

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)

I.	Total No. of Pollution River Stretches	7(Umkhrah & Umshyrpi river –Priority I:Umtrew ,Nonbah & Kyrhukhla river –Priority IV: Myntdu & Lukha –Priority V)							
	Chief Secretaries may set up appropriate monitoring mechanism at State level	The government has constituted a Monitoring Committee under the chairmanship of the Principal Secretary to the Govt.of Meghalaya,Forests & Environment Department vide no.ENV.4/2018/426 Dated Shillong the 19 th June 2020							
	<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 	Fortnightly Commencing 21.12.2019							
	Progress report may be furnished by the States/UTs to	Monthly (preferably before 20 th of every month)							
	<ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB 								
<i>Progress Report may be comprised of details alongwith completion timelines on:</i>									
(i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in situ treatment		List enclosed as annexure I for all the polluted stretches .							
		Umkhrah	Umshyrpi	Umtrew	Nonbah	Kyrhukhla	Myntdu	Lukha	
II.	In-situ Bio-remediation	Initially, it was proposed to consider engaging the successful firm selected for the other rivers for the project and process for exploring the source of fund was also underway. However, with the proposal that at least for 1.5 km stretch under Umkhrah River, DPR will prepared by PMC engage under SMART City project, the State government is now contemplating to engage the PMC for the entire project . The PMC has roped in a technology viz., nallah in-situ treatment system for treating the drains which appears to be more feasible solution. Under this technology one of the preliminary activities includes the conversion of kutcha drains into RRC drains. In this connection, the Department has started the bio-remediation works and have completed converting 26 nos. of such kutcha drains into			Work order for preparation of DPR issued in the month of March to M/S Trinity Impex International .The firm is yet to submit the DPR				

		RRC drains .Garbage traps have also been installed in 6 nos. of such drains. The next stage of work is to install bio-remediation measures and to complete the installation of garbage traps in the remaining drains..						
III.	Sewage Treatment Plant							
•	Total Sewage Generation (MLD)	33.52	15.47	0.36	3.10	0.8	3.07	0.5
•	Total Existing Treatment Capacity (MLD)							
•	Capacity Utilization							

Note: Garbage traps have been installed in 6 nos. of drains connecting to the rivers and one oil grease trap of 5kld installed in one drain of Umkhrah River.

Town	Existing STP	Capacity Being Utilized	Whether Complying or not	STP Proposed if any	Status (DPR/tendering/under construction/ETC etc.)
Shillong (catchment of Umkhrah & Umshyrpi river)	-	-	-	Faecal Sludge & Septage Management (FSSM) + 5 On-site Treatment System (Total capacity- 4.05 MLD)	<p>a) The Action plan as approved by Central Pollution Control Board is for taking up FSSM and 5 nos. of On-Site treatment system in place of STP. In this respect, the Apex Committee, AMRUT Mission in its meeting held on 13.12.2019 had directed the CPHEEO to visit the State of Meghalaya to review the AMRUT projects and to handhold the state to expedite the implementation of the projects. The CPHEEO on its visit to the State on 31.01.2020 had directed the WAPCOS Ltd., PDMC for giving a presentation on the FSSM Project to the CPHEEO. Accordingly, the presentation was made by the Consultants on 19.02.2020 at Delhi wherein CPHEEO has made some technical observations. While the necessary changes have been made the consultants, CPHEEO has again asked the Consultants to give a presentation. The same could not be taken due to the LOCKDOWN order. However, in the last APEX Committee of AMRUT held on 25.05.2020, the CPHEEO has given its nod for going ahead with the DPR. Finalisation of Notice Inviting Tender (NIT) is now underway and tender process is likely to be completed by August 2020.</p> <p>b) Further, in the campus of Polo Market area located along the river Wahumkhrah, STP has been completed of 50 KLD capacity to take care of sewage / effluents in the area.</p> <p>c) The 115 KLD Septage Treatment Plant which is under construction is 30% completed. (Photographs attached)</p>
Jowai catchment of	-	-	-	7 STP (capacity of each STP varies from 0.3 to 1.2 MLD each	DPR has been revised as suggested by NRCD and awaiting approval of the State Govt. The proposal will be sent to NRCD for financial assistance.
Byrnihat(catchment of Umtrew river)					Safe sanitary latrine under Swachh Bharat mission (Gramin) for 364 households
Nongstoin (catchment of Nonbah river)					Safe sanitary latrine under Swachh Bharat Mission (urban) for 424 households

