

Message from PID

One of the main tasks of Kathmandu Upatyaka Khanepani Limited (KUKL), Project Implementation Directorate (PID) is to construct infrastructure for proportionate, equitable and efficient distribution of drinking water in the Kathmandu Valley. PID is constructing a Bulk Distribution System (BDS) and service reservoir tanks (SRTs), apart from engaging in Distribution Network Improvement (DNI) works for bringing water from the Melamchi river to the citizens' taps.



Through a 76 km BDS, water treated at the Sundarjal treatment plant will be collected at 10 SRTs (total capacity 74,500 m³) and distributed through the secondary and tertiary pipelines. PID has completed construction of nine of the SRTs, and laid 74 km of the BDS pipeline and 852.6 km of the 1,000 km DNI pipeline. It has also prepared a detailed project report (DPR) for laying a 1,347 km distribution pipeline covering several areas outside the Ring Road, while design work for pipeline installation is ongoing in some other areas.

In the wastewater sector, PID is speeding up the construction of modern, environment-friendly wastewater treatment plants (WWTPs). It is building the WWTP at Guheshwori with the aim of starting its operation within the current fiscal year, whereas construction of WWTPs is also going on at Sallaghari, Balkumari and Dhobighat.

PID is building Melamchi Project infrastructure within the valley by working under the Ministry of Water Supply, with relevant agencies and the public. During this endeavour meant to improve water and wastewater services in the valley, PID has recently received ADB's Exemplary Contribution Award (Gender Equality and Social Inclusion) as well as Exemplary Contribution Award (Environment and Social Compliance Monitoring), boosting the team's morale.

This project belongs to all of us. So, if you see Melamchi Project pipelines damaged or at risk and if you have any suggestions/complaints regarding our services, please call us at our toll-free number 1139. We stand ready as ever to pay heed to your genuine concerns.



Tiresh Prasad Khatri
(Project Director)

Improvement in water, sanitation and sewerage management Set to transform whole of Kathmandu Valley



■ Workers laying Melamchi Project pipeline at Durbarmarg, Kathmandu.

Kathmandu Valley Water Supply Improvement Project (KVWSIP)

KVWSIP will complement efforts to develop a reliable, equitable and sustainable water supply system in the valley. This project focuses on distribution of water from the plant to consumers and improvement in efficiency and service delivery whereas ongoing projects are investing in source augmentation, Melamchi Tunnel and water treatment plant construction. It will support and consolidate institutional development and improvement in governance of the water sector in the valley.

KUKL statistics show current demand for water in the valley is 450 million litres a day (MLD). However, KUKL has been able to supply about 90 MLD during the dry season and 160 MLD during the rainy season. KVWSIP covers construction of BDS, SRTs and

distribution system, including improvement in efficiency, service delivery, institutional development and governance, in the water sector.

Under this project, a DPR has been prepared for improving distribution network outside the Ring Road covering areas like Mandikhatar, Jorpati, Chabahil, Bouddha, Pepsicola, Madhyapur Thimi, Bhaktapur and Kirtipur.

With government financing, a DPR is being prepared for expansion of the water pipeline covering most of Suryavinayak municipality, while design works for laying pipelines covering ward numbers 1-4 of Mahalaxmi municipality, Gwarko, Saibu, Bhainsepati, Khumaltar, Nakkhipot, Dholahiti, Sunakothi and Kageshwori Manohara municipality (ward numbers 6 and 7) are going on.

Progress review of construction of water supply infra

Under the scope of the PID, construction of BDS and SRTs is going on, along with works related to DNI.

Through the roughly 76-km BDS pipeline, water treated at Sundarijal treatment plant will be collected at SRTs under construction at Arubari, Mahankal, Bansbari, Panipokhari, Balaju, Khumaltar (2 nos), Kirtipur, Katunje and Tigni (total storage capacity 74,500 m³), and distributed through secondary and tertiary pipelines.

As of now, 74 km BDS pipeline has been laid and nine SRTs have been constructed. Treated water collected at these SRTs will be supplied to the citizens' taps through networks of secondary and tertiary pipelines.

Under DNI packages 1-4, 852.6 km pipeline has been laid out of 1,000 km (approx) and 65,151 household connections have been set up out of 1,10,679.

Flushing and testing of 28 km BDS pipeline has been completed out of 76 km,

	Kathmandu Valley Water Supply Improvement Project	Target	Unit	Progress
1	Construction of BDS	76	km	74
2	Flushing and testing of BDS	76	km	28
3	Construction of SRTs	10	nos	9
	Total capacity	74,500	m ³	68,500
4	Distribution network construction work	1,000	km	852.6
5	Household connections	1,10,679	nos	65,151
6	Road repair works	110	km	34

while 34 km road has been reinstated out of 110 km. Under Melamchi Project Phase I, laying of the water pipeline within the Ring Road is going on. Under Phase II, pipeline will be laid outside Ring Road.

There are plans to lay pipeline at DNI-7B (Balaju, northward of Kalanki, including Chhauni and Swayambhu) and DNI-7C

(Maharajgunj, Dhumbrahi, Baluwatar, Lazimpat, Lainchaur, Samakhushi and Basundhara) through the Horizontal Drilling Method. The use of this new method means lesser amount of excavation and backfilling and construction work at a faster pace.

It is expected to reduce dust, noise and smoke during construction work.

