



Social Safeguards Due Diligence Report

June 2022

India: Kolkata Environmental Improvement Investment Program - Tranche 2

Subproject : Construction of pumping station to handle sludge water of garden reach water works (GRWW) – (TR 2 / WS- 20)

Prepared by The Kolkata Municipal Corporation (KMC), Kolkata for the Asian Development Bank

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Asian Development Bank

Land Acquisition and Resettlement Due Diligence Report

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IND: CONSTRUCTION OF PUMPING STATION TO HANDLE SLUDGE WATER OF GARDEN REACH WATER WORKS (GRWW) – (TR 2 / WS - 20)

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ABBREVIATIONS

ADB	Asian Development Bank
DFID	Department for International Development
KEIP	Kolkata Environmental Improvement Project
KEIIP	Kolkata Environmental Improvement Investment Program
KMC	Kolkata Municipal Corporation
DSC	Design and Supervision Consultants
S&D	Sewerage & Drainage
DDR	Due Diligence report
SPS	Safeguard Policy Statement
PMU	Program Management Unit
WTP	Water Treatment Plant

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I. INTRODUCTION

A. Background

1. On 26 September 2013, the Asian Development Bank (ADB) approved the provision of loans under a multi tranche financing facility (MFF) for the Kolkata Environmental Improvement Investment Program (KEIIP or the Investment Program) for an aggregate amount not to exceed \$400 million. The impact of the Investment Program will be improved access to water supply and sanitation in Kolkata Municipal Corporation (KMC). The outcome will be improved water supply, sewerage and drainage service quality and operational sustainability in selected areas of KMC. KEIIP has three outputs: (i) inefficient water supply assets rehabilitated; (ii) sewerage extension to peripheral areas continued;¹ and (iii) financial and project management capacity further developed. KMC is KEIIP's executing agency. A project management unit (PMU) created under KMC is implementing KEIIP.
2. The first loan under it, Tranche 1 or Loan 3053-IND, amounting to \$100 million, was approved by ADB on 22 October 2013, signed on 3 March 2014 and made effective on 30 May 2014. Project 1, supported by tranche 1, included subprojects for improvement of infrastructure, operations and sustainability in sewerage, drainage and water supply in KMC.
3. The proposed Project 2, supported by the tranche 2 of KEIIP, will include physical and non-physical investments in water supply and sanitation improvement in KMC. Project 2 is aligned with improved access to water supply and sanitation in KMC as defined by the Investment Program.
4. For water supply, a total of eleven contract packages are proposed, of which one is a priority package. Kolkata Municipal Corporation (KMC) is in the process of preparing project proposals for all proposed subprojects under Project 2 to ensure high project readiness.
 - (i) **WS - 15:** Construction of Underground Reservoirs & Overhead Reservoirs , Pumping Stations & Linking Pumping Station Mains for Water Supply in Joka & Adjoining Areas including operation & maintenance of the pumping station
 - (ii) **WS – 16:** Laying of Transmission Main from Daspara PS to UGRs at Prantik PH-III , KMC Land on Julpia Road ; and Transmission Main from PS to zonal Reservoirs
 - (iii) **WS – 17A:** Laying of Water Supply distribution network including providing household service connection in 4 distribution service areas in Joka & adjoining areas for the command area under proposed ESRs at Prantik Ph-III,N-E of SSE STP and N-W of SSE STP & existing ESR at Prantik
 - (iv) **WS – 17B:** Laying of Water Supply distribution network including providing household service connection in 4 distribution service areas in Joka & adjoining areas for command area under proposed ESRs at Company Pukur, WBSETCL & 22 Bigha & Existing ESR at Diamond Park
 - (v) **WS – 18:** Laying of Transmission Main from pumping station to proposed 3 ESRs at Ramkantapur, Malpara, Charaktala & Construction of the 3 ESRs including laying of Distribution Network with House service connection within the Command Area of the 3 ESRs for Water Supply in Joka and adjoining areas
 - (vi) **WS – 20:** Construction of Pumping Station to handle Sludge Water of Garden

¹ The 1899 Calcutta Municipal Act defined the administrative domain of the municipal authority as covering 25 wards and having an areal extent of 48.5 square kilometers. Many boundary changes followed, the latest one in January 1984 when Boroughs XI, XII, XIII, XIV and XV were annexed to KMC. These boroughs in the peripheral areas, are popularly known as "added areas".

