KEIIP NEWS

AUGUST 2019 | KOLKATA

Mayor Speaks

Let Kolkata be climate resilient

Kolkata Environmental Improvement Project (KEIP) was started in 2002, to safeguard citizens' rights in a modern metro city, improve the quality of life and to arrest environmental degradation. Later the project was named as Kolkata Environmental Improvement Investment Project (KEIIP).

To implement this idea, both Kolkata Municipal Corporation and Asian Development Bank aspire to continue their combined efforts to improve the urban environment and living conditions in Kolkata.

KEIIP has planned to integrate the different urban sub-sectors aiming to improve the overall urban environment and improve quality living for the citizens of Kolkata.

The project consists of total of three tranches and for an additional time horizon approved as eight years effective from 2014 to 2023. ADB's multi- tranche financing facility (MFF) has been used to finance the program through a series of loans; under KEIP initially and now KEIIP for the period scheduled to end in the year 2023.

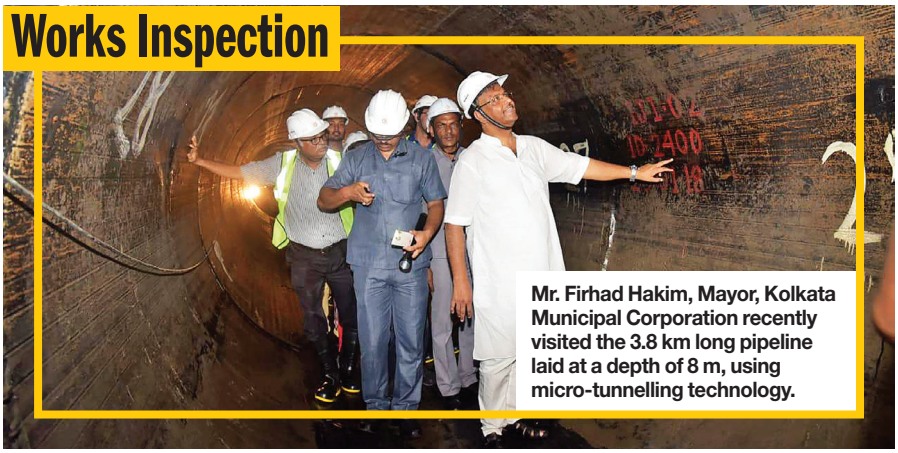
We believe that the outcome of KEIIP would allow improved healthy living standards and access to basic facilities for the citizens of Kolkata related to water supply and sanitation facilities, esp. in the peripheral areas of KMC.

As the work is in progress in different wards and inspite of utmost precautions taken, there may be instances of some hindrances that affect our daily life. But, we are hopeful that law abiding citizens will bear with us for the time being to build Kolkata a livable city.

Firhad Hakim

Mayor, Kolkata Municipal Corporation

Works Inspection



Mr. Firhad Hakim, Mayor, Kolkata Municipal Corporation recently visited the 3.8 km long pipeline laid at a depth of 8 m, using micro-tunnelling technology.

KMC citizens to get 24X7 water by 2023

A dream come true gift from KEIIP

By Our Correspondent

Kolkata will have a 24/7 water supply, fully metered and monitored using smart technologies, and less than 20% non-revenue water by 2023.

With the help of funding by Asian Development Bank (ADB), Kolkata Environmental Improvement and Investment Project is determined to upgrade city's water supply and that will finally lead to a 24x 7 water supply for the citizens. In this regard KEIIP wishes to continue the rehabilitation of inefficient and outdated water supply assets to minimise operational cost, restoration and enhancement of production capacities and reduction of water loss in distribution. KEIIP also working hard to establish a full proof water loss management system for the citizens of Kolkata.

This project of KEIIP will also eradicate the age-old water logging problem of Behala and Joka. This will put an end to the waterlogging problem in Behala with an underground sewerage system. This initiative will ease the maladies of KMC wards like 123, 124, 143 and 144. In this regard KEIIP is constructing 378KM S&D Network, Augmenting three STPs (South Suburban East, Garden Reach & Bangur), Constructing 22 new Pumping Stations, and Rehabilitating & Upgrading 22 existing Pumping Stations. The project will also connect drainage connections to 46,145 Household.

