Action Plan
for
Rejuvenation of River Rupnarayan
Tamluk, West Bengal

Priority – V

Nodal Agency
Municipal Engineering Directorate
Department of Urban Development & Municipal Affairs
Government of West Bengal

Approved by
River Rejuvenation Committee, West Bengal
(constituted in compliance to the order of the Hon'ble National Green Tribunal)

Submitted to
Central Pollution Control Board, Delhi

SEPTEMBER, 2020

Executive Summary

Sl.	Description of Item	Details
1.	Name of the identified polluted river	RiverRupnarayan
2.	Identified polluted stretch of the river	Kolaghat to Benapur
3.	Total length of the polluted river	20 KM (approximately)
4.	Towns in the catchment of the polluted stretch of the river	Bagnan, Kolaghat, Tamluk
5.	Is river is perennial	Perennial
6.	No. of drains contributing to pollution and names of major drains	Three (3)
		1. Sankarara Khal 2. Narayanpur Khal 3. Pairatunga Khal
7.	Whether 'River Rejuvenation Committee' (RRC) constituted by the State Govt./UT Administration and If so, Date of constitution of 'RRC'	Yes. 07.01.2019
8.	Major Towns on the banks of the river with population	Tamluk Population = 65,306 (Census, 2011)
	a. Total water consumption and sewage generation in MLD	Total water consumption =13.24 MLD Total sewage generation = 8.37 MLD
	b. Total no. of existing STPs and the totalcapacities in MLD	Nil
	c. Gaps in sewage treatment in MLD and no. of towns not having STPs	Town=1, Gap=8.37 MLD
	d. Total MSW generation in TPA	19710 TPA
	e. Existing treatment and disposal facilities and total capacity	NIL
9.	Major industrial estates located with total no. of industries	NIL
	a. Total no. industries discharging wastewater directly/indirectly in to the river	3
	b. Total water consumption	74.679 MLD
	c. Total industrial effluent generation	47.844 MLD
	d. No. of industries having captive ETPs and their treatment capacity	No. of industries=3 Treatment capacity=47.844 MLD
	e. No. of CETP's and their treatment capacity	NIL
	f. Gap in industrial wastewater treatment	NIL
	g. Total HW generation in TPA in the catchment area	All hazardous waste generating industries are disposing their hazardous wastes through one (1) Common Hazardous Waste Treatment, Storage and Disposal Facility operating at Haldia.
	h. Existing HW Treatment and Disposal Facilities and total capacity with life span	
10.	Action plan includes mainly covering aspect such as appropriate management of sewage, rain water harvesting, measures for regulating ground water use, protection and management of flood plain zone, plantation on both sides of the river, setting up of bio-	Whichever applicable has been taken into account.

	diversity parks etc., as per Hon'ble NGT Orders dated 20.09.2018 and 19.12.2018	
11.	Responsible Organization (s) for implementation of proposed action plans (Please enclose details as annexure)	Table-6
12.	Nodal Agency	Municipal Engineering Directorate Department of Urban Development and Municipal Affairs, Govt. of West Bengal BikashBhavan, Salt Lake, Kolkata-700091

Proposed Mechanism for execution of action plans:

This action plan implementation is to be monitored by the River Rejuvenation Committee (RRC) through meetings every month. The Central Monitoring Committee constituted by the Hon'ble NGT under the Chairmanship of the Secretary, Ministry of Jal Shakti, GoIalso holds meeting in every month with the Chief Secretary/Principal Secretary, Environment of the State to assess progress of work. Every month Monthly Progress Report will be sent to Ministry of Jal Shakti, GoI.

An Environment Monitoring Cell in the Office of the Chief Secretary, WB has been constituted to oversee the progress of work.

Expected deliverables with respect to achieving Goals :

Considering the importance of this river in the PurbaMidnapore district with respect to the livelihood of the fishermen living on both sides of the river, rejuvenation of water quality of this river is extremely important as it is non perennial river. For achieving this objective, generated municipal sewage should be treated and discharged only when they comply with the prescribed standards.It has to be ensured that no industrial effluents are discharged without being properly treated and complying the discharged standards prescribed under the Environment (Protection) Rules, 1986. **The target for water quality for the stretch is to be fit at least for bathing purposes (i.e. BOD< 3 mg/l and FC < 500 MPN/100 ml).**

Response of the RRC, WB on comments of the Task Team for ensuring compliance to Hon'ble NGT (PB), New Delhi in OA No 673/2018 held during 26.02.2020 and 11.06.2020

Comments of Task Team	Corresponding response(s) of RRC_West_Bengal
Latest water quality of PRS covering all parameters not provided	Monthly water quality data for BOD & FC for the years 2017, 2018 and 2019 provided. Moreover, latest water quality of river Rupnarayan covering all parameters also provided for the months of Jan-May 2020.
Projected population not taken into account for assessment of sewage generation.	Projected population till 2022 considered for assessment of sewage generation
Detailed gap analysis (Town wise/ ULB wise) w.r.t sewage, Industrial Effluent and Waste Management along with infrastructure available not included	Available information included in the report.
Aspects such as Utilization of treated waste water, Removal of encroachments not covered in action plan	Department of Urban Development and Municipal Affairs, GoWB has prepared a policy on use of treated wastewater. The policy is in final stage of preparation. The same will be sent to CPCB for approval.
Timelines for construction of STPs is exceeding March, 2021	Primary treatment of wastewater in the three drains in Tamluk town by providing screens, sedimentation tank, followed by disinfection by chlorination is proposed. The work will be completed by 30.06.2021.
Action plan to be revised adding latest water quality data for the polluted river, major drains with flow and other parameters.	Available information included in the report.
Map showing all the towns, tributaries, drains & industrial estates, contributing to pollution to be included	Available information included in the report.
Gap analysis with projection upto 15 years w.r.t sewage and Waste Management be included in action plan	8.37 MLD
Actions be initiated against industries functioning without captive ETPs or connection with CETPs.	All GPIs and SPIs under consent administration of WBPCB are having captive ETPs.
Detailed gap analysis w.r.t present generation, projected generation existing infrastructure, existing capacity utilization, gap observed in the catchment for management of industrial effluent and waste management (solid waste, hazardous waste, C & D waste, bio-medical waste) need to be detailed in a separate table clearly.	Available information included in the report.

Background:

The West Bengal is the land of rivers. An intricate network of three major river basins (the Ganga, Brahmaputra and Subarnarekha) drain this State. Human settlement and related activities on the banks of the rivers have gradually increased over the years. Considering very reach ecological diversities of the water resources and the benefits of river network, most of the industrial development in this State took place near the rivers and the population density is also very high in these areas. As a result, these rivers receive liquid wastes like industrial discharges and municipal sewage and solid wastes are also dumped near the banks of the rivers.

Since early eighties, the West Bengal Pollution Control Board (WBPCB), in collaboration with the Central Pollution Control Board (CPCB), initiated monitoring of water quality of all important rivers, canals, ponds and reservoirs. The CPCB conducted water quality assessment based on available data have collected till 2016 to identify polluted river stretches in the entire country.

An application was registered before the Hon'ble National Green Tribunal, Principal Bench, New Delhi as O.A. No. 673/2018 on the basis of a news item dated 17.09.2018 in 'The Hindu" under the heading "More river stretches are now critically polluted: CPCB". The Hon'ble Tribunal was pleased to pass an order on 20.09.2018identifying seventeen (17) polluted river stretches in the State of West Bengal and categorized these polluted stretches in five priority classes (Table-1). The Hon'ble Tribunal directed the State to prepare action plans for rejuvenation of these 17 polluted river stretches for bringing all the polluted river stretches to be fit at least for bathing purposes (i.e. BOD< 3 mg/l and FC < 500 MPN/100 ml). The Hon'ble NGT further directed on 19.12.2019 that action plans for rivers are to be reviewed by the CPCB before acceptance.