- Reach Water Works (GRWW)
- (vii) **WS – 24:** Dedicated Water Supply Transmission Main from junction of James Long Sarani to Daspara near existing pumping station along James Long Sarani
 - (viii) **WS – 25:** Performance Based Contract for Water Loss Management in Anandapur Area and Patuli Area under Jai Hind WTP
 - (ix) **WS – 26B:** Water Supply System Instrumentation and Information Technology Upgrade
 - (x) **WS – 33:** Augmentation of storage capacity and transmission main under Jai Hind WTP- clear water reservoir, service main and electro mechanical works
 - (xi) **WS – 01:** Performance Based Water Loss Management Works at Cossipore Service Zone, Ward No. 1 to 6

B. Scope of this Report

5. A draft land acquisition and resettlement due diligence report (DDR) was prepared and disclosed for the proposed water supply subproject TR-2 / SD 20 (in 2018) that involves Construction of pumping station to handle sludge water of garden reach water works. This DDR has been updated based on the final design derived from the preliminary design without making and changes in the components; based on which detailed measurement survey (DMS) has been conducted in the month of July 2021. No Involuntary Resettlement impact has been identified during the DMS based on final design. During the implementation stage, regular monitoring will be done by the social safeguard officer PMU and the findings will be incorporated in the semi-annual social monitoring report.

6. Upon project implementation, the Social Safeguard Officer at PMU will be required to undertake a review of this due diligence, prepare a confirmation letter or report documenting any modifications for the subproject and submit to ADB; and receive a 'no objection' confirmation from ADB prior to start of construction related to the subproject

C. Methodology followed for Due Diligence

7. The DDR is prepared based on the detailed project report of the subproject, and to fulfill ADB Safeguard Policy Statement (SPS), 2009 and the agreed resettlement framework requirements of the project. This report describes the findings of the field verifications of the design, consultations with project engineers. The copies of available public consultations, and photographs are made part of this report.

II. SUBPROJECT DESCRIPTION

8. Kolkata gets its major treated water from Palta & Garden Reach Water Treatment Plants. Apart from these there are few other smaller plants too. As of now, planning is made to eliminate use of ground water totally and both Palta & Garden Reach WTPs are planned for expansion. Garden Reach WTP was set up by KMWSA for supplying water to Kolkata adjoining Municipalities. Subsequently, except Maheshtala & Budge-Budge Municipality, other areas were taken over by KMC as added area. KMWSA was taken over by KMDA With increasing need of more treated water to ensure 135 lpcd supply of treated water to every house hold covering entire area of KMC & its added area and to stop lifting of ground water, KMC started setting up new units in the Garden Reach WTP area.

9. In Garden Reach WTP Plant from the very beginning one sludge pond area has been provided, where sludge were discharged into low laying Area / Ponds. With time solids gets sedimented and clear water gets separated. This cleaned water used to overflow to River Hooghly via. Monikhali Canal. With time, the adjoining area of the sludge pond got developed & now it is a densely populated zone. At present, as means for water passage, there is a gravity

main, having a slope of 0.05 m in 1200 m length & discharges water only when Monikhali Canal water level is almost 1.5 m below its FDL, along with an open drain whose I.L is also much below the FDL of Monikhali Canal. Therefore, discharge is not regular & due to very mild slope of the gravity main, the pipe line gets choked by sediments of and on. When there is rain or the pipe & / or drain fails to discharge due to Monikhali Canal's water level , around 3 sq.km areas apart from the sludge pond area gets flooded.

10. The other reason behind this excess water is the much increased capacity of the plant i.e. from 20 MGD at start to 185 MGD at present running plant, one 25 MGD under implementation & one new 25 MGD planned after 5 years totally to 235 MGD. With increase in capacity the plants are producing proportionately more sludge water then what was planned for during setting up of this sludge pond.

11. As KMC has taken up scheme for smooth water supply throughout the Kolkata Municipal Corporation area through KEIP, it is required to arrange smooth operation of WTP by allowing discharging of the sludge water to the sludge pond regularly. Functionally to make this happen, sludge pond should have area to accommodate this sludge water, and it has now become very much necessary that excess water from the sludge pond should be discharged regularly to keep the sludge pond functional. Therefore, it is very much needed to establish a lifting Pumping Station within the sludge pond area and allow round the clock discharge of the run off out of the sludge pond area to allow more sludge water to get in & the WTP to run smoothly as well as to save the nearby area of the plant location from frequent water logging due to sludge water runoff as well as rain water runoff in the monsoon.

