		
13	Uses of water in downstream	Irrigation <input checked="" type="checkbox"/>			Drinking water source <input checked="" type="checkbox"/>			Fishing <input checked="" type="checkbox"/>	Domestic <input checked="" type="checkbox"/>		
		Organized water source			Cultivation	Bathing Ghat		Others			

Sl.No	Determinants	Values
1	Temperature, 0C	29
2	Dissolved Oxygen, mg/l	7.89
3	pH	8.12
4	Conductivity, µmhos/cm	240
5	BOD, mg/l	1.86
6	Nitrate-N, mg/l	0.103
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	108
10	Chloride, mg/l	13.99
11	COD, mg/l	3.9
12	TKN, mg/l	0.002
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO ₃ , mg/l	112
15	Calcium as CaCO ₃ , mg/l	80
16	Magnesium as CaCO ₃ , mg/l	32
17	Sulphate, mg/l	3.06
18	Calcium (Ca ²⁺), mg/l	32
19	Magnesium (Mg ²⁺), mg/l	7.776
20	Sodium, mg/l	8
21	Total Dissolved Solids, mg/l	158
22	Total Fixed Solids, mg/l	99
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	2
27	Fluoride, mg/l	0.231
28	Total Coliform, MPN/100 ml	300
29	Fecal Coliform, MPN/100 ml	200
30	Fecal Streptococcus, MPN/100 ml	40
31	% SODIUM	13.18
32	SAR	0.33

Station Name		RIVER BHAVANI AT ELACHIVAZHI									
Type of Water body		RIVER									
Completed by		DO, PALAKKAD									
Agency		Kerala State Pollution Control Board									
1	Station Code	1	2	0	8						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	6/7/2023									
3	Weather	Cloudy			Clear <input checked="" type="checkbox"/>			Windy		Raining	
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm <input checked="" type="checkbox"/>		Flood	
5	Color & Intensity	Clear <input checked="" type="checkbox"/>			Turbid			Green		Brown	
		1 = Light <input checked="" type="checkbox"/>			2 = Moderate			3 = High			
6	Odour	None <input checked="" type="checkbox"/>			Fishy			H ₂ S		Other	
7	Floating Matter	Floating Algae			Floating sludge			Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None <input checked="" type="checkbox"/>			
9	Human activities around the station	Cattle wading <input checked="" type="checkbox"/>			Tourism spot			Fishing	Bathing	Other	
10	Location details	U/s of town or			D/s of town or			Pilgrim center/Bathing		None <input checked="" type="checkbox"/>	
11	Flow rate	15.84m ³ /s									
12	Major polluting source	Industrial effluent			MSW	PW	None <input checked="" type="checkbox"/>		Other		
13	Uses of water in downstream	Irrigation <input checked="" type="checkbox"/>			Drinking water source <input checked="" type="checkbox"/>			Fishing	Domestic		
		Organized water source			Cultivation	Bathing Ghat		Others			

Sl.No	Determinant	Value
1	Temperature, °C	29
2	Dissolved Oxygen, mg/l	7.73
3	pH	8.08
4	Conductivity, µmhos/cm	239.6
5	BOD, mg/l	1.2
6	Nitrate-N, mg/l	0.38
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, as CaCO ₃ mg/l	BDL
9	Total Alkalinity, as CaCO ₃ mg/l	108
10	Chloride, mg/l	13.99
11	COD, mg/l	3.6
12	TKN, mg/l	BDL
13	Ammoniacal-N, mg/l	BDL
14	Hardness, as CaCO ₃ mg/l	110
15	Calcium, as CaCO ₃ mg/l	70
16	Magnesium as CaCO ₃ , mg/l	14
17	Sulphate, mg/l	2.3
18	Calcium (Ca ²⁺), mg/l	28
19	Magnesium (mg ²⁺), mg/l	9.72
20	Sodium, mg/l	8.8
21	Total Dissolved Solids, mg/l	155
22	Total Fixed Solids, mg/l	106.9
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	2.2
27	Fluoride, mg/l	0.311
28	Total Coliform, MPN/100 ml	400
29	Fecal Coliform, MPN/100 ml	100
30	Fecal streptococci, MPN/100 ml	40
31	% Sodium	14.49
32	SAR	0.36

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER KADALUNDI, MALAPPURAM

S. No.	Activity to be monitored	Timeline	Submission of progress by state/UT-Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		STP Repairing project DPC approved and sent to TS.
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		Action plan prepared
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none"> • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose. 		
	<ul style="list-style-type: none"> • Monitoring at State level must take place 		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB 		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p>		<p>Last updated report submitted was on June 22 ,2023</p> <p>(I) Identified 3 drains on 10/12/2018 at the hajiyyar pally stretch. Already Screen Net installed to both side of the bridge and periodic inspection & drainage of cleaning doing.</p> <p>(ii) Malappuram municipality – 30 KLD. Consent application is submitted for the revamping activities. Action plan prepared through KWA</p> <p>(iii) NIL</p> <p>(iv) Activities progressing with decentralised source level treatment method and 2506 devices are distributed. New Project approved for 6000 Ring compost unit. Project Approved .Got T.S.E. Tender.</p> <p>(v) Attached Analysis Report for the month of June 2023. More activities are progressing under the “ Thelineer Ozhukum Navakeralam “scheme</p> <p>(vi) Actions being initiated to prevent illegal waste dumping. Bio-Medical Waste collecting through IMAGE .Municipality has one MRF and 3 MCF’s. Dry Waste</p>
-----	---	--	--

<p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices,</p> <p>(ix) Protection and management of food plain Zones (FPZ),</p> <p>(x) Rain water harvesting,</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		<p>Collecting through HKS and stored in these facilities from where recyclable materials are handed over to authorised recyclers and rejects, to KEIL through Clean Kerala Company.</p> <p>(vii) NA</p> <p>(viii) Complying</p> <p>(ix) NA</p> <p>(x) Complying</p> <p>(xi) Complying</p> <p>(xii) NA</p> <p>(xiii) NA</p>
--	--	--

--	--	--	--

1.6	The discharge of waste water from the surrounding houses to the Valiyathodu - Blocking of discharge of liquid waste	Malappuram Municipality	completed	completed	completed	completed	completed	completed
1.7	Identification of illegal outlets into storm water drains and fine imposed on such units.	Malappuram Municipality	ongoing	completed	completed	completed	completed	completed
1.8	Biodegradable waste Bio gas plants- 186 Bio bins – 908 Bucket compost – 1445 Tumburmuzhi Aerobic bins - 4 Submitted proposal for 8000 ring compost systems	Malappuram Municipality	In progress	In progress	In progress	In progress	completed	Completed
1.9	Non biodegradable waste MCF & Plastic shredding and Bailing Echo Kiosk	Malappuram Municipality	Completed March 2020	Completed In progress	Completed In progress	Completed 40 mini MCF project submitted to DPC	Completed DPR on progressing	Completed Waiting for approval

1.10	Identification and monitoring of illegal activities/ CC TV Network installation	Malappuram Municipality	Ongoing	In progress	In progress	In progress	No progress	No progress
------	--	-------------------------	---------	-------------	-------------	-------------	-------------	-------------

2.KERALA STATE POLLUTION CONTROL BOARD

No.	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May2023	Progress in the month of June2023	% works completed	Details of works remaining
2.1	River water quality Monitoring- Thirurangadi, Hajaripally National Water Quality Programme(NWMP)	KSPCB	Ongoing; Monthly frequency	100%				

2.2	River water quality Monitoring - Thirurangadi, Kooriyad, Manikut, Hajiyarpally, Anakkayam, Oravambrum - State Water monitoring programme (SWMP)	KSPCB	Ongoing; Seasonal - Pre - monsoon, monsoon, post - monsoon	100%				
2.3	Inspection and effluent quality monitoring of the flats, industrial units, service stations, hospitals, hotels etc. in Malappuram Municipalarea	KSPCB	Ongoing; Interval; Red – 1 month, Orange- 3 months, Green- 6 months	100%				

3.GROUND WATER DEPARTMENT

No.	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May2023	Progress in the month of June2023	% works completed	Details of works remaining
3.1.	Ground Water resources and regulation of	Ground water Department		No action included in the approved action plan to	No action included in the approved action plan to	No action included in the approved		

	<p>ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier status : As per Groundwater resources of Kerala, 2017 estimate a total number of 3 blocks (Mankada, Vengara and Malappuram) comes under the Kadalundi river basin. Out of three blocks Malappuram and Vengara are semi-critical blocks and the rest is a safe one, stage of groundwater extraction ranges from 69.43 % to 79.84%)</p>			<p>performed by Ground Water Department</p>	<p>be performed by Ground Water Department</p>	<p>action plan to be performed by Ground Water Department</p>		
3.2	<p>Ground water recharging / rain water harvesting</p>	<p>Ground water Department</p>		<p>No action included in the approved action plan to be performed by</p>				

	(Earlier status : The average pre monsoon groundwater level ranges from 7.59mbgl - 13.57 mbgl. Groundwater Department has implemented 3 no of roof top rain water recharging through recharge pit schemes in Vengarablock.)			Ground Water Department				
3.3	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or handpumps (Earlier status : Groundwater Department has 6 observation dug wells and 14 bore wells in the river stretch. (report attached) (Map No: 7 attached))	Ground water Department		No action included in the approved action plan to be performed by Ground Water Department				
3.4	For regulating use of ground water for irrigation purpose,	Ground water Department		No action included in the approved action plan to be performed by Ground Water Department				

adopting good irrigation practices (Earlier status : The total irrigation draft in the area ranges from 979.683 - 1857.49 ha.m.)							
--	--	--	--	--	--	--	--

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER TIRUR, MALAPPURAM

S. No.	Activity to be monitored	Timeline	Submission of progress by state/UT-Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none"> • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose. 		
	<ul style="list-style-type: none"> • Monitoring at State level must take place 		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti • Member Secretary,CPCB 		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <ul style="list-style-type: none"> (i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment. (ii) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infra structure, Gap Analysis, Proposed along with completion timeline 	<p>Last updated report submitted was on ,2023 june 22 (i)Identified 17 drains out of which 9 were additionally identified on 11.07.2019</p> <p>(ii)<u>Tirur Fish Market STP</u>– 45 KLD- Not working condition. . Accordingly conducted site inspection by Board on 19.10.2022 to evaluate progress, No progress found. Since about 3 years repeated directions are being issued for time bound renovation of fish market STP.</p> <p>(ii)<u>Tirur municipal Bus Stand STP</u>-50 KLD –Present status- All equipments are installed and three phase electrical connection obtained.Sewer line work and road work under progressing.preparing for trail run.</p> <p>iii)NIL</p> <p>(iv)De centralised treatment facilities, Disposal using sanitary landfills, composting operations, MRF, MCF etc. Slaughter house- completed civil work. Electrical installation works started.</p> <p>(v)Attached as Annexure II-Analysis report during the month of June 2023</p>
-----	---	--

<p>(iii) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices,</p> <p>(ix) Protection and management of food plain Zones (FPZ),</p>		<p>(vi) Actions are being initiated to prevent illegal waste dumping. BMW are being disposed scientifically through IMAGE. Municipality have MRF, MCF facilities</p> <p>(vii) NA</p> <p>(viii) Complying</p> <p>(ix) NA</p> <p>(x) Complying</p> <p>(xi) Complying</p> <p>(xii) NA</p> <p>(xiii) Reported that encroachment survey is completed and now the process of laying survey stones is in progress.</p>
--	--	---

(x) Rain water harvesting,

(xi) Maintaining minimum Environmental flow of river

(xii) Plantation on both sides of the river

(xiii) Setting up biodiversity parks on flood plains by removing encroachment

ACTION PLAN FOR RIVER TIRUR, KERALA

1. IRRIGATION DEPARTMENT								
1.								
No.	Activity	Implementing agency	Time line	Progress during month of April 2023	Progress during month of May 2023	Progress during month of June 2023	% works completed	Details of works remaining
1.1.1	Strengthening the right side bund of Tirur- Ponnani Puzha at Porur, ward no. 1 Tirur Municipality	Irrigation Department	6 Months	. TS Accorded. Work Tendered	Tender process	Agreement Executed. Site handed over.	In progress	
1.1.2	Cleaning and development of old Ponnani Thodu at Thazhepalam	Irrigation Department	6 Months			Nil		
1.1.3	Repair and Rehabilitation of Koottayi Regulator cum Bridge across Tirur Ponnani Puzha in Mangalam Grama Panchayath in Malappuram Dist	Irrigation Department	18 Months	Civil work 5% Mechanical works 90%	Investigation work on going	Investigation work completed. report not submitted	No progress	Ring bund formation, Bailing out of water, Apron Extension, Cut off wall formation. Erection of shutters and other

2.5	Fencing on Bridgeside Thalakkadathur Bridge	Tirur Municipality	December 2020	completed	completed	completed	100	NIL
2.6	Installation of CCTV Camera near the river Bank Thalakadathur Bridge	Tirur Municipality	May 2020	Completed	completed	completed	100	NIL
2.7	Planting of Bamboo seedlings on the river bank (Thazhepalam)	Tirur Municipality	June 2020	Completed	completed	completed	100	NIL
2.8	Renovation of Effluent treatment plant at fish Market. AMC Granted ETP with Aerobic System	Tirur Municipality	June 2019	No progress. As State suchitwa mission does not give sanction for new DPR of the STP plant. Hence join meeting is proposed for preparing the technical report of the status of existing STP units with IRTC members.	AMC again directly awarded the work for repair to IRTC to submit revised estimate. The estimate submitted was same as that submitted earlier. Therefore decided to invite open tender for repair and 5 year operation and maintains and project is included in 2023-2024 annual plan.	Therefore decided to invite open tender for repair and 5 year operation and maintains and project is included in 2023- 2024 annual plan.	Renovation work under process	(See minutes)
2.9	Setting up of STP at Private Bus stand	Tirur Municipality	June 2020	In progress. Trial run will be conducted on May 15 of this month	Final installation of machinery	In progress	99.9%	Preparing for trail run. (See minutes)

2.10	Setting up of a new drain after demolishing the old one. The old one was the hub of the waste water outlet of the shops and other establishments. The proposed drain is constructing in the middle of the road so as to avoid intrusion of pipes from outside	Tirur Municipality	June 2020	Completed	Completed	Completed	100	Completed
2.11	Identification of illegal outlets in to storm water drain sand fine shall be imposed on such units	Tirur Municipality					Fine imposing mechanism going on	NIL
3.KERALA STATE POLLUTION CONTROL BOARD								

No.	Activity	Implementing agency	Time line	Progress in the month of April2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
3.1	River water quality Monitoring- Thalakadathur National Water Quality Programme(NWMP)	KSPCB	Ongoing; Monthly frequency					Ongoing monthly frequency
3.2	River water quality Monitoring State Water monitoring programme (SWMP)	KSPCB	Ongoing; Seasonal					Ongoing seasonal
3.3	Inspection and effluent quality monitoring of the flats, Industrial units, Service stations, hospitals, auditorium, hotels in Municipal area		Ongoing; Interval; Red - 1 months					Ongoing
4. ACTION PLAN BY VARIOUS GRAMA PANCHAYATHS- THALAKKAD, VETOM, MANGALAM, CHERIAMUNDAM								
No.	Activity	Implementing agency	Time line	Progress in the month of April2023	Progress in the month of May2023	Progress in the month of June2023	% works completed	Details of works remaining
4.1	Protection of Tirur Ponnani River	Thalakkad Grama Panchayath handover fund to District Panchayath	31.03.2020	Completed	Completed	Completed	100	NIL
4.2	Installation of CC TV camera on YetterikadavuKunjulikkadavuMangattiri Bridge, Aikkanchiri Bridge, Paravanna Bridge	Vettom - KS SECURITY SYSTEM	Spill over due to lack of fund	completed	completed	completed	100	NIL

4.3	Installation of CC TV camera	Mangalam Grama Panchayath Win Plus Agency, Kondotty	Completed	completed	completed	completed	100	NIL
4.4	Haritha KeralamThirur-Ponnanipuzha protection	Mangalam Grama Panchayath Nirmithi Kendra, Kozhikode	31.03.2020	No progress	No progress	No progress	70% protection of wall completed	Nearing completion Landscaping work remainig as per estimate
4.5	Fencing on bridge side Thalakkadathur	Cheriyamundam Grama Panchayath	March 2020	complete d	completed	completed	100	NIL

5.GROUND WATER DEPARTMENT

No.	Activity	Implementing agency	Time line	Progress in the month of April2023	Progress in the month of May2023	Progress in the month of June2023	% works completed	Details of works remaining
5.1.	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier status: As per Groundwater resources of Kerala, 2017 estimate a total number of 2 blocks (Tirur and Kuttippuram) comes under the Tirur river basin. These two blocks are semi-critical blocks and the stage of groundwater extraction ranges from 77.75 % to 77.92%)	Ground water Department Therefore, to regulate ground water resources in this area, no permission is granted for packaged drinking water industries or any other water induced industries	NA	No permits issued	No permits issued	No permits issued NO ACTION INCLUDE UNDER THIS PLAN BY GROUND WATER DEPARTMENT	NA	NA

5.2	Ground water recharging / rain water harvesting (Earlier status: The average pre -monsoon groundwater level ranges from 6.14mbgl - 8.49 mbgl.)	NA	NA			NO ACTION INCLUDE UNDER THIS PLAN BY GROUND WATER DEPARTMENT	NO ACTION INCLUDE UNDER THIS PLAN BY GROUND WATER DEPARTMENT	NA	NA
5.3	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps	Ground water Department No observation well along the river stretches)				NA		NA	NA
5.4	For regulating use of ground water for irrigation purpose, adopting good irrigation practices (Earlier status: The total irrigation draft in the area ranges from 49.14 - 870.97 ha.m.)	Ground water Department No Data Available. No Updation after GEC 2017. (Report not published)				NO ACTION INCLUDE UNDER THIS PLAN BY GROUND WATER DEPARTMENT	NO ACTION INCLUDE UNDER THIS PLAN BY GROUND WATER DEPARTMENT	NA	NA

6.REVENUE DEPARTMENT

No	Activity	Implementing agency	Timeline	march 2023	Progress May2023	Progress June2023	% works completed	Details of works remaining
6.1	Survey of boundaries of river side	Revenue department		Completed	Completed	Completed	100%	Encroachment survey completed.

ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN TIRUR RIVER**JUNE 2023**

SI NO	Name of point	PARAMETERS				
		P ^H	DO (mg/l)	BOD (mg/l)	COD (mg/l)	FC (cfu/100ml)
1	Drain near Tirur Railway station	Dried				
2	Thazhepalam drain	Dried				
3	Naduvilangadi drain (old ponnani thodu)	Dried				
4	Annassery drain	Dried				
5	Canal at CV Land	Dried				
6	Canal at Mangalam thuruth	7.3	6.4	3	9	100
7	Canal at Pullooni	7.8	7.3	2.5	8.6	180
8	Drain near Mangattiri bridge	Dried				
9	Drain near Ettirikkadavu bridge	7.3	4.0	1.8	7.2	40
10	Epothingal	7.5	4.1	1.4	5.6	120
11	Asarikkadav	7.7	4.6	1.2	5	80
12	Kandanath kadav	7.3	4.3	1.3	5	20
13	Pancharamoola	Dried				
14	Kakadav	6.8	5.6	1.2	4.8	200
15	Kanathkadav	7.5	5.3	1.6	6	120
16	Drain near tirur railway station	7.3	4.3	1.3	5	20
17	Payyanangadi(kadayithodu)	Dried				

**ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN
KADALUNDY RIVER JUNE 2023 ALONG HAJIYARPALLY**

Sl .No	Name of point	PARAMETERS				
		P ^H	DO (mg/l)	BOD(mg/l)	COD (mg/l)	FC (cfu/100ml)
1	Valiyangadi drain	Dried				
2	Valiyangadi bypass drain	Dried				
3	Valiyathod drain	Dried				
4	Hajiyarpally	7.5	8.6	1.3	5.2	40

Kerala State Pollution Control Board, District Office, Kozhikode NATIONAL

MISSION FOR CLEAN GANGA

Format for submission of monthly progress report by state/UTs

(Hon'ble NGT in the matter of OA.No.673/2018 dated 6/12/2018) For the

one month of JUNE 2023 – Kallayipolluted river stretch

Sl No	Activity to be monitored	Timeline	Submission of progress by state/UT-compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
2	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STP must be ensured.	30.09.2022	Construction of 2 MLD and 1 MLD STP plant of Calicut medical college started
3	Timeline for completing all steps of action plans including completion of setting up STP and their commissioning	Work under progress	Proposal for 13 MLD STP (6 MLD STP plant proposed at Kothi, 7 MLD STP plant proposed at Avikkal) – Kothi work started at Avikkal waiting for judgement
4	Chief secretaries may set up appropriate monitoring mechanisms at the state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the secretary level• Chief secretaries may have an accountable person attached in their office for this purpose		NIL
	<ul style="list-style-type: none">• Monitoring at the state level must take place	Fortnightly commencing 21.12.2019	NIL

5	<p>Progress report may be furnished by the state/UT to</p> <ul style="list-style-type: none"> • Secretary, ministry of Jal Shakti • Member secretary, CPCB 	<p>Monthly (preferably before 20th of every month)</p>	<p>NIL</p>
5.1	<p>Progress report may be comprised of details along with completion timeline on:</p> <p>(i) Identification of polluting source including drain contributing to river pollution and action as per NGT order on in situ treatment.</p> <p>(ii) <u>status of STPs, I&D and sewage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p>	<p>Action continuing</p> <p>31.03.2021</p> <p>31.07.2019</p> <p>work in progress</p>	<p>Drains identified. Pollution load calculated. Action plan prepared. Joint squad of PCB and Corporation inspection in action. Issued notice to 92 units. 30 units installed treatment facilities. During Jan-Mar 2020 joint squad of PCB and Corporation inspected 82 units. Issued notice to 56 units. In 16 units installation of treatment units Effluent treatment facilities are under progress. Issued notice to 36 units and a fine of Rs.18500/- was imposed for the month of September 2020. Monthly progress report submitted by Kozhikode corporation attached as Annexure 1</p> <p>Dredging of Kallayir river from Kaduppini to Kothi -DPR submitted to SE, INC, KK Don 16.10.2019 for Rs 773.05 lakhs (7.30 crores for desilting of river and 43.05 lakhs for fencing of 5 bridges) under action plan of Kallayir river and fencing of sides of the river. Work entrusted to KWIL - Dredging, Desilting and removal of weeds from EK canal - 11.2 Km Submitted by Irrigation department</p> <p>(i) Construction of 2 MLD, 1 MLD STP plant of Calicut medical college started. - 10% work completed</p>

<p>(iii)<u>status of CETPs</u> Details of existing CETP and ETP infrastructure, Gap analysis, proposed along with completion timeline, No. of industries and complying status.</p> <p>(iv)<u>status of solid waste management & details of processing facilities</u> Details of existing infrastructure, Gap analysis, proposed along with completion timeline</p>	<p>work in progress</p> <p>No specific proposal</p> <p>Functioning</p> <p>Work in progress</p> <p>Functioning</p> <p>Work in progress</p>	<p>(ii) Proposal for 13 MLD STP (6 MLD STP plant proposed at Kothi, 7 MLD STP plant proposed at Avikkal) – Tendering in progress.</p> <p>(iii) STP of 13 MLD proposed at Kotooli. About 12% of sewer lines were laid by KWA – Hon'ble NGT stayed the project (O.Ano.215/2016).</p> <p>(iv) Individual septic tank and soak pit system provided for house hold, units like bakery, cool bars small restaurants with less seating capacity. Individual STPs for high rise building, hotels, Restaurants, Commercial buildings.</p> <p>No CETP proposed</p> <p><u>Kozhikode Corporation</u></p> <p>(i) Existing centralized waste disposal facility of 100 MT/DAY at Njeliyanparamba (windrow composting)</p> <p>(ii) Proposal of 450 TPD waste to energy plant at Njeliyanparamba implementation in progress. Capping work started.</p> <p>(iii) Chicken waste rendering plant of 40 TPD functioning in Thamarassery – 170 chicken stalls of Kozhikode corporation are disposing off the waste through this rendering plant. Rendering plant construction for chicken stall waste – Perumanna Peruvayal</p>
--	---	--

		Functioning. And workprogressing	(iv) 3 MRFacilitiesexisting(AtNjeliyam paramba(Super MRF)3TPD- with plastic shredding unit,west hill industrial estate -2TPD --with plastic shreddingunit,NearJayanthinagarc olony)-70%completed
		Functioning	(v) 24 units of aerobic compostfacilitiesexisting(Tagore hall,SK Pottakkad hall, Jubileehall,Mofusil bus stand,T.B.Clinic,Circleoffice).
		Functioning	(vi) 350 ring compost and150Biogas plants installed inhouseholds- kkdCorporation 26 biogas plant complete – peruvayal190ringcompostcomplete– mavoor
		Functioning	(vii) Community level biogas plant- 3nos(Mental Hospital 1TPD, ITIMalikadav -1TPD, Juvine home-1TPD)
		Functioning	(viii) 3 Biogas plants in market(Centralmarket 2TPD,Vegetable market2TPD,Newbusstand,2TP D)
		30/03/2021	
		31/12/2022	(ix) TreatmentfacilityforwasteinC entralMarket– TenderinginProgress
		31.03.2021	(x) Establishmentofslaughter house-
		31.03.2021	<u>MavoorPanchayath</u> MCF 1 nos,ringcompost,compost pit- Completed andfunctioning <u>PerumannaPanchayat</u> <u>at</u> Compost pit and MCF with balingmachine (1 nos) -Work in progresscompleted withintwomonths. <u>PeruvavalPanchavat</u> Compost pit,mini MCF 2

			nos,biogasplant- WorkinprogressMCF- 1nostemporarly functioning OlavannaPanchayat MCF-1 completedMiniMCF- 3Workin progressMRF-1Inblock
--	--	--	---

<p>(v) latest water quality of pollutedriver, its tributaries, drains withflow detailsandgroundwaterqualityinthe catchment ofpollutedriver;</p>		<p>AnalysisreportofKallayiriverstretchfor the month of AUGUST2022Attachedas Annexure2</p>
<p>(vi) preventing dumping ofwaste and scientific wastemanagementincludi ngbio-medical waste plasticwaste and decentralizingwaste processing,includin wast egeneratedfromhotels,ash rams,etc.</p>		<p>SameasItemno.5.1(v) Fine of 32 Lakhs imposed for illegaldumping of solid wastes into riversand public places. Installation ofCCTV. Biomedical waste fromHospital,labs,clinicscollectedthro ughimage, plastic waste disposal throughrecyclers. Individual solid wasteprocessingfacilitieslikebiogaspla nt,bio bins in high rise building, hotels,restaurantsetc.Fencing proposed byirrigationdepartment.</p>
<p>(vii)ground waterregulati on</p>		<p>NIL</p>
<p>(viii) adopting goodirrigationpra ctices</p>		<p>NIL</p>
<p>(ix) protection andmanagement of floodplainzones(FPZ),</p>		<p>Flood prone mapping- Proposed byirrigationdepartment</p>
<p>(x)Rainwaterharvesting</p>	<p>31/03/2021</p>	<p><u>MavoorPanchayat</u> Wellrecharging- Estimateunderpreparation</p>

		31/03/2021	<u>PeruvavalPanchayat</u> Wellrecharging-Work inprogress
		31/03/2021	<u>OlavannaPanchayat</u> Wellrecharging- Workinprogressandcompletedbytheendofmarch2023
(xi)Maintainingminimum environmentalflowof river		31/03/2021	<u>PerumannaPanchayat</u> CleaningofMampuzhariver-Workin Progress
		31/03/2021	<u>PerumannaPanchayat</u> CleaningofMampuzhariver-Ongoing
		Completed	<u>OlavannaPanchayat</u> CleaningofMampuzhariver- Completed
(xii)Plantationonbothsides oftheriver		Completed	<u>MavoorPanchayat</u> 3500unitscompleted
(xiii) Settingup biodiversityparks on flood plains byremovingencroachment			Bio park in Kozhikode district- Proposedbyirrigationdepartment

(Hon'bleNGTinthematterofOANo.673/2018dated 06.12.2019)

ACTION PLAN FOR RIVER KALLAYI, KERALA

Kozhikode Corporation									
No.	Activity	Implementing agency	Time line	Progress in the month of MARCH 2022	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% work completed	Details of work remaining
1	Identification of illegal outlets in storm water drain and issue Notice to such units	Kozhikode Corporation	30.12.2020	6 notices issued	2 notices issued	2 notices issued	2 notices issued	Ongoing work	ongoing
2	Waste to energy project proposed at Njeliyamparamba	KSIDC	30.06.2021	Ongoing	Ongoing	ongoing	ongoing	60%	40%
3	Establishment of Aerobic compost units 24 units established in 6 sites	Kozhikode Corporation	Completed and functioning	Completed and functioning	Completed and functioning	Completed and functioning	Completed and functioning	completed 100%	

4	Segregation of solid waste at source level and treatment of household wastes 300 ring compost and 150 biogas plants installed	Kozhikode Corporation	30.06.2019	Work Completed	Work Completed	Work Completed	Work Completed	Work Completed	
5	Setting up of rendering treatment plant for chicken stall wastes. Installed in Thamarasery panchayath. Now waste is collected from 170 units	Freshcut agency	on trial run	Ongoing	Ongoing	ongoing	ongoing	100% Coverage	
6	Implementation of Green protocol unit	Kozhikode Corporation	30.06.19	Completed	Completed	completed	completed	100%	
7	Setting up of common STP of (13MLD) 7.1 At Kothibridge - 6MLD plant proposed 7.2 At Avikkal - 7MLD plant proposed	Kozhikode Corporation	31.03.2020	7MLD-The case in the munsiff court, the hearing was completed the final judgement was pronounced	7MLD-The case in the munsiff court, the hearing was completed the final judgement was pronounced	7MLD-The case in the munsiff court, the hearing was completed the final judgement was	7MLD-The case in the munsiff court, the hearing was completed the final judgement was	6MLD- Total station survey completed, construction of Fencing is	Construction of 6 & 7MLT STPs and 98KMS sewerline.

				in favour of the protestors .hence the work can be restarted after resolving the court case.	in favour of the protestors .hence the work can be restarted after resolving the court case.	in favour of the protestors .hence the work can be restarted after resolving the court case.	in favour of the protestors .hence the work can be restarted after resolving the court case.	completed.	
8	Cleaning of Canolicanal	Kozhikode Corporation	20.07.2019	completed	completed	completed	completed	100%	Completed
9	Purchasing of Solar Boat for Canolicanal cleaning	Kozhikode Corporation	31.03.2020	Project dropped	Project dropped	Project dropped	Project dropped		
10	Installation of CCTV Camera for the Identification and monitoring of illegal activities	Kozhikode Corporation	31.03.2020	Project dropped	Project dropped	Project dropped	Project dropped		
11	Establishment of Mobile Septage Units	Kozhikode Corporation	31.03.2020	Project dropped	Project dropped	Project dropped	Project dropped		

12	Action taken against dumping of wastes into river and public places	Kozhikode Corporation	Continuing	2 notices issued	2 notices issued	2 notices issued	notices issued	Ongoing work	
13	Cleaning of B.K canal	Kozhikode Corporation	31.03.2020	completed	completed	completed	completed	100%	N.A
14	Establishment of treatment plant at Medical college (3MLD plant) Tender over 14.1-2MLD plant proposed 14.2-1MLD plant proposed	Kozhikode Corporation	31.03.2020	construction of 1MLD STP and network laying works started at site . 2MLD network laying is almost completed and 1MLD construction in progress	construction of 1MLD STP and network laying works started at site . 2MLD network laying is almost completed and 1MLD construction in progress	construction of 1MLD STP and network laying works started at site . 2MLD network laying is almost completed and 1MLD construction in progress	construction of 1MLD STP and network laying works started at site . 2MLD network laying is almost completed and 1MLD construction in progress	40%	900m pipeline and Construction of 1MLD STP is pending

15	Construction of drains at Y.M.RCAyyanka colony	Kozhikode Corporation	31.03.2020	Estimates scrutiny in progress at CELSGD's office for TS approval	Estimates scrutiny in progress at CELSGD's office for TS approval	Estimates scrutiny in progress at CELSGD's office for TS approval	Estimates scrutiny in progress at CELSGD's office for TS approval	60%	963m drainage construction remaining
----	--	-----------------------	------------	---	---	---	---	-----	--------------------------------------

16	Implementation of ST Pat Kottooli(13.5MLD)	Kozhikode Corporation		Now stay order has been lifted. Additional fund is required					
17	Treatment facility for waste water in Central market	Kozhikode Corporation	EOI Process Ongoing						
18	Establishment of comfort stations	Kozhikode Corporation		50%	50%	50%	50%	50%	COMPLETION MARCH 2023
19	Provide facility for MRF, RRF, Super MRF 3 units existing 19.1 Njeliyanparamb 19.2 Industrial estate 19.3 Mayor bhavanjanthinar colony	Suchitwa Mission	Project in progress	30%	30%	30%	30%	30%	70%

20	Identification of illegal outlets from house to storm water drain and issue Notice to such Houses	Kozhikode Corporation	Ongoing process	4 notices	4 notices	4 notices	4 notices		
21	Establishment of Plastic shredding unit	Kozhikode Corporation	Ongoing process					100%	
22	Establishment of slaughtering unit	Kozhikode Corporation	Submitted to Impact Kerala for KIFB Aid - Got Initial Approval. Final Document Preparation ongoing						
23	Cleaning of drains in Kozhikode Town	Kozhikode Corporation	Ongoing process	Complete process	Completed	Completed	Completed		

Perumanna Grama Panchayath

No	Activity	Implementing agency	Time line	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE Of 2023	% work completed	Details of work remaining
1	Outlets into storm water drain and issue notice	Perumanna GP, Kozhikode	Continues process	7 notices issued	No notices issued	No notices issued	7 notices issued	Inspection conducted regularly	
2	Establishment of six aerobic compost units in panchayat	Perumanna GP Kozhikode through MGNREGS	Dec-21	Completed	Completed	100%	Work started 1	100% work completed	5 units will be started if public place is available
3	Collection and segregation of solid waste in the river	Perumanna GP	Continues process in every year	74%	74%		74%	74% work completed	
4	Setting up of residential treatment plant for chicken stall waste	Perumanna GP	Continues process	Resolution passed by Panchayat board to execute an agreement with Freshcut, thamarassery, kkd	Resolution passed by Panchayat board to execute an agreement with Freshcut, thamarassery, kkd	Resolution passed by Panchayat board to execute an agreement with Freshcut, thamarassery, kkd	Resolution passed by Panchayat board to execute an agreement with Freshcut, thamarassery, kkd	91%	
5	Setting up of 360 soakpit plant in all houses near the river area and panchayat	Perumanna GP MGNREGS	Dec-21	119 nos completed	119 nos completed	119 nos completed	119 nos completed	Remainig work has been suspended as lack of person all days for current year	