Table 1: Polluted River Stretches in West Bengal

Sl. No.	Priority	River	Polluted Stretch identified	BOD (mg/L) when identified as polluted
1	I	Vindyadhari	Haroa Bridge to Malancha Burning Ghat	26.7 – 45.0
2	II	Mahananda	Siliguri to Binaguri	6.5 – 25
3	III	Churni	Santipur Town to Majhadia	10.3 – 11.3
4	III	Dwarka	Tarapith to SadhakBamdebGhat	5.6 – 17.0
5	III	Ganga	Tribeni to Diamond Harbour	5.0 – 12.2
6	IV	Damodar	Durgachak to Dishergarh	4.4 – 8.2
7	IV	Jalangi	Laal Dighi to Krishna Nagar	8.3
8	IV	Kansi	Midnapore to Ramnagar	9.9
9	IV	MathaBhanga	Madhupur to Gobindapur	8.5
10	V	Barakar	Kulti to Asansol	5.7
11	V	Dwarakeshwar	Bankura to Kushtia	1 – 5.6
12	V	Kaljani	Bitala to Alipurdwar	6.0
13	V	Karola	Jalpaiguri to ThakurerKamat	3.9
14	V	Mayurakshi	Suri to Durgapur	5.2
15	V	Rupnarayan	Kolaghat to Benapur	3.1 – 5.8
16	V	Silabati	Ghatal to Nischindipur	3.8
17	V	Teesta	Siliguri to Paharpur	3.3

River Rejuvenation Committee:

In compliance to the direction of Hon'ble National Green Tribunal, Principal Bench, New Delhi in respect of O.A. No. 673/2018, the Government of West Bengal constituted the River Rejuvenation Committee (RRC) for preparation of such action plans for effective abatement of pollution, rejuvenation, protection and management of the identified polluted River stretches, for bringing the polluted river stretches to be fit at least for bathing purposes and identified the following components for such action plan, although all the components may not be applicable for all the polluted river stretches:

1. Identification of polluting sources
2. Trade and Sewage Generated in the Catchment Area of Polluted River Stretch.
3. Functioning status of STPs/ETPs/CETP
4. Interception and Diversion of sewage carrying drains to the STP.
5. Solid Waste Management including quantification and characterisation of Solid Waste, Bio-Medical Waste Management, e-waste and processing facilities, quantification and characterisation of Solid Waste
6. Protection and management of Flood Plain Zones (FPZ)
7. Rain Water Harvesting, Ground Water Charging
8. Adopting good irrigation practices
9. Address issues relating to Ground Water Extraction
10. Maintaining minimum Environmental Flow of river and plantation on both sides of the river
11. Plantation on both sides of the river
12. Setting up of biodiversity parks on flood plains by removing encroachment.
13. Utilization of treated sewage so as to minimize extraction of Ground or Surface Water

The Member Secretary, West Bengal Pollution Control Board is the Chairman, RRC and the Chief Executive Officer, Kolkata Metropolitan Development Authority is the Member-Convenor, RRC. The Committee is functioning under the supervision and coordination of Principal Secretary, Environment Department, GoWB.

The main causes of the river water quality deterioration are (1) Discharge of industrial wastewater (2) Discharge of municipal wastewater and (3) Pollution from nonpoint sources. Any action plan for any river stretch to improve its water quality then is required to address these three issues and address them primarily. In West Bengal there are forty eight (48) Grossly Polluting Industries (GPIs) and four hundred (400) odd Seriously Polluting Industries (SPIs). All these industries are under Consent administration of the WBPCB. The WBPCB inspects the GPIs every month and SPIs periodically to assess the environmental performance of these industries. All these industries are having Effluent Treatment Plant(s) inside the premises and the industrial wastewater generated are treated in these ETPs before being discharged either in to the river / canal or to local water bodies (Ponds & Wetlands) or to municipal drains/public sewer those are channelized to the canals. The river stretches in the State run through habitations of wide varieties and human activities. The habitations on the banks of these rivers also generate large quantities of sewage water regularly which are also drained through various discharges channels in to these rivers. As the rivers are not of perennial nature, during lean periods the

water volume becomes less resulting in high pollution concentrations. Inadequacy in solid waste management facilities resulted in unscientific dumping of solid wastes on the banks and this is also a major source of river pollution.Since most of these rivers are having long stretches, agricultural runoffs also finally find their ways in to these rivers. The river water quality database of the WBPCB however shows no significant impact of such non-point source contribution in any of these river stretches.

Therefore, the action plan for river Rupnarayan need to be prepared for its catchment areas considering the discharges from industrial source, discharges from municipal outfalls, interception and diversion of sewage carrying drains to the STP, solid waste management, Bio-medical waste management, e-waste management, ground water management, rain water harvesting, ground water charging, maintaining minimum environmental flow of river, protection and management of Flood Plain Zones (FPZ), adopting good irrigation practices, plantation on both sides of the river, setting up of biodiversity parks on flood plains etc.

The RRC, WB sent the Action Plan for rejuvenation of river Rupnarayanto CPCB on 12.02.2020 and the Task Team in its 10th Meeting held on 26.02.2020 suggested some revision in the action. The RRC, WB approved the revised action in its 7th meeting held on 09.06.2020 and sent to CPCB on 09.06.2020 which was once again reviewed by the CPCB in its 12th Task Team meeting on 11.06.2020 and once again suggested some modifications.

Now, this action plan has been modified as per recommendation of the CPCB Task Team and the RRC, WB has approved this Action Plan in its 8th meeting held on 02.07.2020.

The River Rupnarayan:

The Rupnarayan River originates in West Medinipur as the river Dwarakeswarmeets the river Shilabati about 6 km east of Ghatal. Rupnarayan then is joined by distributaries of Damodar and finally confluences with the Ganga at Gadiara-Geonkhali region. The stretch of this river that has been identified as "Polluted" after the Kolaghat bridge and opposite to the old and heritage port town Tamluk of Purba Medinipur. The river, especially the polluted stretch is in very active tidal zone, and has enormous influs of Ganga water twice a day. BOD and Bacteriological count (Faecal Coliform) are the principal pollutants in this river stretch. The sources for pollution of this river is presented below.

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Polluted stretch of river Rupnarayan:

The stretch of this river that has been identified as "Polluted" is Kolaghat to Benapur, about 20.0 km in length. The river is tidal in nature and receives municipal wastewater from the Tamluk town round the year. Bio-chemical Oxygen Demand (BOD) and Faecal Coliform (FC) are the principal pollutants in this river stretch. This river is strictly perennial. Usage of water in this stretch is mainly for purposes of agriculture and fishing.

Table-2: Polluted stretch of river Rupnarayan

SL. No.	Name of the rivers/streams	Details	Identified polluted stretches	BOD (mg/L) when identified	Prioritywise
1.	Rupnarayan	The Rupnarayan River originates in West Medinipur as the river Dwarakeswarmeets the river Shilabati about 6 km east of Ghatal. Rupnarayan then is joined by distributaries of Damodar and finally confluences with the Ganga at Gadiara-Geonkhali region. The stretch of this river that has been identified as "Polluted" after the Kolaghat bridge and opposite to the old and heritage port town Tamluk of Purba Medinipur. The river, especially the polluted stretch is in very active tidal zone, and has enormous influs of Ganga water twice a day.	Kolaghat to Benapur, about 20.0 km in length	3.1-5.8 mg/l	V

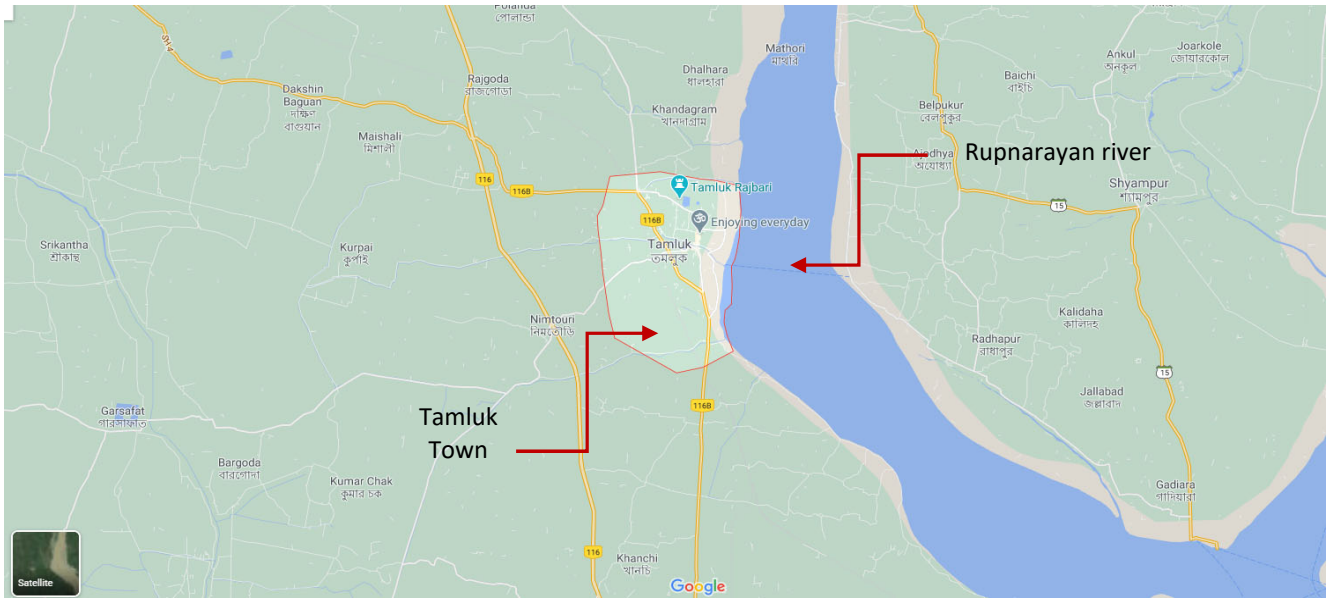

Figure 1: Map showing the River Rupnarayan and the Tamluk Town

Major towns located on the bank of the polluted stretch:

Within the identified polluted river stretch, the major town located on the side of the river is the Tamluk town. As of 2011 India census, Tamluk had a population of 65,306. It is the largest town in PurbaMidnapore district after Contai.

Water quality assessment of river Rupnarayan:

The water quality status of the river Rupnarayan is monitored by the West Bengal Pollution Control Board under the National Water Monitoring Programme on monthly basis at two locations at Before confluence to River Ganga near Geonkhali(CPCB Station Code: 1337) and Downstream of Rupnarayan at Kolaghat, near Kolaghat Rail Bridge No. 3 (CPCB Station Code: 2509). The water quality of the river Rupnarayan during last three years (January 2017-December 2019) for two criteria pollutants (BOD & FC) is given in Table-3.

Table-3: Water quality of river Rupnarayan during 2017, 2018 & 2019

Sampling Location: River Rupnarayan, Downstream of Rupnarayan at Kolaghat, near Kolaghat Rail Bridge No. 3						
Months	**BOD (mg/l)**			**FC (MPN/100 ml)**		
	2017	**2018**	**2019**	**2017**	**2018**	**2019**
January	1.3	1.9	2.05	22000	17000	13000
February	5.75	2.6	3.35	22000	11000	8000
March	3.25	5.25	1.40	13000	7000	11000
April	3.75	3.4	3.70	17000	11000	11000
May	2.9	1.85	2.70	30000	2400	11000
June	1.6	2.1	2.00	5000	11000	11000
July	3.3	3.2	1.70	17000	3300	8000
August	2.35	1.75	1.50	5000	7000	7900
September	2.2	0.55	2.70	11000	17000	7000
October	2.45	1.9	2.60	11000	4600	2200
November	4.55	1.6	2.10	17000	13000	3900
December	4.25	3.1	2.50	8000	17000	1400
Range	1.30-5.75	0.55-5.25	2.05-3.70	5000-22000	2400-17000	1400-13000
Average	3.13	2.43	2.35	14833	10108	8133

Latest water quality of river Rupnarayan:

Considering the impact of this river water to the ecosystem of the Purba Midnapore district and the livelihood of the fishermen living on both sides of the river, revival of the water quality of this river is extremely important on context of its utility as it is Perennial River. The ultimate goal for beneficial use of rivers will determine the level of actions to be taken for maintaining the water quality. The water quality of river Rupnarayan during the first five months in the year 2020 (Jan-May) are also depicted Table-4.

For achieving this objective, generated municipal sewage should be treated to meet the required standards for outdoor bathing as notified by the Ministry of Environment, Forests & Climate Change, GoI for "Primary Water Quality Criteria for Bathing Water" vide GSR 742I dated 25.09.2000. Also, the trade and other effluents generated within the catchment of river and generated from the catchment of the river which are ultimately joining and contributing to the pollution load in the river should be treated to meet the effluent discharge standards as stipulated above.

The target for water quality for the stretch is for organised outdoor bathing.

Table-4: Water quality of river Rupnarayan during Mar-Jul 2020

Sampling Location: River Rupnarayan, Downstream of Rupnarayan at Kolaghat, near Kolaghat Rail Bridge No. 3					
Parameter	**Mar-2020**	**Apr-2020**	**May-2020**	**Jun-2020**	**Jul-2020**
Temperature (°C)	29	31	28	30	29
pH	7.47	7.02	7.82	7.59	7.7
Dissolved Oxygen (mg/l)	5.1	5.4	8.5	5.2	7.1
BOD (mg/l)	0.9	3.3	2	1.3	1.5
COD (mg/l)	4.6	27.66	4.2	5.32	5.98
Total Coliform (MPN/100 ml)	17000	130000	22000	17000	11000
Fecal Coliform (MPN/100 ml)	4100	8000	5800	9400	6300
Total Dissolved Solids (mg/l)	828	1372	292	186	190
Total Fixed Solids (mg/l)	2092	Not Done	574	602	326
Total Suspended Solids (mg/l)	510	Not Done	176	568	176
Turbidity (NTU)	701	52.8	254	309	112
Conductivity (µs/cm)	1473	1880	827.13	2533	222.2
Calcium (mg/l)	34	59.2	32	38	34
Magnesium (mg/l)	11	36.94	17	21	15
Total Hardness as CaCO3 (mg/l)	132	300	150	179	146
Total Alkalinity (mg/l)	138	180	104	92	94
Phenolphthalein Alkalinity (mg/l)	NIL	Not Done	16	8	8
Ammonia-N (mg/l)	0.13	BDL	BDL	0.43	BDL
Nitrate-N (mg/l)	1.05	1.94	0.88	2.67	1.38
Phosphate-P (mg/l)	0.06	0.03	0.25	1.23	2.26
Sulphate (mg/l)	77.96	164.64	48.23	83.51	44.97
Fluoride (mg/l)	0.33	Not Done	0.61	0.48	0.42
Chloride (mg/l)	358.33	424.86	141.44	19.8	22.63
Boron (mg/l)	BDL	Not Done	BDL	BDL	BDL
Potassium (mg/l)	4.46	106.91	4.47	3.98	4.42
Sodium (mg/l)	38.49	132.73	36.15	35.6	36.38

Polluting Sources of River Rupnarayan:

Industrial wastewater treatment:

There is no industrial estate in the catchment of river Rupnarayan. There are three major water polluting industries (Table-5) located within the catchment area of the river Rupnarayan discharging directly or indirectly in to the river.

Table-5: Major water polluting industrieslocated within the catchment area of the river Rupnarayan

Sl. No.	Name & Address of the unit	Water consumption in KLD		Waste Water Generation in KLD		
		Industrial	Domestic	Industrial	Domestic	Mixed
1.	Kolaghat Thermal Power Station MechedaKolaghat ,Pin-721137	43166.00	982.00	38658.00	930.00	……
2.	Haldia Energy Limited BaneshwarChak/J.L.No.120 GulapchakBaneshwarChakDurgachak Pin-721635	30453.00	28.00	…….	……	8248.00
3.	Manaksia Ltd PS Bhuniaraicahk,Pin-721635	40.00	10.00	15.00 (Recycled)	8.00	
	Total	73659.00	1020	38658	938	8248

Total industrial water consumption	:	74679KLD
Total industrial wastewater discharge	:	47844 KLD
Existing industrial wastewater treatment facility	:	47844KLD
Gap in industrial wastewater treatment	:	0.00 KLD

All the industries have captive ETP and they are complied with the effluent discharge standards.

Municipal wastewater treatment:

The following 3 (three) canals/drains are discharging large quantities of municipal wastewater in to the river.

Sankarara Khal **:** The khal is carrying municipal waste water of Tamluk municipal area.
NarayanpurKhal **:** The khal is carrying waste water of Tamluk municipal area.
Pairatunga Khal **:** Thekhal is carrying waste water of Tamluk municipal area.

