Social Monitoring Report

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Period: July 2015 - December 2015

IND: Kolkata Environmental Improvement Investment Program (Tranche 1)

Prepared by Project Management Unit, Kolkata Environmental Improvement Investment Program, Kolkata Municipal Corporation, Government of West Bengal for Asian Development Bank and is made publicly available in accordance with ADB's public communications policy (2011). It does not necessarily reflect the views of ADB.

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KOLKATA ENVIRONMENTAL IMPROVEMENT INVESTMENT PROGRAM (KEIIP) – PROJECT 1

PROJECT MANAGEMENT UNIT

SEMI ANNUAL SOCIAL SAFEGUARD MONITORING REPORT TRANCHE 1 ADB Loan 3053-IND (Period July to December 2015)



KOLKATA MUNICIPAL CORPORATION

ADB Loan Number 3053-IND Period Covered: July to December 2015

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ABBREVIATIONS

AAI — Airport Authority of India

ADB — Asian Development Bank

AP — Affected Person

C&P — Consultation and Participation

CBO — Community-Based Organization

CSTC — Calcutta State Transport Corporation

CTC — Calcutta Tramways Company

DMA — District-Metered Area

DSC — Design and Supervision Consultant

EMP — Environmental Management Plan

FGD — Focus Group Discussion

GAP — Gender Action Plan

GIS — Geographic Information System

GOI — Government of India

Govt. — Government

GoWB — Government of West Bengal

GRM — Grievance Redress Mechanism

HH — Household

IPP — Indigenous Peoples Plan

KEIIP — Kolkata Environmental Improvement Investment Program

KEIP — Kolkata Environmental Improvement Project

Km — Kilometer

Km² — Square Kilometer

KMC — Kolkata Municipal Corporation

KMDA — Kolkata Metropolitan Development Authority

LAA — Land Acquisition Act

LHS — Left-Hand Side

M/F — Male/Female

m — Meter

M² — Square Meter

MLD — Million Liters Per Day

MM — Maheshtala Municipality

Mm/mm — Millimeter

MS — Mild Steel

NA — Not Applicable

NGO — Non-government Organization

No. — Number

NRRP — National Rehabilitation And Resettlement Policy

NRW — Non Revenue Water

OBC — Other Backward Classes

PAF — Project Affected Family

PAH — Project Affected Household

PCB — Pollution Control Board

PD — Project Director

PDS — Public Distribution System

PHE — Public Health Engineering

PID — Project Implementation Director

PMU — Project Management Unit

PS — Pumping Station

PST — Pre-Setting Tanks

R&R — Resettlement and Rehabilitation

RHS — Right-Hand Side

ROW — Right-of-Way

Rs. — Rupees

S&D — Sewerage and Drainage

SC — Scheduled Caste

SDU — Social Development Unit

SIA — Social Impact Assessment

SPS — Safeguard Policy Statement

SSU — Social Safeguard Unit

SSC — Social Safeguard Cell

ST — Scheduled Tribe

STP — Sewerage Treatment Plant

WBPCB — West Bengal Pollution Control Board

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Executive summary

The Kolkata Environmental Improvement Investment Program (KEIIP): 2014 – 2022 is a key urban infrastructure initiative of the Kolkata Municipal Corporation (KMC), closely following the implementation of the Kolkata Environment Improvement Project (2002-2013). The completed Kolkata Environmental Improvement Project (KEIP) is a multi-agency endeavor to arrest environmental degradation and improve the quality of life in Kolkata. The works under KEIP has been completed by 30 June 2013, the closing date of the ADB KEIP loans (1813-IND and 2293-IND). Both KMC and ADB wish to continue their combined efforts to improve the urban environment and living conditions in Kolkata, building on results achieved and experience gained. Therefore, a continuation of the KEIP has been proposed, which is named the Kolkata Environmental Improvement Investment Program (KEIIP). The ADB has expressed its willingness to support this program by providing a multi-tranche financing facility (MFF). KEIIP Tranche 1 will be implemented in the period 2014 to 2018; KEIP Phase 3 in the period 2014-2020 and Phase 4 in period 2016-2022, meaning that the various phases overlap each.

ADB requires the consideration of social safeguard issues in all aspects of the Bank's operations, and the requirements for involuntary resettlement are described in ADB's Safeguard Policy Statement (SPS), 2009.

The proposed KEIP phase 2 sewerage and drainage (S&D) subproject components includes,

- 1. S&D pipe laying works along Diamond Harbour Road catchment in parts of Borough XIV;
- 2. Construction of trunk sewer along Diamond Harbour Road;
- Construction of pressure main between Santoshpur Main Pumping Station and Garden Reach Sewerage Treatment Plant (STP);
- 4. Construction of Begore pumping station in Maheshtala municipality,
- 5. Construction of Churial pumping station within the premises of Joka tram depot in Joka II panchayat area;
- 6. Geographic Information Systems (GIS) Mapping of S&D Networks.

Apart from the works which have been taken up under Tranche1, two additional works as mentioned below need to be addressed for better functioning of the S&D system and providing better benefits to the locality related to the water logging issue. The two additional works are:

- Interventions required for better functioning of the Behala Flying Club Pumping station(BFC PS) including augmentation of SWF capacity
- 2) Laying of rider sewers along Upen Banerjee Road

The overall project is classified as Category B in accordance with ADB's Safeguard Policy Statement (SPS). ADB's SPS covers both temporary and permanent impacts.

There is no land acquisition required for the S&D subproject as the components will be located in properties held by KMC and within public right-of-way (ROW) of existing roads. The surveys and assessments undertaken indicate that construction and location of facilities will not entail any severe resettlement impacts like,

- 1) Demolition of structures
- 2) Physical displacement of people.

Components located within the public ROW may have short term impacts like limited access and livelihood disruption during the construction stage.

Socio-economic surveys and rapid assessment of businesses/shops within the subproject impact area have been conducted. Based on the assessments an entitlement matrix has been developed to address the probable short term temporary impacts during construction phase. Businesses facing income loss due to disruption of access during construction phase will be compensated for lost income. Mobile hawkers and vendors will be assisted in moving to alternative locations during the period of construction and entitled to return once works are declared complete by the contractor. Compensation eligibility is limited by a cut-off date as set for this project on the day of the income survey prior to commencement of civil works.

The subproject's Grievance Redress Mechanism will provide the citizens with a platform for redress of their grievances and describes the informal and formal channels, time frame and mechanisms for resolving complaints about environmental performance.

PROJECT DESCRIPTION

Background

The city of Kolkata is the seventh largest metropolis in India, and had 4.5 million residents in 2011. It is the largest city in the state of West Bengal, and has been the biggest contributor to West Bengal's gross state domestic product, which was ranked sixth largest among all states in India in 2010. The continuous improvement in the city's urban environment is necessary to increase labor productivity through better health status of the urban population, especially when it has been experiencing lower population growth. There have been, however, geographical disparities in access and quality of the water supply and sewerage services, because the Kolkata Municipal Corporation (KMC), an urban local body with a mandate to provide these services under the KMC Act (1980), has an aging water

supply system, and has inadequate sewer coverage in the city's peripheral areas.¹ The Asian Development Bank (ADB) loans have assisted KMC in the expansion of the sewerage coverage through the Kolkata Environmental Improvement Project² (KEIP) since 2000. The Kolkata Environmental Improvement Investment Program (KEIIP) will help KMC not only to continue sewer network expansion on a larger scale, but also to gradually improve efficiency in water supply operations, which will enable KMC to generate operating surplus for capital investment in water supply and sewerage.

On successful execution of KEIP under 2 Loans (1813-IND and 2293-IND) KMC has decided to secure further loan from ADB in multi-tranche financing facility (MFF) for infrastructural development. KMC plans to establish and upgrade essential infrastructure and service levels to develop an efficient S&D system. The specific objectives of the S&D subproject are (i) to improve the overall sanitary conditions in the subproject area; (ii) to improve environmental conditions in the subproject area to reduce health risks and economic loss to the citizens directly and indirectly; and (iii) to provide quick relief from waterlogging conditions in the subproject area. This subproject will have poverty reduction impacts and benefits due to increased service levels of basic amenities. S&D subproject under KEIIP Tranche 1 includes: (i) S&D network within Diamond Harbour (DH) Road catchment 1; (ii) micro-tunnelling work on sewer line along DH Road; (iii) micro-tunneling work on pressure main between Santoshpur main pumping station (PS) and Garden Reach sewage STP; (iv) construction of pumping stations at Begore Khal near Behala Airport and Joka tram depot.

Tranche 1 S&D subproject and its components are to comply with relevant safeguard requirements of the loan agreement, the Government of India, the state government of West Bengal, and the ADB Safeguards Policy Statement (SPS), 2009. This resettlement plan for the S&D subproject under Tranche 1 aims to (i) provide critical facts and significant findings; (ii) present the national and local legal and institutional framework within which the social impact assessment has been carried out; (iii) identify mitigation measures and any residual negative impacts that cannot be mitigated; (iv) describe the set of mitigation measures to be undertaken to avoid, reduce, mitigate, or compensate for any resettlement impacts; (v) describe the grievance redress mechanism for resolving complaints; and (vi) describe the implementation arrangements, monitoring measures, and reporting procedures

Execution of S&D subproject package SD05 construction activities will be located in the following areas (i) in part of DH road catchment area (in Borough XIV) that is mostly affected by flooding. The lanes selected are within residential area and pipes will be laid within the ROW of existing roads; (ii)

construction of pressure main from Joka Tram Depot to Churial canal. (iii) Construction of pumping stations at Joka Tram depot and Behala airport land (Begore Khal PS).