12. Initially Garden reach Water Treatment Plant was set up with 20 MGD plant and adjacent low laying area was taken up for using the area as Sludge Pond. Now with the increase in demand of treated water along with the expansion of KMC area and population and for the mission for making a 'zero' ground water lifting system for KMC's Water Supply System, the plant capacity has been increased to 185 MGD. As on date, one 25 MGD Plant is in the process for installation and another 25 MGD Plant is planned for next phase to make full use of the total plant area. As the capacity of the WTP Project is increasing, either more sludge pond area need to be used or will have to arrange for quick disposal of excess runoff to allow steady & timely consolidation of the sludge flow to the condition where it can be lifted & disposed of for further use for brick field or otherwise. To make sure that the sludge pond performs to the desired level, it is essential to make arrangement for steady and planned disposal of excess runoff from the sludge ponds. For operation of any WTP it is one of the essentials to allow the sludge to drain off from the system steadily. After establishment of the lifting station and discharging the water through the pressure main, the same can be assured & so the expansion of the WTP capacity can be smooth as well as the existing WTP's can function properly.

Table 1: Proposed Subproject Component

Project Component	Works considered to be taken up
Construction of pumping station to handle sludge water of garden reach water works	Construction of a Dry Pit Pump house with fore bay and collection pit.
	Electrical Sub – station
	Construction of boundary wall, toilet block etc.

Source : Design & Supervision Consultant (DSC), KEIIP

III. FIELD WORK AND PUBLIC CONSULTATION

A. Outline of Field Work

13. In February 2021, field inspection of the proposed pumping station site was undertaken. The field inspection helped to establish that the proposed site is vacant, encroachment free, and unused and the land belongs to The Kolkata Municipal Corporation. Since the vacant site belongs to The Kolkata Municipal Corporation (KMC), no involuntary resettlement and / or Indigenous Peoples impacts are involved.

B. Stakeholder Consultation

14. Field visits and interactions also helped to ascertain that no permanent relocation or loss of land or structures to any private entity, neither temporary or permanent economic impacts are anticipated as a result of the proposed subproject, as the pumping station is proposed on vacant, unused and barren land owned by The Kolkata Municipal Corporation (KMC). Hence, further survey and inventories are not required.

Table 2: Land Details

Proposed work	Total Area required for Construction (in Acres)	Total Area available (in Acres)	Present use of the Land	Land Ownership	IR Impact
Construction of pumping station to handle sludge water of garden reach water works	0.544	0.544	Unused Vacant Land	KMC	Nil