6	implimentationof360c ompostunitnearthirersi de andpanchayat	PerumannaGP MGNREGS	Dec-21	126nosco mpleted	126nosco mpleted	126nosco mpleted	126nosco mpleted	Remainin gworkhas beensuspe ndedaslac kofperson aldaysfor current year	
7	Implementation ofwater flow project(aluvangalthaz hamperumbattaelama napadam, valiyapada m.mampuzhthodenav eekaranaprojectno260 /2021projectcost16.6 7lakhs).itisajointvent ureprojectbygrama,bl ock and jillapanchayat	Perumanna G P,Kozhikode blockpanchayat, Kozhikode jillapanchayat	Dec-21	Completed	Completed	Completed	Completed	Technical sanctiono btained .tenderpro cedureco mpleted .including in2021- 22planass pilloverpr oject.	Tender hasbeendon e
8	Cleaningofmam puzha river(projectna me :mampuzha waterflowrestoration, projectno 01/2018-19	Distric panchayatKozhik ode	2018-19	Completed bypanchay at	Completed bypanchay at	Completed bypanchay at	Completed bypanchay at	25 lakhstransf erredto districtpan chayat	Workhas been complete bydistrictp anchayat ,kozhikode

9	Establishment of 18 nos of mini MCF in different wards including payyadimetal wheretheriverisflowing	PerumannaGP MGNREGS	Dec-21	11Nos completed	11Nos completed	11Nos completed	11Nos completed	11Nos 100%	7 units not started
10	Collection of plastic waste from the river	PerumannaGP	Continuous process	Three times completed	Three times completed	Three times completed	Three times completed	N A	Process will be done every year

Peruvayal Grama Panchayath

No	Activity	Implementing agency	Time line	Progress in the month of FEBRUARY 2023	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	% work completed	Details of work remaining
1	Outlet in storm water drain and issued notice	Peruvayal GP	Continuous process	5 notice issued	5 notice issued	5 notice issued	notice issued	Ongoing	
2	Establishment of 5 units anaerobic composted unit in panchayat.	Peruvayal GP through MGNREGS	4/2021 TO 03/2021	work will commence on third week of november 2022	work will commence on third week of november 2022			NA	

3	Setting up of rearing plant for chicken solid waste	Peruvayal G P	Continuous process	Started soon	Started soon	Started soon	Started soon	100%	
4	Setting up of 379 soak pit plants in all houses	Peruvayal G P	04/2020 to 03/2021	Ongoing	Ongoing	ongoing	ongoing	Nil	170 will be finished within March 2021
5	Cleaning of mambuzha river (project name mambuzha renovation) project no: 190/2017-18	District panchayat Kozhikode	2017-18	Completed by Panchayat	Completed by Panchayat	completed by panchayat	completed by panchayat	25 lakh transferred to district panchayat	Ongoing
6	Establishment of 8 numbers of mini MCF	Peruvayal G P through MGN REGS	4/2020 TO 2021	6 mini MCF completed	6 mini MCF Completed	6 mini MCF Completed	6 mini MCF Completed	80%	4 will start immediately
7	Collection of plastic waste from the river	Peruvayal G P	Continuous process	3 times collected	3 times collected	3 times collected	3 times collected	100%	Continuous process
8	Collection and segregation of solid waste in the river	Peruvayal G P	Continuous process	3 times collected	3 times collected	3 times collected	3 times collected		Continuous process
9	Establishment of Biogas plant	Peruvayal G P	2020-21	26 numbers completed	26 numbers completed	26 numbers completed	26 numbers completed	70%	Work will be completed by the end of February 2023

10	Wellrecharge	PeruvayalGp through MGN REGS	2020-21	78 numbers completed	78 number completed	78 number completed	78 number completed	82%	Work will be completed by the end of february 2023
----	--------------	------------------------------	---------	----------------------	---------------------	---------------------	---------------------	-----	--

Mavoor Grama Panchayat

No	Activity	Implementing agency	Time line	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% Work completed	Details of work remaining
1	MCF	MavoorGp	31.03.2019	Completed and functioning	Completed and functioning	Completed and functioning	Completed and functioning	100%	Nil
2	Fish market construction	MavoorGp	31.03.2019	Completed and functioning	Completed and functioning	Completed and functioning	Completed and functioning	100%	Nil
3	Ring compost	MavoorGp	31.03.2019	Completed and functioning	Completed and functioning	Completed and functioning	Completed and functioning	100%	NIL(190 units)
4	Tree plantation in riverside	MGNREGS	Completed	Completed	Completed	Completed	Completed	100%	NIL(3500 units)
5	Compost pit	MGNREGS	Completed	Completed	Completed	completed	completed	100%	NIL(1000 units)
6	Well recharge	MGNREGS	31.03.21	Estimate prepared	TENDER PROCESS	TENDER PROCESS	TENDER PROCESS		2 units (Budsschool, Ayurveda dispensary)
7	Bucket compost	MavoorGp	31.03.21	completed	completed	completed	completed	100%	502 units

8	Collection of nonbiodegradable waste	MavoorGp	Through out the year	Ongoing	Ongoing	Ongoing	Ongoing		
9	Transportation of waste material to refinement unit	Cleaner company	2022-23	Ongoing	Ongoing	Ongoing	Ongoing		
10	Cleaning of Cherupuzha (Kuniyakadav to Thenghilakadav)	MavoorGP	2022-23	Completed	Completed	Completed	Completed	100%	1500 Meter
11	Valayannor Thodu Cleaning	MGNREGS	2022-23	Estimate under preparation	TENDER PROCESS	TENDER PROCESS	TENDER PROCESS		115 meter
12	Aryankode Kalchira Thodu Cleaning	MGNREGS	2022-23	Estimate under preparation	TENDER PROCESS	TENDER PROCESS	TENDER PROCESS		115 meter
13	Drainage cleaning in Mavoor Town	MavoorGP	2022-23	Estimate under preparation	TENDER PROCESS	PROJECT DROPPED	PROJECT DROPPED		
14	Ring compost	MavoorGP	2022-23	Project approved	Project approved	Project approved	Project approved		

OLAVANNAGRAM PANCHAYAT

No	ACTIVITY	IMPLIMENTING AGENCY	TIMELINE	PROGRESS IN THE MONTH OF MARCH 2023	PROGRESS IN THE MONTH OF APRIL 2023	PROGRESS IN THE MONTH OF MAY 2023	PROGRESS IN THE MONTH OF JUNE 2023	% WORK COMPLETED	DETAILS OF REMAINING WORK
1	Collection of plastic waste from the river	Olavannagramapanchayat	Continuous process	4 times collected	4 times collected	4 times collected	Ongoing	80%	Process continuing
2	Collection of segregation of solid waste in the river	Olavannagramapanchayat	Continuous process	5 times collected	5 times collected	5 times collected	Ongoing	100%	Process continuing
3	Establishment of Mini MCF in all wards	Olavannagramapanchayat through MGNREGS	4/2020 To 3/2021	2 Mini MCF Completed	2 Mini MCF Completed	4 Mini MCF Completed	4 Mini MCF ONGOING		Remaining will start immediately
4	Cleaning of Mam buzhariver	Olavannagramapanchayat	Continuous process					81%	Process continuing
5	Well recharge	Olavannagramapanchayat through MGNREGS	4/2022 To 3/2023	8 No's completed	8 No's completed	8 No's completed	8 No's completed		Work will be completed by the end of March 2023
6	Setting up of compost pits in houses	Olavannagramapanchayat through MGNREGS	4/2022 To 3/2023	48 No's completed	48 No's completed	48 No's completed	48 No's completed	15%	Work will be completed by the end of March 2024

7	Action taken against dumping of waste in river	Olavannagrama panchayat	Continuous process				Not reported	84%	Continuing
8	Collection of non-biodegradable waste	Harith karmasena	Throughout the year				Not reported		Continuing

Irrigation Department

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
1	Desilting of Kallayi river from Kaduppinito Kothin Kozhikode Corporation	Irrigation department	31.03.21	DPR was submitted to SE, INC, KK Don 16.10.2019 for Rs.773.05 lakhs and 43.05 for (any of 5 bridges) under action plan of Kallayi river under urban agglomeration on 06.03.2021. The work is under tender process.				
2	Provide fencing on the sides of the Bridge	Irrigation department	31.03.21	DPR was submitted to SE, INC, KK Don 16.10.2019 for Rs.773.05 lakhs and 43.05 for fencing of 5 bridges, revised DPR submitted				

				toSuperintendingEngineerforRs.47.2lakhs vide letter number D1/GL/NGT/2019 dated28.01.2023		
3	Dredging,Desilting &removalofweedsfromEK Canal(11.2km)	Irrigationd epartment	31.07.19	WorkentrustedtoKeralawater ways&infrastructure Ltd(KWIL)		
4	BioParkinKozhikodeD istrict	Irrigationd epartment		Landforthe proposed biopark isto bedemarcatedbytheRevenueAuthoritiesafter necessary boundary survey and subsequentbiocoverworksaretobedone bySocial ForestryDepartment		
5	FloodProneMappinginK ozhikodeDistrict	Irrigationd epartment		Actontobetakenbythehydrologywingof irrigation department as this needs datacollection,scientificanalysisandmodeli ng		

Kerala State Pollution Control Board

No.(as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
1	River water quality monitoring- Kallayiriver National Water Quality Monitoring Programme (NWMP)	KSPCB	Ongoing; monthly frequency					
2	River water quality monitoring- Kallayirivers State Water Monitoring Programme, KSPCB fund (SWMP)	KSPCB	Ongoing. Seasonal monitoring- pre-monsoon, monsoon, post-monsoon					
3	Inspection and effluent quality monitoring of the flats, industrial units, service stations, hospitals, Hotel etc .in Malappuram Municipal area	KSPCB	Ongoing Interval: Red-					

			1month. Orange – 3months. Green – 6months.					
--	--	--	--	--	--	--	--	--

SuchitwaMission								
No.(as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% work completed	Details of work remaining
1	Board displaying messages against dumping to be placed in river banks	Suchitwa Mission	15.07.19					

Action Plan by Ground Water Department

No.(as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier status: As per Ground water resources of Kerala, 2017 estimate, Kozhikode Block comes under the Kallai river basin and the block is safe with stage of groundwater Extraction 68.49%)	Ground Water Department		Nil	Nil	Nil		
B(ii)	Groundwater recharging/rainwater harvesting (Earlier status: The average pre-monsoon groundwater level is 7.23 mbgl. Groundwater Department has implemented 3 no of dug well recharge schemes at Kozhikode block)	Ground Water Department		Nil	Nil	Nil		
B(iii)	Periodic ground water quality assessment and remedial actions in case of contaminated ground water tubewells/borewells	Ground Water Department		Nil	Nil	Nil		

	pumps (Earlier status- Groundwater Department has 1 observation piezometer (BW) in the river stretch.)							
B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices (Earlier status- The total irrigation draft in the Block area is 488.76 ha.m.)	Ground Water Depart ment		Nil	Nil	Nil		

Action plan by irrigation Department

No.(as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
E	Dredging and desilting	Irrigation Dept.	3 years	DP Rs. 790 lakhs deposited by KOZHICODE corporation for desilting of Kallayi river under urban agglomeration on 06.03.2021. The work is under tender process.				
E	E-flow (by micro watershed management)	Irrigation Dept.	3 years	Action to be taken by Hydrology Wing of Irrigation Department as this needs data collection, scientific analysis and modelling skills. The matter has been communicated to the Hydrology wing Assistant Engineer at Kozhikode.				

E	Floodplain zone (protection and management)	Irrigation Dept.	3 years	Action taken by Hydrology Wing of Irrigation Department. The matter has been communicated to the Hydrology Wing.		
E	Greenery development (plant in trees on the banks)	Irrigation Dept.	3 years			



KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

കോഴിക്കോട് റീജിയണൽ ഓഫീസ്
REGIONAL OFFICE, KOZHIKODE

Phone: 0495-2300744 Mail: pcbrokkd@gmail.com Website: kspcb.kerala.gov.in

3rd FLOOR, ZAMORIN'S SQUARE, LINK ROAD, KOZHIKODE - 673 002



ANALYSIS REPORT OF RIVER WATER

Report No.	K R O R 4 7 0 4 / 1 to 5	Date:	0 7 0 7 2 0 2 3					
Date of Sample Collection	1 3 0 6 2 0 2 3	Date of receipt of the sample	1 3 0 6 2 0 2 3					
Sampled by:	RL, KKD	Time	Hours: 1 5 : 0 0					
Sampling Method	APHA1060B,a	Sample ID	KL1, KL2, KL3, KL5, & KL6					
Sample container	PC 2.5 L	Sample Lab Code	KROS 4704/1-5					
Source:	KALLAI RIVER WATER	Ref.letter No.	PCB/KKD/DO/ Polluted River Stretch/2018 Vol. IV, Dated :14.06.2023					
Specific sampling location:	GIVEN BELOW	Received from:	EE,DO,KKD					
		Period of analysis:	13.06.2023-30.06.2023					
Sample preservation:	Ice box	No. of samples	5					
		Analysed by:	BRS/CVR/CNR					
		Method: Standard Methods for the examination of Water and Wastewater, APHA AWWA WEF (22 nd Ed.)						
SAMPLE ID								
sl no	Parameters	unit	Method No.	KL 1	KL 2	KL 3	KL 5	KL 6
1	pH	-	APHA 4500-H+,B	6.81	6.87	6.89	6.82	7.18
2	CONDUCTIVITY	µmhos/cm	APHA 2510B	6130	4025	5348	16180	49104
3	BOD	mg/L	IS3025 (Part 44)	4.8	3.8	4	4	2
4	DISSOLVED OXYGEN	mg/L	APHA 4500-O,C	3.2	0.8	0.8	1.9	3.3
5	TOTAL COLIFORM,	CFU/100ml	APHA 9222B	30000	120000	95000	180000	40000
6	FECAL COLIFORM	CFU/100ml	APHA 9222D	11000	90000	65000	100000	10000
7	FECAL STREPTOCOCCUS	CFU/100ml	APHA 9230 C	120	900	1000	3000	80
8	TEMPERATURE	°C	APHA 2550B	28	28	26	26	27

Test method variation: None

Remarks: LDL-Lower Detection Limit BDL-Below Detection Limit

KL1-KALLAI RIVER AT PALATHUMKANDI BRIDGE, POKKUNNU, KL2-KALLAI RIVER AT KADUPPINI BRIDGE, KL3- KALLAI RIVER AT MANKAVU BRIDGE, KL5- KALLAI RIVER AT KALLAI BRIDGE & KL6- KALLAI RIVER AT KOTHI BRIDGE, THEKKEPURAM .

AE7
10/7/23
DA 673 file
pwp

Rakhi
7/7/2023
Scientist in charge

2139
10/7/23

Kerala State Pollution Control Board, District Office, Kozhikode NATIONAL M

MISSION FOR CLEAN GANGA

**Format for submission of monthly progress report by
state/UTs (Hon'ble NGT in the matter of OA.No.673/2018 dated 6/12/2**

018)

For the month of JUNE 2023 – Kuttiady polluted river stretch

S I N O	Activity to be monitored	Timeline	Submission of progress by state/UT-compliance status
------------------	--------------------------	----------	--

1	Ensure 100% treatment of sewage at least in-situ remediation	<p>12/2022</p> <p>03/21</p> <p>31.05.2024</p> <p>03/2022</p>	<p><u>Kuttyadi Grama Panchayath</u> Massive awareness program and survey conducted. Community</p> <p>Toilet and household latrine schemes implemented MRF and MCF. Work in good condition. Project for household compost bin is completed and carried out drainage work.</p> <p><u>Chakkittapara Panchayath</u> Massive awareness program conducted. Community toilet and household latrine schemes implemented MRF and MCF. Working in good condition. Project for household compost bin in progress and carried out drainage repair work</p> <p><u>Payyoli Municipality</u> 1. Action plan prepared under SBM 2.0 2. Action plan prepared under Amrut Scheme</p> <p><u>Thurayur Grama Panchayat</u> <u>h</u> Ward wise awareness programme conducted. community toilet 'Take a Break' started and household latrine schemes</p>
---	--	--	---

			implemented.MCF started.Project for house hold bucketcompost completed.
2	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	12/2022 03/21 31.05.2024	<u>Kuttyadi Grama Panchayath</u> Committed to implement major scheme next year <u>Chakkittapara Panchayath</u> <u>h</u> Committed to implement major scheme next year <u>Payyoli Municipality</u> 1. Action plan prepared under SBM 2.0 2. Action plan prepared under Amrut Scheme <u>Thurayur Grama Panchayath</u> Major scheme will be implemented only by the availability of funds
3	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	01/2023 03/21 31.12.2024	<u>Kuttyadi Grama Panchayath</u> Attached separate report <u>Chakkittapara Panchayath</u> River origin areas are in Chakkittapara, No industrial units, ODF Project implemented <u>Payyoli Municipality</u> 1. Action plan prepared under SBM 2.0 2. Action plan prepared under Amrut Scheme <u>Thurayur Grama Panchayath</u> <u>h</u> No industrial unit in thurayur gramapanchayath ODF project implemented

4	Chief secretaries may set up appropriate monitoring mechanisms at state level <ul style="list-style-type: none">• Specifying a countability of nodal authorities not		Not applicable
---	--	--	----------------

	<p>below the secretary level</p> <ul style="list-style-type: none"> • Chief secretaries may have an accountable person attached in their office for this purpose • Monitoring at state level must take place 		
5	<p>Progress report may be furnished by the state/UTs to</p> <ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti • Member Secretary, CPC B 	<p>Monthly (preferably before 20th of every month)</p>	<p>Nil</p>
5.1	<p>Progress report may be comprised of details along with completion timeline on:</p> <p>(i) identification of polluting source including drains contributing to river pollution and action as per NGT order on in situ treatment</p>	<p>Primary STP (Oil and Grease trap with grit chamber)</p> <p>Will be implemented by 31/3/2021</p>	<p>Drains identified. Pollution load calculated. Action plan prepared. Notices issued by concerned Panchayath Secretaries to individual units.</p> <p>Action under progress by individual units.</p>

Monthly progress report
of Kuttiady, Maruthomkara, Cheruvannur, Changaroth, Perambra, Kavilumpara, Velom Panchayaths, Chakittapara, Payyoli, Thurayoor, Irrigation department, Water Authority, Shuchitwa mission for the month of August 2022 is attached as **Annexure 3**.