Name of the recipient water body	:	River Rupnarayan
Name of the Municipal Town	:	Tamluk Town
No. of drains discharging	:	3 (three)
No. of drains considered for treatment facility	:	3 (three)
Water consumption as on 2020	:	13.24 MLD
Wastewater generation as on 2020	:	8.37 MLD
Existing wastewater treatment facility	:	NIL
Gap in wastewater treatment	:	8.37 MLD
Proposed Treatment system	:	Primary treatment with Sedimentation Tank & disinfection
Scheduled date of start of work for Primary treatment	:	31.08.2020
Scheduled date of completion of work for Primary treatment	:	30.06.2021

Primary treatment at Tamluk town for river Rupnarayan by providing screens, sedimentation tank, followed by disinfection by chlorination at out falls of 4 nos. of drains is proposed. The tender is expected to be finalized by August2020.

Municipal Solid Waste Management:

Present generation of waste in Tamluk town is 54 TPD. Door-to-Door collection of solid waste is expected to be achieved within Jan. 2021. Waste segregation at source is expected to be achieved within Mar. 2021. Establishment of waste processing facility including Sanitary Land Fill (SLF) for the town will be completed following the timeframe as stipulated in Rule 22 of SWM Rule 2016

Hazardous SasteManagement:

In West Bengal, there is one (1) Common Hazardous Waste Treatment, Storage and Disposal Facility operating at Haldia. The facility is capable of disposing all hazardous wastes generated in the State. All hazardous waste generating industries are disposing their hazardous wastes through the CHWTSDFs located at Haldia.

Bio-Medical Waste Management:

In West Bengal, there are six (6) Common Bio-medical Waste Treatment, Storage and Disposal Facilities. All health care institutions within the catchment area of the river are disposing their bio-medical wastes through the Common Bio-medical Waste Treatment, Storage and Disposal Facility at Haldia, PurbaMedinipur district.

Construction & Demolition Waste Management:

Local ULB has been directed by the WBPCB and UD&MA Dept., GoWB to take necessary action as per C&D Waste Management Rules, 2016.

Ecological/Environmental Flow (E-Flow):

The river Rupnarayan has sufficient freshwater supply from upstream source as well as tidal event. It receives runoff during monsoon and base flow is maintained from ground water pool and tidal flow during lean months including the up-stream flow. Afforestation, rainwater harvesting and reduction of ground water exploitation from flood plain could ensure the ecological flow in this river. At one location, i.e., downstream of the town, flow of the river should be measured and record maintained by State Irrigation department.

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Table-6: Action Plan with agencies responsible, time target and budgetary estimates

Departments /Agencies	***Actions to be taken***	***Targeted timeline***	***Budgetary Estimate (Rs. In lakh)***
MED	Action plans for Management of Municipal Waste Water discharge.	30.06.2021	81.87
WBPCB	All industries are having treatment facilities in place and are being	Continuous	-

<table>
<tr><td></td><td colspan="2">monitored on regular basis.</td><td>process</td><td></td></tr>
<tr><td>SUDA</td><td colspan="2">Action plans for management of Solid wastes & Plastic wastes in urban areas
• Door to Door collection of solid waste.
• Waste segregation at household source.
• Establishment of waste processing facility including SLF for the town will be completed following the timeframe as stipulated in Rule 22 of SWM Rule 2016
• Development of IEC activities & capacity buildings of different stakeholder.
• Draft Action Plan prepared to be ratified by State Level Technical Committee shortly</td><td>31.01.2021
31.03.2021</td><td>1649.00</td></tr>
<tr><td>WBPCB</td><td colspan="2">Action plans for management of Hazardous, Bio-medical and Electrical and Electronic wastes</td><td>Continuous process</td><td>0.00</td></tr>
<tr><td rowspan="8">DoIT</td><td>Quantification and Characterization</td><td>Installation of e-waste bin, Categorizing and Disposal</td><td rowspan="8">28.02.2021</td><td rowspan="8">2.767</td></tr>
<tr><td>Existing Infrastructure</td><td>Selection and Utilization of approved PROs for collection and Disposal</td></tr>
<tr><td>Detailed Gap Analysis</td><td>Monitoring & Management</td></tr>
<tr><td>Management Action Plan</td><td>Meeting with OEMs, other stake holders</td></tr>
<tr><td rowspan="3">Promotional</td><td>Sensitization Training</td></tr>
<tr><td>Promotional Documents, Training Materials</td></tr>
<tr><td>Hoardings at river stretch</td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td>IRD</td><td colspan="2"><u>Protection and management of flood plain zones (FPZ)</u>

1.132 km bank protection work of ₹ 3.68 Crore is under running, by which 4600 people under 158 Ha areas may be benefitted. Further, 4.50 km bank protection work of ₹ 12.96 Crore will be executed during 2020-21.</td><td>31.03.2021</td><td>1664.64</td></tr>
<tr><td>DoF</td><td colspan="2">Forestry Development for Stretch Identified at Kolaghat 1800 meter in to 570 meter, 2350 meter * 425 meter.</td><td>31.03.2024</td><td>27.80</td></tr>
<tr><td>DoAg</td><td colspan="2">Good agricultural practice (Bio-village program, IPM demonstration etc.)
Crop diversification (Demonstration with low water requiring crops etc.)
Good irrigation practices (Micro irrigation with supplementary water management activities)
Soil and water conservation (water harvesting structure, dug well, Gully plugging, Check dam etc.)</td><td>31.03.2022</td><td>126.0</td></tr>
<tr><td>P&RDD</td><td colspan="2">• Actions are to be taken for river Rupnarayan.
• 1. Plantation.
• 2. Excavation of Farm Pond</td><td>30.06.2021</td><td>123.57</td></tr>
<tr><td>SWID</td><td colspan="2">• GW Level & Quality Monitoring
• Real-Time GWL Monitoring through Installation of DWLR
• Roof top rainwater and surface runoff Harvesting for conservation on surface and artificial recharge to groundwater</td><td></td><td></td></tr>
<tr><td>DoUD&MA</td><td colspan="2">Utilization of treated waste water</td><td colspan="2">Policy has been notified by Govt. of West Bengal on 30-06-2020. Action will be taken accordingly.</td></tr>
</table>

MED: Municipal Engineering Directorate, DoUD&MA, GoWB
SUDA: State Urban Development Agency, DoUD&MA, GoWB
WBPCB: West Bengal Pollution Control Board
DoIT: Department of Information Technology, GoWB
P&RDD: Panchayat & Rural Development Department, GoWB
SWID: State Water Investigation Directorate
IRD: Irrigation Department, GoWB
DoF: Forest Department, GoWB
DoAg: Agriculture Department, GoWB
DoUD&MA: Department of Urban Development & Municipal Affairs, GoWB

24/08/2020
Additional Chief Engineer (South)
M. E. Directorate, Govt. of W.B.

24/08/2020
Secretary
M.E. Directorate
Deptt. of UD & MA
Govt. of West Bengal

Compliance of RRC meeting held on 17/08/2020

SL	Observation of RRC Meeting	Remarks
1	Water quality of the polluted river stretches for Fecal Streptococci (FSC) whereas water quality of all drains to be analyzed for general parameters, heavy metals and Fecal coliform as well as Fecal Streptococci (FSC) and included in the report.	Will be complied as per CPCB guideline
2	Water quality of groundwater in the catchment for relevant parameters to be included.	
3	Bio-mining of existing dumpsites in the catchment of polluted river stretches need to be elaborated.	
4	I & D of sewage from the identified drains to the nearby existing STPs or proposed STPs to be mentioned clearly in the report.	Not Applicable
5	Watershed management, flood plain protection, ground water recharge, greenery, rainwater harvesting apart from measures for discharge of stored water from U/s of dams to be included as a part of proposal for e-flow maintenance in all the polluted river stretches.	Will be complied as per CPCB guideline
6	Specific funding agency for each action point to be included.	Department of UD & MA
7	Short-term measures for drains such as phytoremediation/bio-remediation/nano bubbles treatment/aeration treatment and other options feasibility to be examined and adopted to improve water quality of polluted rivers depending on the local conditions.	Action already initiated.
8	Timelines to be revised as per Hon'ble NGT order for all the proposed action plan and PERT chart also be included.	To be completed by 30/06/2021, Revised PERT chart incorporated.