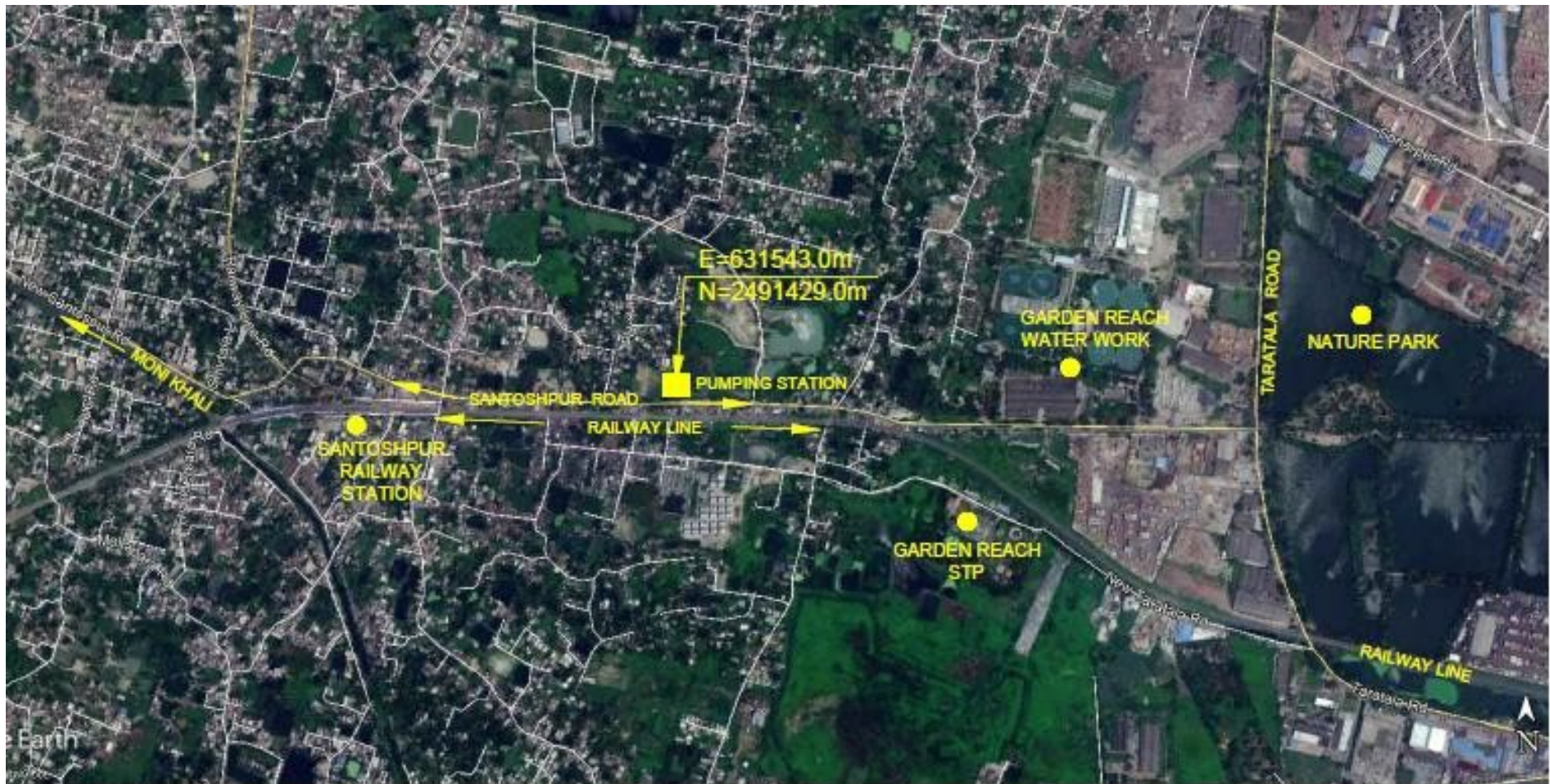
Source : Design & Supervision Consultant (DSC), KEIIP

IV. LAND AVAILABILITY AND RESETTLEMENT IMPACTS

A. Construction of Pumping Station

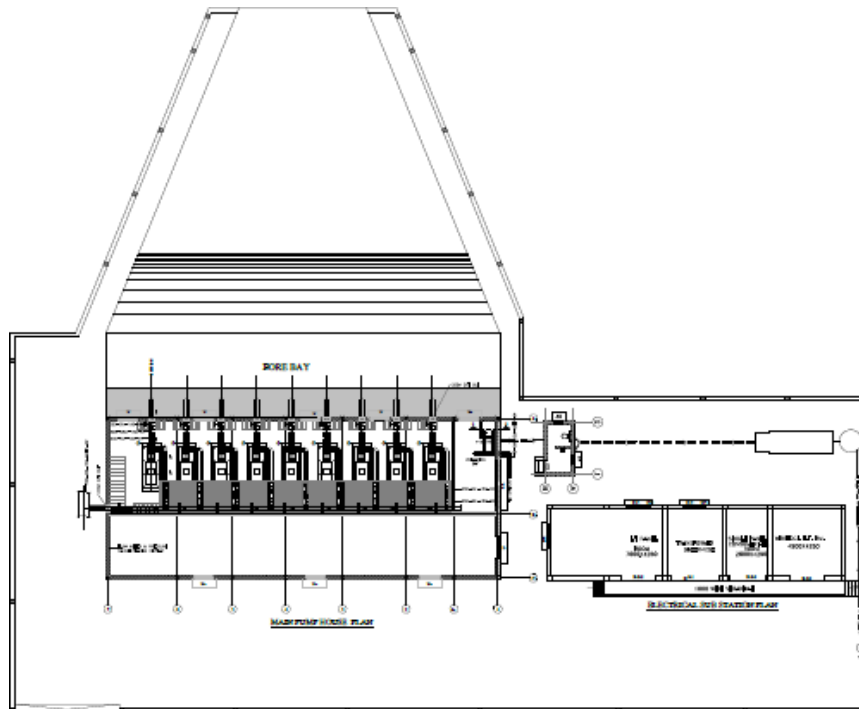
15. No private land acquisition or resettlement impacts are anticipated for construction of the proposed pumping station at the earmarked premises. All civil works will be within the area of Garden reach water Works which is owned by Kolkata Municipal Corporation i.e. the Executing Agency. Hence 'No Objection' certificate may not be required for the said subproject activities. No additional land will be required for the proposed subproject and no income loss is anticipated due to the civil work.

