



THE ADMINISTRATION OF UNION TERRITORY OF LADAKH

लद्दाखसंघशासितप्रदेशकाप्रशासन

LADAKH AUTONOMOUS HILL DEVELOPMENT COUNCIL-LEH

लद्दाखस्वायत्तपहाडीविकासपरिषद-लेह

OFFICE OF THE DEPUTY COMMISSIONER, LEH/CEO, LAHDC-LEH

उपायुक्त-लेहतथामुख्यकार्यकारीअधिकारी, लद्दाखस्वायत्तपहाडीविकासपरिषद-लेहकाकार्यालय

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The Hon'ble Registrar General,
Principal Bench,
National Green Tribunal,
New Delhi

No. Forest-1(M)Dev/15/2023(203)-I

Dated. 28.03.2023

Subject: **Status report in response to OA No. 206/2023**

Sir,

Based on the imputes of Director, Urban Local Bodies, Ladakh, Public Health Engineering (PHE) Division, Leh and Municipal Committee, Leh, enclosed please find the status report in response to the notice of hearing in Suo Motu matter in re: article published in Satwa Magazine, titled "Water in Ladakh: Elixir or poison?", for favour of your information, please. However, all information regarding Kargil District needs to be obtained through District Administration Kargil for comprehensive picture.

Yours faithfully,

(Shrikant Balasaheb Suse/श्रीकांत बालासाहब सुसे) IAS

Deputy Commissioner / CEO, LAHDC-Leh

उपायुक्ततथामुख्यकार्यकारीअधिकारी
लद्दाखस्वायत्तपहाडीविकासपरिषद-लेह

Response to the notice of hearing in Suo Motu matter in re: article published in Satwa Magazine, titled “Water in Ladakh: Elixir or poison?”

Ref: OA No. 206/2023

Title “Water in Ladakh: Elixir or poison?”

Listed before the Hon’ble National Green Tribunal at Faridkot House, Copernicus Marg, New Delhi-110001 on 29 March 2023.

Following are the responses from Director ULB Ladakh, Municipal Committee, Leh and PHE Department, Leh to the issues raised in the captioned newspaper report that are related to ground water extraction and contamination by various sources like underground tanks for toilets, etc. However, all information regarding Kargil District needs to be obtained through District Administration Kargil for comprehensive picture.

Sl No.	Issues Raised	Response	
		From Leh	From Kargil
1.	What is the status of sewage pipeline connectivity with the toilets?	4 no. of public toilets are connected with sewage pipeline. Presently 48 km sewer network is laid under existing sewerage system which is just 30% of total required sewer network. However, 123 km sewer network is proposed under the development of sewerage system for left out area of	Presently, there is no sewage system in the town. The households are currently using septic tank as well as soak pit for sewage management. Kargil City has a 10 KLD Faecal Sludge Treatment Plant



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		<p>Leh town to cater the total sewage demand which is 9 MLD for intermediate stage 2040.</p> <p>The remaining sewage is stored in Septic tank as well as soak pits which is then desludged through suction machines and treated at the existing operational Faecal Sludge Treatment Plant of 12 KLD capacity.</p>	<p>which is operational, and desludging is done for households when the septic tank as well as soak pits are full.</p> <p>The DPR is under progress for development of Sewage system Kargil.</p>
2.	How many houses and commercial establishments are connected with sewage system? Number of those are not connected with sewage system.	Out of 6,820 households (as per Niti Aayog Report, 2021 on “Waste-Wise Cities: Best Practices in municipal solid waste management”), 2,884 households are connected with the sewage system.	No households are connected with sewerage system as there is no sewage system in the town.
3.	Number of STPs have been installed and their capacity to	The city has 3 MLD STP with SBR technology and is located at Agling area.	Currently, there is no existing STP in the town. However, it is proposed to



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		From Leh	From Kargil
	treat.		construct 6 STPs. The DPR for STPs are in progress. Awaiting land clearance from the DC, Kargil. Once the land is available for STPs, the administrative approval and Technical Sanction shall be obtained. It is likely that the tender for the works shall in initiated in the present financial year.
4.	Total generation of sewage and its treatment.	Current sewage generation rate is 8.18 MLD (including infiltration) but only 3 MLD STP is functional. Thus, the net demand of treatment for current sewage generation is 5.18 MLD for year 2023.	Approximate current generation is 4.6 MLD. Currently, this generated sewage is not being treated in any STP. Around 10.8 MLD capacity of sewerage system, STP is proposed. The DPR for STPs

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			are in progress. Awaiting land clearance from the DC, Kargil. Once the land is available for STPs, the administrative approval and Technical Sanction shall be obtained. It is likely that the tender for the works shall be initiated in the present financial year.
5.	Gap between the treatment of sewage and untreated sewage. Steps taken to meet out the gap.	3 MLD STP is not sufficient to cater the current demand of sewage treatment. The existing Gap is of 5.18 MLD and to meet the gap, an underground sewerage system for left out areas of Leh town is proposed which was not covered in earlier sewage project. Proposed sewer	Currently, no sewage is being treated in STP. DPR for sewerage scheme along with sewage treatment plant is under preparation. The DPR for STPs are in progress. Awaiting land clearance from the