	12/2022	<p><u>Kuttyadi Grama Panchayat</u> urvey will be</p>
	3/2021	<p>conducted <u>Chakkittapara Panchayat</u> River originate from Chakkittapara Grama Panchayat.</p>
(ii) <u>status of STPs, I&D and sewerage networks</u>	03/2022	<p>Polluting sources are not identified.</p>
<p>Details of existing infrastructure, proposed along with completion timeline</p>	3/21	<p><u>Thurayur Grama Panchayat</u> <u>h</u> Polluted area in river are not identified.</p> <p>Mostly rural area. No common STP proposed. Individual septic tank and soak pit system provided for house hold, units like bakery, cool bars small restaurants with less seating capacity. Individual STPs for high rise building, hotels, Restaurants, Commercial buildings.</p>
	31.05.2024	<p><u>Chakkittapara Panchayat</u> : Nil <u>Payyoli municipality</u> Action plan prepared under SBM 2.0</p>
	3/21	<p><u>Thurayur Grama Panchayat</u> <u>h</u> Nil</p>
(iii) <u>status of CETPs</u> Detail of existing CETP and ETP infrastructure, Gap analysis, proposed along with complying status	31.12.2024	<p><u>Payyoli municipality</u> ✓ No CETPs proposed ✓ Action plan prepared under SBM 2.0</p>
	03/2022	<p><u>Thurayur Grama Panchayat</u> <u>h</u> No industry in the locality <u>Kuttyadi Grama Panchayat</u> No industry in the locality <u>Chakkittapara Panchayat</u> No industry in the locality</p>

<p>(iv) <u>status of solid wastemanagement& details ofprocessingfacilities</u></p> <p>Details of existinginfrastructure,Gapa nalysis,proposed along withcompletiontimeline</p>	31/03/2021	Constructionstartedforblo ck level MRF for7panchayathintheKutti yadyblock.
	Completed andfunctioni ng	MCFofKuttiyadiPancha yathsetup with shredding unit-work completed andfunctioning.
	Completed andfunctioni ng	Mini MCF set up in allwards ofKuttiyadiPanchayath.
	Completedand functioning	<u>Kavilumparapanchayat h</u> 3 MCFsarefunctioning.
	Completedand functioning	<u>MaruthomkaraPanchay ath</u> MRF completedandfunctionin g.Biogasplantworkcompl eted.
	31/103/2021	<u>VelomPanchayath</u> Comm unitylevel – Biogasplant.Workunderco nstruction(80% workcompleted). 50 nos ofBiogas plant for household- Completed andfunctioning 50 nos ofBiogas plant for household- Completed andfunctioning
	31/10/2021	<u>PerambraPanchayath</u> MCF- Tendering inprogress Mini MCF –workcompleted.
		<u>ChangarothPanchayathP</u> roject for setting upMCF approved. Site to beidentified soon. Biogasplant and Ring compostforhousehold proposed. Plastic shredding unitproposed.

03/2021

Chakkittapara Panchayath

Household plastic waste collected as per the guidelines of Suchithwa Mission.

Payyoli Municipality

31/10/2024

One temporary MCF exist & 18 mini MCF under construction. Construction of permanent MCF going on. To be complete by September 2022

Thurayur Grama Panchayath

Household plastic waste collected as per the guideline of Suchitwa mission

Kuttyadi Grama Panchayath

Report attached

Water quality monitoring result for the month of August 2022 is attached as **Annexure-4**

Chakkittapara Panchayath

No details available

(v) latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river

(vi) preventing dumping of waste and scientific waste management including bio-medical waste plastic waste and decentralizing waste processing, including waste generated from hotels, ashrams, etc.

Same as Item no. 5.1(v) Biomedical waste from Hospital, labs, clinics collected through management, plastic waste disposal through recyclers. Individual solid waste processing facilities like bio gas plant, biobins in high

		<p>rise building, hotelsetc.Fencing proposed byirrigationdepartment.<u>C</u> <u>hakkittaparaPanchayat</u> <u>h</u> Nowastedumping <u>ThurayurGramaPanc</u> <u>hayath</u> Nowastedumping <u>KuttyadiGramaPanchay</u> <u>ath</u> Nowastedumping <u>ChakkittaparaPanchaya</u> <u>th</u> Ground water regulationandactiontaken <u>ThurayurGramaPanc</u> <u>hayath</u> Ground water regulation0and action taken<u>KuttyadiGramaPa</u> <u>nchayath</u> Actiontaken</p>
	03/2021	
(vii)groundwaterregulation	31/10/2023	<p><u>ThurayurGramaPanc</u> <u>hayath</u> AsperthedirectionofGo vernment,actionwillbet aken <u>ChakkittaparaPanchaya</u> <u>th</u> As per the direction ofGovernment,actionwill be taken<u>KuttyadiGramaPa</u> <u>nchayath</u> AsperthedirectionofGo vernment, actionwillbetaken</p>
(viii)adopting goodirrigationprac tices	31/10/2024	

<p>(ix) protection and management of floodplain zones (FPZ),</p>	<p>31/10/2024</p>	<p>NIL</p>
<p>(x) Rainwater harvesting</p>	<p>Working in progress</p> <p>31/10/2024</p> <p>03/2021</p>	<p><u>Velompanchayath</u> 22527 rain water pit, well recharge – 1500 houses <u>Kavilumparapanchayath</u> well recharge – 160 houses <u>Maruhtonkarapanchayath</u> Well recharge-work completed <u>Cheruvanoorpanchayath</u> Well Recharge – Project in progress <u>Thurayur Grama Panchayath</u> Project for well water and well recharge is in progress as per the action plan of MGN REGS <u>Chakkittapara Panchayath</u> Project for well water pit and well recharge adopted <u>Kuttyadi Grama Panchayath</u> Project for rain water pit and well recharge adopted</p>
<p>(xi) Maintaining minimum environmental flow of river</p>	<p>31/10/2024</p>	<p><u>Kavilumparapanchayath</u> Adopted step store to remove sands and rock dumped during flood <u>Maruhtonkarapanchayath</u></p>

	03/2021	<p>74 works ongoing under MGNREGS (RWH, soil Conservation).</p> <p><u>Kavilumparapanchayath</u></p> <p>5 works ongoing under MGNREGS for protection of river sides <u>ChakkittaparaPanchayath</u></p> <p>River Originating area, Noticed environment low <u>Payyoli Municipality</u></p> <p>Rejuvenation/cleaning of Naivaranithoduby removing slit and other solid wastes - Work in Progress</p> <p><u>Thurayur Grama Panchayath</u></p> <p>River originating area, Noticed environmental <u>Kuttiyadi Grama Panchayath</u></p> <p>Rainwater storage pits provided to house.</p>
(xii) Plantation on both sides of the river	03/2021	<p><u>Chakkittapara Panchayath</u></p> <p>Bamboo planting will be done in MGNREGS</p> <p><u>Thurayur Grama Panchayath</u></p> <p>Bamboo planting will be done only by the direction of governing council <u>Kuttiyadi Grama Panchayath</u></p> <p>Bamboo and Ramacham planted on the banks of Kuttiadi river</p>

<p>(xiii) Setting up biodiversity parks on floodplains by removing encroachment</p>	<p>31.05.2024</p>	<p><u>Chakkittapara Panchayat</u> <u>h</u> Action will be taken depending upon availability of fund <u>Thurayur Grama Panchayat</u> <u>hayath</u> Action will be taken depending upon availability of fund <u>Kuttivadi Grama Panchayat</u> <u>chayath</u> Action will be taken depending upon availability of fund. Projects for Bamboo park and social forestry works adopted.</p>
---	-------------------	--

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

ACTION PLAN FOR RIVER KUTTIYADI, KERALA

Kuttyadi Grama Panchayath									
No.(as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of March 2023	Progress in the month of APRIL 2023	Progress in the month MAY 2023	Progress in the month JUNE of 2023	% works completed	Details of works remaining
D	Geotextiles at river bed	MGNREGS	31.03.2018	100%	100%	100%	100%	100%	Completed
E	Haritha Sahayastapaa agreement	Kuttyadi Grama Panchayath	31.03.2020	Completed	Completed	Completed	Completed	100%	Agreement signed with south side Resource Management
C(ii)	Removal of Non biodegradable waste	Kuttyadi Grama Panchayath	31.03.2020	Completed	Completed	100%	100%	100%	Completed
C(ii)	Clean green kuttyadi	Kuttyadi Grama Panchayath	31.03.2020	100%	100%	100%	100%	100%	Plastic collection from home Completed
A(b)	Community toilet	Suchitwa mission	31.03.2020					100%	Completed

C(ii)	MRF	Blockpanchayath	31.03.2020	Nil	Nil	Nil	Nil	Nil	Completed
C(ii)	MCF	KuttyadiGramapanchayath	31.03.2019			ExtendingofMCF		100%	McfREPAIR IN GONGOING
A(b)	Sanitarylatrine	KuttyadiGramapanchayath	31.03.2019	50%	50%	99%		99%	1%
B(ii)	Wellrecharging	MGNREG	31.03.2019	Nil	Nil	Nil	Nil	Nil	Nil
E	Camerasurveillance	KuttyadiGramapanchayath	completed					100%	completed
E	Rejuvenation ofKuttiyadiriver	MGNREGS	31.03.2020	50%	50%	100%	100%	100%	completed
C(ii)	Disposal of nondegradablebiowaste	KuttyadiGramapanchayath	31.03.2020	99%	99%	100%	100%	100%	completed
E	CleanVillage	KuttyadiGramapanchayath	31.03.2020	99%	99%	100%	100%	100%	completed
C(ii)	MRF	BlockPanchayat	31.03.2020	Na	Na	Na	Na	100%	completed
C(ii)	MCF	KuttyadiGramapanchayath	31.03.2020	100%	100%	100%	100%	100%	completed
C(ii)	Retrofitting	KuttyadiGramapanchayath	31.03.2020	100%	100%	100%	100%	100%	Nil

Velom Grama Panchayath

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
C(ii)	Govardhan Biogas plant	Velam GP	31.03.2020		100	100	COMPLETED	100	completed
C(ii)	MCF	Suchitwamission	31.03.2020		100	100	COMPLETED	100	completed
C(ii)	Biogas plant 50 No.s	Suchitwamission	31.03.2020						
B(ii)	Well recharge 1500 houses	MGNREGS	31.03.2020		50	50	50	50	Nil
	Installation of Biogas plant for individual beneficiaries	Socio Economic unit Foundation	31.12.2019		5 nos	5 nos	5 nos		0
C(ii)	Installation of Ring compost	Socio Economic unit Foundation	31.12.2019		14	14	221		0
C(ii)	Making compost pit	MGNREGS	31.0.2020	5	19	19	25		20

Maruthomkara Grama Panchayath

No.(as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
C(ii)	MRF	Block panchayath	2019-2020	Completed	Completed	Completed	Completed	100%	Completed
C(ii)	Biogas plant	Maruthomkara GP	2019-2020	completed	Completed	Completed	Completed	100%	Completed
B(ii)	Well recharge	Maruthomkara GP	2019-2020	completed	Completed	Completed	Completed	100%	Completed
A(b)	Sanitary complex	Maruthomkara GP	2019-2020	completed	Completed	Completed	Completed	100%	Concrete Completed
E	Harithasahayathapana agreement	Maruthomkara GP	2019-2020	completed	Completed	Completed	Completed	100%	Completed
	Biobin for home	Maruthomkara GP	2021-2022	Completed	Completed	Completed	Completed	100%	
	Nidival River Cleaning	Maruthomkara GP	2021-2022	Completed	Completed	Completed	Completed	100%	
C(ii)	Biogas plant	Maruthomkara GP	31.03.2020			28 completed	28 completed		
A(b)	Sanitary Complex	Maruthomkara GP	31.03.2020						

Perambra Grama Panchayat

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% work completed	Details of work remaining
E	Harithasahas thapana agreement	Perambra gramapanchayat	31.03.2020	HSS identified	HSS identified	HSS identified	HSS identified		
C(ii)	Solid waste removal	Perambra gramapanchayat	31.03.2020	completed	completed	completed	completed	completed	Fortnight collection of non-biodegradable waste from houses is being continued
C(ii)	Zero waste Perambra	Perambra gramapanchayat	31.03.2020	Completed	Completed	Completed	Completed	100%	
A(b)	Public toilet	Perambra gramapanchayat	31.07.2019	Commissioned	Commissioned	Commissioned	Commissioned	100%	
C(ii)	MCF	Perambra gramapanchayat	31.10.2019	Commissioned	Commissioned	Commissioned	Commissioned	95%	Electrification tender

Kavilumpara Grama Panchayath

No. (as per Action Plan).	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
E	Harithasahayasthapan agreement	Kavilumpara GP	30.03.2023	Completed	Completed	Completed	completed	100% Completed	NA
C(ii)	Collection of non-biodegradable waste	Kavilumpara GP	30.03.2023	Collected	Collected	Collected	Collected	100% Completed	
C(ii)	MCF	Kavilumpara GP	30.03.2023	Completed	Completed	Completed	Completed	100% Completed	NA
B(ii)	Well recharge	MGNREGS	30.03.2023	RECEIVED 5 APPLICATIONS ACCORDED	nil	nil	nil	NIL	Work Started
D	River cleaning	Kavilumpara GP	30.03.2023	NA	NA	NA	NA	100%	

Chakkittapara Grama Panchayath

No.(as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% work completed	Details of work remaining
D	Removal of pebbles dumped in fany	MGNREGS	31.03.2020	Nil	Nil	Nil	Nil		Nil
E	Haritha Sahayastapan agreement	Chakkittapara Grama Panchayath	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
C(ii)	Removal of Non-bio degradable waste	Chakkittapara Grama Panchayath	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
A(b)	Community toilet	Suchitwa mission	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
C(ii)	MCF	Chakkittapara Grama Panchayath	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
A(b)	Sanitary latrine	Chakkittapara Grama Panchayath	31.03.2020	86.6%	86.6%	86.6%	92.1%	92.1%	Project going on
B(ii)	Well recharging	MGNREG	31.03.2020	38.4%	38.4%	38.4%	38.4%	38.4%	No applications

E	Rejuvenation of Kuttiyadi Puzha	MGNREGS	31.03.2020	Nil	Nil	Nil	Nil	Nil	Nil
C(ii)	Disposal of nondegradable bio waste	Chakkittapara Grama Panchayath	31.03.2020	82.4%	82.4%	88.4%	90.4%	90.4%	Collection from MCF
E	Clean Village	Chakkittapara Grama Panchayath	31.03.2020	35%	45%	50%	70%	70%	
C(ii)	MCF	Chakkittapara Grama Panchayath	31.03.2020					100%	Nil

Cheruvannur Grama Panchayath

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
E	Haritha Sahaya Sthapana agreement	Cheruvannur GP	31.03.2020	Completed	Completed	Completed	100%	Nil
C(ii)	Collection of plastic waste	Cheruvannur GP	31.03.2019	Completed	Completed	Completed	100%	Nil
A(b)	Repairing of household toilets	Cheruvannur GP	31.03.2020	Completed	Completed	Completed	100%	Nil

A(b)	Construction of Community toilet at Nirappam Stadium	Cheruvannur GP	31.03.2020	Completed	Completed	Completed	100%	Nil
B(ii)	Well recharging	Gramapanchayath & MGNREGS	31.03.2019	Completed	Completed	Completed	100%	Nil
A(b)	Latrine Construction	Gramapanchayath & MGNREGS	31.03.2019	Completed	Completed	Completed	100%	Nil
new	Take a break toilet cum relaxation centre	Cheruvannur GP	31.03.2022	Work Completed	Finishing work ongoing	Finishing work ongoing	95%	Nil
new	Thumbur moozhi Aerobic bin compost	Cheruvannur GP	31.03.2021		Project dropped	Project dropped	0	nil

Koorachund Grama Panchayat

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
	Setting up of MCF	Koorachund GP	31/06/2022	ongoing	Ongoing	Ongoing	Ongoing	95%	Ongoing
	Collection of non degradable waste	Koorachund GP arithakarmasena	Throughout the year	collected	collected	collected	collected	100%	Ongoing
	Transportation of waste material	Green worms	Throughout the year	ongoing	ongoing	ongoing	ongoing	90%	Ongoing
896	Renewal/ construction of public toilet Take a Break	Koorachund GPM GNREGS	31/09/2022	ongoing	ongoing	ongoing	ongoing	90%	Ongoing
859	Brook cleaning	Koorachund GP MGNREGS	31/05/2022	ongoing	ongoing	ongoing	ongoing	80%	Ongoing
1211	Setting up of mini MCF	Koorachund GPM GNREGS	31/09/2022	ongoing	ongoing	ongoing	ongoing	65%	Ongoing
199	Well recharge	Koorachund GPM GNREGS	Throughout the year					65%	Ongoing
	Cleaning of Athiyodithodu Thelineerzhukum Nava keralam	Koorachund GPM GNREGS	31/05/2022	ongoing	Ongoing	Ongoing	Ongoing	100%	completed