Table 1 : Tranche – 1 Contract Packages & Description of its Components

Package No.	Description				
WS - 01	Performance based Water Loss Management at Cossipore Ward 1 to 6				
WS - 02	Rehabilitation and Refurbishment of Water Works at Palta and Garden Reeach				
WS - 03	Supply and installation of Pumps and Motors at Tallah Palta and Garden Reach systems				
WS & SD - 04	Laying of Water Trunk Main from Garden Reach Water Works to Taratala Valve Station and laying of Sewer Line along Diamond Harbour Road by Micro tunnelling method				
SD - 05	Construction of Pumping Station at Begore Khal and Joka Tram Depot and Construction of Swersage and drainage network within Diamond Harbour Road Catchment				
SD - 06	Micro Tunnelling work on Pressure Main between Santoshpore MPS and Garden Reach STP.				
SD - 07	Construction of S&D Notwork and Pumping Station in Borough - XIII (Ward 122) including Replacement of GAP Sewer Line in Borough-XV. Laying of Pumping Main and Rehabilitation of SSE STP including operation & Maintenance of the Pumping Station(s) and STP (Contract Package No. KEIIP/ICB/TR-1/SD07/2015-16				
BR - 08 A	Interior Renovation of KEIIP Office at Business Towers, 206 AJC Bose Road, Kolkata 700 017 including Electrical Works and Air-Conditioning Works (Contract Package No. KEIIP/NCB/TR 1/BR-08A/2015-16				

PK - 08B

Supply & Installation of Hardware and Software for Project Accounting System of Kolkata Environmental Improvement Investment Program (KEIIP) LOT 1 And Supply and installation of Geographical information System (GIS) Software - Lot 2 (Contract Package No. KEIIP/NCB/TR-1/BR-08B/2015-16/Lot 1/2

Project Components

Tranche 1 S&D subproject components include (i) S&D network within Diamond Harbour Road catchment 1; (ii) Micro-tunneling work on Sewer line along Diamond Harbour Road; (iii) S&D subproject package SD05

Description of component locations is provided below:

- a. Micro tunneling work on pressure main between Santoshpur MPS and Garden Reach STP; (iv) Construction of pumping stations of Begore khal at Behala Airport and Joka Tram Depot in KMC area. This updated RP covers packages SD04 and SD06, with the following components: (i) SD04 covers sewer works along Diamond Harbor Road; and (ii) SD06 covers micro-tunneling works on pressure main for Santoshpur-Garden Reach.
- b. Through this subproject, KMC plans to establish and upgrade essential infrastructure and service levels to develop an efficient S&D system. The specific objectives of this subproject are (i) to improve the overall sanitary conditions in the subproject area; (ii) to improve environmental conditions in the subproject area to reduce health risks and economic loss to the citizens directly and indirectly; and (iii) to provide quick relief from water logging conditions in the subproject area. This subproject will have poverty reduction impacts and benefits due to increased service levels of basic amenities.
- c. The subproject components are located within the Monikhali and Churial basins. These basins are located in the southern and southwestern part of Kolkata. Churial Basin serves a present population of 132,504, and Monikhali basin, a population of 56,878. Churial Basin is moderately populated but currently growing very fast, while Monikhali is a developed area and has higher population densities than Churial. With the metro being routed through these basins, a project currently under implementation, coupled with the recent improvements in road connectivity to the core city, these two basins are expected to grow at a rapid pace. This rapid growth in population with grossly inadequate S&D infrastructure will definitely put the citizens at great risk and discomfort. Therefore, there is a need to provide an organized S&D system in these areas in line with the existing system in

the core city areas.

- d. Execution of S&D subproject packages SD04 and SD06 construction activities will be located in the following areas i) S&D pipe-laying works along Diamond Harbour Road catchment in parts of Borough XIV; ii) construction of trunk sewer along Diamond Harbour Road; and iii) construction of pressure main between Santoshpur main pumping station and Garden Reach STP.
- e. SD04 and SD06 locations are in Churial basin and description of the location is provided below.

Trunk sewer along Diamond Harbour Road from Sakher Bazaar in the north to Churial Canal in the south on the western alignment within public ROW, which has very heavy traffic and is lined with shops and commercial structures on both sides. Presently the metro construction is also underway along this stretch;

The pressure main between Santoshpur main pumping station and Garden Reach sewerage treatment plant was planned to be constructed as part of the KEIP project, but could not be taken up. It is the only missing link in a system that is otherwise completely operational after completion of KEIP. Construction of this sewer main will ensure that the S&D system constructed by the KEIP in this area will become fully operational, and all anticipated benefits will be achieved. In view of the difficult site conditions, the construction will be by micro-tunneling with only two entry pits, of which one will be within the premises of Santoshpur pumping station. The other will be located in a waterlogged area on KMDA land that is under transfer to KMC

- (i) **Churial Basin:** The components of this subproject located in this basin include:
 - a) 7-km S&D network (600 mm and above) within DH Road catchment area (in Borough XIV) that is mostly affected by flooding. The lanes selected are within residential area and pipes will be laid within the ROW of existing roads.
 - b) Construction of new S&D Pumping Station at Joka Tram depot. 3,037.8 sq.mt. Of land required for establishment of this PS possession of which has already been taken over by KMC from CTC on 24.06.2014 on long term lease (renewable). This land is vacant and surrounded by walls.
 - 0.3 km pressure main from Joka Tram depot to Churial Canal along DH road by open cut method; this stretch is almost unencumbered and on the ROW.
- (ii) **Monikhali Basin:** This subproject component is a spillover from KEIP. The subproject activities for the Monikhali basin entail construction of a S&D pumping station at Begore on land (1,400 m2) located within the Behala Flying Club Area and owned by the Airport Authority of India (AAI). The possession of the land has already been take over by KMC on

18.06.2014 on long term lease (renewable). The land is vacant and there are no squatters or hawkers. Parcels of private land measuring 262.19 sq. mt. required for access road to this PS and laying of underground pipes to connect the PS has been arranged by outright purchasing the same from 9 owners at a negotiated price. This land also includes 7 non timber trees and 1 defunct structure.

The Kolkata Environmental Improvement Project (KEIP) Phase 2 aims to improve the urban environment and quality of life in parts of Kolkata Municipal Area mainly through the delivery of improved water supply, sewerage, drainage and sanitation. The Project will be implemented over a 6-year period from 2012 to 2018

Under Kolkata Environmental Improvement Project (KEIP), development of S&D system in Borough XIV was taken up and almost all the works related to the S&D system were completed except few works i.e. construction of Begore Khal PS, re-sectioning of Begore Branch Canal and other allied works. The said Project was physically closed on 30th June 2013. The unfinished works, which could not be completed, have been taken up under KEIIP, Tranche 1 and finalized for execution under package SD 05. Apart from the works which have been taken up under Tranche1, two additional works as mentioned below need to be addressed for better functioning of the S&D system and providing better benefits to the locality related to the water logging issue:

The two additional works

- 1) Interventions required for better functioning of the Behala Flying Club Pumping station(BFC PS) including augmentation of SWF capacity
- 2) Laying of rider sewers along Upen Banerjee Road

A) Proposal

Proposal for modification of the existing PS has been framed in such way that two SWF pumps already installed could be operated in parallel for providing relief to the basin during heavy rainfall. Further, a proposal has also been conceptualized for augmentation of SWF pump capacity.

Modification of the inlet arrangements of the PS has been proposed to feed storm water to the PS adequate to ensure running of all the SWF pumps in parallel (already installed 2 nos. of SWF pumps& proposed 1 no. additional SWF pump). For augmentation of the pumping station, one additional SWF pump of capacity 750 lps will be installed in the wet well. Capacity of the SWF pump has been adopted in such way that all the three nos. SWF pumps can be operated in parallel, giving a total SWF discharge of 2250 lps, keeping minimum interferences to electrical components and

retaining the existing SWF common header of 1000mm diameter discharging to the Parnashree canal.

B) Scope of works:

- ✓ Installation of a new SWF pump of capacity 750 lps (head 7.5 m)
- ✓ Modification of different units of Behala Flying club PS matching with SWF flow

C) Laying of rider sewers along Upen Banerjee Road:

Under KEIP, trunk S&D network has been developed in Borough XIV utilizing existing sewers, particularly sewer laid under the GAP. Almost all the major roads have been covered by sewer lines for systematic conveyance of storm water flow (SWF) and dry weather flow (DWF) under KEIP. But no sewer line has been laid along one of the major road, i.e. Upen Banerjee Road, since the exiting sewer line, laid under GAP and existing drains were utilized to cater combined flow.

It is observed that the road experiences frequently water logging even at a rainfall of moderate intensity. It is also found that the entire road is not covered by the drains and it is found that existing drain at most of the places is open and not in good condition to cater the SWF.