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		<p>network is of 126 km and net demand of sewage treatment is 9 MLD (after deduction of present STP capacity) for the intermediate stage 2040. DPR finalization of project is under process.</p> <p>The project will be tendered out this year as the DPR for the Sewerage system is in finalization stage.</p>	<p>DC, Kargil. Once the land is available for STPs, the administrative approval and Technical Sanction shall be obtained. It is likely that the tender for the works shall be initiated in the present financial year.</p>
6.	<p>Disposal mechanism of treated sewage and reuse of treated water to reduce the freshwater consumption.</p>	<p>Landscaping project is being developed besides the Agling STP where treated water can be reused for beautification purpose.</p> <p>Strategy for reuse of treated water has been finalised by the department for existing 3 MLD operational STP. The project implementation will be carried out this year.</p>	<p>Currently, DPR for sewerage network is under preparation. The technology proposed for treatment is MBBR (Moving Bed Bio film Reactor) and treated water is proposed to be discharged in the Suru River.</p>



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		<p>The major objective of the reuse strategy is to use 100% of treated wastewater generated from STP. This treated wastewater is proposed to be used for irrigation, landscaping and beautification purpose and in surrounding areas by identifying probable bulk users to avoid discharge in Indus River.</p> <p>The major components of network design are as follows:</p> <p>i. Treated wastewater Tank with pumping arrangements either at STP area or at Landscape site.</p> <p>ii. Transmission mains and distribution piped network to supply treated wastewater to individual user parcel</p> <p>iii. Tanker feeding point</p>	

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		<p>at Tank to supply intermittent and incidental usages like construction, vehicle washing etc.</p> <p>iv. Recharge structures at Landscape site</p> <p>v. Command control centre at STP or landscape site to monitor the supply during summer and winter seasons.</p>	
7.	Industries those are discharging its untreated water into rivers or drains or other water bodies.	<p>The industrial waste water in the Industrial Estate Leh are dumped into pits and septic tanks being constructed by the entrepreneurs however, periodical checkups are being done by the field officer/officials for proper treated of waste water.</p> <p>As per the new industrial policy 2023 notified on 17/01/2023, Waste water recycling and waste water management will be reimbursed @50% of total</p>	Data not available with H&UDD. Industries related data are available with Industries and Commerce department.

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		expenditure incurred towards the procurement of water waste management technology etc.	
8.	How many domestic and commercial establishments are extracting ground water including the defence establishments. Whether they have the permissions to extract the ground water or not?	<p>As per out latest survey as on 31-12-2022 there are 927 bore-wells in Leh town including defence establishment.</p> <p>As per the notification of UT Administration dated 18th April 2022 all the existing borewell users have been asked to register their borewells with the department and meters will be installed to all registered borewells to regulate the usage.</p> <p>Till date, 13 nos. of borewells registered with the Deptt Leh</p> <p>76 Nos of applications is under process for Registration of borewells.</p>	Data not available with H&UDD.
9.	The action taken against the	Notices have been issued to all the existing users to	Data not available with H&UDD.

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	violators.	get their borewells register with the department for regularization	The LPCC or the Municipal corporation may kindly be requested to take action against the violators.

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10.	Operational status of the STP qua to treatment quality.	The 3 MLD STP is Operational at Agling location, and the Treatment Quality Standards are as follows:		No STP is functional in the city.
			Average Value Results	
		Sludge generated per month	3000kg/month	
		Sludge generated per year	36000kg/year	
		Bod(inlet)	275mg/l	
		Bod(outlet)	5.6mg/l	
		Cod(inlet)	577.5mg/l	
		Cod(outlet)	22.0mg/l	
		Conductivity(inlet)	754millisimeter	
		Conductivity(outlet)	330millisimeter	
		Ph(inlet)	6.5	
		Ph(outlet)	7	
		Tkn(inlet)	65mg/l	
		Tkn(outlet)	4.6mg/l	
		Total phosphorus (inlet)	3.5mg/l	
Total phosphorus (outlet)	0.0mg/l			

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		9	Fecal coliform (inlet)	40000(mpn/100 ml)	
			Fecal coliform (outlet)	42(mpn/100ml)	
		10	Tds(inlet)	200mg/l	
			Tds(outlet)	140mg/l	
		11	Tss(inlet)	150mg/l	
			Tss(outlet)	15mg/l	
		12	Dissolved oxygen (inlet)	0.0mg/l	
			Dissolved oxygen (outlet)	6.0mg/l	
		13	Nitrate nitrogen (inlet)	6.0mg/l	
			Nitrate nitrogen (outlet)	3.0mg/l	
		14	Ammonical nitrogen (inlet)	6.5mg/l	
			Ammonical nitrogen (outlet)	2.5mg/l	
		15	Residual chlorine (inlet)	0.0mg/l	
			Residual chlorine (outlet)	0.6mg/l	
11.	What is status of drains? Whether they carry any industrial waste or not?	The drains of Leh Nallah and Shenam nallah which are the main drains in Leh town are free from any Industrial waste.		Data not available with H&UD D.	
12.	Source of pollution	Sample location mentioned in said report shall be tested and		Data	

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	<p>in the water bodies and ground water.</p>	<p>verified through govt. Laboratory. Water testing laboratory of PHE Department has been open to public since 3/11/2020 for testing private sample for its potability.</p> <p>Disposal of untreated waste (sewage) directly into Ground (through soak pit) could be the reason for ground water contamination which needs further investigation.</p>	<p>not available with H&UD D.</p>
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Response for Leh City	Response for Kargil City
<p>In Leh city 30% of households are connected to the existing sewerage system which is connected to an operational 3 MLD STP located at Agling area. All households in the city have existing twin pit/ Septic tank as well as soak pits in which the daily Sewage generated from households is collected which is then desludged through Suction Machines and taken to 12 KLD FSTP plant for treatment and disposal. No wastewater is discharged into water bodies or on land.</p>	<p>All households in the city have existing twin pit/ Septic tank as well as soak pits in which the daily Sewage generated from households is collected which is then desludged through Suction Machines and taken to 10 KLD FSTP plant for treatment and disposal. No wastewater is discharged into water bodies or on land.</p>



