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KATHMANDU PAANI

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GOVERNMENT OF NEPAL, MELAMCHI WATER SUPPLY PROJECT SUB-PROJECT 2, PROJECT IMPLEMENTATION DIRECTORATE/KATHMANDU UPATYAKA KHANEPANI LIMITED

Message from KUKL-PID

Phase I of the Melamchi Water Supply Project (MWSP), meant to improve Kathmandu Valley water supply, is advancing towards its milestone achievement of completing the 27-km-long tunnel that will make increased availability of water in the Kathmandu Valley a reality. This project of national pride belongs to everyone and it is our duty to create an environment conducive to its completion by coordinating efforts of all agencies to make the system operational this year. By October 2018, 270 million litres will be available per day (MLD), including 100 MLD from existing sources. By 2023, Kathmandu Upatyaka Khanepani Limited (KUKL)'s system will supply 510 MLD of water, transforming lives in Kathmandu Valley in multiple ways. Pipe-laying on roads is a crucial component of this work, which inevitably causes some disruption in everyday life. Project Implementation Directorate (PID) is trying its best to better manage the construction and will leave no stone unturned to minimise inconveniences to the public.



Availability of more water for consumption will lead to a significant improvement in public health, contributing to the realisation of sustainable development goals on health, sanitation and drinking water in the Kathmandu Valley. To reinforce these positive developments, the Kathmandu Valley Wastewater Management Project (KVWWMP) is undertaking works to ensure that wastewater is well-managed as the water supply is improved. Wastewater generated at the household level will be conveyed through an improved sewerage network, collected at wastewater treatment plants (WWTPs), treated and discharged into rivers. These works will revive rivers flowing through the Kathmandu Valley with the discharge of treated water providing a more suitable habitat for aquatic life. PID is aware that people living close to WWTPs have some concerns about these components, related mainly to bad odour. To address them, WWTPs will be equipped with modern technologies and their odour-generating units will be covered to avoid spreading odour in host communities. Landscaping will be done at some WWTP sites spread in large areas to give people a chance to take good care of their health.

In a city like Kathmandu, improvements in water supply and sanitation are complex activities that take time and cause temporary inconveniences. But as we complete these works, we get closer to a brighter, cleaner future for Kathmandu Valley. With Phase I of the transformative project entering completion stage, PID requests all to continue their support for this endeavour.

Tiresh Prasad Khatri
(Project Director)

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



■ PID Project Director Tiresh Prasad Khatri and Deputy Project Directors Himesh Anand Vaidya and Divakar Prasad Dhakal during a site visit to Kirtipur SRT, on January 30

Kathmandu Valley Wastewater Management Project

KVWWMP was launched in 2013 with financing from the Asian Development Bank (ADB), OPEC Fund and Government of Nepal. Total fund available for this project is US \$137 million. KVWWMP was envisaged with the thought that improved supply of water upon completion of the MWSP will lead to increase in volume of wastewater, which, if left unmanaged, could further pollute rivers. The idea behind the project is to systematically collect wastewater, revive water bodies and make a positive impact on public health and the environment by releasing wastewater treated at WWTPs.

Under this project, installation of interceptors is underway along Manohara, Hanumante and Khasyangkhusung river banks. This project is also installing about 45 km of interceptors along

the banks of these rivers.

In parallel, High Powered Committee for Integrated Development of the Bagmati Civilisation (HPCIDBC) has also installed interceptor sections along Bagmati and Bishnumati rivers and is installing some wastewater collection laterals. Wastewater collected from households will be transferred through interceptors to WWTPs and treated there. Under the scope of this project, WWTPs are being constructed at Sallaghari of Bhaktapur, Kodku (Balkumari) and Dhobighat of Lalitpur, and Guheshwori of Kathmandu.

Wastewater collected and treated at these WWTPs will be released into rivers.

PID expects this initiative to contribute positively to environmental well-being and public health.