In this situation, rider sewers along the road are proposed to cater to the combined flow generated from the road. The proposal of rider sewer not only reduces water logging at the road, but also widens the road by providing closed conduit in place of open drain.

D) Scope of works

✓ Laying of rider sewers (ranging from 250 mm to 500 mm) for a length totaling 2.3 km.

Tranche 1 S&D subproject and its components are to comply with relevant safeguard requirements of the loan agreement, the Government of India, the state government of West Bengal, and the ADB Safeguards Policy Statement (SPS), 2009. This resettlement plan cover S&D subproject package SD05. It aims to (i) provide critical facts and significant findings; (ii) present the national and local legal and institutional framework within which the social impact assessment has been carried out; (iii) identify mitigation measures and any residual negative impacts that cannot be mitigated; (iv) describe the set of mitigation measures to be undertaken to avoid, reduce, mitigate, or compensate for any resettlement impacts; (v) describe the grievance redress mechanism for resolving complaints; and (vi) describe the implementation arrangements, monitoring measures, and reporting procedures.

Presently, the particular Repot has been prepared for Behala Flying Club Pumping station to understand the augmentation of the capacity of storm water. It is the unfinished work, which could not be completed in Tranch-1, have been taken up by KEIIP

Project Components of The two additional works

Table – 2: Project Components

SI No	Components				
Inlet pipe from 1000 mm dia.to 2000 mm dia. to run 2 / 3 pumps simult at BFC PS					
2	Augmentation of screen chamber capacity at BFC PS				
3	The size of sluice gate to be increased at BFC PS				
4	3 SWF pumps from previous no 2 to be installed at BFC PS				
5	New rider's sewer 250-500 dia along Upen Banerjee Road				

The impacts envisaged:

- Limited mobility and access to business activities during construction;
- Temporary shifting of vendors and hawkers during construction works within ROW where open cut methods are used.

The Findings:

It has been found that no additional land will be required for this subproject and no structure will be affected; hence there it is neither any land acquisition issue nor any resettlement issue involved in

Resettlement impact of additional work

An effort was made to observe the situation in the project area along the supply systems and also probe into the resettlement impact in various locations by a reconnaissance visit. The following situation was found at/around place

Table 3: Resettlement Impacts

Compo nents	IR Impacts	IP Impacts	Mitigation measures
S & D network	Temporary disturbances. No IR impact anticipated	None	Contractors to manage traffic flow in consultation with local authorities. It would be their responsibilities to minimize the disturbances which may

	likely to occur during laying of pipes	

The Subproject will involve no physical displacement. Though pipes will be laid along the road there will be temporary disturbances and not of permanent nature like displacement and relocation

Risk and assumptions

Due to construction activities local people, shop owners, vendors may object for the temporary disturbances. It will have to be mitigated through communication and consultation with the communities if needed.

Permission will have to be taken from Traffic Authority for diversion of traffic. Approval for shifting of utilities will have to be taken as well.

Field Work, Surveys And Public Consultations (FGD)

Stakeholders' consultations have been in progress from the inception stage of the project and the same will be continued during the entire project cycle, i.e., preparation, implementation and post implementation. During the preparatory stages, consultations have been carried out with various concerned government officials and local communities as part of the social and resettlement study in order to gather their views on the proposed program. All the affected persons were also consulted on a one to one basis through questionnaire surveys for the tranche – I subproject activities. Additionally, focused group discussions are also in progress at the project influence areas.

Table- 4: Summary of consultations

Date of Consult ation	Location	No of partici pants	Particip ants	Issues raised	Suggestions given	
13.08.15	Behala Flying Club PS	4	1 local resident, 3 staff members of contracto r's office	Problems discussed like Water logging is a problem though it is less now-a -	2 SWF pumps could not be operated simultaneously during intense rain fall Incase of heavy shower and clogged water local people are advised to inform the situation in local borough office of KMC	

				days.	The local opined that people will get benefit out of this intervention
13.08.15	Upen Banerjee Road	5	Local youths	Water logging is a recurring problem though now intensity is less.	Local residents are suggested to contact the concerned Exe. Engineer of KMC or they may inform their problems at local borough office.

The Due Diligence Report (2015) confirms that the subprojects will have no unfavorable social impacts associated with land acquisition and resettlement (LAR) and that the project is expected to be very much beneficial for the locality at large in the long run.

The summary of impacts for the S&D subproject package SD05 summarized in Table 5

Table 5 : Summary of Impacts for Tranche 1 S&D Subproject (Package SD 05)

Impact	Sewerage and Drainage
Permanent land acquisition (sq m)	262.19
Permanently affected structures	1 shop (within land to be acquired)
Affected trees/crops	7 trees (within land to be acquired)
Affected Households (AHs)	9 owners
Titled AHs	9 owners
BPL AHs	none
Female-headed AHs	none
IP/scheduled caste AHs	none

Impact	Sewerage and Drainage		
Affected common structures	none		
Income sources of permanently affected persons	various (businesses, income, etc)		
Temporarily affected businesses	32 (along DH Road)		
Average daily profit of affected businesses	Rs. 300		

Impact on Vulnerable Persons

While this package (SD05) is not a targeted poverty intervention program, it will have poverty reduction impacts and benefits through increased service levels of basic amenities. It is expected that an improved S&D system will help improve the overall hygiene, resulting in improved health and reducing time and expenses spent on maintaining hygienic conditions. This will further help reduce the burden of expenditure on health and time spent on caregiving, as well as allowing more time to pursue economic activities. This subproject will especially be of benefit to women, who spend considerable time on their household chores and looking after children and family, as well as pursuing some economic activity to help contribute to the household's finances. Educational standards will also get a boost, with children leading healthier lives and being able to attend school regularly.

Impact on Indigenous People

The subproject area is a highly urbanized area, and statistics show that less than 10,000 people belonging to scheduled tribes (STs) are found within KMC area. None of the proposed subproject facilities are located on land belonging to scheduled tribes. Also, scheduled tribes in Kolkata speak the same language as the majority of the population, do not have traditional rights and/or access to land resources, and do not follow any distinct cultural practices. One can safely conclude that the ST population in KMC has been assimilated in mainstream society. Rapid assessments transect walks and socioeconomic surveys did not indicate the presence of indigenous people (IP); therefore, no impacts are envisaged.

Gender Considerations

The project is expected to benefit women. In addition to the measures provided for addressing the gender concerns of the affected households, the resettlement plan will be implemented in consonance with the gender action plan (GAP) for the project.

Women-headed households: There are no women headed households among the surveyed population.

Literacy: While all women are found have some level of literacy; it is found that the level of education achieved was higher among men than women. There is still some difference in the literacy between male and female.

Economic activity. A total of 77% of the women in the surveyed households were housewives. Only 12.5% women were involved in income-earning activities compared to 87.5% of the men. It has been reported that in addition to the economic activities outside the home, women are extensively involved in household activities like cooking and cleaning, washing clothes, child care, care of the elderly, etc.

Decision-making. The respondents were also asked about the involvement of women in decision-making on household matters, and it was found that women were indeed involved. About 68% of the HHs reported that decisions were made by both spouses, 30% of HHs stated that decisions were made by men, and 2% that decisions were made by women.

Gender division of housework. During the survey, the respondents were also asked about the gender division of household work. Most of the household chores were left to the women. The men helped in chores like shopping, teaching children, etc.

The survey indicates that 50.5% of the adult population was engaged in some form of economic activity; 25.5% was engaged in trading and 2.4% was in government service. The strip maps indicate that Diamond Harbour road stretch is major business center with lots of shops dealing with various kinds of products. While the main Diamond Harbour Road is not prone to flooding during rains, the laterals face waterlogging frequently during heavy rains, making access and sanitation a major problem for this area covered by open drains. This has adverse impacts on the income potential of the businesses located within this area. Waterlogging also impacts the earning potential of the roadside hawkers and street side markets. Discussions with respondents during the survey revealed that most of them felt that construction works within the ROW always leads to transportation problems and traffic jams. They were of the opinion that traffic management should be given priority to minimize traffic congestion, and that information sharing would help people in managing the disturbances faced during road works.

A total of 24.7% of the respondent HHs spend amounts ranging from Rs.100 to Rs. 2,000 per annum on sanitation. A moderate amount of money is also spent on health care. While all illnesses are not attributable to sanitation levels, improved service levels are expected to reduce the burden on caregivers, who are mostly the women in the household..

Table- 6: Summarized Activities – at a glance (Excluding the two new additional work).