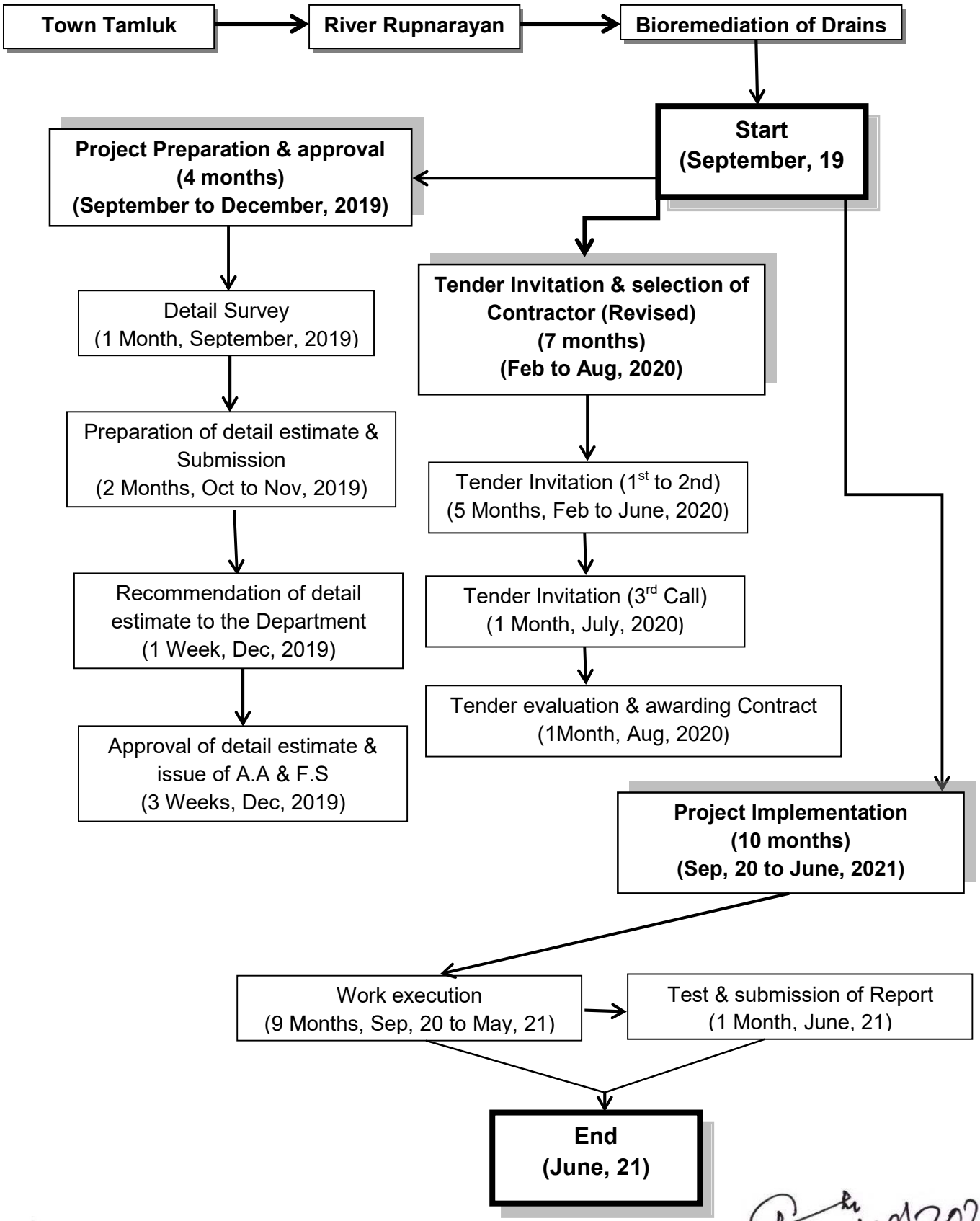
24/08/2020

Additional Chief Engineer (S)
Municipal Engineering Dte.

24/08/2020

Secretary
Municipal Engineering Dte.

PERT Chart in respect of implementation of action plans for Rupnarayan River stretch



24/08/2020

Additional Chief Engineer (S)
Municipal Engineering Dte.

24/08/2020

Secretary
Municipal Engineering Dte.

Information on Drains. Sewage Treatment Plants in compliance to Hon'bie NGT order dated 22.08.2019

Annexure ME-1

Sl	Name of River	City /town	Water Consumption data as on 2022		Waste Water Generation as on 2022	Existing Waste Water Treatment Infrastructure	Gap analysis for Waste Water Treatment	Waste Water Management Action Plan										
								Primary Treatment										
								Name of Drain	(Nos.) untapped Name of Drain	Total discharge capacity of drains	Provision of bioremediation for drain (Yes / No)		Action Plan for Primart Treatment					
													Estimated Cost	Type of Structure proposed	Whether Tender Invited	Time period for finalization of Tender Process 8, awarding Work Order	Work Start date	Schedule dale of completion of work
			Source	Consumtion (MLD)	(MLD)	(MLD)				(MLD)			(Lakhs)					
1	Jalangi	Krishnagar	Surface	28.61	17.45	0	17.45	8	Enclosed in separate sheet	17.45	Yes	Action Taken	18.34	Screen bar, Cascade, Aeration & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
2	Kansi	Medinipur	surface	33.98	21.41	0	21.41	2	NA	21.41	Yes	Action Taken	55.66	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
3	Darakeswar	Bankura	Surface	25.09	15.10	0	15.10	13	NA	15.10	Yes	Action Taken	131.49	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
4	kaljani	Alipurduar	Surface	15.43	9.33	0	9.33	18	NA	9.33	Yes	Action Taken	22.25	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
5	Karola	Jalpaiguri	Surface	21.01	12.81	0	12.81	4	NA	12.81	Yes	Action Taken	36.56	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
6	Rupnarayan	Tamluk	Surface	13.24	8.37	0	8.37	4	NA	8.37	Yes	Action Taken	81.87	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
7	Mayurakshi	Suri	Ground	7.44	4.04	0	4.04	12	NA	4.04	Yes	Action Taken	78.97	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
8	Mayurakshi	Sainthia	Ground	5.02	2.68	0	2.68	14	NA	2.68	Yes	Action Taken	86.27	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021
9	Silabati	Ghatal	Surface	6.92	3.80	0	3.80	4	NA	3.80	Yes	Action Taken	134.37	Sedimentation Tank & disinfection	Yes	31.08.2020	01.09.2020	30.06.2021

11/02/2020
Additional Chief Engineer (South)
M. E. Directorate, Govt. of W.B.

ME-II

NAME OF DRAINS FOR WHICH PROPOSAL OF PRIMARY TREATMENT PROPOSED

Sl	Name of town	Nos.of Drains Identified	Name of Drains
1	Krishnagar	8	Haldar Para TD Banerjee Lane
			Kumar Para Ghat Lane
			Surkikal Ghat
			Ahibhusan Haldar Lane
			Amarbharati
			Momin Park
			Talikhola
			Sasan Kalibari
2	Medinipur	28	Daribandh Khal
			Jhama Khal & other small Drains
3	Bankura	13	Lokpur Ghat
			Raja gram-1
			Raja gram-2
			Kankata
			Patpur
			Minapur Samsan
			Patpur naopara
			Kedardanga Patakola
			Kedardanga B agdipara
			Kedardanga Ghat
			Satighat
			Lakhatora
4	Alipurduar	18	Arabindanagar
			Crematorium
			Dima Bridge
			Hatat Colony
			Bidhanpally
			Crematorium at ward 10
			Uttarpara
			Asutosh Club
			Palas Bari
			Santidham Asram
			Babupara Rail Bridge
			BM Club
			Sanjay Colony
			Another 5 small stretches
5	Jalpaiguri	4	Dhardhara
			Maskalibari Crematorium Ghat
			District Hospital Road
			Dinbazar Drain

Sl	Name of town	Nos.of Drains Identified	Name of Drains
6	Tamluk	4	Drains adjoining to Sankarara Khal
			Drains adjoining to Narayanpur Khal
			Drains adjoining to Pairatunga Khal
7	Suri	12	NA
8	Sainthia	14	NA
9	Ghatal	4	NA

11/02/2020

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M. E. Directorate, Govt. of W.B.

Annexure - ME - IV

Estimate for In-Situ and Ex-Situ Biological Water Treatment of Drainage water for Enviromental Remediation at Tamralipta Municipality

Total length of Drain:- 20500 Mtr.