The progress status of construction of wastewater components is as follows

Contract Package	Contractor	Contract Amount in Million NRs	Major Works	Starting Date	Completion Date	Progress to Date	
						%	Works
Rehabilitation and expansion of WWTP at Guheshwori	VA Tech Wabag Ltd, India	2,558.32	Rehabilitation of existing (16.2 MLD) and construction of new (16.2 MLD) WWTPs	August 1, 2016	July 22, 2018	41	Construction of different units going on
Construction of WWTPs at Sallaghari, Kodku and Dhobighat	Safbon Water Service (Holding) Inc, China	3,920.62	Construction of WWTPs at Sallaghari, (14.2 MLD), Kodku (17.5 MLD) and Dhobighat (37 MLD)	May 7, 2017	Nov 6, 2019	—	Basic design and site preparation works
Construction of Dhobighat II WWTP	CGCOC-ATAL JV, China		Construction of a 37-MLD WWTP Operation and maintenance of the WWTP for five years after its successful commissioning	March 25, 2018	March 14, 2020		Contract signed, contractor to mobilise soon
Construction of Intercepting Sewerage System along Hanumante river	GIETC-Lama-Raman JV, China/Nepal	636.04	25.33 km of interceptor sewers along both banks of Hanumante river	May 3, 2016	April 23, 2018	10	5,957 m of Hume pipe laid at different river bank sections
Extension and construction of Intercepting Sewerage System along Manohara river	ZIEC-Sharma-BK01 JV, China/Nepal	758.66	11.36 km of interceptor sewers along both banks of Manohara river	Nov 2, 2016	Oct 23, 2018	4	1,273 m of Hume pipe laid at different river bank sections
Construction of Sewer Collectors along Khasyangkhusung river	Lama-Raman-Golden Good JV, Nepal	411.23	7.68 km of sewer collectors along both banks of Khasyangkhusung river	Dec 15, 2017	June 8, 2019	-	At mobilisation stage

Progress Status of Drinking Water Components

Under Distribution Network Improvement packages, PID has so far installed 675 km of pipeline out of around 780 km as part of MWSP-I. It plans to lay remaining pipeline by June 2018. Under Bulk Distribution System, it has installed around 67 km of critical pipelines out of 80 km. Also, the main trunk line carrying Melamchi water from Sundarijal to Chabahil has been completed, including necessary pressure testing. SRTs, from where water will be distributed to people in the Kathmandu Valley, are almost complete.

Inspection of Melamchi Project Infrastructure

The then Secretary at the Ministry of Water Supply and Sanitation, Gajendra Kumar Thakur, on January 21, inspected components of the planned water supply improvements, including Guheshwori WWTP, Arubari Service Reservoir Tank, the Water Treatment Plant (WTP) at Sundarijal and Melamchi Tunnel.

Joint-secretary Anil Bhadra Khanal and officials from PID and Melamchi Water Supply Development Board (MWSDB) briefed Thakur about progress status of project components. Thakur also stressed the need to focus on construction of quake-resilient structures.

Public Consultations on Social Issues

KUKL-PID continues to emphasise the importance of public interactions to keep residents informed about what construction projects are in the works, what impacts they may have on local populations and how to reduce potential negative effects on the daily

lives of people living near the sites. Questions and answers are an important part of every event. Key officials attend such events to address the concerns of residents. Some of the public consultations held during the period are listed below.

Date	Place	Discussion topics	Participants
January 6	Dhobibhat, Lalitpur	Presentation about the WWTP, sewerage network and potential impacts on the local population Discussion on the measures that will be put in place to reduce negative impacts that the plant may cause and ways to address concerns of local people	PID officials, Lalitpur Metropolitan City ward 4 Chair Narayan KC, then Minister of State for Science and Technology Biraj Bista
February 6	Dhobibhat, Lalitpur	Installation of sewerage network at core city areas of Lalitpur and the WWTP to be constructed at Dhobighat Review and consultation on measures to cover the odour-generating units and technology to reduce bad odour	Lawmaker Pampha Bhusal, Joint-secretary Anil Bhadra Khanal, PID officials, Lalitpur Mayor Chiri Babu Maharjan
March 14	Kuleshwor, Kathmandu	Date of commencement of drinking water pipeline installation in Kuleshwor Progress and modality of pipeline installation	PID officials, former Lawmaker JB Tuhure and other local people
March 16	Dhobighat, Lalitpur	Public concerns regarding the WWTP to be built at Dhobighat, especially related to odour Development of part of the site for recreational purposes Improvement in environmental well-being	Province 3 Lawmaker Jeevan Khadka, former Minister of State for Science and Technology Biraj Bista, PID officials

EVENTS

Inter-agency Coordination Committee meeting

Ministry of Water Supply and Sanitation (MoWSS) organised a meeting of the Inter-agency Coordination Committee (IACC), on February 9, 2018.