SI.No.	Activities	No.	Frequency	Schedule
1	Project Orientation Workshop for Officials (Half-day)	1	Annual	Sept / Oct, 2014
2	Project Orientation Seminar for household heads (half-day)	1	Annual	August / Sept, 2014.
3	Project Orientation Seminar for women only (half – day)	1	Annual	August / Sept, 2014
4	Consultation Workshop for academe, NGOs & Civil Society Organization (Full-day)	1	Annual	Nov' 2014
5	Strategic and action planning workshop for Councillors, KMC officials and Engineers (Half-day)	5	Annual	April – May (in every year for 5 years)
6	Strategic action planning workshop for ADB Project Team (half-day)	4	Annual	May (in every year for 4 years)
7	Participatory monitoring meetings for community watchdogs (half-day)	8	Biannual	June & Dec. (in every year for 4 years)

GAP Implementation

- 1. A training Programme was arraigned at SSC UNIT in October 2015 for SSC Staffs headed by Sasswati Beliappa from ADB & Dr.Manjari De, Social Safe Guard Specialist, KEIIP.KMC. The subject matter of the Training programme was the methodology to acquire the information on gender issues.
- 2. An in-house training programme was arranged at SSC UNT on 14th October, headed by Administrative Officer, KEIIP Mrs. Debaroti Ghosh. The discussion was on Gender issues and several simple methods for collecting data/information.
- 3. An in-house training programme was arranged at SSC UNIT on 16/11/2015, headed by Administrative Officer, Social Safeguard Specialist, and Social Expert. Discussion was on the

condition of different ongoing packages of our projects of Tranch1 and the Impotance ofgender issues in every phase of the project

Focus Group Discussion in the different Packages of our Project (tranch 1)

1. TR-1/SD - 05

A Focus Group Discussion was held at Joka Tram Depot site of KEIIP on 15th December 2015. The discussion was carried out by Social Expert & the team members of Social Safeguard Cell of KEIIP in presence of Project Manager, Safety Officers and site Engineers of Tantia Construction Group. The workers at Project site, Road side shop keepers and passersby of Diamond Harbour Road were consulted regarding safeguard issues related to the construction work at the mentioned location. There is no adverse report from road side shops or from any passerby.

2. WARD NO 129 (SD - 05)

A Focus Group Discussion was conducted on 17th December 2015 at Begore Canal, Behala, for ongoing project work of Package SD-05 under Tranche- I for development of underground Sewerage & Drainage network in entire Behala catchment area.

The discussion programme with the local people was conducted by the Staffs of Social Safeguard Cell, KEIIP in presence of Sri Akhilesh Kr Singh Safety officer of Tantia Construction Group and Mr. Sukanta Dey, Site Engineer (DSC).

The programme took place at the construction site of Begore pumping station at Ward No 129 Discussion revealed the following matters:

- No adverse impact due to construction work was found during the discussion.
- Safeguard of the workers are maintained properly at the site arrangements of safety equipments like Helmet, Gloves, Shoes are made by the contractor and regular monitoring is done on that issue.
- Arrangements of First Aid and facility of shifting to nearest Hospital in case of any medical emergency is available.
- Maintain safety measures like tape, guard rail in and around the construction spots.
- Grievance Redressal Register is available for proper monitoring and records.
- Traffic hazards have been avoided at the site.
- Local people appreciated the initiatives of KEIIP and no disputes or annoyance due to construction work has been reported to the concerned authority till date.

3. TR-1 / SD - 06

A Focus Group Discussion was held at Garden Reach STP of KEIIP on 21st December 2015. The discussion session was carried out by the team members of Social Safeguard Cell of KEIIP in presence of Mr. Mishra, the site supervisor of Simplex Construction Group. The workers and few local people at the site were consulted regarding the safeguard issues related to the construction work at the mentioned location. The construction work of SD-06 is going on under the Micro Tunneling process, starting from Garden Reach STP compound to Garden Reach Water Works, it didn't affect any population / structures and thus there is no guestion of any resettlement impact

4. TR - 1 / SD 04

Two Focus Group discussions were conducted under the Tranche – 1 Subproject SD – 04 of KEIIP, at Diamond Harbour Road on 15th December and at Taratala Road on 23rd December 2015. Local people, passersby and the road side shop owners shared their views on Project work in presence of Safety Officers and concerned engineers. Both the discussion programme was carried out at the nearby location of the Pit where the Micro Tunneling work is in progress. During the discussion session, it was disclosed by the local people that due to Micro Tunneling work no economical or structural impact has created in local area

All the pictures of FGD have been annexed.

Common GRM.

A common GRM will be in place for social, environmental, or any other grievances related to the project; the RP and IEE will follow the grievance redress mechanism described below, in the following Flow chart which is developed at a multi-stakeholder meeting involving the contractor, PMU, APs, DSC, environmental consultant, and local environment authority. The multi-tier GRM for the project is outlined in the Flowchart below, each tier having time-bound schedules and with responsible persons identified to address grievances and seek appropriate persons' advice at each stage, as required.

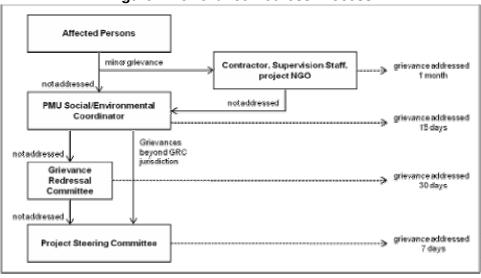


Figure 1 : Grievance Redress Process

Information dissemination methods of the GRM. Grievances received and responses provided will be documented and reported back to the APs. The number of grievances recorded and resolved and the outcomes will be disclosed in the offices of the different boroughs of KMC and on the web. The phone number where grievances are to be recorded will be prominently displayed at the construction sites.

- 1. **Periodic review and documentation of lessons learned.** PMU will periodically review the functioning of the GRM and the effectiveness of the mechanism, especially on the project's ability to prevent and address grievances.
- 2. **Recordkeeping.** Records will be kept by the PMU of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were effected and the final outcome. The number of grievances recorded and resolved and the outcomes will be disclosed in the offices of the PMU

KEIP office, area engineer's office, and on the web, as well as reported in monitoring reports submitted to ADB on a semiannual basis.

3. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by PMU.

Policy and Legal Framework

The resettlement plan is designed to deal with the limited impacts during the construction stage. The project policy and framework strategy is based on the applicable legal and policy frameworks at the national and state level, and as per ADB SPS 2009 requirements.

Based on the above, the core involuntary resettlement principles applicable for this RP are: (i) land acquisition and other involuntary resettlement impacts will be avoided or minimized by exploring all viable alternative project designs; (ii) where unavoidable time bound resettlement plans for temporary impacts will be prepared and affected persons will be assisted as per entitlement matrix and RP; (iii) consultations and information disclosure will be carried out with affected persons, local communities and other stakeholders as required during the project period; (iv) vulnerable groups will be identified and their concerns addressed as per the entitlement matrix; (v) provision of income restoration activities and temporary rehabilitation activities; and (vi) disclose resettlement plan, including documentation of the consultation process in a timely manner, in an accessible place and form in languages understandable to affected persons and other stakeholders, (vii) addressing grievances as per the GRM outlined, (viii) assistances to be provided prior to beginning of construction, and (ix) monitor and assess resettlement outcomes and impact to see whether the objectives of the resettlement plan have

Determination of Compensation

Income. Businesses will be compensated for income loss, if any, due to loss of access (full/partial, permanent/temporary). The SDU (SSC) will identify, in collaboration with the contractor the road sections where the construction activities will hinder access, resulting in income loss for permanent business structures. An income survey of businesses along the relevant sections will be carried out. All affected businesses identified in the subproject-impacted areas (sections ready for construction) on the cut-off date will be entitled to compensation for their loss of income based on the tax record or, in its absence, comparable rates from registered businesses of the same type with tax records. Shops which are not qualifying under these categories (hawkers, vendors, etc.), there is the option of using the actual income based on survey, followed by a verification of the income data based on comparable incomes in the subproject area.

Institutional and Implementation Arrangements

Table 7: Organizational Procedures/Institutional Roles and Responsibilities for Resettlement Plan Implementation

Activities	Agency Responsible
Subproject initiation stage	
Finalization of sites/alignments for the subproject	PMU
Disclosure of proposed subproject details and proposed entitlements/mitigation measures by issuing public notice	PMU
Meetings at community/household level with affected persons of property	PMU/SSU(SSC)
Disclosure of GRM process	PMU/SSU (SSC)
Report (resettlement plan) preparation stage	
Conducting census of all affected persons	PMU/SSU (SSC)
Conducting FGDs/meetings/consultations/workshops during social impact assessment surveys	PMU/SSU (SSC)
Formulating compensation and rehabilitation	PMU/SSU (SSC)
Conducting discussions with APs/stakeholders	PMU/SSU (SSC)
Finalizing entitlements and rehabilitation packages	PMU/SSU (SSC)
Disclosure of entitlements and rehabilitation	PMU/SSU (SSC)
Approval of resettlement plan	PMU/ADB
Delivery of entitlements	PMU/SSU (SSC)
Implementation stage	

Activities	Agency Responsible
Implementation of proposed rehabilitation measures	PMC/SSU (SSC)
Consultation workshop	PMC/SSU (SSC)
Grievance redress	SSU (SSC)
Internal monitoring	PMU/SSU (SSC)
External monitoring	External agency

The Social Safeguard Unit (SSU/SSC) will be responsible for implementation of the resettlement plan if any. The Social Safeguard consultant will undertake surveys and record observations throughout the construction period to ensure that safeguards and mitigation measures are provided as intended. The PMU through the SSU/SSC will ensure implementation and monitoring of safeguards compliance activities, public consultation activities, gender mainstreaming activities and community participation activities. It will also arrange for obtaining statutory clearances and obtaining no objection certificates from government agencies and/or other entities, if required. It will also coordinate for obtaining ROW clearances with related state and national agencies. The Social Safeguard consultant will arrange for data collection for future resettlement plan preparation and implementation and prepare progress reports with respect to the resettlement plan implementation.