Overall KEIIP is a dream come true experience for Kolkatans.

KEIIP Aspires

- Water supply assets development & Rehabilitation through also Water Loss Management
- 100% sewerage& drainage coverage and sewage treatment and recycle, whenever possible
- Financial & Project Management capacity furthered through establishment of "Utility Finance Improvement Unit"

Forward from the Project Director

Dear All,

It is my pleasure to introduce KEIIP News, the quarterly newsletter of the project. KEIIP is a humble endeavour to contribute the present KMC management's efforts to improve its water supply (both in terms of quantity and quality) and sewerage & drainage infrastructure for its citizens living in KMC selected project area spread across 7 boroughs, 31 wards and planned to cater a huge population.

KEIIP is tasked to support KMC for developing and improving; Water Supply and Sewerage & Drainage Infrastructure, Service Delivery and its Operational Sustainability:- a) by rehabilitating inefficient Water supply assets; b) extension of S&D network to peripheral un-served areas; c) financial and project management capacities improvement for long term sustainability

In order to disseminate developments in the project & intentions to keep our stakeholders well informed on KEIIP, under the aegis of KMC, Newsletter will keep the stakeholders & public informed on continuous basis.

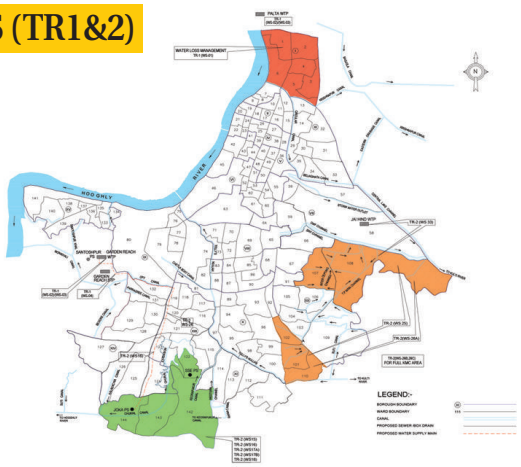
We expect contribution from our stakeholders in this newsletter, shall be much appreciated by way of; brief write ups; notes on best practices and adopted; lessons learnt and disseminated; snapshots on technical & non-technical issues of works under implementation in various packages under various tranches in the project, which directly and indirectly concern daily life of our Citizen's, our work force and partners involved in the KEIIP project.

Thanking you and wishing you all the best.

Yadav Mondal
IAS, Project Director, KEIIP

Let's know our development in progress...

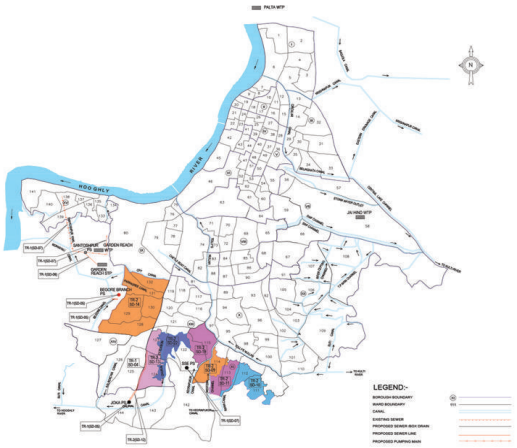
WS (TR1&2)



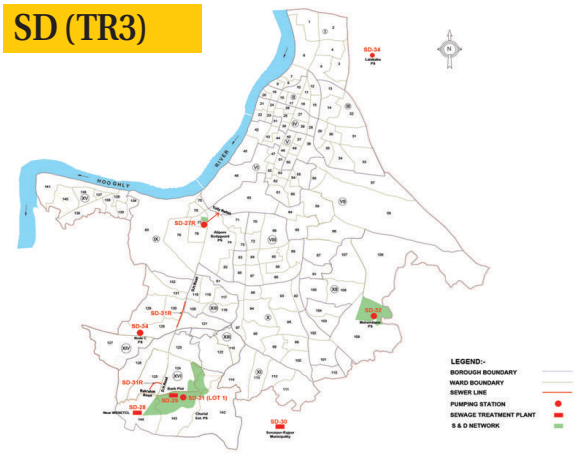
OUTPUT
11(3+8) Water Supply Sub Projects implemented, includes refurbishing of 3 WTPs, laying of 28 km water trunk mains, 300 km of distribution network, 9 elevated and 2 ground lever service reservoirs. Approximately 90,000 additional water (domestic) meters installed, monitored and maintained. Ongoing pilot study on water loss management in 6 Wards.