Sl No	Description of Items	Unit	Qty.	Rate (In Rs.)	
1	Cleaning and removing conservancy garbage mixed with rubbish & other filthy materials from the road side flank, drain and compound including cutting, loading, unloading to and from truck or cart by Mathor labour & removing the same to any distance. [P-279; It- 12 of PWD Bldg. S.O.R-2017]	Cum	922.5	56.62	52231.95
2	Supplying bleaching powder at site including all complete and as per direction of the E.I.C. [Refer Rate Analysis]	Mtr	1200	1.83	2200.00
				Cost Per Day:	54431.95
				Assuming Cleaning once in a week. So, 1year cost of Item 1 & 2:	2612733.60
3	Cost of Ex-Situ treatment Works arrangement. (Type-1) [Refer Rate Analysis]	No	3	464562.62	1393687.86
4	Cost of Ex-Situ treatment Works arrangement. (Type-2) [Refer Rate Analysis]	No	6	489247.94	2935487.64
5	Construction of Grating Arrangement at Outlet of Drain. [Refer Rate Analysis]	No	3	18915.43	56746.29
6	Collecting sample of water for bacteriological and chemical test from any depth at any time during execution of work including hire and labour charges for tools and plants and sterilising the equipments, paying all charges and fees, testing etc. complete in all respect as per direction. [P-55; It- 23 of PWD S&P. S.O.R-2017] [Twice in a year]	Each	24	1231.00	29544.00
				Total:	7028199.39
				Add GST @ 12 %:	843383.93
				Total Cost Excluding Labour Welfare Cess:	7871583.32
				Add Labour Welfare @ 1%:	78715.83
				Add Contingency @ 3%:	236147.50
				Total:	8186446.65
				Say:	8186447.00

Rupees eighty one lakh eighty six thousand four hundred fifty seven only

Additional Chief Engineer (South)
M.E. Directorate
U.D. & M.A. Department
Govt. of West Bengal

MAY BE VETTED

K. PANJA
Sub Assistant Engineer
Tamralipta Municipality

Chairman
Tamralipta Municipality

Assistant Engineer,
East Medinipur Division
(M.E.Dte.) Tamluk
Govt. of West Bengal

MAY BE VETTED

Executive Engineer,
East Medinipur Division
(M.E.Dte.) Tamluk
Govt. of West Bengal

MAY BE VETTED

Junior Engineer,
East Medinipur Division
(M.E.Dte.) Tamluk
Govt. of West Bengal

JUNIOR ENGINEER
South Circle, M.E. Dte
Govt. of West Bengal

Assistant Engineer
South Circle, M.E. Dte.
Govt. of West Bengal

SUPERINTENDING ENGINEER
South Circle, M.E. Directorate
Deptt. of Municipal Affairs
Govt. of West Bengal

Assistant Engineer (Civil)
Office of the Addl. C.E. (South)
M.E. Directorate

Annexure-SUDA-I

SWM Action Plans for Tamralipta Municipality

Rupnarayan

Sl.	Key Components of Proposed Action Plans for Restoration of Identified Polluted River Stretches- **RUPNARAYAN**	Proposed Achievable Target	Proposed Time Targets to achieve target	Remarks
	Municipal Solid Waste Management			
	Commissioning of Integrated Waste Management Facilities or Sanitary Land Fills or Bio manure or Pellets making or Waste to Energy Plants	➢ Door to Door collection of solid waste. ➢ Waste segregation at household source. ➢ Establishment of waste processing facility including SLF. ➢ Development of IEC activities & capacity buildings of different Stack holders.	➢ D 2 D collection of solid waste is expected to be achieved within March 2020. ➢ Waste segregation at source is expected to be achieved within Octo.2020 ➢ Present generation of waste in town is 54 TPD. Establishment of waste processing facility including SLF for the town will be completed following the timeframe as stipulated in Rule 22 of SWM Rule 2016	City specific Draft DPR have been prepared for implementation of SWM projects. Tentative cost is 16.49 Cr. that includes collection, transportation and Processing of Waste. Litter bins are provided besides the River banks.. Accumulated garbage have been removed from the river banks. Intensive IEC activities including display of poster/banner, awareness campaign, capacity building of stakeholders are continuously organized by ULB.

Annexure- IT-I

River Name	River Stretch	Activities		Steps Taken	Number	Timeline	Total Sanctioned Amount (For FY - 2020-2021)	Total Sanctioned Amount (For FY - 2021-2022)
Rupnarayan	Kolaghat to Benapur	Quantification and Characterization	Instalation of e-waste bin, Categorizing and Disposal		2	FY - 2020-2021	153750	123000
		Existing Infrastructure	Selection and Utilization of approved PROs for collection					
		Detailed Gap Analysis	Monitoring & Management					
		Management Action Plan	Meeting with OEMs, other stake holders		1			
		Promotional	Sensitization Training		1			
			Promotional Documents, Training Materials		1			
			Hoardings at river stretch		2			

Annexure - PD-I

Status on Implementation of Action Plan for restoration of identified polluted river stretches for ensuring complience to Hon'ble NGT orders dated 20.09.18, 19.12.18 and 08.04.19

Name of the District: Howrah

Contact details of the Nodal Officer:- Indranil Bhattacharyya- 8335042101

Sl No.	Block	River	Activity to be monitored	Timeline	Financial Outlay (in lack.)	Remarks
1	Bagnan-II	Rupnarayan	PLANTATION AT CHARKANTAPUKUR 7 NO MEDINIPUR CANEL EMBANKMENT(PART-I)	20/11/2019	1.25	
2	Bagnan-II	Rupnarayan	PLANTATION AT KANTAPUKUR 7 NO MEDINIPUR CANEL EMBANKMENT(PART-I)	20/11/2019	1.25	
3	Bagnan-II	Rupnarayan	PLANTATION AT KANTAPUKUR KARBALA GROUND & BURNING GHAT	20/11/2019	1.25	
4	Bagnan-II	Rupnarayan	PLANTATION AT KANTAPUKUR 7 NO MEDINIPUR CANEL EMBANKMENT(VIII) (PART-I)	20/11/2019	1.25	
5	Bagnan-II	Rupnarayan	PLANTATION AT KHANJADAPUR BALTALA FOOTBAL GROUND & BURNING GHAT (PART-I)	20/11/2019	1.25	
6	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF SANJAY JANA AT CHARKANTAPUKUR	15/12/2019	2.15	
7	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OFMONTU MONDAL AT CHARKANTAPUKUR	15/12/2019	2.15	
8	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF HIREN MONDAL AT KANTAPUKUR	15/12/2019	2.15	
9	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF SK DALUAR AT KANTAPUKUR	15/12/2019	2.15	
10	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF YOUNIS SA AT KANTAPUKUR	15/12/2019	2.15	
11	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF NIVAS JANA AT KANTAPUKUR	15/12/2019	2.15	
12	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF CHITTRANJAN HAZRA AT KHANJADAPUR	15/12/2019	2.15	
13	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF DEBNATH DHARA AT KANTAPUKUR	15/12/2019	2.15	
14	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF JONTU DAS AT KANTAPUKUR	15/12/2019	2.15	
15	Bagnan-II	Rupnarayan	EXCAVATION OF FARM POND OF BISWAJIT DHARA AT KANTAPUKUR	15/12/2019	2.15	
16	Bagnan-II	Rupnarayan	Plantation at Paschim Buriali Math1500ft	20/11/2019	1.85	
17	Bagnan-II	Rupnarayan	Plantation from Mansa Tala to Swapan Pramanick Danga 500 m	20/11/2019	1.85	
18	Bagnan-II	Rupnarayan	Plantation at Kalam Ding Burial Ground 18 katta	20/11/2019	1.85	
19	Bagnan-II	Rupnarayan	Plantation at Kalam Ding Play Ground.	20/11/2019	1.85	
20	Bagnan-II	Rupnarayan	Plantation at Pranballavpur Cremation Ground	20/11/2019	1.85	
21	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Madhabi Mondal	15/12/2019	2.75	
22	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Amit Samanta ding	15/12/2019	2.25	
23	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Gita Mete	15/12/2019	3.85	
24	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Kajal Pramanick	15/12/2019	3.25	
25	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Bijali Bhowmick	15/12/2019	3.75	