Anticipated Social Impacts:

The following table indicates the category of anticipated impacts, based on site visits, census and confirmation of project engineers.

Table 8: Anticipated Social Impacts – Water Supply Project

Project Components	Involuntary Resettlement Impacts	Mitigation Measures
	puete	

A. Palta Water Works		
(i) Renovation and refurbishment of WTP	None (within walled compound)	N/A
(a) Construction of 81.8 MLD rapid gravity filter unit for the old 454.6 MLD WTP		
(ii) Rehabilitation of Intake jetty (272.8 MLD)	None (within walled compound)	
(iii) Supply and Installation of pumps and motors at Tallah Palta system	None (within walled compound)	
(a) Replacement of worn out pumping unit		
B. Garden Reach Water Works		
(i) Rehabilitation of existing jetty	None (within walled compound)	
(a) Rehabilitation of old raw water intake system (273 MLD)		
(ii) Supply and Installation of pumps and motors at Garden Reach WTP	None (within walled compound)	
(a) Replacement of worn out pumping units		
(iii) Rehabilitation and augmentation of existing clear water transmission main system for Garden Reach Service zone.		
(a) Laying of 4.3 km transmission main between	- Minor potential for temporary impact on	Use micro-tunnelling for pipe laying to reduce the overall impact of pipe

Garden Reach WTP and Taratala crossing	access and livelihood opportunities at locations directly near micro-tunneling pits.	laying works. Careful selection of location of micro-tunnelling pits and alignment to minimize impacts
		During construction it will be ensured that a pathway is left for access to the houses and commercial establishments.
		The contractors will also be required to maintain access to shops to avoid and limit the disturbance to the extent possible.
		Mitigation measures will incorporated into contracts and monitored by the construction supervision consultants.
		Mobile hawkers and vendors if any, including those with stalls and temporary structures, will be assisted by contractors in moving to alternative locations during the brief period of construction and allowed to return once the area is declared complete of construction.
C. Water Loss Management / Reduction of UFW	 Within ROW but no significant impacts are envisaged. may cause temporary disruption in water supply if pipes are replaced. 	The local community will be provided 1 day advance notice regarding construction activities, including duration and type of disruption. Timely information sharing and

coordination amongst agencies
during implementation of the
subproject.
Techniques and design will ensure
existing utilities are not affected or
care is taken to ensure that services
are restored at the earliest through
proper co-ordination with relevant
agencies.
Alternate access routes will be
provided and vehicular traffic will be
rerouted.
Contractors will be required to
provide advance road signage
indicating the road detour and
alternative routes and sign boards
for pedestrians to inform nature and
duration of construction works and
contact numbers for
concerns/complaints.
 •

<u>Table- 9</u>
Results of the Income Loss Survey for Affected Persons along the stretch of Taratala Valve Station to Garden reach water works (WS & SD - 04)

SI. No.	Position (LH/RH)	Structure	Type of Business	Status of Ownership	Average Profit per Day	No of Empolyees	Remarks	
Taratala Valve Station to opposite Stone India								
1	RH	Temporary	HOTEL	OWNER	400	4		
Stone Inc	dia to Brace	Bridge (Taratala S	tate Garage)					
2	LH	Temporary	PAN	OWNER	150	NIL		
3	LH	Temporary	PAN	OWNER	150	NIL		
4	LH	Temporary	TEA	OWNER			CLOSED	
5	LH	Temporary	HOTEL	OWNER	300	3		
6	LH	Temporary	TYRE	OWNER	100	NIL		
7	LH	Temporary	CYCLE REP	OWNER	100	NIL		
8	LH	Temporary					CLOSED	
9	LH	Temporary					CLOSED	
10	LH	Temporary	HOTEL	OWNER	400	NIL		
11	LH	Temporary	HOTEL	OWNER	300	2		
12 - 21	LH	10 RESIDENTIAL	STRUCTURE (made of	Bamboo fencing a	nd either pla	stic or Clay tiles	roof cover)	
22	LH	Temporary	HOTEL	OWNER	250	NIL		
23	LH	Temporary	BATTERY	OWNER			CLOSED	
24	LH	Temporary	MOBILE REP	OWNER	200	NIL		
25	LH	Temporary					CLOSED	
26	LH	Temporary	HOTEL	OWNER	300	NIL		
27	LH	Temporary					CLOSED	
28	LH	Temporary	TEA	OWNER	250	NIL		
29	LH	Temporary					CLOSED	
30	LH	Temporary	PAN	OWNER	150	NIL		
31	LH	Mobile	JUICE	OWNER	100	NIL		
32	LH	Temporary	BARBER	OWNER	200	NIL		

SI. No.	Position (LH/RH)	Structure	Type of Business	Status of Ownership	Average Profit per Day	No of Empolyees	Remarks		
Brac	Brace Bridge along side upto Hemanta Basu Market								
33	LH	Temporary	HOTEL	OWNER	300	NIL			
34	LH	Temporary	GARAGE	OWNER	500	3			
35	LH	Temporary	AUTO REP	OWNER	350	1			
36	LH	Temporary	WELDING	TENANT	350	NIL			
37	LH	Temporary	GARAGE	OWNER	400	6			
38	LH	Temporary	BATTERY				CLOSED		
39	LH	Temporary	SCRAP	TENANT	250	NIL			
40	LH	Temporary	AUTO REP	OWNER	300	1			
41	LH	Temporary	GARAGE	OWNER			CLOSED		
42	LH	Temporary	GARAGE	OWNER	500	6			
43	LH	Temporary	HOTEL	OWNER	200	1			
44	LH	Temporary		OWNER					
45	LH	Temporary	MINERAL WATER	OWNER	200	2			
46	LH	Temporary	PAN	OWNER	150	NIL			
47	LH	Temporary	TEA	OWNER	100	NIL			
48	LH	Permanent	CAR REP.	TENANT	200	1			
49	LH	Permanent	SPRAY PAINT	TENANT	100	NIL			
50	LH	Temporary	GARAGE	TENANT	300	1			
51	LH	Temporary					CLOSED		
52	LH	Temporary					CLOSED		
53	LH	Temporary	SPRAY PAINT	TENANT	350	2			
54	LH	Temporary	CAR REP.	OWNER	250	NIL			
55	LH	Temporary					CLOSED		
56	LH	Temporary	WELDING	TENANT	200	NIL			
57	LH	Temporary	HOTEL	OWNER	200	NIL			
58	LH	Permanent	TEA	OWNER	170	NIL			

SI. No.	Position (LH/RH)	Structure	Type of Business	Status of Ownership	Average Profit per Day	No of Empolyees	Remarks		
Brac	Brace Bridge opposite Hemanta Basu Market (Nissan Service Centre) to Public Latrine								
59	RH	Temporary	GROCERY	TENANT	300	NIL			
60	RH	Temporary	FALSE CELLING	TENANT	270	3			
61	RH	Temporary	CYCLE REP + PARKING	OWNER	150	1			
62	RH	Temporary	HOTEL + PARKING	TENANT	250	NIL			
63	RH	Temporary	TEA WHOLE SELLER	OWNER	180	6			
64	RH	Temporary	CYCLE PARKING	OWNER	125	NIL			
Opp	osite Heman	ita Basu Marke	t Public Latriene to Hemai	nta Basu Market	Credit Society Ltd.				
65	RH	Permanent	PUBLIC LATRINE			6	CLOSED		
66	RH	Temporary	CAR PARTS			1	CLOSED		
67	RH	Temporary	CAR PARTS				CLOSED		
68	RH	Temporary	CAR REP.	TENANT	250	2			
69	RH	Permanent	FALSE CELLING	TENANT	350	NIL			
70	RH	Temporary	TYRE REP	TENANT	150	NIL			
71	RH	Temporary	HOTEL	OWNER	250	1			
72	RH	Temporary	GARAGE	TENANT	320	NIL			
73	RH	Temporary	CAR PARTS	OWNER	180	1			
74	RH	Temporary	GARAGE	OWNER		2	CLOSED		
75	RH	Temporary	AUTO PARTS			NIL	CLOSED		
76	RH	Temporary	CAR REP.	OWNER	270	2			
77	RH	Temporary	CYCLE PARKING	OWNER	230	NIL			
78	RH	Temporary	BATTERY REP	OWNER	180	NIL			
79	RH	Temporary	TEA WHOLE SELLER	OWNER	200	1			
80	RH	Temporary	HOTEL			NIL	CLOSED		