SD (TR1&2)

OUTPUT
12 (4+8) sewerage and drainage sub projects implemented, includes rehabilitation of SSE – STP, laying of 145 km (17+128) of new sewer drainage pipe, 3 km of mega size sewer drainage network through micro tunneling, 5 new pumping stations and 6 km of pumping main, 83841 (83400+441) No. of house connection installed.



SD (TR3)



OUTPUT
6 S&D Sub projects, 43 kms sewer drain pipeline, 13 kms pumping mains, 4 Pumping Stations and 3 (135 MLD) additional STPs and 3000 additional household to be connected to new S&D network.

KEIIP introduced India's first ever flood forecast system

By Our Correspondent

Based on various studies Kolkata ranks among the top 10 most vulnerable cities in the world due to high exposure to flooding under climate change projections. Heavy rains occur during the monsoon season when cyclones pass through the region. Flat deltaic terrain, insufficient natural drainage, and tidal blockage of channels amplify flooding and water logging in the city.

The Flood Forecasting and Early Warning System (FFEWS) for Kolkata is the first comprehensive city level early warning system in India, & has been designed to provide forecasts as well as real-time updates from sensor nodes installed at key locations throughout the city. Information generated and disseminated by the FFEWS, shall enable informed decision-making before and during disasters.

The system includes: weather forecasts; flood models for various intensities of rainfall; real-time information on key pump status, sump and canal water levels, actual rainfall, inundation levels, among others; and a messaging system to provide warnings and real-time information to city officials and citizens.

KEIIP Hydraulic Model Study

Citizens to get 150 litters per capita every day

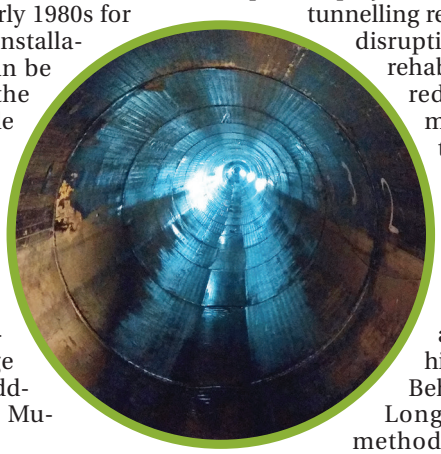
KEIIP introduces the development of the hydraulic model which is a basic step towards rational and optimal utilization of the existing transmission main system and planning to meet the water demand in the coming days. This study will facilitate to sustain a rational & equal distribution of water supply to city households. It will also help to develop necessary infrastructure to meet the future demand of the city. After this study gets over, implementing the outcomes of the study, all Kolkatans will receive water supply round the clock. The study is being carried for each of the Transmission Main system from Tallah Pumping Station, Garden Reach Water Works and Jai Hind Water Treatment Plant. Flow and Pressure data related to the existing supply system is being utilised to model the Transmission main system.

In this study engineers of KEIIP are using technologies like Bentley Water-Gems in hydraulic modelling for developing the hydraulic models; AutoCAD software for preparation of Layout Drawings, Flow diagrams and Key Plans and ArcGIS for migration of pipeline network data and consumer data for decision making in the actual design process. After this frantic-toil process gets over, a huge operational changes will take place for improved water supply around the city.

Microtunnelling a hassle free experience

By Our Correspondent

Microtunneling is a trenchless technology which combines a remote controlled, steerable boring machine with pipe jacking technique to install product pipelines underneath the ground in a single pass. This was developed in Japan in early 1980s for gravity sewer pipe installation and as such can be steered to ensure the correct line and grade of the sewer line. Kolkata Environmental Improvement Investment Programme (KEIIP) adopted this technology in Tranch I & II phase of the project to lay sewerage pipeline in newly added areas of Kolkata Municipal Corporation.