Thiruvallur Grama Panchayat

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% work scope completed	Details of work remaining
1	drainage cleaning	Thiruvallur GP	2020-21	Completed	Completed	Completed	Completed	100%	Nil
2	haritha Sahayasthaba Naagreement	Thiruvallur GP	2020-21	Completed	Completed	Completed	Completed	100%	Nil
3	Removal of non-biodegradable waste	Thiruvallur GP	2020-21	Completed	Completed	Completed	Completed	100%	Nil
4	Community toilet	Suchitwa Mission	2020-21	nil	Nil	Nil	Nil		
5	MCF	Thiruvallur GP	2020-21	started	Started	Started	Started		Due to social assault work temporarily stopped. MCF functioning in a rented building

6	non recyclable inorganic waste handover to local Kerala company	Thiruvallur GP	2020-21	Nil	Nil	Nil	Nil		Negotiation on progress
7	Waste management project over veterinary hospital	Thiruvallur GP	2020-21	nil	Nil	Nil	Nil		Letter send to AE, LSGD for preparing deep burial pit
8	Renovation of various canals	Thiruvallur GP	2020-21	Completed	Completed	Completed	Completed	100%	Nil
9	Toilet to schools, anganwadies and bus stand	Thiruvallur GP	2020-21	Started.	Started.	Started	Started		Work completed up to lintel level bus stand building construction project started

Thurayur Grama Panchayat

No.(as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
	Removal of pebbles dumped in any	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Haritha Sahayasthabana agreement	Thurayur GP	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
	Removal of non-biodegradable waste	Thurayur GP	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
	Community toilet	SUCHITWA MISSION	31.03.2020	Nil	Completed	Completed	Completed	100%	Nil
	MCF	Thurayur GP	31.03.2020	Completed	Completed	Completed	Completed	100%	Nil
(b)	Sanitary latrine	Thurayur GP	31.03.2020	Nil	Nil	Nil	Nil	Nil	
(i)	Well recharge	MGNREGS	31.03.2020	Nil	Nil	Nil	Nil	Nil	
	Rejuvenation of kuttiad river	MGNREGS	31.03.2020	Nil	Nil	Nil	Nil	Nil	
	Disposal of non-degradable biowaste	Thurayur GP	31.03.2020	80%	90%	90%		90%	Collection directly from houses
	Clean village	Thurayur GP	31.03.2020	Nil	Nil	Nil	Nil		
(i)	MCF	Thurayur GP	31.03.2021					partial	Basement completed

Maniyur Grama Panchayat

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
15	innovation of canals	MGNREGS	2020-21	15 canals innovation completed	15 canals innovation completed	15 canals innovation completed	15 canals innovation completed	100%	Nil
68	innovation of streams	MGNREGS	2020-21	17 streams innovation completed	17 streams innovation completed	17 streams innovation completed	17 streams innovation completed	100%	51
2	innovation of streams	Maniyur GP	2020-21	2 streams innovation completed	2 streams innovation completed	2 streams innovation completed	2 streams innovation completed	100%	Nil
21	building up of mini MCF	MGNREGS	2020-21	Work of 9 mini MCF completed	Work of 9 mini MCF completed	Work of 9 mini MCF completed	Work of 9 mini MCF completed	43%	12
21 wards	collection of non-bio degradable waste	Haritha Karma Sena Maniyur GP	2022-23	Plastic waste in five wards was removed in April month 2022	Plastic waste in five wards was removed in April month 2022	Plastic waste in five wards was removed in April month 2022	Plastic waste in five wards was removed in April month 2022	38%	Plastic waste in 16 wards
	Well recharge	MGNREGS	2020-21					86%	24%

220	Construction of soakpit	MGNREGS	2021-2022		10 Soakpits construction completed	10 Soakpits construction completed	10 Soakpits construction completed	2%	NIL
36	Innovation of Streams	MGNREGS	2021-2022		36 Streams Innovation completed	36 Streams Innovation completed	36 Streams Innovation completed	100%	NIL
22	Construction of MiniMCF	MGNREGS	2020-21 2021-22		Works of 22 mini MCF completed	Works of 22 mini MCF completed	Works of 22 mini MCF completed	96%	NIL

CHANGAROTHGRAM PANCHAYATH

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MARCH 2023	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% Works completed	Details of works remaining
C(ii)	Setting up of MCF	Changaroth GP	Sep-19	Completed	Started procedure acquire land from irrigation department	Started procedure acquire land from irrigation department	Started procedure acquire land from irrigation department	Completed	Completed
C(ii)	Collection of non-biodegradable waste	Haritha karmasena	throughout the year	275kg	275kg	275kg	275kg	-	-

C(ii)	Biogasplantsforhousehold	ChangarothGP	Nov-19	Completed	Completed	100%	100%	100%	Completed
C(ii)	Ringcompostunit	ChangarothGP	Dec-19	Completed	Completed	Completed	Completed	100%	Completed
C(ii)	Plasticshreddingunit	ChangarothGP	Mar-20	Dropped	Dropped	Dropped	Dropped	Dropped-	Dropped
A(b)	Householdsanitaryunits	ChangarothGP	Jan-20	99%	99%	99%v	99%v	-	ongoing
C(ii)	Transportationofwaste material torefinementunit	ChangarothGP	Sep-19	Completed	Completed	Completed	Completed	Completed	ongoing
C(iii)	BambooCultivationriverbanks	MGNREGS	31.03.2020	Noprogress	Noprogress	Noprogress	Noprogress	canceled	Unavailability ofbamboo plants

PAYYOLI MUNICIPALITY

No.(as perActionPlan)	Activity	Implementing agency	Time line	Progress inthemothofMARCH2023	Progress inthemothofAPRIL 2023	Progress in themonth ofMAY 2023	Progressint he monthofJUNE 2023	% workscompleted	Detailsof worksremaining
	Includedinthewater shedarea based developmentmaster plan.Amunicipallevel committeeformedfor monitoring	Payyolimunicipality,Irrigation department	31.12.2021	Preparingthe estimate	Preparing the estimate	Preparing the estimate	Preparing theestimate	NA	Workin progress

	Establishment of 2000 units of fringing compost	Payyolimunicipality	31.03.2021	NA	NA	NA	NA	NA	Work in progress
	Establishment of 500 units of biogas plant	31.03.2021	NA	NA	NA	NA	NA	NA	Work in progress
	Establishment of 5000 units of biobin	Payyolimunicipality	31.03.2021	NA	NA	NA	NA	NA	Work in progress
	A contract agreement has been signed between municipality and fresh cut organic pvt ltd, are entering plant functioning at Ambayathode, Thamarasery for the scientific treatment of chicken stall waste generated	Fresh cut organic pvt ltd	04.09.2020	100% chicken waste collected	100% chicken waste collected	100% chicken waste collected	100% chicken waste collected	100%	Completed
	Implementation of green protocol	Payyolimunicipality	30.06.2020	Completed	Completed	Completed	Completed	100%	Completed
	Rejuvenation/cleaning of Nairavanithodu by removing litter and other solid wastes	Payyolimunicipality	31.3.2021						Work in progress
	Collection of plastic/non bio degradable household waste	Harithakarmasena	Ongoing	Collection started in 13 wards	Collection started in 13 wards	Collection started in 13 wards	Collection started in 13 wards	25%	NA
	Action taken against littering in public places	Payyolimunicipality	Continuing	20 notices issued. Fined -Rs.30190/-					NA

Irrigation Department

No.(as perAct ion Plan)	Activity	Implementinga gency	Timeline	Progress inthemonth of APRIL 2023	Progress inthemontho fMAY2023	Progress inthemontho fJUNE 2023	% worksco mpleted	Details ofworks remaining
E	SaltwaterExtrusion- ConstructionofRCBupstreamof Perincherikadavu acrossKuttiady river (Gulikapuzha) in KozhikodeDistrict	IrrigationDept	July31 2022			Work under KIIFB funding,exec uted by SPV,KIIDC.		
C(ii)	FencingthesidesofBridgestopreventdu mpingof wastes-5no's	IrrigationDept	July31 2022			DPR submitted to SE,INC,KK D on 16.10.2019 for Rs. 76 lakhs Revised DPR for Rs.103.5 lakhs submitted vide letter No. D2- 1857/2019 dtd 28.01.2023		

Kerala State Pollution Control Board

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of APRIL 2023	Progress in the month of MAY 2023	Progress in the month of JUNE 2023	% works completed	Details of works remaining
1	River water quality monitoring - KUTTIYADI river National Water Quality Monitoring Programme (NWMP)	KSPCB	Ongoing; monthly frequency		Ongoing	Ongoing		
2	River water quality monitoring - Kuttidiyad rivers State Water Monitoring Programme, KSPCB fund (SWMP)	KSPCB	Ongoing. Seasonal monitoring - pre-monsoon, monsoon, post-monsoon		Ongoing	ONGOING		
3	Inspection and effluent quality monitoring of the flats, industrial units, service stations, hospitals, hotels etc. in KUTTIYADI area	KSPCB	Ongoing Interval: Red - 1 month. Orange - 3 months. Green - 6 months.		Inspection conducted in pig farm	Inspection conducted in pig farm		

Note - As per analysis report the fecal coliform high and it is observed that it is due to the illegal outlets. Inspection was conducted in the pig farm situated in Chakkittaparampanchayath and it is found that from the unit there is one pipe is connected to river side. Show cause notice was issued to the unit. Necessary follow up will be done from this office. The inspection conducted on 14/12/2022 by Board officials found

The solid waste as well as C and D waste could be seen near sampling point puzhayoram, A drain with water flow could be found at the upstream sampling point G ulikapuzha. Wastewater from a residential building named Rifa apartment near sampling point 8 (KSRTC) mixing with river water at upstream



KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

കോഴിക്കോട് റീജണൽ ഓഫീസ്
REGIONAL OFFICE, KOZHIKODE



Phone: 0495-2300744 Mail: pcbrokkd@gmail.com Website: kspcb.kerala.gov.in
3rd FLOOR, ZAMORIN'S SQUARE, LINK ROAD, KOZHIKODE - 673 002

Calicut Date: 30/06/23

ANALYSIS REPORT OF RIVER WATER

Report No.										Date: 3 0 0 6 2 0 2 3									
Date of Sample Collection										Date of receipt of the sample									
2 1 0 6 2 0 2 3										2 1 0 6 2 0 2 3									
Sampled by: RL,KKD										Hours: 1 6 : 3 0									
Sampling Method: APHA1060B,a										Sample ID: DS1,DS2,DS3,DS4,DS5,DS6,DS7 & DS8									
Sample container: PC 2.5 L										Sample Lab Code: KROS:4713/1-8									
Source: KUTTYADI RIVER WATER										Ref.letter No. PCB/KKD/DO /Gen/Polluted River stretch/2018, Dated :22.06.2023									
Specific sampling location: GIVEN BELOW										Received from: EE,DO,KKD									
Sample preservation: Ice box										Period of analysis: 21.06.2023-30.06.2023									
										No. of samples: 8									
										Analysed by: BRS/CVR/CNR									
										Method: Standard Methods for the examination of Water and Wastewater, APHA AWWA WEF (22 nd Ed.)									
				SAMPLE ID															
Sl no	Parameters	unit	Method No.	DS1	DS2	DS3	DS4	DS5	DS6	DS7	DS8								
1	pH		APHA 4500-H+,B	6.6	6.34	6.31	6.51	6.55	6.5	6.52	6.58								
2	CONDUCTIVITY	µmhos/cm	APHA 2510B	40.6	38.64	40.5	36.15	42.8	55.15	58.5	50.76								
3	BOD	mg/L	IS3025 (Part 44)	0.2	0.2	0.2	0.5	0.7	0.8	0.3	1								
4	DISSOLVED OXYGEN	mg/L	APHA 4500-O,C	8.6	7.4	8	7.9	7.5	7.3	6.9	7								
5	TOTAL COLIFORM,	CFU/100ml	APHA 9222B	5600	4900	6200	3700	2600	3200	6800	18000								
6	FECAL COLIFORM	CFU/100ml	APHA 9222D	4200	3800	5000	2100	1900	2000	4200	7500								
7	FECAL STREPTOCOCCUS	CFU/100ml	APHA 9230 C	30	130	150	140	50	50	160	160								
8	TEMPERATURE	°C	APHA 2550B	28	29	28	28	29	29	28	28								

Test method variation: None

Remarks: LDL-Lower Detection Limit BDL-Below Detection Limit

DS1-KUTTYADI RIVER NEAR MARUTHOMKARA-DRAINAGE MOUTH, DS2-KUTTYADI RIVER AT PUZHAYORAM HOTEL, DS3-KUTTYADI RIVER NEAR PARK RESIDENCY HOTEL, DS4-KUTTYADI RIVER AT JANAKI FOREST, DS5-KUTTYADI RIVER NEAR PERUVANNAMUZHI DAM, DS6-KUTTYADI RIVER AT GULIKAPUZHA DRAIN MOUTH, DS7-KUTTYADI RIVER AT KADIYANGAD RIVER & DS8-KUTTYADI RIVER BEHIND KSRTCDEPOT, THOTTILPALAM

AEZ
SN
1/7/23
DA 673
file
1930
1/7/23

Alekh
30/6/2023
Scientist in charge

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER KAVVAYI, KANNUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		All houses and establishments have their own disposal facility
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		No STP proposal
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	31.03.2022	Some of the works in action plan is completed already and some are ongoing as informed by local bodies
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti		

	<ul style="list-style-type: none">• Member Secretary,CPCB		
--	---	--	--

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of</u></p>	<p><u>RAMANTHALI</u> There are 5 natural drains meeting the river, all cleaned.</p> <p>RRF at block level</p> <p>Lab analysis reported by KSPCB is attached</p>
-----	--	---

	<p><u>Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of food plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by</p>		<p>Implementing in all households as per KPBR rules</p>
--	--	--	---

	removing encroachment		
--	-----------------------	--	--

ACTION PLAN FOR RIVER KAVVAI, KERALA

Action Plan of Local Body								
No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of December 2020	Progress in the month of August 2021	Progress in the month of June 2023	% works completed	Details of works remaining
A (b)	Sanitation Facility Septage treatment facility shall be provided by Local Bodies in various places.	Payyannurmunicipality		NIL	NIL	NIL	NIL	Sewage Treatment Plant –DPR Prepared. Waiting for the approval of Suchitwa mission
C(ii)	Biodegradable waste disposal Bio bins (2061) Pit Compost (10992) Bio gas Plant (687)	PayyannurMunicipality	2022	0	0	0	100%	Project implementation in progress
A(b)	Non-biodegradable Waste Disposal MCF and RRF	PayyannurMunicipality	2022					MCF and RRF in action

E	Awareness Youth, Asha workers and other stake holders and HarithasahayaSamithi	Payyannur Municipality	Ongoing project					Ongoing
E	Installation of CCTV cameras at major points	Kankol	2019	Got 1 CCTV By sponsorship and installation in progress	Not reported	CCTV Not installed		
C(ii)	Biodegradable waste disposal Bio bins, Pit Compost, Bio gas Plant(2460 Nos)	Kankol	Ongoing	completed	completed			
A(b)	Non-biodegradable Waste Disposal MCF	Kankol	Ongoing project	completed	completed			
E	Awareness Youth, Asha workers and other stake holders	Kankol	Once in a month	completed	completed			
A (b)	Sanitation Facility in markets	Ramanthali GP	2020	Available	Available	Available	100%	

A(b)	Non-Biodegradable waste disposal MCF	Ramanthali GP	2020	No	No	Yes	100%	On 09/2020 onwards waste collecting and transferred to MCF
A (b)	Drain Cleaning and side protection	Ramanthali GP	2022	Done	Done	Done	100%	There are 5 natural drains meeting the river, all cleaned
E	Renovation of Ponds & Construction of Platform to openwell (Implementation of Map of Kavvayi Wetland system of Northern Kerala)	Thrikkaripur - CWRDM	2019					
Action Plan by Irrigation Department								
No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2022	Progress in the month of June 2022	Progress in the month of June 2023	% works completed	Details of works remaining
E	Desilting and rejuvenation of NarangaThodu in	Irrigation Department	2020		DPR submitted for FS approval (Amount 5.40 Lakhs)			

	Payyannur Municipality				
--	------------------------	--	--	--	--

1. Proper awareness among the inhabitants in the area is to be given for protecting the water bodies. Basic training for the people at the grass root level is to be provided for river management. All efforts for maintaining the quality of water bodies may be done by the Panchayat/Municipal authorities only with people's participation.
2. The nearby gramapanchayath and municipalities are mainly responsible for not providing municipal waste collection and treatment facilities in the locality. So they must be instructed to provide the required facility for scientific disposal of municipal solid waste as per the MSW rules 2016. The citizens as well as the municipal/gramapanchayath authorities need to be aware of the importance of scientific disposal of waste generated. Their attitude towards handling waste has to be changed. Reducing waste, recovering recyclable materials, return of nutrients to the eco system as well as generation of energy from waste are to be practiced. There has to be a valid scheme for collection, segregation, transportation, processing and safe disposal of waste by the authorities. For this affordable and viable waste to energy conversion technologies apart from conventional composting is to be implemented by the municipalities seeking technical expertise.
3. Propagation of vegetative cover in water shed will reduce soil erosion and enhance percolation of rain water into the sub surface. In downstream stretches where the river is saline, propagation of mangroves are essential.
4. Strict monitoring from the part of implementing as well as monitoring agencies is required for effective functioning of waste treatment facilities in waste generating units.
5. The practice of waste dumping into the river is to be prevented legally and strict action against this practice is to be adopted at panchayath and municipality level.