SI. No.	Position (LH/RH)	Structure	Type of Business	Status of Ownership	Average Profit per Day	No of Empolyees	Remarks		
Opposite	Opposite Hemanta Basu Market Credit Society Ltd. To Brace Bridge Check Point								
81	RH	Temporary	SALOON	OWNER	300	2			
82	RH	Temporary	TEA STALL	OWNER	500	NIL			
83	RH	Temporary	CAR REP.	OWNER	350	NIL			
84	RH	Temporary	AUTO PARTS	TENANT	350	NIL			
85	RH	Temporary	SHANI MANDIR	OWNER	400	NIL			
86	RH	Temporary		TENANT	250		CLOSED		
87	RH	Temporary	CYCLE PARKING	OWNER	300	2			
88	RH	Temporary	COOKING UNIT (SWEET SHOP)	OWNER	500	NIL			
89	RH	Temporary	CYCLE REP	OWNER	200	NIL			
90	RH	Temporary	HOTEL	OWNER		1			
91	RH	Temporary	HOTEL	OWNER	200	NIL			
92	RH	Temporary	GROCERY	OWNER	150	1			
93	RH	Temporary	GODOWN	OWNER	100	2			
Brace B	ridge Check Point	t to Jinjira Baza	r Crossing						
94	RH	Temporary	SALOON	OWNER	320	NIL			
95	RH	Temporary	MOBILE REP	OWNER	180	1			
96	RH	Temporary	TEA SHOP	OWNER	270	1			
97	RH	Temporary	HOTEL	OWNER	230	4			
98	RH	Temporary	BEDDING MATERIAL	OWNER	200	1			
99	RH	Permanent	HOTEL	OWNER	1000	5			
100	RH	Temporary	GARAGE	OWNER	200	3			
101	RH	Permanent	HOTEL	OWNER	1000	6			

SI. No.	Position (LH/RH)	Structure	Type of Business	Status of Ownership	Average Profit per Day	No of Empolyees	Remarks
Jinjira Baz	ar Crossing	to Railway Track					
102	RH	Temporary	CYCLE REP	OWNER	150	1	
103	RH	Temporary	CLAY MODELLER	OWNER	250	NIL	
104	RH	Temporary	WOOD FENCING				CLOSED
105	RH	Temporary	WOOD FENCING	OWNER	150	2	
106	RH	Temporary	MOTOR CYCLE REP SHOP	OWNER	300	1	
104	RH	Temporary					CLOSED

Table 9: Summary of Impacts for KEIIP Tranche 1 Water Supply Subprojects (WS & SD - 04)

Impact	Water Supply
Permanent Land Acquisition (ha)	None
Permanently Affected Households (AHs)	None
Temporarily AHs	126
Titled AHs	100%
Non-titled AHs	n/a
BPL AHs	None.
APL AHs	100%
IP/Schedule Caste AHs	None
Affected Trees/Crops / trees	None
Affected Common Structures	None
Income Sources Permanently Affected Persons	n/a

Temporarily Affected Businesses	4
Average Daily Profit of Affected Businesses	Rs. 235

Mitigation Measures:

The sites or locations for the water supply subproject components have been carefully selected to avoid and minimize resettlement impacts. Most of the works are proposed on existing WTP locations or within the ROW thereby avoiding land acquisition, demolition of structures and displacement of people. The overall impacts will be further minimized through careful routing of pipelines within the ROW during detailed design stage. Micro tunneling method will be used for laying of pipelines, further reducing the adverse impacts due to construction activities. The following mitigation measures are proposed in the subproject's Environmental Management Plan to avoid and/or reduce the impacts during linear pipe works:

- Maintain access to avoid disturbance to residents and businesses by providing planks and leaving spaces for businesses and residents to maintain access;
- (ii) Provide at least 1-week advanced notice to community along the construction Manage traffic flows as per traffic management plan prepared by the contractor in coordination with local authorities and communities:
- (iii) Limit amount of time of open trenches and complete works quickly where lots of businesses are located;
- (iv) Avoid full street closure to extent possible;
- (v) Contractors to provide employment opportunity to the affected people where possible;
 and
- (vi) Contractors to assist vendors and hawkers in shifting to alternative location

The engineering designs adopted will ensure that routing of pipelines and mains within the ROW are through stretches where there are no structures, thereby having on impact on access and livelihood opportunity for the local community. However, if in the unlikely event during construction it is found that construction activities is causing loss of income and livelihood to any businesses they would be entitled to livelihood assistance. In order to determine the_scale of temporary impacts during the construction phase and to come up with a budget for compensation, a rapid sample survey of businesses was undertaken to determine the daily income from different types of hawkers and businesses in the different project component locations.

Social Safeguard Compliances in the different Packages of our Project (tranch 1)

1. TR-1/SD – 05 (15th December 2015)

By discussion it was revealed that approximate 30 workers are currently engaged at the site and are staying at the labour quarter within the premises. Special care has been adopted for the workers to avoid any awkward incident. Safety items (as prescribed by the Project Guidelines) such as Helmet, Safety Shoes, Jackets, Gloves, Safety Harness (Belt) etc. is procured to each worker for their personal safety during the working hours and at the same time they are supervised regularly by the labour contractors and site engineers. Till date no unanticipated incident occurred at the site which can be considered as a potential threat in context to the safeguard of any person involved to the construction job.

By interviewing different person of that locality, we came to know that, the entrance way to the site is always maintained properly by sprinkling water on dry dust and enough space is left for commutating vehicles. One guard is posted at the main gate to control the exit and entrance of any vehicle at the project site to avoid road congestion. There are few temporary shops situated beside the entrance gate, As per their opinion no disturbance is caused due the project work.

2. WARD NO 129 (SD - 05) ,17th December 2015

No adverse impact due to construction work was found. Safety equipments are maintained by the workers- like Helmet, Gloves, and Shoes properly at the project working site. Regular monitoring is done by the contractor as per social safeguard policy. First Aid arrangements are maintained properly. Safety measures like tape, guard rail are maintained at the project site. Traffic hazards have been avoided. Local people appreciated the initiatives of KEIIP and no disputes or annoyance due to construction work has been reported.

3. TR-1 / SD – 06, 21st December

Special care has been adopted for the workers to avoid any awkward incident. Safety items (as prescribed by the Project Guidelines) such as Helmet, Safety Shoes, Jackets, Gloves, Safety Harness (Belt) etc. is procured to each worker for their personal safety during the working hours and at the same time they are supervised regularly by the labour contractors and site engineers. Till date no unanticipated incident occurs at the site which can be considered as a potential threat in context to the safeguard of any persons involved to the construction job.

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4. TR-1 / SD – 04, 23rd December

The pit area is well protected by means of metal barricade to avoid any accidents. With the help of Traffic Police Traffic Diversion has been made at different places to avoid unnecessary road congestion. In question of safeguard of the workers, adequate methods have been adopted by the concerned contractors for proper air circulation & sufficient lighting at the tunnels. Usage of safety equipments during working hours at site is mandatory for each workers and site engineers. Regular monitoring is done at working sites to avoid any unwanted hazards.

All the pictures of Social Safeguard Compliance have been annexed in the annexure

Physical Progress Report of Tranche - 1

Summary of KEIIP – Tranche 1

				mponent wise)											
SI. No.	Work Components of KEIIP	No. of Packages in Planning & Design Stage	No. of Packages in Bidding Stage	No. of Contracts in Implementation Stage	No. of Contracts in Post -Construction Stage	No. of Contracts Completed	Total No. of Contract Packages								
A. Main	Packages:														
1	1 Water Supply 1 0 2 0 0 3														
2	Sewerage and Drainage	0	0	2	0	0	2								
3	Combined (Water Supply and Sewerage & Drainage)	0	0	1	0	0	1								
B. Addit	ional Packages :														
1	Sewerage and Drainage	0	1	0	0	0	1								
c. Misce	ellaneous Packages (Addition	onal):													
1	Renovation of KEIIP Building	0	1	0	0	0	1								
	Total	1	2	5	0	0	8								

1.1 Water Supply 1.1.1 Planning & Design Stage None

1.1.2. Bidding Stage

		Water Supply					Bio	Iding Stag	je			
CI	Doolson			Outlin	e Design	Prelimina	ry Design	Detailed	l Design	Bidding Doc	uments & Ten	der Drawing
SI. No.	Packag e No.	Package Name		Submitted	Approved by TFC	Submitte d	Approved by TFC	Submitte d	Approved by TFC	Submitted	Approved by TFC	Approved by ADB
		Performance Based Water	Target									
1	WS-01	oss Management Works at Cossipore Service Zone, Vard No. 1 to 6	Actual		Draft	bid documer	nt submitted	on 30.10.201	5.			
		Ward No. 1 to 6	Days Delay									
		Rehabilitation & Refurbishment of Water Works at Palta and Garden	Target	-	-	-	-	-	-	-	-	-
2	WS-02		Actual	-	-	-	-	-	-	-	-	1
		Reach	Days Delay	ı	-	-	-	-	-	-	-	-
		Installation of Pump and	Target	-	-	-	-	-	-	-	-	-
3	WS-03	Motors at Tallah Palta System and Garden Reach	Actual	-	-	-	-	-	-	-	-	-
		System.	Days Delay	-	-	-	-	-	-	-	-	-