Kathmandu Valley Wastewater Management Project (KVWWMP)

Launched in 2013 with loan assistance from the Asian Development Bank, OPEC Fund and Government of Nepal, KVWWMP aims to improve access to, and efficiency of wastewater services for the residents of the Kathmandu Valley by (1) rehabilitating and expanding sewerage network (2) modernizing and expanding existing wastewater treatment plants (WWTPs) at different locations within the valley.

Under this project, 25 km of interceptor pipelines have already been laid along both banks of Hanumante, Manohara and Khasyangkhusung rivers out of 45 km. In parallel, High Powered Committee for Integrated Development of the Bagmati Civilization (HPCIDBC) has installed interceptors along Bagmati and Bishnumati and is installing wastewater collection laterals. Wastewater collected from households will be transferred to modern, environment-friendly WWTPs being constructed under this project in Sallaghari (14.2 MLD), Balkumari (17.5 MLD), Dhobighat (74 MLD) and Guheshwori (16.2 MLD) for treatment. Wastewater treated at these WWTPs will be released into rivers.

These WWTPs, under the first phase, will have total treatment capacity of 130.81 MLD. Currently at Guheshwori, a conventional WWTP with installed capacity of 16.2 MLD is operating partially and its rehabilitation is going on. Work is on with the aim of completing the construction of a modern, environment-friendly WWTP (16.2 MLD) at Guheshwori within the current fiscal.

	Major works	Target	Units	Progress
1	Installation of interceptors along river banks			
	Installation of interceptors along both banks of Hanumante	25.35	km	15.3
	Installation of interceptors along both banks of Manohara	11.36	km	4.8
	Installation of interceptors along both banks of Khasyangkhusung	7.68	km	4.8
2	Construction of wastewater treatment plants			
	Guheshwori WWTP (treatment capacity 32.4 MLD)		percent	85.9
	Sallaghari WWTP (treatment capacity 14.2 MLD), Balkumari WWTP (17.5 MLD) and Dhobighat WWTP (7.4 MLD)		percent	4.9

Process, Operation and Maintenance of Guheshwori WWTP

PID organized an interaction on the Process, Operation and Maintenance of Guheshwori WWTP, on March 25. Participants included Secretary at the Ministry of Water Supply Dipendra Nath Sharma, international wastewater expert Dr Rajendra Bhattarai, Joint Secretary Tej Raj Bhatta, KUKL General Manager Dr Mahesh Bhattarai, Executive Director of Kathmandu Valley Water Supply Management Board Dr Sanjeev Bickram Rana, Project Director of PID Tresh Prasad Khatri, Deputy Project Director Milan Kumar Shakya and Project Manager

Surat Kumar Bam. Issues discussed included environment-friendly aspects of the WWTP and enhancement of KUKL staff's capacity to operate wastewater infrastructure.

International expert Dr Bhattarai described WWTP under construction at Guheshwori as 'gold-plated WWTP' listing features like anaerobic digester, odour control and tertiary treatment. He pointed that such WWTPs are rare even in the US. Secretary Sharma stressed the need to make KUKL staff capable of operating modern WWTPs through knowledge/skill transfer.



■ Rt Hon'ble Prime Minister KP Sharma Oli, Hon'ble Minister for Water Supply Bina Magar and elected representatives during the foundation stone laying ceremony of the Balkumari wastewater treatment plant, at Balkumari, Lalitpur, on January 3.

PM lays foundation stone of Balkumari WWTP

Rt Hon'ble Prime Minister KP Sharma Oli laid the foundation stone for the construction of a modern, environment-friendly wastewater treatment plant (WWTP) at Balkumari, Lalitpur, on January 3.

Hon'ble Minister for Water Supply Bina Magar, elected representatives of local bodies, including lawmakers and Mayor of Lalitpur Metropolis, government secretaries, representatives of donor agencies and experts were present at the stone-laying ceremony of the Balkumari WWTP (17.5

MLD) that SAFBON WATER SERVICE (HOLDING), China is constructing.

- The Chinese company signed the contract for construction of the Balkumari WWTP on May 7, 2017 with the completion period of 30 months.
- As per the contract, the company will be responsible for operation and maintenance of the plant for five years after completion of the construction work.
- Balkumari WWTP will use the Activated Sludge Process for wastewater treatment and be equipped with a

deodorization unit.

- WWTPs under construction under the scope of PID at Dhobighat (Lalitpur), Sallaghari (Bhaktapur) and Guheshwori (Kathmandu) will release wastewater brought through interceptors into rivers after treatment. The discharge will have enough oxygen to ensure survival of aquatic beings and keep the rivers clean.
- Wastewater released after treatment at these WWTPs can be used for cleaning and irrigation.

PID gets GESI, Environment and Social Compliance Awards

PID has received ADB's Exemplary Contribution Award (Gender Equality and Social Inclusion) as well as Exemplary Contribution Award (Environment and Social Compliance Monitoring).

Project Director of PID Tires Prasad Khatri received the awards from Finance Secretary Rajan Khanal in the presence of Secretary at the Ministry of Water Supply Dipendra Nath Sharma, Deputy Director General of ADB/SARD Diwesh Sharan, ADB/NRM Country Director Mukhtor Khamudkhanov, ADB's Urban Development Specialist Vivian Casto-Wooldrige and other distinguished guests during the Country Portfolio Review Meeting (CPRM) held in March.

It may be noted that Safeguards Unit of PID is making efforts to improve compliance of GESI, environmental and social safeguards under projects affiliated to PID.



■ Project Director of PID Tires Prasad Khatri receiving the ADB awards from Finance Secretary Rajan Khanal during the CPRM on March 8-9.