6. Re-survey of the river boundaries throughout the entire stretch is to be done urgently so as to prevent encroachment of the river.
7. The municipalities as well as the panchayaths are to be directed to provide proper waste management facilities of their own. All towns and cities must have Sewage Treatment Plants (STPs) that clean up the sewage. Facility for collection, segregation, transport, processing and scientific disposal of waste generated are to be provided by the local authorities in strict adherence to the Municipal Solid Waste Management Rules, 2016. For this, affordable and viable waste to energy conservation technologies apart from conventional composting is to be implemented seeking technical expertise.
8. Strict monitoring from the part of implementing as well as monitoring agencies is required for effective functioning of waste treatment facilities in waste generating units. The riverine stretches are to be monitored periodically at identified locations for water quality assessment.
9. Modern agricultural practices and technologies introduce the use of inorganic fertilizers with Nitrogen, Phosphorous, Potash and inorganic pesticides in farm lands and play important role in the river pollution. These may concentrate into the water body through run off causing algal blooms by which whole stretch of water become choked. Fertilizers and chemicals application in agricultural lands are to be strictly under technical expertise.
10. Rain water recharging measures must be adopted.
11. Eco tourism and water tourism projects are to be designed giving due importance for protecting the environment. The activities are to be organized in such ways which do not induce any types of pollution to the water body. Strict monitoring from the concerned authorities are recommended in functioning of the tourism projects.
12. Implement Green Protocol effectively in local self-governments. Prohibit littering of plastics in the area. Plastic

wastes shall be handled as per the provisions of Plastic Waste (Management and Handling) Rules,2018.

13. The existing waste water treatment facilities of Taliparamba Municipality shall be augmented in such a way so as to operate round theyear.

14. Actions shall be taken by the local bodies to clean the storm water drains. Rejuvenation of small streams, creeks leading into the river is to bedone.

15. Round the clock patrolling shall be provided so as to prevent waste dumping on public places.

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER KUPPAM, KANNUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		Almost all residence and commercial establishments have their own insitu sewage remediation
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		A common STP is at Taliparamba
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	31.03.20 21	
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB	Monthly before 20 th of every month	

<p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by</p>	<p>Pipe compost-600 Biogas plant-25 Compost pit -100 Thumboor muzhi-1</p> <p>Lab report is attached</p> <p><u>MADAYI</u> ONGOING <u>Udayagiri</u> Door to door collection of biodegradable waste is collected by local body and measures for disposing biodegradable waste is practising. All existing HCF are disposing their bmw through CBMWTF</p> <p><u>Pattuvam</u> Door to door collection of biodegradable waste is collected by local body and measures for disposing biodegradable waste is practising. All existing HCF are disposing their bmw through CBMWTF</p>
--	--

	removing encroachment		
--	-----------------------	--	--

ACTION PLAN FOR RIVER KUPPAM, KERALA

Ref para no:48 as per NGT order 673/2018 dated:20.09.2018	Activity	Implementing Agency	Time of Completion	Progress in the month of December 2020	Progress in the month of August 2021	Progress in the month of June 2023	% works completed	Details of works remaining
Udayagiri GP								
A (b)	Sanitation Facility	Udaya giri GP	03/2020			Completed		
C (ii)	Biodegradable waste disposal	Udaya giri GP	Ongoing project					
C (ii)	Non bio degradable Waste Disposal	Clean kerala Company	Ongoing project					
E	Awareness	Youth, Asha workers and other stake holders	Ongoing project					
Chapparappadavu GP								
A (b)	Sanitation Facility	Chapparappadavu GP	06/2019		Not reported	Not reported		
C (ii)	Biodegradable waste disposal	Ward Sanitation Committee of Local Body	12/2019					
C (ii)	Non bio degradable Waste Disposal	Local body (Haritha Karma Sena)	03/2020					

E	Awareness	Youth, Asha workers and other stake holders	03/2020 (Will extend if necessary)					
		Pariyaram Panchayat						
A (b)	Sanitation Facility	Pariyaram Panchayat	03/2020	298 ring compost installation going to start	Not reported	Not reported		
C (ii)	Biodegradable waste disposal		03/2022	ongoing				
C (ii)	Non bio degradable Waste Disposal	Pariyaram Panchayat	On going project					
E	Awareness	Youth, Asha workers and other stake holders	Whenever necessary					
A (b)	Identification of illegal outlets in to drains and stoppage of the same	Pariyaram Panchayat	09/2019					
		Madayi GP						
A (b)	Sanitation Facility	Local Body	2022					
		Ward Sanitation	Bio bins, pit compost -2022		100 Ring compost	Order placed		

C (ii)	Biodegradable waste disposal	Committee of Local body			unit supplied	for another 96 units		
			Thumpoormuzhi = 2020			Tender approved and gave supply order		
C (ii)	Non bio degradable Waste Disposal	Haritha Karma sena	Ongoing project			ONGOI NG		
E	Awareness	Youth, Asha workers and other stakeholders	Ongoing project			ONGOI NG		
A (b)	Identification of illegal outlets in drains and stoppage of the same	Local Body	2022					
Thalipparamba Municipality								
A (b)	Sanitation Facility	Municipality				Not reported		
C (ii)	Biodegradable waste disposal							
C (ii)	Non bio degradable Waste Disposal	Haritha Karma sena						
E	Awareness	Youth, Asha workers and other stakeholders	Once in a month					

		holders						
Pattuvam GP								
E	Awareness	Youth, Asha workers and other stake holders	Whenever necessary					
C (ii)	Removal of plastic wastes from the river bank							

Action Plan by Irrigation Department

Sl no	Activity	Implementing Agency	Time for completion	Progress in the month of May 2022	Progress in the month of June 2022	Progress in the month of June 2023	% works completed	Details of works remaining
1	Providing fencing on Kuppam bridge (NH) across Kuppam river at Thalipparamba in Thalipparamba Municipality	Irrigation department	2021					Initially the DPR submitted for 45lakhs. But as per the letter No.752755/C1/16/WRD Thiruvananthapuram dtd 30/09/2020 of the Additional Chief Secretary to Government, the estimate was recasted with items in DSR instead of observed data items. So the new estimate amount was 43 lakhs only. Now the DPR is resubmitted for FS Rs.56 lakhs as per DSR 2018.
2	Rejuvenation of Kuppam River - Flood plain Zone management : Construction of Marginal Earthen Bund at peringeel In Ezhome Grama Panchayath (PRICE ID : 2019/10484/IA)	Irrigation Department	2021					This work shall not be considered until adequate technical study is conducted (Vide letter No.752755/C1/16/WRD Thiruvananthapuram dtd 30/09/2020 of the Additional Chief Secretary to Government

3	Greenery development- Plantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment	Irrigation Department	3 years	In order to identify the land for plantation on both sides of the river, the boundary of government land should be fixed by the Revenue Department. Eviction of encroachment should be done. For the same, District collector Kannur has already been addressed from this office and subsequent bio cover works and planting trees have to be done by social forestry department	
4	Rejuvenation of Kuppam River - Maintaining E-Flow : Desilting of Kuppam river in Various Stretches in Chapparapadavu Grama Panchayath (PRICE ID : 2019/10517/IA)	Irrigation Department	3 years	<p>Initially the DPR was submitted for 30 lakhs. But as per the letter No.752755/C1/16/WRD Thiruvananthapuram dtd 30/09/2020 of the Additional Chief Secretary to Government, the estimate was recasted for an amount of 10.40 lakhs as per DSR 2016 by assessing the quantity of silt by scientific method. Since DSR 2018 was introduced, DPR was resubmitted for an amount of Rs. 12.80 lakhs for FS . The work includes desilting from Kooverikkadavu and Kattamballikkadavu.</p> <p>The “Room for River” campaign was launched to remove silt from all 44 rivers in Kerala in 2022. The work, Rejuvenation of Kuppam River - Maintaining E-Flow is coming under Rejuvenation of Kuppam river under Room for River programme. The Executive Engineer , Inland Navigation Division, Kannur was in charge of the Kuppam River.</p> <p>The work of silt removal from Kooverikkadavu is completed and was executed by the Assistant Engineer, Inland Navigation Section, Kannur. Since sand deposit was identified at Kattampallikkadavu, it was not removed under “Room for River” campaign . It should be done after sand audit and the procedure should be followed and it cannot be executed as a work by tender method. So this work may be treated as completed.</p>	

Combined Action Plan

	Proposed action	Agency	Timeline	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remaining
1	Providetoilets to residences with treatment and disposal system for sewage and sullage	Local Body						
2	Construction of new community toilets with treatment system	All local bodies SuchitwaMission, Revenue department	Proposed Construction Of new community Toilet at satellite points on the bank ofriver					
3	Entry of rain water and rain water recharging to all channels and drain	All local bodies , Kerala Water Authority	Drains are inspected before rain and all channels and stream are cleaned once in a year					
4	Sanitary facility in hotels (around 7) one hospital,Establishments situated in the ward for the segregation, treatment and disposal of solid wastes as per SolidWastesManagementRules,2016	Pollution Control Board ,Health department	Check they have board consent and sanitation facility is provided					
5	Adequate number of kitchen bins shall beprovided	Municipalities and local bodies	One project year					
6	Providing proper waste handling facility. For wastewater and solid wastes	Local body	One project year					

7	Rendering plant for poultry wastes	Local body	As per their project and fund availability					
8	Slaughter house waste disposal facility	Local body	One common slaughter house for 3 to 4 local body					
9	Strict monitoring of disposal of waste(sewage, sullage, degradable waste, non-biodegradable waste) surveyed area and also in the catchment of theriveri)Verify Whether consent to operate of the Board exists	Pollution Control Board	Six months					
10	Sanitation survey is to be conducted for 100m on either sides of the other parts of polluted stretch if any located nearby	Pollution Control Board	Six months					
11	Awareness for residence association:	Suchitwamission/L SGD/Corporation	Once in a month					

Action Plan by Ground Water Department

Sl.No	Ref para no:48 as per NGT order 673/2018 dated:20.09.2018	Activity	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					

2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PERUVAMBA, KANNUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		All houses and establishments have their own disposal facility
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		No STP Proposal
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	31.03.2022	Some of the works in action plan is completed already and some are ongoing as informed by local bodies.
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti		

	<ul style="list-style-type: none">• Member Secretary,CPCB		
--	---	--	--

<p>6.1 Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in</p>	<p><u>RAMANTHALLI</u></p> <p>There are 5 natural drains meeting the river, of which 3 drains cleaned.</p> <ol style="list-style-type: none"> 1. Parappa Thodu (Ward 6)- 1 Km. 2. Chennakki Thodu (Ward 8) – 1.3 Km. 3. Kallayi Thodu (Ward 3&4) – 1 Km. <p>Two are partly cleaned and the cleaning work is in progress.</p> <ol style="list-style-type: none"> 1. Manthan Thodu (Ward 6) -1 Km 2. Ambachikundu Thodu (Ward 15) – 500 M (The work is slowly ongoing due to the higher level of water in stream, 40% Completed)
--	--

	<p>the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of food plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	---	--	--

ACTION PLAN FOR RIVER PERUVAMBA, KERALA

Action Plan of LocalBody								
No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of December 2020	Progress in the month of August 2021	Progress in the month of June 2023	% works completed	Details of works remaining
A(b)	Sanitation Facility STP proposed at market place	PayyannurMunicipality	2021	nil	nil	nil	nil	Sewage Treatment Plant –DPR Prepared. Waiting for the approval of Suchitwa mission
C(ii)	Biodegradable waste disposal Bio bins (2061) Pit Compost (10992) Bio gas Plant (687)	PayyannurMunicipality	2020	0	0	0	80%	Project implement ation in progress
C(ii)	Non biodegradable Waste Disposal MCF and RRF	PayyannurMunicipality	Ongoing				1	MCF & RRF in function
E	Awareness Youth, Asha workers and other stake holders and	PayyannurMunicipality	Ongoingproject	90%	100%	100%	ongoing	Completed

	HarithasahayaSamithi							
A(b)	Sanitation Facility Scientific Septic Tank and Soak pit	Kunhimangalam Panchayath	2019		Not reported	-		
C(ii)	Biodegradable waste disposal Bio bins, Pit Compost, Bio gas Plant	Kunhimangalam Panchayath	Every year project					
C(ii)	Non biodegradable Waste Disposal MCF	Kunhimangalam Panchayath	Ongoing project					
E	Awareness Youth, Asha workers and other stake holders	Kunhimangalam Panchayath	Once in a month					
E	Side wall protection of drains	Kunhimangalam Panchayath	12/2019					
E	Installation of CCTV camerasat major points	Kankol – Alappadamba GP	2019					
C(ii)	Biodegradable waste disposal Bio bins, Pit Compost, Bio gas Plant (2460 Nos)	Kankol – Alappadamba GP	Ongoing					
C(ii)	Non Biodegradable waste disposal MCF	Kankol – Alappadamba GP	Ongoing					
E	Awareness Youth, Asha workers and other	Kankol – Alappadamba GP	Once in a month					

	stake holders							
A(b)	Sanitation Facility No markets and houses on the bank	Ramanthali GP		Available	Available	Available	80%	
C(ii)	Non Biodegradable waste disposal MCF and sending to RRF	Ramanthali GP	2020	no	Yes	yes	100%	
E	Drain Cleaning and Side protection	Ramanthali GP	2022	Done	Done	Done	100%	
E	Awareness Youth, Asha workers and other stake holders	Ramanthali GP	2022	Done	Done	Done	100%	
C(ii)	Bio degradable waste disposal Ring Compost – 1000 Nos Compost Pit – 2000 Nos Biogas Plant – 100 Nos	Ramanthali GP	2022	Ring Compost-100 Compost Pit –15 Biogas Plant-10	Ring Compost-100 Compost Pit – 0 Biogas Plant – 0	Ring Compost-290 Compost Pit – 0 Biogas Plant – 0	100%	
Action Plan by Irrigation Department								

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2022	Progress in the month of June 2022	Progress in the month of June 2023	% works completed	Details of works remaining
E	Providing fencing on Perumbabridge (NH) across Perumbariver at Payyannur in Payyannur Municipality	Irrigation department	2021	Initially the DPR submitted for 22lakhs. But as per the letter No.752755/C1/16/WRD Thiruvananthapuram dtd 30/09/2020 of the Additional Chief Secretary to Government, the estimate was recasted with items in DSR instead of observed data items. So the estimate prepared as per DSR 2016 and DPR submitted for FS for an amount of 20.5 Lakhs. Now the new estimate prepared as per DSR 2018 and DPR submitted for FS Rs.26.20 lakh				
E	Desilting and reconstruction of salt water exclusion cross bar across perumbathodu in Payyannur Municipality MI Class II Plan fund	Irrigation Department	2021	The flow in the perumbathodu is contaminated with the waste from payyanur market and its surroundings .If the existing SWECEB was reconstructed and its shutters were closed , the polluted water will stagnated at the upstream side and serious environmental problems will be created. Hence at present reconstruction of SWECEB is not environmentally feasible. If treatment facility is provided by local government and only fresh water releases to thodu the SWECEB can be reconstructed. Hence now only desilting the thodu is included in this estimate and submitted for FS. Hence DPR submitted for FS Rs.4.10 lakh only				
E	Desilting and repair of salt water exclusion cross bar across Koykottuvayalthodu in Kunhimagalam Panchayath	Irrigation Department	2020	Work completed under SDRF scheme by MI Division Kannur.				

	State Disaster Response Fund			
E	Regulating activities in flood plain zone, protection and management of flood plain zone Protection and management of flood plain zone for a period of 3 years with a fund of 0.50 crores	Irrigation Department		As per the observation forwarded from the government on submitted DPR vide No.757555/C1/16/WRD, dated 30.09.2020, This work shall not be considered until adequate study is conducted.
E	Greenery development-Plantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment Planting trees on the bank of the river will be completed within 3 years from the commencement of works with a fund of 0.40 crores	Irrigation Department	3 years	To ascertain the encroachment if any and Purambokk along the polluted river stretch for the proposed work, land to be demarcated by the Revenue authorities after necessary boundary survey. For the same, District collector Kannur has already been addressed from this office and subsequent bio cover works and planting trees have to be done by social forestry department.
E	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions) By Micro watershed management for a period of 2 years with a fund of 0.25 Crore from the available fund	Irrigation Department	2 years	Initially the DPR submitted for 25 lakhs. But as per the letter No.752755/C1/16/WRD Thiruvananthapuram dtd 30/09/2020 of the Additional Chief Secretary to Government and as per the present site condition of the proposed stretch, the estimate was recasted and renamed accordingly. The quantity of silt is assessed by scientific method. So the estimate prepared as per DSR 16 DPR submitted for FS for an amount of 10.70 lakhs. Now the new estimate

				prepared as per DSR 18 and DPR submitted for FS for 13.60 lakhs.				
	Combined Action by KSPCB							
No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remaining
1	Sanitation Providing of toilets to residences With treatment and disposal system for sewage and sullage	Local body						
2	Community Toilet Proposed construction of newcommunity Toilet at satellite points on the bank of river	All local bodies, SuchitwaMission, Revenue department						
3	Rain water recharge Entry of rain water and rain water recharging to all thodu and drain	All local bodies, Kerala Water Authority,						
4	Solid waste management Check they have Board's consent and sanitation facilityisprovided.	PollutionControlBoard, Health authority						

5	Household waste Adequate number of Kitchen bins shall be provided	Municipalities and local bodies						
6	Market Providing proper waste handling facility for wastewater And solid wastes		Six months 30					
7	Rendering plant Rendering plant for poultry wastes	Local body	Six months					
8	Slaughter house Slaughter house waste disposal facility	Local body						
9	Establishment like service station and workshops Strict monitoring of disposal of waste (sewage, sullage, degradable waste, non-biodegradable waste) surveyed area and also in the catchment of the river i) Verify whether consent to operate of the Board exists	Pollution Control Board	Six months					

10	Sanitation survey should be done Sanitation survey is to be conducted for 100m on either sides of the other parts of polluted stretch if any located nearby	Pollution Control Board	Six months					
11	Awareness for residence association	Suchitwa Mission/LSGD/Corporation	Once in a month					

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier Status : As per Groundwater resources of Kerala, 2017 estimate a total number of 2 blocks (Neeleswaram and Payyannur) comes under the Peruvamba river basin. All the blocks in the river stretch are safe with stage of groundwater extraction ranges from 34.85% to					

		69.52%)					
2	B(ii)	Ground water recharging / rain water harvesting (Earlier Status :The average pre -monsoon groundwater level ranges from7.97mbgl - 8.81 mbgl. Department has implemented 5 no of bore well recharge structures and 3 dug well recharge at Cheemeni open prison in Neeleswaram block)					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps (Earlier Status :Groundwater Department has 1 observation dug well and 1 piezometer for routine studies in the river stretch.)					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices (Earlier status :The total irrigation draft in the area ranges from 695.64 - 1326.85 ha.m.)					