Khliehriat,Ladrymbai etc (catchment of Kyrhukhla river)						Safe sanitary latrine under Swachh Bharat mission (Gramin) for 220 households			
Myndihati,khliehriat & Lumshnong etc (catchment of lukha River)						Safe sanitary latrine under Swachh Bharat mission (Gramin) for 366 households.			
IV.	Industrial	Umkhrah	Umshyrpi	Umtrew	Nonbah	Kyrhukhla	Myntdu	Lukha	
•	Total No. of industries/industrial estates	121	9	29	34	12	20	11	
•	Total Industrial discharge	1.3035	0.455	0.676	0.276	0.029	0.40	0.15	
•	Total No. of industries having ETPs	121	9	29	34	12	20	11	
•	Total existing CETPs	None	None	None	None	None	None	None	
•	Total No. of GPIs/SPIs	None	None	1	None	None	None	None	
•	No. of industries having OCEMS	None	None	None	None	None	None	None	

Town	Existing ETP Capacity(MLD)	Whether Complying or not	CETP Proposed if any	Status (DPR/tendering/under construction/ETC etc.)
Shillong	1.8	Complying	-	-
Byrnihat	1.0	Complying	-	-
Nongstoin	0.41	Complying	-	-
Ladrymbai & Khliehriat	0.1	Complying	-	-
Jowai	0.45	Complying	-	-
Khliehriat,Myndihati&,Lumshnong	0.615	Complying	-	-

V.	Solid Waste Management	Umkhrah	Umshyrpi	Umtrew	Nonbah	Kyrhukhla	Myntdu	Lukha
•	Total Municipal Solid Waste generation (MTD)	164.81	50.13	1.16	10.05	2.6	9.95	1.6
•	Existing facilities (MTD)	8.72	a) Door to door collection is introduced in all wards and level of coverage is 95%.Segregation at source is in place and the level of compliance by the residential households is 85% ad by the commercial establishments about 45%.Chain link fencing has been installed at strategic garbage points.Penalty is imposed on habitual offenders. b) Additionally ,Garbage traps have been installed i 6 nos of drains connecting to the rivers and one oil grease trap of 5 Kld installed in one drain of Umkhrah river.	15	Collection, segregation and transportation of wastes has been done by the SLRM team under SBM (Urban) .In some households the biodegradable wastes are treated by composting method in compost pit	Waste management soak pit household waste water management & organic waste compost for 175 households under SBM (G)	Door to door collection and transportation coverage is being done by the Jowai Municipal Board. Segregation at source is in place.	Waste management soak pit household waste water management & organic waste compost pit for 366 households under SBM (G)
•	Proposed	For treatment of the bio-degradable waste, a 170 TPD Compost Plant is under Construction at Marten, Shillong which is proposed to be commissioned		Proposed for soak pit household waste water	Land has been identified and a compost plan has been		Land measuring 16,590 sqm has been duly identified by the	

		by September 2020. For Scientific disposal of waste a 6500 sqm sanitary landfill at Marten, Shillong was commissioned in October 2017. An additional 8500 sqm sanitary landfill is also completed, There are 4 nos of decentralised compost plant constructed under Swachh Bharat Mission (Urban) and the work is 20% completed.	management & organic waste compost for 112 households under SBM (G)	sanctioned under SBM (Urban)		site selection committee . A compost plan has been sanctioned under SBM (Urban)	
•	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	Enclosed as annexure II					