26	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Jogmaya Samanta	15/12/2019	3.55	
27	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Parul Dalui	15/12/2019	1.75	
28	Bagnan-II	Rupnarayan	Excavation of Farm Pond of Basanti Sanki	15/12/2019	3.65	
29	Bagnan-II	Rupnarayan	Wooden plantation two side of road from nh-6 to sk sahabuddin house at north chakkamala village	20/11/2019	1.05	
30	Bagnan-II	Rupnarayan	WOODEN plantation ICDS ground at north chakkamala village	20/11/2019	1.05	
31	Bagnan-II	Rupnarayan	WOODEN plantation nera sk hasem house at north chakkamala village	20/11/2019	1.05	
32	Bagnan-II	Rupnarayan	WOODEN plantation from nutbihari manna house to lalit manna garden at bhulgeria village	20/11/2019	1.05	
33	Bagnan-II	Rupnarayan	Excavation of pond for fishary sk mohit ali S/o sk golam ali at north chakkamal village	15/12/2019	2.05	
34	Bagnan-II	Rupnarayan	Excavation of pond suparna shee at kamardaha paschim village	15/12/2019	2.05	
35	Bagnan-II	Rupnarayan	Excavation of pond mohitosh bag at Bahulgeria village	15/12/2019	2.05	
36	Bagnan-II	Rupnarayan	Excavation of pond nemai samanta at kamardaha purba village	15/12/2019	2.05	
37	Bagnan-II	Rupnarayan	Excavation of pond jayanta das at kamardaha purba village	15/12/2019	2.05	
38	Bagnan-II	Rupnarayan	Excavation of pond bakul hazra at kamardaha purba village	15/12/2019	2.05	
39	Bagnan-II	Rupnarayan	Excavation of pond julfikar mirdda at kamardaha purba village	15/12/2019	2.05	
40	Bagnan-II	Rupnarayan	Excavation of pondof sk jakir ali at north chakkamala village	15/12/2019	2.05	
41	Bagnan-II	Rupnarayan	Excavation of pondof sk sahabuddin at north chakkamala village	15/12/2019	2.05	
42	Bagnan-II	Rupnarayan	Excavation of pondof Sambhu Maity at Heledwip village	15/12/2019	2.05	
43	Bagnan-II	Rupnarayan	Excavation of pondof Srikanta Maity at Heledwip village	15/12/2019	2.05	
44	Bagnan-II	Rupnarayan	Excavation of pondof Susanta Shee at kamardaha paschim village	15/12/2019	2.05	
45	Bagnan-II	Rupnarayan	Excavation of pondof Dudh kumar Guchait at kamardaha paschim village	15/12/2019	2.05	
46	Bagnan-II	Rupnarayan	Excavation of pondofGanesh Guchait at kamardaha paschim village	15/12/2019	2.05	
47	Bagnan-II	Rupnarayan	Excavation of pondof Madhab Jana at kamardaha paschim village	15/12/2019	2.05	
48	Bagnan-II	Rupnarayan	Excavation of pondof Pintu Guchait at kamardaha paschim village	15/12/2019	2.05	
49	Bagnan-II	Rupnarayan	Excavation of pondof Asto Karak at kamardaha paschim village	15/12/2019	2.05	
50	Bagnan-II	Rupnarayan	Re excavation of bankurdaha hospital pond near Chandgeria ICDS Centre.	15/12/2019	3.37	
51	Bagnan-II	Rupnarayan	Plantation from Pri. School to Kalpayani Club at Mellock East village	20/11/2019	1.35	
52	Bagnan-II	Rupnarayan	Plantation from Panchanantala to Santra Para at Mellock East village	20/11/2019	1.35	

53	Bagnan-II	Rupnarayan	Plantation from Khat Pool to Shasan at Mellock East village	20/11/2019	1.35	
54	Bagnan-II	Rupnarayan	Plantation both side of Jamidari Bandh at Nowpala East village	20/11/2019	1.35	
55	Bagnan-II	Rupnarayan	Plantation at Mellock North village SANSAD NO - VI (No-1)	20/11/2019	1.35	
56	Bagnan-II	Rupnarayan	Plantation at Mellock North village SANSAD NO - VI (No-2)	20/11/2019	1.35	
57	Bagnan-II	Rupnarayan	Excavation of farm pond at Mellock North village SANSAD NO -VI	15/12/2019	2.25	
58	Bagnan-II	Rupnarayan	Excavation of farm pond at Mellock(W) village SANSAD NO -VII	15/12/2019	2.25	
59	Bagnan-II	Rupnarayan	Excavation of farm pond at Mellock (E) village SANSAD NO -VIII	15/12/2019	2.25	
60	Bagnan-II	Rupnarayan	Excavation of farm pond at Nowpala (E) village SANSAD NO -XIV	15/12/2019	2.25	
61	Bagnan-II	Rupnarayan	Excavation of farm pond at Nowpala(W) village SANSAD NO -XV	15/12/2019	2.25	
62	Uluberia-I	Ganga	Excavation of pond to Sishir Das at Moubesia	DECEMBER,2019	1.65	
63	Uluberia-I	Ganga	Excavation of Pond to Ganesh Purkait at Moubesia Purba	DECEMBER,2019	1.63	
64	Uluberia-I	Ganga	Excavation of Pond to Deben Das at Dhulasimla	DECEMBER,2019	1.89	
65	Uluberia-I	Ganga	Excavation of pond to Dilip Das at Ranmahal	DECEMBER,2019	1.70	
66	Uluberia-I	Ganga	Excavation of pond to Dipti Das at Ranmahal	DECEMBER,2019	1.82	
67	Uluberia-I	Ganga	Excavation of pond Badrojadoja Khan at Ranmahal	JANUARY,2020	1.39	
68	Uluberia-I	Ganga	Excavation of pond Atiyar khan at Ranmahal	JANUARY,2020	1.58	
69	Uluberia-I	Ganga	Excavation of pond malek khan at Ranmahal	JANUARY,2020	1.99	
70	Uluberia-I	Ganga	Excavation of pond Ganesh Mondal, and Kayal para darja bakul pond at kayal para	JANUARY,2020	2.10	
71	Uluberia-I	Ganga	Excavation of pond name Sukumar Tarafdar	JANUARY,2020	1.95	
72	Uluberia-I	Ganga	Exavation of Pond of Sunil Kayal at Tiorpara	JANUARY,2020	1.97	
73	Uluberia-I	Ganga	Affrestation and earthwork from moubesia paschim pry school at Moubesia Paschim	SEPTEMBER,2019	1.94	
74	Uluberia-I	Ganga	Affrestation fo Canel side at Moubesia paschim by brikhapatta	SEPTEMBER,2019	1.93	
75	Uluberia-I	Ganga	Banana Tree cultravation of Prasenjit Mondal Tapan Mondal Mantu Mondal Haru Kayal Sujoy Mondal a	DECEMBER,2019	3.20	
76	Uluberia-I	Ganga	Poultry shed construction of Banamali Roy Sk Dilwar Hosain Samsun Nahar Sahira Khatun Sansun Nesa	DECEMBER,2019	1.50	
77	Uluberia-I	Ganga	Duck shelter construction of Rano Maity Saidul Islam Sk Saharaf Safur	DECEMBER,2019	1.50	
78	Uluberia-I	Ganga	Gotary Shed Construction of Sufiya Begam Sk Nor Hosain Dilip Das Sayad Nurbanu Sk Golap	DECEMBER,2019	1.50	
79	Uluberia-I	Ganga	Flood Control near NasaKhal at Baikhali sansad IX	DECEMBER,2019	3.52	

Annexure- 1D-I

Sl. No.	River Stretches	Key components of proposed action plans for restoration of identified polluted river stretches in States/Uts	Cost in Rs. Lakh	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status and or pendency in terms of %
19	Kaljani (Bitala To Alipurdwar)	Bank protection work at Dakshin Mendabari area along the right bank of River Kaljani for a length of 630 m under Mendabari GP, Block + PS- Kalchini, Dist.- Alipurduar.	77.73	Erosion protection at Kalchini Block..	31.05.2020	Under Tender stage
20	Kaljani (Bitala To Alipurdwar)	Bank protection work along the right bank of River Kaljani for a length of 380 m within the Mouza Sovaganj, Chaparerpar-I GP, Block- Alipurduar-I PS+ Dist.- Alipurduar.	74.22	Erosion protection at Alipurduar -I Block.	31.05.2020	Under Tender stage
21	Rupnarayan (Kolaghat To Benapur)	Protection on the right bank of River Rupnarayan near Achaipur for a length of 1700.00 m at Block- Sahid Matangini, P.S - Tamluk & District –Purba Medinipur.	470.00	Erosion protection at Block- Sahid Matangini, P.S - Tamluk & District –Purba Medinipur.	31.12.2020	Work started, 8 % Progress.
22	Rupnarayan (Kolaghat To Benapur)	Protection on the left bank of River Rupnarayan from Gadiara Bus stand to Atteswari for a length of 700m in Block Shyampur-I, P.S. Shyampur, District Howrah.	198.43	Erosion protection at Gadiara in Block Shyampur-I, P.S. Shyampur, District Howrah	31.12.2020	Work started.
23	Rupnarayan (Kolaghat To Benapur)	Protection on the left bank of River Rupnarayan for a length of 600 m near Boys Sporting Club at Dakshin Bhatora in G.P. Bhatora, Block- Amta-ll, District Howrah.	190.85	Erosion protection at Dakshin Bhatora in G.P. Bhatora, Block- Amta-ll, District Howrah	31.12.2020	Work started.
24	Rupnarayan (Kolaghat To Benapur)	Protection on the left bank of River Rupnarayanat Mankur to Degram for a length of 1.50 km in G.P. Buxihat, Block Bagnan-I, P.S. Bagnan, District Howrah.	437.83	Erosion protection at G.P. Buxihat, Block Bagnan-I, P.S. Bagnan, District Howrah.	31.03.2021	Tender Stage
		Total =	**6669.10**			