The meeting chaired by then MoSS Secretary Gajendra Kumar Thakur was participated by PID, KUKL, Kathmandu Valley Water Supply Management Board and MVWSDB officials. Joint-Secretary Anil Bhadra Khanal pointed that the committee aimed to harmonise effective commissioning of MWSP Phase-I, ensure sustainable delivery of water services to citizens' taps within the agreed timeline and improve overall project management and monitoring. Accelerating implementation, developing a unified direction of future development and enhancing coordination are also key objectives. Highlights of the discussion include:

- The need for shared responsibility and mutual accountability to ensure that Melamchi water reaches into people's taps this year.
- The importance of catchment area protection measures, including for Phase II of MWSP that will divert water from Yangri and Larke to Melamchi.
- Advancements in Melamchi Tunnel construction work and precautions taken in course of the work.



■ A view of the open cut undertaken near the intake site shows complexity of works required to divert water from the Melamchi river

Press Meet on Melamchi Project Progress

MoWSS on January 10 organised a press briefing to inform journalists about the progress in the construction of the Melamchi project.

At the programme presided over by the then Secretary at MoWSS, Gajendra Kumar Thakur, PID Project Director Tires Prasad Khatri told journalists that PID is committed to addressing issues within its jurisdiction.

Meeting on Communications

KUKL, KUKL-PID and MWSDB, on March 15, held an interaction with media representatives and civil society organisations involved in the urban water supply sector with participation from ADB and other agencies. The meeting updated participants on advancement of the Kathmandu Valley water supply improvements and provided a forum to discuss the communication products being developed.

PROJECT MANAGEMENT UPDATES

ADB Mission Reviews Loans 2776, 3255

An ADB Loan Review Mission looked into implementation progress of subject projects from February 2 to 20, 2018 as part of its mission to review Loans 2776 and 3255.

The mission held discussions with officials of the MoWSS, Kathmandu Valley Water Supply Management Board, MWSDB, KUKL, PID and consultants and contractors mobilised under these loans, and visited several project sites. It consisted of officials and consultants from the ADB. The executing agency and implementing agencies reiterated to the Mission their commitment for achieving the agreed 2018 projected contract award and disbursement targets for Loan 2776 and Loan 3255. The Mission positively noted that PID and MWSDB are up to date with QPR submissions. It appreciated that the last QPR incorporates KUKL implemented subproject information and requests that this be continued.

WWTP Construction Contract

PID, on February 2, 2018, signed a contract with CGCOC-ATAL JV, a China-based joint venture company, for constructing a modern WWTP having capacity of 37 million litres per day (MLD) at Dhobighat in Lalitpur.

As per this DBO (Design, Build, Operate) contract that will take effect from March 25, 2018, construction work will be completed by March 14, 2020.

The contractor will design the treatment system, complete construction, operate and maintain it for five years after successful commissioning of the plant.

This is the fifth WWTP in the Kathmandu Valley and second of the same capacity at Dhobighat that PID has awarded contracts for construction. All these WWTPs are environment-friendly and due consideration has been given to address surrounding communities' grievances related to bad odour.

Community Awareness and Safeguards Support Consultant

Community Awareness and Safeguards Support Consultant has been working to raise awareness on importance of health and hygiene, environmental well-being, health and safety of workers constructing MWSP components and public through activities like school awareness programmes and community meetings, in coordination with PID.

Out of 109 grievances registered since its mobilisation (mid-July 2017) till March 2018, CASSC has helped solve 64 grievances and is in process of redressing the remaining 45 grievances. It held 295 school awareness programmes with participation of 18,889 students. Out of them, 9,887 were male and 9,002 were female. During the same period, CASSC held 635 community meetings in which 10,982 people took part. Out of the participants, 7,830 were male and 3,152 were female. It has been informing the public about MWSP through periodicals.



KUKL unveils posters on water supply reforms

KUKL has unveiled infographics detailing tentative deadlines for completion of various components of the Kathmandu Valley water supply improvements currently underway.

The posters show the main components of the new system, and the key milestones to be achieved to make it operational. KUKL's total water supply will increase from about 100 million litres to about 270 million litres per day, giving KUKL customers inside the Ring Road at least 2-4 hours of daily water supply.

The Sundarijal WTP and nine newly-constructed storage tanks will have a modern filtration process and mechanised controls to manage chlorination levels to ensure water quality.

The water supply will reach households by first passing through newly-installed transmission mains leading to the storage tanks. From these tanks, water will flow by gravity through the water distribution pipe network that is currently being upgraded by KUKL-PID, and into the taps. The water will be distributed to KUKL customers through the existing pipes starting in October, while the new pipes are being tested in parallel.

As the testing is complete, customers will be switched zone by zone from the old network to the new network.

Notice

Ministry of Water Supply and Sanitation and Project Implementation Directorate apologise for inconveniences faced by the public during the implementation of the mega-project and appeal for everyone's support in this transformative endeavour.

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