VI.	Bio-medical/Hazardous/Plastic Waste Management(in TPD)	Umkhrah	Umshyrpi	Umtrew	Nonbah	Kyrhukhla	Myntdu	Lukha
•	Total Bio-medical Waste generation	1.0597		0.0021	0.029	0.00608	0.41	Nil
•	Total Bio-medical Waste Treatment	1.0597		0.0021	0.029	0.00608	0.41	-
•	Bio-Medical Treatment facilities	<p>a) The Urban Affairs Department had floated a Notice for expression of Interest for setting up of Common Bio-Medical waste treatment and Disposal Facilities at Shillong on the 24th April, 2020 wherein 4 (four) participating firms submitted proposals and a letter of acceptance was awarded to S. M. Enterprise to carry out the work required on 19th May, 2020. The work to be carried out includes the installation of the following:</p> <ul style="list-style-type: none"> • Incinerator of 100kg/hour capacity • Continuous stack monitoring device • Autoclave of 100kg/hour capacity • Shredder of 100kg/hour capacity • Effluent Treatment Plant • Other ancillaries to support the facility <p>b) The Urban Affairs has procured three Bio-medical Wastes vehicles solely for transport of Bio-medical Wastes.</p>						
•	Hazardous Waste generation	Nil	Nil	1.17	Nil	Nil	Nil	0.1405
•	Hazardous Waste Treatment	-	-	1.135	-	-	-	0.1405
•	Plastic Waste generation	0.230		-	-	-	-	
•	Plastic Waste processing	The plastic Waste was collected as municipal waste into dry waste and wet waste. The plastic waste was segregated from the dry waste at the dumpsite and collected for compaction and bailing for Shillong City						
•	Total No. of Hospital and bio-medical waste generation/treatment	6	2	None	2	None	2	None
•	Total of units generating Hazardous waste/treatment facility			6				11

		Umkhrah	Umshyrpi	Umtrew	Nonbah	Myntdu	Kyrhukhla	Lukha
VII.	Ground water regulation	State level & District level committee on ground water resources						
VIII.	Maintaining minimum e-flow of river	Perennial						
IX.	Protection and management of Flood Plain Zones (FPZ)	TOR for Flood management in the state of Meghalaya prepared and sent to the Ministry of Jal Shakti(MoJS).Proposal for setting up of HO stations prepared.						

X.	(ii) Rain water harvesting	i. Rain water harvesting implemented for Schools and government buildings ii. Incorporated as one of the condition while giving permission for any house construction					
XI.	Plantation along river	7.0 kms strip plantation	12 Ha	29.76 Ha	721.348 Ha	4.8 Ha	No proposal was made since there is a Reserve Forest and green cover on both sides of the river
XII.	Development of biodiversity park on flood plains by removing encroachment	Matter of encroachment is pending in the Supreme Court	No proposal for setting up of Bio-Diversity Park due to non-availability of government land .				
XIII.	Reuse of Waste water						

MAJOR TRIBUTARIES CONTRIBUTING TO POLLUTION IN RIVER KYRHUKHLA

Drains	Flow (Cumec)
Wah Kajit	0.07
Wah Sadakha	0.10

MAJOR TRIBUTARIES OF RIVER LUKHA (LUNAR AT MYNDIHATI)

Mookympad stream	N 25°20.467' E92°25.917'	1.24
------------------	-----------------------------	------

MAJOR DRAINS CONTRIBUTING TO POLLUTION IN RIVER UMKHRAH

Drains	Normal Discharge m ³ /sec
Drain near fish market	0.004
Drain near Market Complex	0.008
Drain near Govt.LP School	0.001
Drain at Dong SpengTthawlang Mlah	0.003
Stream near Bishop House	0.080