The Microtunnelling method has to either maximise the present value of the net benefits, or minimise the costs of providing the service. Traditionally, open-cut excavation methods were used for such projects, however, these methods are expensive. It has numerous benefits. Construction Cost, Construction Time frame, Site Rehabilitation, Social Issues can be minimised by using this method.

Unlike open-cut methods, which require trenches to be dug to match the length of the pipe, microtunnelling has a smaller site footprint, as it only requires an entry and exit pit. In terms of costs, it is estimated as around 70 per cent of an open-cut project's direct costs. As microtunnelling results in less surface disruption, the costs of site rehabilitation are greatly reduced with less human labour, excavation and backfill costs.

KEIIP has successfully implemented this method in projects like SD6, SD12, SD 22 and SD & WS 04. In a high-density areas like Behala all along James Long Sarani, open-cut methods can cause major disruption to traffic system, businesses and the general public, leading to increased social costs. But the successful use of microtunnelling helped to maintain proper traffic and business activities of the area and it also helped to prevail normal living, working and shopping around the construction zone.

Award Accolade

Asian Development Bank (ADB) has awarded Kolkata Environment Improvement Programme (KEIP) as best performing project at a function at Bengaluru on Ocber 2017. ADB is currently assisting a $400 million project, the Kolkata Environmental Improvement Investment Program (KEIIP), in Kolkata.

Stay Safe!

Let's remember these points while we are at work site...

- We should familiarize ourselves with all potential fall hazards on a job site. Never work in an area where fall protection systems have yet to be installed.
- When wearing eye and face protection, workers should make sure that they don't interfere with your movements and fit snugly on your faces. Eye and face protection should be kept clean and in good condition.
- While you are at work site, it is required to wear head protection all time at the construction site. Hard hats should fit snugly on your head and wear sturdy, non-skid work boots. High visibility cloth, jackets need to be worn at work sites.
- Know your assembly arena properly that there are protections in place, stay safe while working at the construction site. Ensure prohibition of unauthorised entry in the work area.

As we reach to our community

By Our Correspondent

Public Communication plays the pivotal role in urban water service delivery and solid waste management. Disseminating of information and to build up strong awareness to the masses and target groups are frantic toil task for the KEIIP. While assets and financial management covers the technical aspect of the project, effective communication is essential for acceptance of the stakeholder groups and to get their support. Collectively both result in timely project implementation with the support and feedback of the stakeholders, making it more effective and people friendly.

In this process of communication and information dissemination this quarter KEIIP reached out to community members of Wards through various activities. KEIIP celebrated International Women's Day, World Environment Day etc with élan. There was open interaction with community members of Ward No 2, 5, 6, 124, 142, 115 and many more.

In April 2019, KEIIP celebrated World water day with the school goers and their parents by organizing some orientation programe on save water campaign. In June 2019, KEIIP celebrated World environment day with a motto of #noplasticsaveearth drive.

And Finally

RABIN RAY:

I reside in Adarsh Nagar (East) of Ward No. 129. It is our great fortune that the curse of waterlogging has been solved in my locality. Earlier it used to take one or one and half day to even two months for water levels to lower after water logging, now within a day, water gets drained out in our ward. People in Ward 129 have a lot of patience and for the development of our ward we are willing to go through the current inconvenience caused due to development work goes on.

KALYANI GANGULI:

I am a resident of Ward No 122 and I am very much excited that such a great initiative is being undertaken by KEIIP & KMC and the long standing problem of water logging in our locality will be gone forever. However, in the process, we too have suggestions and queries and I am really happy to see that the contractors maintain a complaint record register and their status are monitored. Soon there will be no waterlogging in my neighbourhood.

RABI MAHATO:

My family resides in Ward No 1. I appreciate the idea of installation water meter in our Ward. I am an Engineering student. My suggestion is that the households who would be found wasting treated water be given a warning about such waste based upon the Water Meter readings. If those households were still found to continue such offence they should be cautioned second time. But for third time if they found guilty I would rather suggest for penalising them for water wastage.