Figure 1: Google Earth Map Showing Location of proposed Pumping Station Site



Source : Design & Supervision Consultant (DSC), KEIIP

Figure 2: Design Layout of Proposed Pumping Station



Source : Design & Supervision Consultant (DSC), KEIIP

V. GRIEVANCE REDRESS MECHANISM

16. A common grievance redress mechanism (GRM) has been established for social, environmental or any other subproject related grievances.

17. Grievance Redress Process: PMU maintains a Complaint Cell at KEIIP office, located at 206 A J C Bose Road Kolkata 700017 headed by a designated Grievance Redress Officer, which is currently officiated by the Administrative Officer under Project Director of KEIIP. The Complaint Cell located at different KMC Borough offices (for this package Borough XIV is serving as the Complaint Cell) will also serve as Public Information Centers, where, apart from grievance registration, information on the Project, subprojects, social and environmental safeguards, etc can be provided.

18. At every Borough Office of KMC under which the civil works are in progress, a drop box has been kept to receive and complaints and suggestions from the community people. At Contractors' site offices, complaint and suggestion register have been made available for lodging any complaints. The concerned Executive Engineers of KEIIP monitor these registers during their site visits and if possible take necessary actions for redressal of minor complaints with intimation to the complainant.

19. The Grievance Registration / Suggestion Form are available at the Complaints Cell and in Borough Offices and will also be downloadable from the KEIIP/KMC websites. Grievances / suggestions of affected persons can be dropped into suggestion boxes or conveyed through

phone or mail. Affected Persons will also be able to register grievances - social, environmental or other, personally at the Complaint Cell and at Borough offices of KMC.

20. All complaints (unresolved at local site / Borough level) relating to KEIIP are to be sent to the project Director, KEIIP including those received in the KMC/KEIIP website for redress. The Grievance Redress Officer is responsible to resolve simple unresolved issues and in case of complicated issues, consult/seek the assistance of the Environment/Social Specialist of the DSC/PMU. Grievances not redressed through this process within one month of registration will be brought to the notice of the Project Director, KEIIP. Action taken in respect of all complains will be communicated to the complainant by letter, over phone or e-mail as the case may be.

21. Periodic community meetings with stakeholders have been conducted on regular basis, explaining the Grievance Redress Mechanism of the project. Banners and Posters explaining Grievance Redressal process have been displayed at prominent places of subproject area. People have been informed that they can lodge their complaints at every construction sites or Contractors' site office of respective packages.

22. Grievance Redress Committee (GRC): A PMU level GRC has been constituted by the Project Director to address grievances. Grievances not resolved at borough level are referred to PMU level. However grievances that cannot be resolved at PMU level may be referred to the apex grievance redress committee (GRC).

23. Time period for grievance redress at each level are as follows:

- Site level – 7days
- Borough level – 7days
- GRC – PMU level – 15days
- Apex GRC - 15days

VI. CONCLUSION

A. Summary and Conclusion

24. No involuntary resettlement impacts are assessed as the identified site for the proposed pumping station within the Garden Reach Water Works area, since it is a land owned by KMC. Temporary disruptions to road users during transport of materials to the site are possible and will be mitigated during construction by the contractor through a traffic management plan and simple measures such as proper stacking/storage of construction materials.

B. Actions for PMU/PIU

- i). Self-Certification by Kolkata Municipal Corporation for using the proposed land will be included in the Social Monitoring report

PHOTOGRAPHS OF PROPOSED LOCATION