MAJOR DRAINS CONTRIBUTING TO POLLUTION IN RIVER UMTREW

River	Drains	Discharge of flow (Cumec)
Umtrew	Stream at Nongkylla Mikir, Byrnihat (coming from 18 miles,-NH)	0.14
	Drain near Meghalaya Hume Pipe, Byrnihat (Amjok, Borbhuin, Nongkylla,)	0.16
	Stream near Jai kamakhya alloy Pvt. Ltd, EPIP, Byrnihat, Upper Borbhuin	0.10
	Stream at Jojwa ,EPIP, Byrnihat ,Jojwa	0.09
	Byrnihat side-drain near petrol pump,way to EPIP- leading into Umtrew river (mid- stream).	0.11

TABLE 1 -TRIBUTARIES/DRAINS OF MYNTDU RIVER

Sl.No	Major outfall/drains	Discharge of Flow
1.	<i>Riatsiatsim</i>	0.053 Cumec
2.	<i>Rampyrthal</i>	
3.	<i>Liar-Urkyrdein</i>	
4.	<i>Myn'twa</i>	0.334 Cumec
5.	<i>Soomer and Niawmer</i>	0.200

DRAINS/STREAMS DISCHARGING INTO UMKHRAH RIVER

SI No.	Outfalls	Flow (MLD)
1.	Wah Demthring Stream	1.4
2.	Lapalang Stream near Bridge	12.7
3.	Lapalang Stream	4.8
4.	Umpling Drain	0.5
5.	Umpling Stream	0.5
6.	Gora Line Stream	2.4
7.	Wah Kdait Drain	3.5
8.	Wah Thangsniang stream	6.2
9.	Pomdngiem Stream	9.2
10.	Oakland Drain	0.95
11.	Lawmali Drain	2.6
12.	Wahingdoh- Raimohan Drain	12.4
13.	Riatsamthiah, Wahingdoh	1.72
14.	Jaiaw Drain	2.4
15.	Mawlai Drain	0.86
16.	Mawlai Phudmuri Stream	1.9
17.	Jaiaw Lumsyntiew Drain	0.35
18.	Wah Disoi Drain	6.2
19.	Polo Drain1	1.3
20.	Polo Drain2	0.95

DRAINS/STREAMS DISCHARGING INTO UMSHYRPI RIVER

SI No.	Outfalls	Flow (MLD)
1.	Stream at Fish Dale	2.6
2.	Drain Near Woodland Hospital	3.5
3.	Wahkdait at Malki	4.3
4.	Malki Stream (near Seven Set School)	1.72
5.	Wah Risa Stream	0.86
6.	Wah Kynrud stream	4.3
7.	Umsokhlur Stream	5.2
8.	Wah Mawlong Stream	0.86
9.	Umjasai stream	1.72
10.	Lummawbah Stream	0.86
11.	Mawprem Drain	0.86

WATER QUALITY DATA OF POLLUTED STRETCH OF JUNE 2020

Annexure II

Stations→ Parameters↓	UMSHYRPI		UMKHRAH				UMTREW AT BYRNIHAT	NONBAH AT NONGSTOIN	MYNTDU AT JOWAI	LUNAR RIVER (TRIBUTARY OF LUKHA RIVER) AT MYNDIHATI	KYRHUHKHLA
	NEAR LAW COLLEGE	UMSHYRPI BRIDGE	DEMTHRING	UMKALIAR	Near SLAUGHTER HOUSE	MAWPDANG MAWLAI					
pH	7.6	7.4	6.9	7.4	7.2	7.5	7.2	6.8	6.9	3.0	3.9
Dissolved Oxygen(mg/l)	2.0	5.4	2.9	6.3	3.8	2.4	7.1	7.7	7.0	7.0	7.0
Bio-chemical Oxygen Demand (mg/l)	30.0	10.5	18.0	6.0	14.0	24.0	2.8	2.5	2.5	2.6	2.5
Faecal Coliform(MPN/100ml)	14000	3200	5800	4300	11000	9400	270	110	110	0	0
Total Coliform(MPN/100ml)	36000	12000	11000	9200	27000	24000	1100	430	420	0	17

Photographs of Septage Treatment Plant under Construction:

