

Land Acquisition and Resettlement Due Diligence Report

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July 2018

IND: Kolkata Environmental Improvement Investment Program (Tranche 3) – Sewage Treatment Plant (SD29)

Package No. SD29/2017-18: Construction of Sewage Treatment Plant at Bank Plot (40 MLD)

CURRENCY EQUIVALENTS

(as of 20 July 2018)

Currency unit = Indian rupee (₹)
₹1.00 = \$0.014
\$1.00 = ₹68.94

ABBREVIATIONS

ADB - Asian Development Bank
DWF - dry weather flow
KEIP - Kolkata Environmental Improvement Project
KEIIP - Kolkata Environmental Improvement Investment Program
KMC - Kolkata Municipal Corporation
PMU - program management unit
MFF - multitranchise financing facility
S&D - sewerage and drainage

NOTE

In this report, "\$" refers to United States dollars.

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I. INTRODUCTION

A. Background

1. The Kolkata Environmental Improvement Project Phase 1 (KEIP 1) was a multi-agency endeavor to arrest environmental degradation and improve the quality of life in Kolkata. The aim of KEIP was to provide affordable access to basic urban services, revamp and upgrade the sewerage and drainage system, make the solid waste management system efficient, restore the city's drainage canals, and improve outdoor recreation facilities in parks and water bodies. It also had a stakeholder consultation program and a capacity building component to raise the standards of delivery of municipal services by the Kolkata Municipal Corporation (KMC). Financing was from the KMC, the Government of West Bengal (GOWB) and the Asian Development Bank (ADB). In addition, there was grant financing from the Department for International Development (DFID) of the United Kingdom for the KMC capacity building component of the Project.

2. The works under the KEIP Phase 1 were completed in 30 June 2012, the closing date of the ADB loans. Both KMC and ADB wished 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 was proposed, which was named as the Kolkata Environmental Improvement Investment Program (KEIIP). On 26 September 2013, the ADB approved loan under a multitranche financing facility for the Kolkata Environmental Improvement Investment Program (KEIIP or the Investment Program) for an aggregate amount not to exceed \$400 million. KEIIP consists of three projects or tranches. KMC is the executing agency of the investment program and a program management unit (PMU) is created under KMC for the implementation of KEIIP.

3. In continuation to the Tranche 2, different subprojects under KEIIP Tranche 3 have been proposed to be taken up for the areas which are not covered under Tranche 1 and 2. A total of eight sewerage and drainage (S&D) subprojects are proposed under Tranche 3. The details of the Project 3 subprojects are given in the table below (Table 1).

4. The proposed Project 3 of KEIIP includes S&D works with sewage treatment plants (STPs). Many of the S&D subprojects will become functional within the next 2 years and it would be mandatory to treat the sewage (dry weather flow) conforming to the latest Central Pollution Control Board (CPCB) guidelines before discharging it into the water bodies. In this context, four STPs have been proposed to be constructed under Tranche 3.

Table 1: Sewerage and Drainage Packages under Tranche 3

Package Number	General Description
SD27/2017-18	Improvement of S&D Network and construction of a pumping station in Alipore body guard line premises in ward 74 and laying of sewer line along Diamond Harbour Road by Microtunneling method and Cut & Cover method
SD28/2017-18	Construction of WBSETCL Sewage Treatment Plant (45 MLD)
SD29/2017-18	Construction of Sewage Treatment Plant at Bank Plot (40 MLD)
SD30/2017-18	Construction of Rajpur – Sonarpur Sewage Treatment Plant 30 MLD)
SD31/2017-18	Development of S&D Network in Churial Extension Pumping Station catchment and Diamond Park Catchment and Construction of Churial Extension pumping station (annexed) in borough XVI (Part of Ward 124, 143 and 144)
SD32/2017-18	Improvement of S&D system in Mukundapur Area (Part of Ward 109) including construction of pumping station and improvement of drainage system in Rajdanga Area (Part of ward 107)
SD34/2017-18	Construction of pumping station at Lalababu Nikashi and upgradation of existing pumping station at

Package Number	General Description
	Shakuntala Park
SD22/2016-17	Development of sewerage and drainage networks in Churial extension canal sub basin in Borough XIII & XVI (Part of Ward no. 122,123, 124) including laying of trunk sewer by microtunnelling method and construction of Churial extension pumping station

MLD = million liters per day, S&D = sewerage and drainage, WBSETCL = West Bengal State Electricity Transmission Company Limited.

B. Scope of this Report

5. This land acquisition and resettlement due diligence report for TR-03/SD 29 is prepared for the proposed construction work of sewage treatment plant (STP) located in ward 143, (near Mahatma Gandhi Road on a land parcel identified as Bank Plot) which has been planned to treat the dry weather flow (DWF) generated from S&D systems in parts of Borough XVI and parts of Borough XI and XIII in south Kolkata.

6. A due diligence process was conducted to examine the land acquisition and resettlement issues in detail, in line with ADB Safeguard Policy Statement (SPS), 2009. This report describes the findings and provides copies of relevant documents, resolutions, minutes of meetings and photographs. This land acquisition and resettlement due diligence report needs to be considered along with the Resettlement Framework prepared for KEIIP.

7. Upon project implementation, the officer designated for social safeguards at program management unit (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 of the subproject.

II. SUBPROJECT DESCRIPTION

A. Background of Subproject Area

8. At the concept report stage for this subproject, a larger STP was planned, but due to the inadequacy of land, the service area of this STP has been changed. The sub project area is dependent largely on septic tanks for household sanitary systems and open surface drainage systems mainly for storm water and effluents of septic tanks – in many cases the drains do not have any proper outlet and terminate into low lying land/ canals. All these existing practices have been partially addressed by ongoing S&D schemes under KEIIP (previous tranche) but lacks any dedicated wastewater treatment facility.

9. The proposed STP will cater to the DWF generated from parts of wards 114 (Borough XI), 122 (Borough XIII), 123, 124, 142, 143 under (Borough XVI). The population of the catchment for the design horizon (2030) is 215,745 and its total catchment area is approximately 1371.54 hectare (ha), which will serve as the command area for the proposed STP.

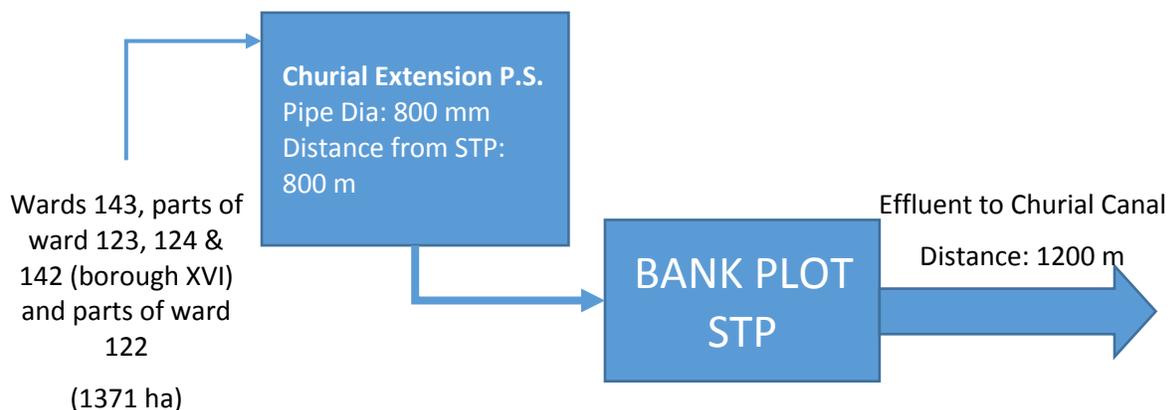
B. Subproject Description

10. The site of the proposed STP is located off Mahatma Gandhi Road in ward no. 143 of KMC in South Kolkata; the land parcel is identified as Bank Plot.

11. In the command area of the proposed STP, part of the trunk S&D network is under construction and remaining part will be implemented under Tranche 3. The S&D network will collect the DWF and storm water flow to the Churial Extension pumping station. The DWF collected will be then pumped to the proposed STP for treatment. It is expected that the proposed STP will be functional before completion of the S&D works. A basic schematic diagram is presented in Figure 1.

12. This will ensure that collected DWF can be treated to the environmentally sustainable levels as per the latest Central Public Health and Environmental Engineering Organization (CPHEEO)/CPCB norms. The treated effluent from the STP will be discharged to the nearby Churial canal. Once the project is completed it is expected that the water quality in Churial canal will improve, which in turn will create more hygienic conditions along its length. It will also help in controlling the pollution of River Ganga as the Churial canal finally merges with the river.

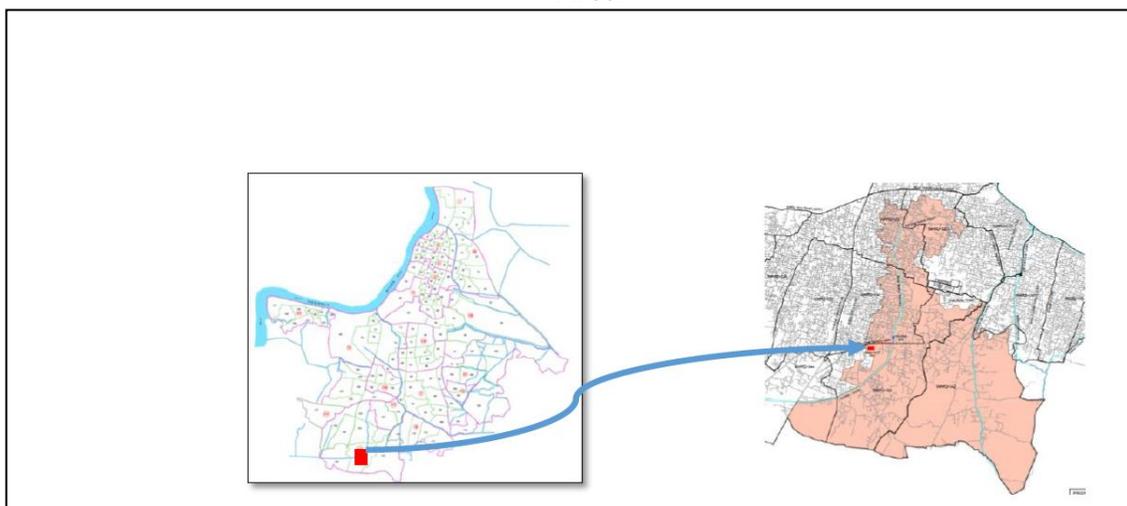
Figure 1: Schematic Diagram of the Proposed Bank Plot Sewage Treatment Plan



ha = hectare, m= meter, mm = millimeter, P.S. = pumping station, STP = sewage treatment plant.

13. In summary, the following are the main reasons for taking up this project:
- (i) To ensure that the command area has a fully functioning S&D network, of which STP is a crucial component
 - (ii) To improve public health, for population living on the banks of the canals as well as areas around it.
 - (iii) To improve water quality of River Ganga by treating waste water before discharging to fulfil Government Policy and meet one of its objectives of cleaning river Ganga.

Figure 2: Proposed Location of Bank Plot Sewage Treatment Plant with Its Catchment Area



Location of proposed bank Plot STP and its command area highlighted

Table 2: Components of SD29/2017-18

Package No. SD28/2017-18: WBSETCL Sewage Treatment Plant (45MLD) in Ward 144	
Major Project Components	Construction of a 40 MLD sewage treatment plant (STP) on Bank Plot Laying of pumping mains from Churial Extension Pumping Station to STP - 800 mm dia pipe covering a length of 800 m Laying of 800 mm dia, 1200 m Effluent Discharge Pipeline from STP to Churial Canal
Coverage	The population of the catchment for the design horizon (2030) is 2,15,745 and its total catchment is approximately 1371.54 hectares.

m = meter, mm = millimeter, MLD = million liters per day, WBSETCL = West Bengal State Electricity Transmission Company Limited.

III. FIELD WORK AND PUBLIC CONSULTATION

A. Outline of Field Work

14. In July 2017, field inspections were carried out at the proposed subproject site for STP and its adjoining areas. Stakeholder consultations were also conducted. Inspections and transect walks were carried out in the subproject areas. The proposed site has no residential area adjacent to it.

B. Public Consultation

15. Consultations were undertaken with key stakeholders in line with ADB's requirements pertaining to environmental and social considerations. The tool used for consultation was stakeholder meetings. These consultations helped to identify the felt needs/concerns and apprehensions of the communities related to the project and priorities of concerned stakeholders. Discussions were held with people residing or having businesses near the proposed subproject locations. Although the STP is proposed to be constructed on a vacant plot with no immediate residential area, however, community people are willing to cooperate for the proposed project. The local community people are willingly to cooperate for the construction of

the subproject which they understand is for their own betterment and better civic facilities. Summary of stakeholder consultation is provided in Table 3 while the stakeholder consultations report and list of participants is provided in Appendix 2.

Table 3: Summary of Community Consultation

Date	Location	Number of Participants				Participant Details	Key Discussions
		Male	Female	% of Female	Total		
08 July 2017	Bank Plot	3	18	86	21	Local residents, shop owners, housewives, businessmen, Service men, representatives of KEIIP and Contractors	<p>Suitable wastewater treatment technology will be selected adhering to latest discharge norms by Central Pollution Control Board (CPCB).</p> <p>It will be ensured that the technology selected can be executed within the land area available for treating the command area's dry weather flow (DWF).</p> <p>The subproject will provide a wastewater discharge in the canals and water bodies of Kolkata which will ensure amelioration of its water quality.</p> <p>The project work will reduce environmental impact/ health problems that is caused by open discharge of domestic wastewater.</p> <p>It will be ensured that river Ganga is not polluted which is a priority of the state and national government.</p>

IV. LAND AVAILABILITY

16. The proposed construction work will be done on land parcels owned by Kolkata Municipal Corporation. The 8.08 acres of land, schedule of which is given as Mouza Kalua, J.L. No. 22, Pumping Station - Behala, Dist-South 24 Parganas is a vested area. The land parcels were declared vested¹ vide declaration No. 32 dated 27 January 1994 of the office of the Competent Authority (ULC) and SDO, Sadar, Alipore, South 24 Parganas. Commonly known as Bank Plot - KMC owns the possession certificate of the land area. Copy of the Possession Certificate is provided in Appendix 3.

17. The details of the proposed site are provided below:

Table 4: Details of Proposed Land for Sewage Treatment Plant

P.S. District	Mouza	J.L. No.	R.S. Plot No.	Full / Part	Area in acres
P.S. - Behala (presently Haridevpur), Dist. - South 24 Parganas	Kalua	22	131, 132, 133, 134, 138, 138/467, 136, 185, 185/469, 137, 139, 198, 180, 181, 182, 188, 189, 186, 187, 183, 192, 184, 193, 193/471, 190, 470, 472, 473, 191, 194, 196, 197, 195, 491, 480 & 203	Full	8.08

18. Construction work in the subproject area has been carefully planned to minimize any disturbance to adjacent community people and pedestrians (if any). The proposed site is a vacant plot and assessed to have no resettlement impact. The DWF generated in the catchment area of the sub-project, i.e. parts of wards 114 (Borough XI), 122 (Borough XIII), 123, 124, 142, 143 under (Borough XVI), will be pumped through 700m long pumping mains from Churial Extension PS to Bank Plot STP. The pumping mains will pass through public roads and internal STP roads both of which are belonging to KMC

19. Laying of pumping mains for carrying DWF from Churial Extension Pumping Station to STP and effluent discharge from STP to Churial Canal will be through open cut method. The effluent discharge pipeline will be laid through the internal STP road till Mahatma Gandhi Road and then to Churial Canal. The following Table 5 provides details of the pipelines to be laid.

Table 5: Details of Dry Weather Flow Pipelines and Effluent Discharge Pipelines

Component	Length of Pipeline (m)	Dia of Pipe (mm)	Trench width (m)	Road Width (m)	Land Ownership	Land use
Laying of pipeline for carrying dry weather flow (DWF) from Churial Extension Pumping Station to sewage treatment plan (STP)	800	ductile iron – 800 millimeter (mm)	1.5 meter (m)	6 m right of way on Mahatma Gandhi Road and partial length on internal 5 m wide road	Kolkata Municipal Corporation (KMC)	No commercial activities

¹ As per provision of West Bengal Estate Act, 1953, no *raiyat* can hold land beyond the ceiling limit, while as per West Bengal Land Reforms Act, 1955, ceiling is imposed upon the family – unit of the *Raiyat*. The ceiling surplus lands are to be vested to the State by drawing up proceedings as per the provision of law.

Component	Length of Pipeline (m)	Dia of Pipe (mm)	Trench width (m)	Road Width (m)	Land Ownership	Land use
Laying of Effluent Discharge Pipeline from STP to Churial Canal	1200	mild steel - 800 mm	1.5 m	5 m wide internal STP road, partly on M.G. Road and partly on 4 m wide lane towards Churial Canal south from MG Road	KMC	No commercial activities

Figure 3: Google Earth Image of Subproject Area



V. CONCLUSION

A. Summary and Conclusion

20. The construction work of the subproject will not cause any involuntary resettlement impacts as the STP is proposed on a vacant land. The identified site for the proposed civil works at all pipe laying zones is proposed along government road rights of way. Temporary disruptions during construction will be mitigated by the contractor through a traffic management plan and simple measures such as proper stacking/storing of construction materials, provision of planks to ensure that pedestrian access to shops and residences is maintained.

B. Next Step

21. ADB approval of the updated due diligence report based on the final assessment at detailed measurement survey stage needs to be obtained by the PMU.

PHOTO GALLERY



Location of Bank Plot Sewage Treatment Plant and Pipeline Alignment



Community Consultation

LIST OF PARTICIPANTS

KOLKATA ENVIRONMENTAL IMPROVEMENT INVESTMENT PROGRAMME

List Of Participants In Community Consultation

Date: 8.7.17

Place: Kuri Ful

Sl. No.	Name	Signature
1.	Chuncki Haldar	Chuncki Haldar
2.	Smrita Gayen	স্মিটা গায়ন
3.	Smrita Bayen	স্মিটা বায়েন
4.	Chhanda Naskar	চাঁদু দেব
5.	Pushpa Das	পুষ্পা দাস
6.	Sandhya Naskar	Sandhya Naskar
7.	Prakash Karmakar	প্রকাশ কর্মকার -
8.	Paarl Karmakar	পার্ল কর্মকার
9.	Pumpa Karmakar	পম্পা কর্মকার
10.	Jumpa Karmakar	জুম্পা কর্মকার
11.	Jitu Prakash Hela	জিতা প্রকাশ
12.	Bhagwan Hela	ভগবান হেলা
13.	Raju Juna	Raju
14.	Ritu Haldar	রিতু হালদার
15.	Jhuma Saha	জুমা সাহা

POSSESSION CERTIFICATE FOR BANK PLOT SEWAGE TREATMENT PLANT LAND AREA



POSSESSION CERTIFICATE

Case No. URL/1/89(SM)

As per order dated 30.11.2016 of the Competent Authority(ULC) & S.D.O., Sadar, Alipore, South 24-parganas, I, Shri Basudev Paramanick, Surveyor of this office do hereby take over possession of the vested area of 32724.63 square meters of land, which was vested vide declaration No. 32, dated 27th January, 1994 of the office of the Competent Authority(ULC) & S.D.O., Sadar, Alipore, South 24-parganas, published in the Calcutta Gazette Extraordinary bearing No. 31(I), dated January 29, 1994 in presence of the following persons today i.e. on 2nd December, 2016, as per the provisions of the section 10 (6) of the Urban Land (Ceiling & Regulation) Act, 1976.

SCHEDULE OF VESTED LAND :-

Mouza : Kalua
 J. L. No. : 22
 Police Station : Behala (presently Haridevpur).
 R.S. Khatian No. : 231, 13, 234, 237, 528, 531, 927, 232, 463, 557 & 915.
 R.S. Dag No. : 131, 132, 133, 134, 138, 138/467, 136, 185, 185/469, 137, 139, 198, 180, 181, 182, 188, 189, 186, 187, 183, 192, 184, 193, 193/471, 190, 470, 472, 473, 191, 194, 196, 197, 195, 491, 480 & 203.

- Name of the Witness
1. Mr. Indrajit Bhattacharya
 2. Sri Pranas Kumar Sen.
 - 3/ Babbar Sarkar
Kalua M G Road
Kal- 104
 - 4/ Dilip Biswas
27.2. Saini
Jalpaiguri
K.L- 104
 5. Anjali Roy
Sri Krishnal Pally
Biswa Colony
Kolkata-104.

Signature of the Witness

(Signature)
 INDRAJIT BHATTACHARYA
 Chairman, Br.-XVI
 Kolkata Municipal Corporation
 02.12.16
 K.B.

(Signature)
 2/12/2016

(Signature)
 2/12/16

(Signature)
 02/12/16

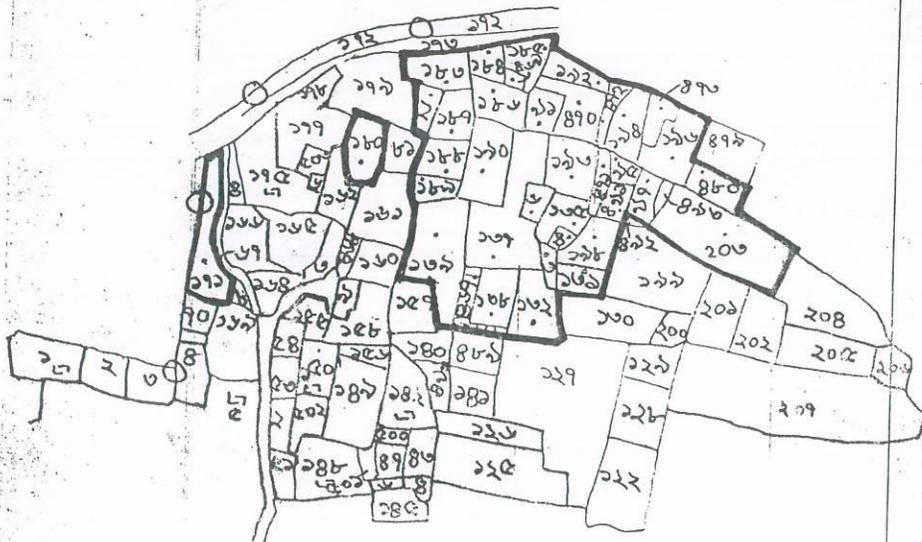
possession taken of the above mentioned Excess Vacant land in presence of the above signed witnesses on the spot on 02.12.2016 at about 11:50 A.M. on 02.12.2016.

In presence of me
(Signature) 02/12/16
 (BISWAJIT ROY), ENQUIRING OFFICER
 CA ALIPORE, SADAR.)

(Signature)
 02/12/16
 (BASODEV PRAMANICK, SURVEYOR)

Manza: Kalua J.L. - 22.

(Land Vested under ULC Act, 1976).



□ shown This Land has been vested to The state by The learned Competent Authority, sadar, Alipore.

Drawn by
S.P.
13/8/13.