Other than these following are some more suggestions from the part of pollution controlBoard.

1. Proper awareness among the inhabitants in the area is to be given for protecting the water bodies. Basic training for the people at the grass root level is to be provided for river management. All efforts for maintaining the quality of water bodies may be done by the Panchayat/Municipal authorities only with people's participation.
2. The nearby gramapanchayath and municipalities are mainly responsible for not providing municipal waste collection and treatment facilities in the locality. So they must be instructed to provide the required facility for scientific disposal of municipal solid waste as per the MSW rules 2016. The citizens as well as the municipal/gramapanchayath authorities need to be aware of the importance of scientific

disposal of waste generated. Their attitude towards handling waste has to be changed. Reducing waste, recovering recyclable materials, return of nutrients to the eco system as well as generation of energy from waste are to be practised. There has to be a valid scheme for collection, segregation, transportation, processing and safe disposal of waste by the authorities. For this affordable and viable waste to energy conversion technologies apart from conventional composting is to be implemented by the municipalities seeking technical expertise.

3. Propagation of vegetative cover in water shed will reduce soil erosion and enhance percolation of rain water into the sub surface. In downstream stretches where the river is saline, propagation of mangroves are essential.
4. Strict monitoring from the part of implementing as well as monitoring agencies is required for effective functioning of waste treatment facilities in waste generating units.
5. The practice of waste dumping into the river is to be prevented legally and strict action against this practice is to be adopted at panchayath and municipality level.
6. Re-survey of the river boundaries throughout the entire stretch is to be done urgently so as to prevent encroachment of the river.
7. The municipalities as well as the panchayaths are to be directed to provide proper waste management facilities of their own. All towns and cities must have Sewage Treatment Plants (STPs) that clean up the sewage. Facility for collection, segregation, transport, processing and scientific disposal of waste generated are to be provided by the local authorities in strict adherence to the Municipal Solid Waste Management Rules, 2016. For this, affordable and viable waste to energy conservation technologies apart from conventional composting is to be implemented seeking technical expertise.
8. Strict monitoring from the part of implementing as well as monitoring agencies is required for effective functioning of waste treatment facilities in waste generating units. The riverine stretches are to be monitored periodically at identified locations for water quality assessment.
9. Modern agricultural practices and technologies introduce the use of inorganic fertilizers with Nitrogen, Phosphorous, Potash and inorganic pesticides in farm lands and play important role in the river pollution. These may concentrate into the water body through runoff causing algal blooms by which whole stretch of water become choked. Fertilizers and chemicals application in agricultural lands are to be strictly under technical expertise.
10. Rain water recharging measures must be adopted.
11. Eco tourism and water tourism projects are to be designed giving due importance for protecting the environment. The activities are to

be organized in such ways which do not induce any types of pollution to the water body. Strict monitoring from the concerned authorities are recommended in functioning of the tourism projects.

12. Implement Green Protocol effectively in local self governments. Prohibit littering of plastics in the area. Plastic wastes shall be handled as per the provisions of Plastic Waste (Management and Handling) Rules, 2018.
13. The existing waste water treatment facilities of Taliparamba Municipality shall be augmented in such a way so as to operate round the year.
14. Actions shall be taken by the local bodies to clean the storm water drains. Rejuvenation of small streams, creeks leading into the river is to be done.
15. Round the clock patrolling shall be provided so as to prevent waste dumping on public places.
16. CCTV can be installed at suitable points in order to identify the persons/ establishments dumping waste in to river. All the local bodies must establish slaughter houses with modern facilities and unauthorized slaughter houses shall be strictly enforced.
17. Strict action shall be taken against non-violating person/ agency by the authorities when noticed. Plantation of trees and plants on the bank will be highly effective in controlling the waste disposal.

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)

RIVER RAMAPURAM, KANNUR

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		<u>MADAYI</u> 16 soak pit,6 numbers of compost pits were completed. Supply order given for 10 MCF, out of this 5 numbers were supplied
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.20 22	NIL
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	31.03.20 22	NIL
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary,Ministry of Jal Shakti• Member Secretary,CPCB		

waste generated from hotels, Ashrams, etc.

(vii) Ground water regulation

(viii) Adopting good irrigation practices

(ix) Protection and management of flood plain Zones (FPZ)

(x) Rain water harvesting

(xi) Maintaining minimum Environmental flow of river

(xii) Plantation on both sides of the river

(xiii) Setting up biodiversity parks on flood plains by removing encroachment

ACTION PLAN FOR RIVER RAMAPURAM, KERALA

Ref para no:48 as per NGT order 673/2018 dated:20.09.2018	Activity	Implementing Agency	Time of Completion	Progress in the month of December 2020	Progress in the month of August 2021	Progress in the month of June 2023	% works completed	Details of works remaining
A (b)	Sanitation Facility	Pariyaram GP	03/2020	100%	Not reported	Not reported		
C (ii)	Biodegradable waste disposal	Pariyaram GP	03/2022					
C (ii)	Non bio degradable Waste Disposal	Pariyaram GP	Ongoing project			Waste disposed through clean Kerala Company		
E	Awareness	Youth, Asha workers and other stakeholders	Whenever necessary		ongoing	Ongoing		
A (b)	Identification of illegal outlets in to drains and stoppage of the same	Madayi GP	09/2019	completed	completed	completed		
A (b)	Sanitation Facility	Madayi GP	2022		100 Ring compost unit supplied	Order placed for		

						another 96 units		
C (ii)	Biodegradable waste disposal	Ward Sanitation Committee of Local Body	2022		100 Ring compost unit supplied	Order placed for another 96 units		
E	Awareness	Youth, Asha workers and other stake holders	On going		Completed			

Action plan of Local body

1. **Public Toilet:** Construct public toilets using available funds on the bank of river near Tourist places, Fishing spots etc.
2. **Mini MCF:** Construct material collection facility in miniature form at suitable intervals on the bank of the river in order to prevent dumping of wastes in to water.
3. **Toilet at houses:** Construct toilets with scientific septic tank and Soak pit
4. **Retro Fitting:** Maintenance work of existing toilets of residences near the bank of river using performance incentive grant.
5. **Bio degradable waste Disposal:** Distribution of Bio gas Plant, Composting facility to residences near river for bio degradable waste disposal.
6. **Common Waste disposal facility:** For the disposal of bio degradable waste disposal at market places, provide community level bio gas plants, Thumboormozhi etc. Using suitable funds
7. **Common Sewage treatment facility:** Provide common sewage treatment facility for waste water generating from market places and disposing in to public drains.
8. **Septage treatment facility :** Construct septage treatment facility

In addition to above, CCTV can be installed at suitable points in order to identify the persons/ establishments dumping waste in

to river. All the local bodies must establish slaughter houses with modern facilities and unauthorized slaughter houses shall be strictly enforced.

Strict action shall be taken against non-violating person/ agency by the authorities when noticed. Plantation of trees and plants on the bank will be highly effective in controlling the wastedisposal.

Action Plan by Irrigation Department

Ref para no:48 as per NGT order 673/18 dated: 20. 9.18	Activity	Implementing Agency	Time for completion	Progress in the month of May 2022	Progress in the month June 2022	Progress in the month June2023	% works completed	Details of works remaining
C (ii)	Providing fencing on Ramapurambridge across Ramapuramriver at Madayi GP	Irrigation department	2021	Initially the DPR submitted for 12 lakhs. But as per the letter No.752755/C1/16/WRD Thiruvanamthapuramdtd 30/09/2020 of the Additional Chief Secretary to Government and the present site condition, the estimate was recasted with items in DSR instead of observed data items. So the estimate prepared and DPR submitted for an amount of 14.5lakhs as per DSR 2016.Now the new estimate prepared as per DSR 2018 and DPR submitted for FS for an amount of Rs.18.60 lakh.				
E	Desilting and repair of salt water exclusion cross bar at Ramapuram in cheruthazham GP	Irrigation Department	2020	An estimate for desiltation work on the u/s of Vayalpra SWECB has already been submitted. Now the desiltation work has been completed including the work under the scheme removal of excess sedimentation due to flood (Room for river). It was observed recently, while taking the bed levels of Ramapuram river for desilting work, that the bed levels of Ramapuram SWECB and Vayalpra RCB that is 1.65 km d/s are exactly same. Hence there will be overlapping of storage area if Ramapuram SWECB is restored. Hence the work is not technically feasible and has to be dropped.				
E	Rejuvenation of Ramapuram River - Flood plain zone management: Protection of flood plain zone near Ramapuram bridge in Cheruthazham Panchayath. (PRICE ID : 2019/10481/IA)	Irrigation Department		As per the observation forwarded from the government on submitted DPR vide No.757555/C1/16/WRD Dated 30.09.2020,This work shall not be considered until adequate study is conducted. To envisage the same purpose, LSGD has constructed a bund road with side protection in the same reach where irrigation department proposed a flood bank in Ramapuram action plan. Hence this may be removed from the action plan.				

E	Greenery development- Plantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment	Irrigation Department	2 years	To ascertain the encroachment if any and Purambokk along the polluted river stretch for the proposed work, land to be demarcated by the Revenue authorities after necessary boundary survey. For the same, District collector Kannur has already been addressed from this office and subsequent bio cover works and planting trees have to be done by social forestry department.
E	Issues relating to E-flow, maintaining minimum environmental flow of river(by having watershed management provisions)	Irrigation Department	2 years	DPR was submitted for the work previously and it was directed to find the desilting quantity based on level calculations. Hence the estimate have been submitted for FS after incorporating required corrections. DPR submitted for F.S (Rs.45.50 lakh)

Combined ActionPlan

	Proposed action	Agency	Timeline	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remainin g
A (b)	Providetoilets to residences with treatment and disposal system for sewage and sullage	Local Body	As there are residences with single pit toilet					
A (b)	Construction of new community toilets with treatment system	All local bodies SuchitwaMission, Revenue department	Proposed Construction Of new community Toilet at satellite points on the bank ofriver					
B (ii)	Entry of rain water and rain water recharging to all channels and drain	All local bodies , Kerala Water Authority,	Drains are inspected before rain and all channels and stream are cleaned once in a year					
C (ii)	Sanitary waste in hostels, establishments should be segregated, treated and disposed as per Solid Wastes Management Rules,2016 intheir respective wards.Aerocomposting and Material Collection Facility should be given in all wards near the river bank.	Pollution Control Board ,Health department	Check they have board consent and sanitation facility is provided					
C (ii)	Adequate number of kitchen bins shall beprovided	Municipalities and local bodies	Six months					

C (ii)	Providing proper waste handling facility. For wastewater and solid wastes		Six months				
C (ii)	Rendering plant for poultry wastes	Local body	Six months				
C (ii)	Slaughter house waste disposal facility	Local body					
A (iv)	Strict monitoring of disposal of waste(sewage, sullage, degradable waste, non-biodegradable waste) surveyed area and also in the catchment of theriveri)Verify Whether consent to operate of the Board exists	Pollution Control Board	Six months				
A (b)	Sanitation survey is to be conducted for 100m on either sides of the other parts of polluted stretch if any located nearby	Pollution Control Board	Six months				
E	Awareness for residence association:	Suchitwamission/L SGD/Corporation	Once in a month				

Action Plan by Ground Water Department

Sl.No	Ref para no:48 as per NGT order 673/2018 dated:20.09.2018	Activity	Progress in the month of December 2020	Progress in the month of January 2021	Progress in the month of January 2023	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME JUNE 2023

Station Name		KAVVAYI RIVER						
Type of Water body		RIVER						
Completed by		JSAI, JSA2, PGSA						
Agency		KERALA STATE POLLUTION CONTROL BOARD						
Date and time of sample taken		30-06-2023	30-06-2023	30-06-2023	30-06-2023	30-06-2023	30-06-2023	08-06-2023
Sl.No	Determinants	Kankol	Karikuzhithodu	Thattarakadavu Bridge	Kuttyol palam			
1	Temperature, 0C	29	29	30	29			29
2	Dissolved Oxygen, mg/l	6.82	6.6	5.8	6.47			6.47
3	pH	7.37	6.55	8.12	6.36			6.36
4	Conductivity, µmhos/cm	107.2	148.6	5200	217			217
5	BOD, mg/l	1.2	0.62	1.8	2.6			2.6
6	Turbidity, NTU	1.6	1.8	2	4.2			4.2
7	Total Alkalinity, mg/l	21	3	60	10			10
8	Chloride, mg/l	17	25	11300	71			71
9	Ammoniacal-N, mg/l	0.0085	0.002	BDL	BDL			BDL
10	Hardness as CaCO ₃ , mg/l	18	17	4000	36			36
11	Calcium as CaCO ₃ , mg/l	10	10	2000	17			17
12	Magnesium as CaCO ₃ , mg/l	8	7	2000	19			19
13	Sulphate, mg/l	BDL	BDL	BDL	BDL			BDL
14	Phosphate, mg/l	BDL	BDL	BDL	BDL			BDL
15	Fluoride, mg/l	0	0	BDL	BDL			BDL
16	Total Coliform, MPN/100 ml	300	180	360	800			800
17	Fecal Coliform, MPN/100 ml	150	140	200	400			400


Handwritten signature in blue ink

Handwritten signature in black ink
 06-07-23
 Anwarshah.k.k

Assistant Scientist
 Kerala State Pollution Control Board
 District Office, Kammur-670002

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME JUNE 2023

Station Name		PERUMBA RIVER					
Type of Water body		RIVER					
Completed by		JSAI, JSA2, PGSA					
Agency		KERALA STATE POLLUTION CONTROL BOARD KANNUR					
Date of sample taken		27-06-2023	27-06-2023	08-06-2023	30-06-2023		
SLN	Determinants	KACHERIKADVU	MATAHAMAGAL AM	CHANDAPURA	KANDAKALI		
1	Temperature, 0C	28	28	29	30		
2	Dissolved Oxygen, mg/l	7.22	7.28	6.06	6.2		
3	pH	7.14	6.66	6.69	7.67		
4	Conductivity, umhos/cm	174.4	169.3	322	4630		
5	BOD, mg/l	0.66	0.36	1	2.2		
6	Turbidity, NTU	1.8	1.1	2.2	2.8		
7	Total Alkalinity, mg/l	12	10	18	5000		
8	Chloride, mg/l	21	29	72	21000		
9	Ammoniacal-N, mg/l	BDL	BDL	0.423	0.082		
10	Hardness as CaCO3, mg/l	10	12	45	5200		
11	Calcium as CaCO3, mg/l	6	9	30	2600		
12	Magnesium as CaCO3, mg/l	4	3	15	2600		
13	Sulphate, mg/l	BDL	2.26	26	186.32		
14	Phosphate, mg/l	BDL	BDL	BDL	BDL		
15	Fluoride, mg/l	BDL	BDL	0.0706	0.2		
16	Total Coliform, MPN/100 ml	460	380	700	410		
17	Fecal Coliform, MPN/100 ml	220	180	400	320		


Assistant Scientist
 Kerala State Pollution Control Board
 District Office, Kannur-670002

KERALA STATE POLLUTION CONTROL BOARD
 DISTRICT OFFICE, KANNUR
 KANNUR-670002

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME JUNE 2023

Station Name		RAMAPURAM RIVER			
Type of Water body		RIVER			
Completed by		JSA1,JSA2,PGSA			
Agency		KERALA STATE POLLUTION CONTROL BOARD KANNUR			
Date of sample		13-06-2023	13-06-2023	08-06-2023	13-06-2023
Sl.No	Determinants	KAPUGAL	ATHIYADAM	RAMAPIURAM	VAYALAPRA
1	Temperature, 0C	28	28	31	30
2	Dissolved Oxygen, mg/l	6.68	6.6	4.3	4.8
3	pH	7.29	8.5	7.6	7.43
4	Conductivity, µmhos/cm	149.3	204	54400	56700
5	BOD, mg/l	0.66	0.86	1.6	2.2
6	Turbidity, NTU	1.8	1.8	5.8	3.2
7	Total Alkalinity, mg/l	7	6	31	46
8	Chloride, mg/l	38	30	15000	17500
9	Ammoniacal-N, mg/l	BDL	BDL	0.196	0.8262
10	Hardness as CaCO3, mg/l	4	8	1600	6300
11	Calcium as CaCO3, mg/l	3	4	900	2800
12	Magnesium as CaCO3, mg/l	1	4	700	4900
13	Sulphate, mg/l	BDL	BDL	146.6	388.9
14	Phosphate, mg/l	BDL	BDL	BDL	BDL
15	Fluoride, mg/l	BDL	BDL	BDL	0.82
16	Total Coliform, MPN/100 ml	200	240	700	380
17	Fecal Coliform, MPN/100 ml	160	120	450	120

Aneesh K. K

Assistant Scientist
Kerala State Pollution Control Board
District Office, Kannur-670002