1.1.3. Implementation Stage 1.1.3.1. Project Key Information

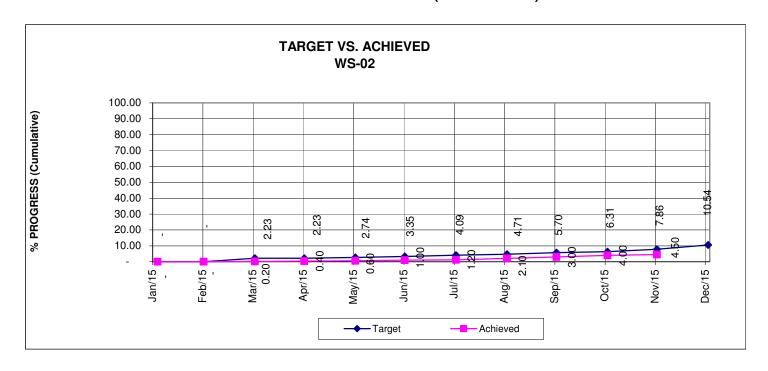
1.1.3. 2. Physical Progress

	Wa	iter Supply	Phys	sical Progr	ess Percer	ntage (Cum	ulative) up		th end No.:					PMIS Format		
SI. No.	Package No.	Package Name		Upto Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	
1	WS-02	Rehabilitation & Refurbishment of Water	Target	-	-	2.23	2. 23	2.74	3.35	4.09	4.71	5.70	6.31	7.86	10.54	
'	1 W5-02	Works at Palta and Garden Reach	Actual	-	-	0.20	0.40	0.60	1.00	1.20	2.10	3.00	4.00	4.50		
2	WS-03	Supply & Installation of Pump and Motors at Tallah Palta	Target	37.73	44.40	51.13	55.65	60.17	64.69	69.21	72.74	76.30	80.51	84.72	88.93	
	System and Garden Reach System		Actual	1	-	48.81	52.61	56.41	62.53	62.70	62.70	64.10	64.50	64.80		

.1.3.2.A. Rate of Progress Graphs

1.1.3.2. A (i) Graph –WS02

PHYSICAL PROGRESS GRAPH (Cumulative %)

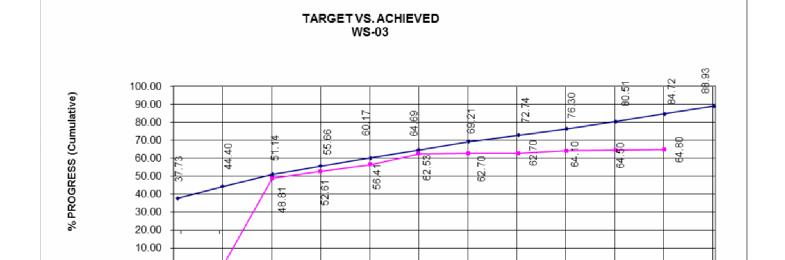


Rate of Progress Graphs Graph – WS 03 1.1.3. 2.B.

1.1.3.2.B (i)

	Water Supply		Implementation S	Stage			Format No.				
Packag	Package Name	Contract Cost	Duration	Commencemen	Schedule completion	Reporting	Physical	Plate			
e No.	гаскаде маше	(In Rs. M)	Duration	t Date	date	Month	Required	Actual			
WS-03	Installation of Pump and Motors at Tallah- Palta System and Garden Reach System.	321	24 months	19. 05. 2014	18. 05. 2016	Nov 2015	84.72	64.80			

PHYSICAL PROGRESS GRAPH (Cumulative %)



---- Target

Jun-15-

Aug-15 -

---- Achieved

Oct-15-

Mar-15 -

Feb-15

1.1.4 Post Construction Stage - None

Water	Supply				Post- Co	nstruction Stage	е				
SI No.	Packag e No.	Package Name		Completio n of Work	Issue of Taking-over Certificate	Statement at Completion	Completion of Remedying Defects, if any	Issue of Defects Liability Certificate	Return of Performanc e Security	Final Statement	Issue of Final Payment Certificate
		Dobobilitation	Target	-	-	-	-	-	-	-	-
1	WS-02	Rehabilitation & Refurbishment of Water Works	Actual	-	-	-	-	-	-	-	-
'	VV 3-02	at Palta and Garden Reach	Weeks Delay	-	-	-	-	-	-	-	-
		Installation of Pump and	Target	-	-	-	-	-	-	-	-
2	WS-03	Motors at Tallah- Palta System	Actual	-	-	-	-	-	-	-	-
	2 WS-03 and Garden Reach System.		Weeks Delay	-	-	-	-	-	-	-	-

1.1.5 Completed Contracts - None

Water Supply		Completed Packages	PMIS Format No.:
SI. No.	Package No.	Package Name	Issue of Final Payment Certificate
1	WS-02	Rehabilitation & Refurbishment of Water Works at Palta and Garden Reach	-
2	WS-03	Installation of Pump and Motors at Tallah- Palta System and Garden Reach System.	-

1.1.6. Summary and Status of Packages

Wate	er Supply	Summery and Status of Page	ckages							PMIS	Format No.:	
					ng and n Stage	Bidding	Stage		Implementati	on Stage		Completion
SI. No.	Package No.			Start Date	End Date	Bid Submission Date	Issue of LOA	Date of Commencemen t	Scheduled Completion Date	Issue of Final Payment Certificate	Contractor	Completion Cost (Rs.)
1	WS-01	Performance Based Water Loss Management Works in Cossipore Service Zone Ward 1 to 6	Bidding	-	-	-	-	-	-	-	-	-
2	WS-02	Rehabilitation & Refurbishment of Water Works at Palta and Garden Reach	Implementatio n	-	-	24.02.2014	14. 10. 2014	07. 11. 2014	06.11.2018	-	ITD – CEM INDIA JV	-
3	WS-03	Supply & Installation of Pumps & Motors at Tallah- Palta System and Garden	Implementatio n	-	-	01.08.2013	16. 01. 2014	19. 05. 2014	18.05.2016	-	KIRLOSKAR BROTHERS LIMITED	-

1.2 Sewerage & Drainage

Planning & Design Stage Bidding Stage Implementation Stage 1.2.1 None 1.2.2. None

1.2.3.

1.2.3.1 **Project Key Information**

	Sewerag	e and Drainage	F	Project Key I	nformation	Summary (Co	ntract-wise)		PMIS Format No.:						
SI. No.	Package No.	Package Name	Contractor	Contract cost (Rs. in M)	Variation (Rs.)	Revised/ Completion Cost (Rs.)	Date of commenceme nt	Schedule date of completion	Scheduled Duration (Month)	Time Extension Allowed (Month)	Revised completion date	Revised Duratio n (Month)	Final Inspection Date	Handing Over Date	
1	SD-05	Construction of Pumping Station at Begore Khal and Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	Tantia – MPPL (WILO) JV	1047.35	-	-	27. 10. 2014	29. 04. 2018	42	-	-	-	-	-	
2	SD-06	Micro tunneling works on Sewage pressure main from Santoshpur P.S. to Garden Reach STP	Simplex – Krita JV	223.11	-	-	19. 05. 2014	18. 11.2015	18	-	-	-	-	-	

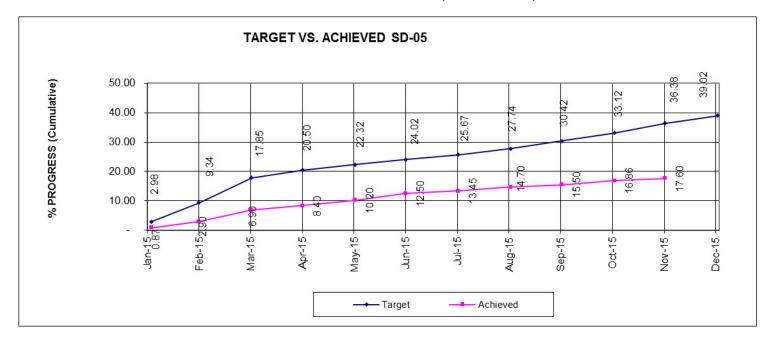
1.2.3.2 Physical Progress

	Sew	erage & Drainage	Physic	Physical Progress Percentage (Cumulative) upto the month end										PMIS Format No.:		
SI. No.	Packag e No.	Package Name		Upto Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	
		Construction of Pumping Station at Begore Khal and	Targe t	2.98	9.34	17.85	20.50	22.32	24.02	25.676	27.74	30.42	33.12	36.38	39.02	
1	1 SD-05	Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	Actua I	0.87	2.90	6.90	8.40	10.20	12.50	13.45	14.70	15.50	16.86	17.60	-	
2	Micro tunneling works on Sewage pressure main from	Targe t	14.50	18.50	37.10	61.50	80.50	84.50	88.50	92.50	97.50	100.00	100.00	-		
2	30-06	Santoshpur P.S. to Garden Reach STP	Actua I	1.00	2.70	11.00	15.50	20.0	23.00	24.60	29.00	33.00	38.50	76.00	-	

1.2.3.2.A. Rate of Progress Graphs 1.2.3.2.A (i) Graph – SD 05

	Sewerage & Drainage	Implem	entation Stage				PN	IIS Format No.	
Packag	Package Name	Contract Cost	Duration	Commencemen	Schedule completion	Reporting	Physical	Progress	Plate
e No.	Fackage Name	(In Rs. M)	Duration	t Date	date	Month	Required	Actual	riale
SD-05	Construction of Pumping Station at Begore Khal and Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	1047. 34	42 months	27. 10. 2014	29. 04. 2018	Nov 2015	36.38	17.60	-

PHYSICAL PROGRESS GRAPH (Cumulative %)