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Sl. No.	River Stretches	Key components of proposed action plans for restoration of identified polluted river stretches in States/UTs	Cost in Rs. Lakh	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status and or pendency in terms of %
5	Kaljani (Bitala To Alipurdwar)	Bank protection work at BirparaKhudiram pally area alongthe right bank of river Kaljani for a length of 400 mt. under Parapar G.P. Block - Alipurduar-I in P.S.& Dist. Alipurduar.	63.33	Erosion protection at Birpara Khudiram pally in Parapar G.P. Block - Alipurduar-I in P.S.& Dist. Alipurduar.	31.03.2020	Work started, 18 % Progress.
6	Kaljani (Bitala To Alipurdwar)	Bank protection work at PaschimSalbari area along the right bank of river Kaljani for a length of 500 mt. under Parapar G.P. Block - Alipurduar-I in P.S.& Dist. Alipurduar.	84.27	Erosion protection at Paschim Salbari in Parapar G.P. Block - Alipurduar-I in P.S.& Dist. Alipurduar.	31.03.2020	Work started, 45 % Progress.
7	Rupnarayan (Kolaghat To Benapur)	Protection to severely damaged right bank of River Rupnarayan in between MP 17.75 and MP19.54 Ghat for a length of 1132.00 m in Tamluk Municipality, P.S - Tamluk & District –Purba Medinipur.	367.53	Erosion protection at Tamluk Municipality, P.S - Tamluk & District –Purba Medinipur.	31.03.2020	Work started, 39 % Progress.
8	Karola (Jalpaiguri To Thakurer [illegible]	Construction of bank protection work on the left bank of river Karala near multi super speciality hospital for a length of 600.00 MTR within Jalpaiguri Municipality area in P.S,Block and Dist- [illegible]	106.17	Erosion protection at Jalpaiguri Municipality area in P.S, Block and Dist-Jalpaiguri.	31.03.2020	Work completed
9	Karola (Jalpaiguri To Thakurer [illegible]	Construction of bank protection work on the left bank of river Karala near RSA club and back side of Indira colony for a length of 480.00 m in p.s & district-Jalpaiguri. (IW/CSP-424/2018-19) [illegible]	96.08	Erosion protection at RSA club & back of Indira colony in P.S. & District-Jalpaiguri.	31.03.2020	Work completed
10	Karola (Jalpaiguri To Thakurer Kamat)	Protection on the right bank of River Karala near Mundabasti for a length of 950.00 m in Block-Sadar, P.S & District –Jalpaiguri.	165.10	Erosion protection at Mundabasti in Block-Sadar, P.S & District –Jalpaiguri.	30.04.2020	Work started, 30 % Progress.
11	Teesta (Siliguri to Paharpur)	Bank protection work in between spur no 2 and spur no 4 of Gourikone area for a length of 985 Mtr in P.s and Dist Jalpaiguri .	174.69	Erosion protection at Gourikone area in P.S and Dist Jalpaiguri .	31.12.2019	90 % work completed
12	Teesta (Siliguri to Paharpur)	Construction country side toe wall at JTP embankment and improvement of countryside slope and crest for a length of 3.00 K.M in between Balapara and D.M office complex within Jalpaiguri municipality and Kharia G.P along the right bank of river Teesta in P.S,Block and Dist.Jalpaiguri .	193.40	Erosion protection at Jalpaiguri Municipality and Kharia G.P in P.S, Block and Dist.Jalpaiguri .	31.01.2020	90 % work completed

Financial Outlay of Action Plan in Polluted River Stretches

Forestry Development, Forest Department

Annexure- FD-I

Sl. No.	River Name	District	Division	Stretch Identified	Town	Block/ Municipality	Mouza/ward	J.L. No.	Plot	Area in Hecture	Financial outlay	Time line
1	Darakeswar	Bankura	Bankura South	Bankura to Kusthia	Bankura	Bankura II	Kankata- 215			3.6	5,00,495.40	2019-20 to 2023-24
2				Bankura to Kusthia	Bankura	Bankura II	Matranga- 280			4	5,56,106.00	
3				Bankura to Kusthia	Bankura	Bankura II	Pratapur- 282			4	5,56,106.00	
4				Bankura to Kusthia	Bankura	Onda	Ola- 109			4	5,56,106.00	
5			Panchet	Bankura to Kusthia	Bankura	Onda	Nischintipur- 118			10	13,90,265.00	
					Sub Total					**25.6**	**35,59,078.40**	
6	Jalangi	Nadia	NMD	Near Taranipur Ghat	Mayapur	Nabadwip	Ghasighata	12	157/276, 157/277	1.15	1,59,850.00	
7				Near Bahadurpur Sambhunagar	Mayapur	Nabadwip	Sardanga	11	,913, 915, 1122, 1123, 1124, 1125, 1126, 1157/1640, 1161/1646, 162/1647, 1190/1650, 1196, 1197, 702/1761, 702/1738, 702/1707, 702/1708, 1491/1709, 1491/1710	5.3	7,36,700.00	
8				Near Tarinipur Ghat	Mayapur	Nabadwip	Mollapara	13	240/749, 622/739, 169/677	0.7	97,300.00	
9				Near Nabadwip BDO Office, Maheshgunj	Nabadwip	Nabadwip	Teorkhali	15	11, 39/913, 39/914	0.28	38,920.00	
10				Near Mahesgunj Hospital	Nabadwip	Nabadwip	Maheshgunj	16	141	0.76	1,05,640.00	
11				Hulorghat	Mayapur	Nabadwip	Rudrapara	5	4540, 4537, 4539	0.3	41,700.00	
					Sub Total					**8.49**	**11,80,306.81**	
12	Kansi (Kansai)	Paschim Medinipur	Medinipur	Jamsole and Lohatikri in between Midnapur to Ramnagar	Midnapur	Midnapur Sadar	Lohatikri and Jamsole	136 and 137	371 and 654/695	10	13,90,265.00	
					Sub Total					**10**	**13,90,265.00**	
13	Karala	Jalpaiguri	Jalpaiguri SF	Monthani to Moulabipara	Jalpaiguri	Sadar	Kharia & Patkata	05 & 07		30	**44,15,685.00**	
14	Rupnarayan	Purba Medinipur	Purba Medinipur Forest	1800 meter in to 570 meter	Kolaghat	Kolaghat	Amalhanda	291	River char	10	13,90,265.00	
15				2350 meter * 425 meter	Kolaghat	Kolaghat	Faridpur	272	River char	10	13,90,265.00	
					Sub Total					**20**	**27,80,530.00**	

Annexure AD-I

Department of Agriculture

River Rejuvenation Action Plan of Polluted River Stretches of River Rupnarayan

Distribution of Organizational Responsibilities				
Departments / Agencies.	*Actions to be taken*	*Targeted timeline*	*Budgetary Estimate*	*Remarks (Annexure)*
Agriculture Department	Good agricultural practices (Bio village Program etc) Crop Diversification (Demonstration with low water requiring crops etc.) Good Irrigation Practices (Micro irrigation with supplementary water management activities) Soil and water conservation (water harvesting structure,Dugwell,Gully plugging,Check dam etc)	2019-20 to 2021-22 (3-years)	Rs 1.26 crore	