POLLUTED RIVER STRETCH WATER QUALITY MONITORING PROGRAMME JUNE 2023


Station Name		KUPPAM RIVER						
Type of Water body		RIVER						
Completed by		JSA1, JSA2, PGSA						
Agency		KERALA STATE POLLUTION CONTROL BOARD KANNUR						
Date of sample taken		09-06-2023	09-06-2023	08-06-2023	09-06-2023	09-06-2023	09-06-2023	09-06-2023
Sl.No	Determinants	VELLICHAN KEEL	MANGALAS SERRY	KUPPAM BRIDGE	VARIANKOT TAM	VELLAVU	KUTTIYERIKADAVU	
1	Temperature, 0C	31	31	31	30	30	30	30
2	Dissolved Oxygen, mg/l	5.2	6.2	5.6	6.22	5.2	6.8	6.8
3	pH	7.44	7.37	7	7.96	7.92	7.85	7.85
4	Conductivity, µmhos/cm	34300	27700	45500	23100	14890	10950	10950
5	BOD, mg/l	2.8	2.2	3	1.88	2.8	1.2	1.2
6	Turbidity, NTU	2.8	2.6	6.2	2.1	2	1.8	1.8
7	Total Alkalinity, mg/l	50	21	82	13	9	15	15
8	Chloride, mg/l	28800	24800	14500	13200	11300	7300	7300
9	Ammoniacal-N, mg/l	BDL	0.0034	0.0472	BDL	BDL	0.0088	0.0088
10	Hardness as CaCO ₃ , mg/l	6800	5200	4200	4600	4500	1300	1300
11	Calcium as CaCO ₃ , mg/l	2200	2600	700	1100	1200	800	800
12	Magnesium as CaCO ₃ , mg/l	4600	2600	3500	3300	800	4200	4200
13	Sulphate, mg/l	332.6	280.2	201.6	116.3	118.2	99.62	99.62
14	Phosphate, mg/l	BDL	BDL	0.204	BDL	BDL	BDL	BDL
15	Fluoride, mg/l	0.26	0.22	0.315	0.82	0.06	BDL	BDL
16	Total Coliform, MPN/100 ml	680	800	800	280	260	320	320
17	Fecal Coliform, MPN/100 ml	260	620	400	210	200	140	140


Assistant Scientist
 Kerala State Pollution Control Board
 District Office, Kannur-670002

1.Kavvayi

Sl.no	Drain	BOD on JUNE 2023	Remarks
1	Kotti thodu	3.6	Waste disposal from side by shops, Hotels, nearby mosque, Green color water with floating plastic materials
2	School ground thodu	2.2	
3	Kalikadapuram thodu	1.2	
4	Koorikadavu	2.8	Drain covered with mud ,plastic wastes
5	Uliyathu kadavu	6	Plastic waste seen , blackish color water with h ₂ s smell, Plastic waste is seen in water ,
6	Kallatu kadavu	3	
7	Muttathu kadavu	3.26	Plastic waste seen.
8	Vadipram thodu	3.32	One side is full of plastic

2.Peruvamba


	Drain	BOD on JUNE 2023	Remarks
1	Naranga thodu	2.2	High amount of Plastic waste 
2	Perumba thodu	2.82	Plastic waste was noticed, nearby shopping complex shops are dumping waste.
3	Valliohmthodu	2.6	Water with Plastic waste.
4	Panapuzha thodu	0.62	
5	Poomkottu Chal	1.2	Plastic waste seen side wise road.
6	Manjangottu Thode	0.82	
7	Kannelamthodu	01.62	
8	Appithodu	1.82	
9	Mavullapoyil thodu	1.68	Plastic waste,
10	Kollali thodu	1.16	
11	Kannada thodu	1.2	
12	Koyakkotu thodu Thokadu	0.82	

13	Cherottuvayal thodu	2.2	
14	Kayyil arakulam thodu Kunjimagalam puzha	3.26	
15	Tattanvayal thodu	0.78	

3. Ramapuram thodu

Sl.no	Drain	BOD on JUNE 2023	Remark
1	Kapugal thodu	1.2	
2	Chembali kundu	3.22	Plastic waste and floating bottles are noticed.
3	Kulapram kundan thodu Kavilavalapu thodu	2.86	
4	Aduthila thodu	0.56	
5	Ottayi thodu	2.68	
6	Moolakadavu	3.82	Oil presence in water, decayed organic materials are seen ,

4.Kuppam

Sl.no	Drain	BOD on JUNE 2023	Remarks
1	Karuvanchal	1.46	Full bags of dumped plastic wastes 
2	Karthikapuram	2.1	Plastic waste was noticed
3	Near Udayagiri Bridge	0.78	
4	Mukkada Thodu	0.68	
5	Moonamkunnu Thodu	0.84	
6	Kuttaparamba-Neduvodu Thodu	0.36	Plastic waste, are floating in water and the thodu is full of plastic wastes coming from upstream and so
7	D/S of Alakode Hospital	1.18	Bridge construction going on
8	Pathayachira	3.26	Turbid water present with high Plastic waste.
9	Near the houses on bank of main River (@ Pariyaram GP)	4.2	

10	Near House Boat @ Pariyaram GP	2.26	
11	Kavinmunabu	2.28	
12	Manja Thodu	3.2	
13	Sulthan Thodu	3.22	Floating waste is seen, plastic and intestinal waste of animals is floating.
14	Cheru thodu	4.2	Full of Black sludge, and plastic and dry log ,highly polluted thodu

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER MOGRAL, KASARGOD

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic</p>		
-----	--	--	--

	<p>waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p> <p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of flood plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	--	--	--

ACTION PLAN FOR RIVER MOGRAL, KASARAGOD DISTRICT, KERALA
MONTHLY PROGRESS REPORT FOR THE MONTH OF JUNE 2023
RIVER MOGRAL, KASARGOD

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
C	Material collection facility	Mogral Puthur Grama Panchayath	March 2020	Report not submitted	Report not submitted	Report not submitted	100 %	NA
C	Waste collection including vehicle hire charge to collect waste.	Mogral Puthur Grama Panchayath	March 2020	Report not submitted	Report not submitted	Report not submitted	0 %	
E	Installation of camera	Mogral Puthur Grama Panchayath	June 2020	Report not submitted	Report not submitted	Report not submitted	0%	
A (b)	Drainage Cleaning at Ballor, Kottakkunnu, Majal, Neerchal, Blarkode, Goovathadka, Pernadka, Shankra, Eriyal, KK Puram Arjal Vishnu Temple	Mogral Puthur Grama Panchayath	2019	Report not submitted	Report not submitted	Report not submitted	100 %	NA

C(ii)	Haritha Karmasena Activity/ Collecting Non Bio degradable materials including Plastics from households	Mogral Puthur Grama Panchayath	On-going		Report not submitted	Report not submitted	Report not submitted	75%	
C(iii)	Bamboo Capital Bamboo Planting- aiming water conservation and raising water levels thus preventing solid erosion, waste dumping in public places	Mogral Puthur Grama Panchayath	On-going		Report not submitted	Report not submitted	Report not submitted	100 %	NA
E	River cleaning	Mogral Puthur Grama Panchayath	2019		Report not submitted	Report not submitted	Report not submitted	100 %	NA
C(iii)	Bamboo Plantation of Madhur	Madhur grama Panchayath	2019	18500 being maintained by NREGA	18500 being maintained by NREGA	Report not submitted		100 %	NIL
C(ii)	Viability Gap Funding for Haritha Karmasena	Madhur grama Panchayath	2019	Total Amount Rs 250000/- Expenditure RS 75000/-	Total Amount Rs 250000/- Expenditure RS 249965/-	Report not submitted		72.9%	NIL
C(ii)	Material recovery facility centre	Madhur grama	2019	Completed	Completed	Report not		100%	Completed

		Panchayath				submitted		
C(ii)	Construction of Plastic Shredding Machine building	Madhur grama Panchayath	2019	Completed	Completed	Report not submitted	100 %	Completed
C(ii)	Purchase of Plastic shredding machine	Madhur grama Panchayath	2019	Completed	Completed	Report not submitted	-	Yet to float tender
C	Tying of net on both sides of the bridge	Irrigation Department	2019-2020	DPR submitted to Chief Engineer (Price ID: 2019/10715/IA) for approval. You are hereby informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges which are part of the NH ,it would not be desirable to Carry to these works now. It is hereby notified that NH	DPR submitted to Chief Engineer (Price ID: 2019/10715/IA) for approval. You are here by informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges, which are part of the NH, it would not be desirable to carry to these	DPR submitted to Chief Engineer (Price ID: 2019/10715/IA) for approval. You are here by informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges, which are part of the NH, it would not be desirable to carry to these works now. it is hereby notified	DPR submitted to Chief Engineer (Price ID:2019/10715/IA) for approval.	Work still under process.

				department itself undertakes and executes the said works in connection with the upgradation of NH 66.	works now. it is hereby notified that NH department itself undertakes and executes the said works in connection with the upgradation of NH 66	that NH department itself undertakes and executes the said works in connection with the upgradation of NH 66			
A(a)	Water monitoring	quality	KSPCB	Being done regularly					

Sd/-

Environmental Engineer

MOGRAL RIVER - MOGRAL BRIDGE (Existing NWMP Station)			
Sampling Point		Mogral Bridge	
NWMP Station Code		2304	
Latitude		12°33'36.5"N	
Longitude		74°57'21.0"E	
Date of Sampling		22.06.2023	
Nature and flow of the river		Medium flow, water level decreased	
Sl.No	Parameters	Unit	Mogral Bridge
1	Temperature	°C	27
2	pH	-	7.05
3	Conductivity	µmhos/cm	11380
4	Turbidity	NTU	0.4
5	BOD	mg/l	1.3
6	Dissolved Oxygen	mg/l	6.7
7	Total Coliforms	cfu/100ml	830
8	Feacal Coliforms	cfu/100ml	224
9	Feacal Streptococcus	cfu/100ml	70
10	Chlorides	mg/l	3500
11	Total Alkalinity	mg/l	48
12	Total Hardness	mg/l	1400
13	Calcium Hardness	mg/l	1050
14	Magnesium Hardness	mg/l	350
15	Calcium	mg/l	420
16	Magnesium	mg/l	85
17	Total Dissolved Solids	mg/l	6900
18	Sodium	mg/l	1884
19	Potassium	mg/l	148

MOGRAL RIVER - PUZHAKKARA (Proposed NWMP Station)			
Sampling Point		Puzhakkara	
Distance from existing NWMP Station		3.25 km	
Latitude		12°33'58.1"N	
Longitude		74°58'43.7"E	
Date of Sampling		22.06.2023	
Nature and flow of the river		Water level decreased, Medium flow	
Sl.No	Parameters	Unit	Puzhakkara
1	Temperature	°C	27
2	pH	-	6.07
3	Conductivity	µmhos/cm	1128
4	Turbidity	NTU	1.2
5	BOD	mg/l	2.3
6	Dissolved Oxygen	mg/l	7.6
7	Total Coliforms	cfu/100ml	960
8	Feacal Coliforms	cfu/100ml	184
9	Feacal Streptococcus	cfu/100ml	60
10	Chlorides	mg/l	286
11	Total Alkalinity	mg/l	25
12	Total Hardness	mg/l	160
13	Calcium Hardness	mg/l	93
14	Magnesium Hardness	mg/l	67
15	Calcium	mg/l	37.2
16	Magnesium	mg/l	16.281
17	Total Dissolved Solids	mg/l	680
18	Sodium	mg/l	158
19	Potassium	mg/l	33

Sd/-
Assistant Scientist

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER UPPALA, KASARGOD

S. No.	Activity to be monitored	Timeline	Submission of progress by State/UT- Compliance status
1	Ensure 100% treatment of sewage at least in-situ remediation		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary level• Chief Secretaries may have an accountable person attached in their office for this purpose		
	<ul style="list-style-type: none">• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB		

6.1	<p>Progress Report may be comprised of details along with completion timelines on:</p> <p>(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p> <p>(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status</p> <p>(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline</p> <p>(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;</p> <p>(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.</p>		
-----	--	--	--

	<p>(vii) Ground water regulation</p> <p>(viii) Adopting good irrigation practices</p> <p>(ix) Protection and management of food plain Zones (FPZ)</p> <p>(x) Rain water harvesting</p> <p>(xi) Maintaining minimum Environmental flow of river</p> <p>(xii) Plantation on both sides of the river</p> <p>(xiii) Setting up biodiversity parks on flood plains by removing encroachment</p>		
--	--	--	--

ACTION PLAN FOR RIVER UPPALA, KASARAGOD DISTRICT, KERALA
MONTHLY PROGRESS REPORT FOR THE MONTH OF JUNE 2023
RIVER UPPALA, KASARGOD

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of April 2023	Progress in the month of May 2023	Progress in the month of June 2023	% works completed	Details of works remaining
C(ii)	Material collection facility. Operation	Mangalpady Grama Panchayath	2019	NA	Not submitted the report	NA	50%	After monsoon work will complete
C	Waste management including purchase of vehicle to collect waste.	Mangalpady Grama Panchayath/ Green Space Private company	2019- 2020	Rented Vehicle	Not submitted the report	Rented Vehicle	-	New projects will plan for the protection of river Uppala.
E	Installation of camera	Mangalpady Grama Panchayath	March 2020	Work completed	Not submitted the report	Installed at Uppala Junction, Kaikamba, Bandiyod Junction		Project will be completed within 31.03.2023
C	Electrification of material collection facility	Manjeshwaram Grama Panchayat	2019-2020	Electrified	Not submitted the report	Electrified	100%	Completed
C	Transportation of collected waste	Manjeshwaram Grama Panchayat	March 2020	460 Kg waste transported	Not submitted the report	Tender called for waste management agency accepted and agreement signed		Work yet to be completed.
E	Installation of camera	Manjeshwaram Grama Panchayat	March 2020	New Project formulated to Install 6 CC Cameras, project amount deposited to Keltron and work started by Keltron	Not submitted the report	CC TV installed at 4 places by Keltron, connected to Police Station and Panchayath Office		Tendered

C	Tying of net on both sides of the bridge	Irrigation Department	2019-2020	DPR submitted to Chief Engineer (Price ID: 2019/10825/IA) for approval. You are hereby informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges which are part of the NH ,it would not be desirable to Carry to these works now. It is hereby notified that NH department itself undertakes and executes the said works in connection with the upgradation of NH 66.	DPR submitted to Chief Engineer (Price ID: 2019/10825/IA) for approval.You are here by informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges, which are part of the NH, it would not be desirable to carry to these works now. it is hereby notified that NH department itself undertakes and executes the said works in connection with the upgradation of NH 66.	DPR submitted to Chief Engineer (Price ID: 2019/10825/IA) for approval.You are here by informed that as the proposed NH upgrade works are going on and these works are to be carried out along with the bridges, which are part of the NH, it would not be desirable to carry to these works now. it is hereby notified that NH department itself undertakes and executes the said works in connection with the upgradation of NH 66.		Work still under process.
E	Continuous vigil on waste dumping on roads	Police Department	100% Completed					
A(a)	Water quality monitoring	KSPCB	Being done regularly					

Sd/-

Environmental Engineer

UPPALA RIVER - UPPALA BRIDGE (Existing NWMP Station)			
Sampling Point		Uppala Bridge	
NWMP Station Code		2306	
Latitude		12°41'41.7"N	
Longitude		74°54'16.9"E	
Date of Sampling		22.06.2023	
Nature and flow of the river		Moderate flow, water level decreased	
Sl.No	Parameters	Unit	Uppala Bridge
1	Temperature	° C	27
2	pH	-	7.11
3	Conductivity	µmhos/cm	26800
4	Turbidity	NTU	0.1
5	BOD	mg/l	2
6	Dissolved Oxygen	mg/l	6.1
7	Total Coliforms	cfu/100ml	860
8	Feecal Coliforms	cfu/100ml	248
9	Feecal Streptococcus	cfu/100ml	70
10	Chlorides	mg/l	8600
11	Total Alkalinity	mg/l	64
12	Total Hardness	mg/l	4100
13	Calcium Hardness	mg/l	3000
14	Magnesium Hardness	mg/l	1100
15	Calcium	mg/l	1200
16	Magnesium	mg/l	267.3
17	Total Dissolved Solids	mg/l	16300
18	Sodium	mg/l	4450
19	Potassium	mg/l	211.2

UPPALA RIVER - UPPALA RIVER NEAR BHAGAVATHI TEMPLE (Bhagavathi Gate) - (Proposed NWMP Station)			
Sampling Point		Uppala River Near Bhagavathi Temple (Bhagavathi Gate)	
Distance from existing NWMP Station		878.66 m	
Latitude		12°41'20.1"N	
Longitude		74°54'34.0"E	
Date of Sampling		22.06.2023	
Nature and flow of the river		Water level decreased, moderate flow	
Sl.No	Parameters	Unit	Uppala River Near Bhagavathi Temple
1	Temperature	° C	27
2	pH	-	5.74
3	Conductivity	µmhos/cm	4740
4	Turbidity	NTU	1.1
5	BOD	mg/l	2.5
6	Dissolved Oxygen	mg/l	6.7
7	Total Coliforms	cfu/100ml	710
8	Feecal Coliforms	cfu/100ml	248
9	Feecal Streptococcus	cfu/100ml	70
10	Chlorides	mg/l	1370
11	Total Alkalinity	mg/l	35
12	Total Hardness	mg/l	980
13	Calcium Hardness	mg/l	710
14	Magnesium Hardness	mg/l	270
15	Calcium	mg/l	284
16	Magnesium	mg/l	65.6
17	Total Dissolved Solids	mg/l	2870
18	Sodium	mg/l	710
19	Potassium	mg/l	64

Sd/-
Assistant Scientist