1.2.3.2.B Rate of Progress Graphs 1.2.3.2. B (ii) Graph – SD 06

	Sewerage & Drainage	Imp	lementation Stag	ge			1	PMIS Format N	lo.
Packag	Package Name	Contract Cost Duration		Commencemen	Schedule completion	Reporting	Physical Progress		Plate
e No.	Fackage Name	(In Rs. M)	Duration	t Date	date	Month	Required	Actual	riale
SD-06	Micro-tunneling works on Sewage pressure main from Santoshpur P.S. to Garden Reach STP	223.11	18 months	19.05.2014	18.11.2015	Nov 2015	100.00	76.00	-

PHYSICAL PROGRESS GRAPH (Cumulative %)



1.2.4 Post Construction Stage - None

Sewe	rage and Di	rainage			Post- Co	onstruction Stage	e				
SI No.	Packag e No.	Package Name		Completio n of Work	Issue of Taking-Over Certificate	Statement at Completion	Completion of Remedying Defects, if any	Issue of Defects Liability Certificate	Return of Performance Security	Final Statement	Issue of Final Payment Certificate
		Construction of Pumping	Target	-	-	-	-	-	-	-	-
		Station at Begore Khal and	Actual	-	-	-	-	-	-	-	-
1	SD-05	Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	Weeks Delay	-	1	-	-	-	-	1	-
		Micro tunneling works on	Target	-	-	-	-	-	-	-	-
2	SD-06	Sewage pressure main from	Actual	-	-	-	-	-	-	-	-
	0D-00	Santoshpur P.S. to Garden Reach STP	Weeks Delay	-	-	-	-	-	-	-	-

1.2.5 Completed Contracts - None

Sewerag	e and Drainage	Completed Packages	PMIS Format No.:
SI. No.	Package No.	Package Name	Issue of Final Payment Certificate
1	SD-05	Construction of Pumping Station at Begore Khal and Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	-
2	SD-06	Micro tunneling works on Sewage pressure main from Santoshpur P.S. to Garden Reach STP	-

1.2.6 Summary and Status of Packages

		Sewerage and Drainage			Summary	and Status of I	Packages		PMIS Format	No.:		
					ing and n Stage	Bidding	g Stage		Implementation S	Stage		Commi
SI. No.	Package No.	Package Name	Status	Start Date	End Date	Bid Submission Date	Issue of LOA	Date of Commencemen t	Actual Completion Date	Issue of Final Payment Certificat e	Contrac tor	etion Cost (Rs.)
1	SD-05	Construction of Pumping Station at Begore Khal and Joka Tram Depot + Construction of Sewerage and Drainage Network within Diamond Harbour Road Catchment	Implementatio n	-	-	17.02.2014	01.09.2014	27.10. 2014	28.04.2018	-	Tantia MPPL (WILO) JV	-
2	SD-06	Micro tunneling works on Sewage pressure main from Santoshpur P.S. to Garden Reach STP	Implementatio n	-	-	02.07.2013	16.01.2014	19.05.2014	18.11.2015	-	Simple x Krita JV	-

1.3 Combined (Water Supply and Sewerage & Drainage)

1.3.1. Planning & Design Stage

None

1.3.2. Bidding Stage

None

1.3.3. Implementation Stage

Project Key Information

Com	bined (Wate	r Supply and Sewerage	& Drainage		Project Key	Information	Summary (Contra	act-wise)			PMIS	Format No).:	
SI.	Package			Contract	Variation	Revised/	Date of	Schedule	Schedule d	Time Extensio	Revised completion	Revised Duratio	Comp	letion
No.	No.	Package Name	Contractor	cost (Rs.in M)	(Rs.)	Completion Cost (Rs.)	commencemen t	date of completion	Duration (Month)	n Allowed (Month)	date	n (Month)	Final Inspectio n Date	Handing Over Date
1	WS & SD 04	Laying of water trunk main from Garden Reach water works to Taratala Valve Station laying of sewer line along Diamond Harbour Road by Micro- tunnelling method in ward no 125, 126	ITD-ITD CEM JV	1459.24	-	-	19. 05. 2014	18. 05. 2017	36	-	-	-	-	-

1.3.3.2 Physical Progress

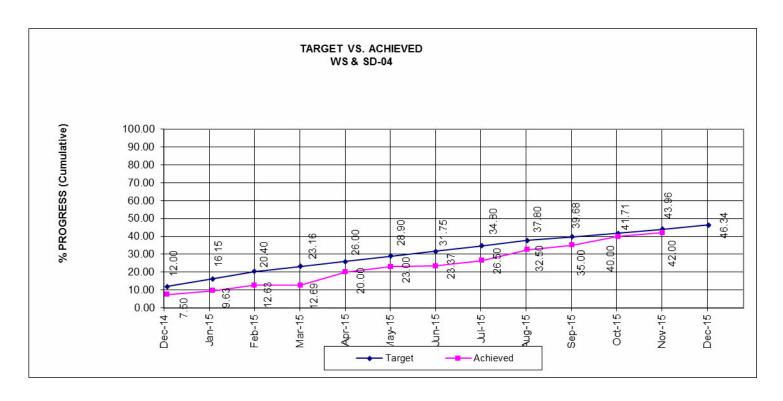
Con		Supply and Sewerage & ainage)	Physica No.:	I Progress	Percenta	ge (Cumula	tive) upto t	he month	end					PMIS	Format	
SI. No	Package No.	Package Name		Aug-14 to Dec'14	Jan- 15	Feb-15	Mar-15	Apr- 15	May-15	June-15	July-15	Aug-15	Sept-15	Oct-15	Nov- 15	Dec- 15
1	WS & D04	Laying of water trunk main from Garden Reach water works to Taratala Valve Station laying of sewer line		12.00	16.15	20.40	23.16	26.04	28.90	31.75	34.80	37.80	39.68	41.71	43.96	46.34

along Diamond Harbour Road by Micro-tunnelling method in ward no 125, 126	7.50	9.63	12.63	12.69	20.00	23.00	23.37	26.50	32.50	35.00	40.00	42.00	-
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1.3.3.2.A Rate of Progress Graphs 1.3.3.2.A (i) Graph – WS & SD 04

Combined	(Water Supply and Sewerage & Drainage)		Implementation 9	Stage				Format No.	
Package	Package Name	Contract Cost	Duration	Commencemen	Schedule completion	Reporting	Physical	Progress	Plate
No.	rackage Name	(In Rs. M)	Duration	t Date	date	Month	Required	Actual	Flate
WS & SD 04	Micro tunneling works on Laying of water trunk main from Garden Reach water works to Taratala Valve Station laying of sewer line along Diamond Harbour Road By Micro tunneling method in ward no 125, 126	1459.24	36	19.05.2014	18.05.2017	Nov 2015	43.96	42.00	

PHYSICAL PROGRESS GRAPH (Cumulative %)



1.3.4 Post Construction Stage - None

Combin	ed (Water Suppl	y and Sewerage & Drainage)							Post- Construc	ction Stage	
SI No.	Package No.	Package Name		Completion of Work	Issue of Taking- Over Certificate	Statement at Completion	Completion of Remedying Defects, if any	Issue of Defects Liability Certificate	Return of Performanc e Security	Final Statement	Issue of Final Payment Certificat e
		Micro tunneling works on Laying of water trunk main from Garden	Target	-	-	-	-	-	-	-	-
1	WS & SD 04	Reach water works to Taratala Valve Station laying of sewer line along Diamond Harbour Road By	Actual	-	-	-	-	-	-	-	-
		Micro tunneling method in ward no 125, 126	Weeks Delay	-	-	-	-	-	-	-	-

1.3.5 Completed Contracts - None

Comb	ined (Water Supply	and Sewerage & Drainage) Completed Packages PMIS Forma	t No.:
SI. No.	Package No.	Package Name	Issue of Final Payment Certificate
1	WS & SD 04	Micro tunneling works on Laying of water trunk main from Garden Reach water works to Taratala Valve Station laying of sewer line along Diamond Harbour Road By Micro tunneling method in ward no 125,126	-

1.3.6 Summary and Status of Packages

		Combined (Water Supply and	Sewerage & Draina	age)		Summary	and Status of I	Packages	PMIS F	ormat No.:.		
					ing and n Stage	Bidding	g Stage	I	mplementatio	n Stage		
SI. No	Package No.	Package Name	Status	Star t Date	End Date	Bid Submission Date	Issue of LOA	Date of Commencemen t	Actual Completion Date	Issue of Final Payment Certificat e	Contracto r	Completio n Cost (Rs.)
1	WS & SD 04	Micro tunneling works on Laying of water trunk main from Garden Reach water works to Taratala Valve Station laying of sewer line along Diamond Harbour Road By Micro tunneling method in ward no 125,126	Implementatio n	-	-	20.11.2013	04.03.2014	19.05.2014	18.05.2017	-	ITD – ITD CEM JV	-

Semi Annua	Social	Safeguard	Monitoring	Report
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Annexure 1











Photographs of "On Road - Public Consultation" of Tranche – 1 Subprojects

Annexure 2











Annexure 3











Photographs of onsite meeting with concerned Engineers & Safety Officers of Tranche – 1 Subprojects