

**ENVIRONMENTAL AND SOCIAL SAFEGUARD DUE DILLIGENCE
FOR
SEWERAGE SYSTEM IN DISTRICT ‘E’ OF ALLAHABAD, UTTAR PRADESH
(Subproject-III)**

1. INTRODUCTION

Increasing population, haphazard urbanisation and industrial growth in Ganga river basin has resulted in high pollution level in economically and culturally important river Ganga. The Government of India (GoI) has established the National Ganga River Basin Authority (NGRBA) for comprehensive management of the river. The NGRBA program will adopt a river basin approach and has been given multi-sectoral mandate to address both water quantity and quality aspects. The NGRBA is implementing the program with financial assistance from The World Bank in five major states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal) along the main stem of Ganga. To ensure effective implementation of the program NGRBA has designed a framework that address the technical, environmental and social aspects of each category of investment in the program.

Recently, GOI has requested the World Bank to consider some of the investments that were approved by MoEF / NGRBA prior to the commencement of Bank funded program for retroactive financing. Since these investments were not prepared in line with the agreed framework of the project, Bank team carried out a due diligence to assess the technical, procurement, environmental and social safeguard aspects of each of these projects and their eligibility for financing. The current document provides the details of environmental and social safeguard due diligence carried out by the Bank Team and the agreed action plan for complying with some of the safeguard issues.

The Environment and Social safeguard due diligence was undertaken by the Bank team¹ with co-ordination from Safeguard Specialists from National Mission for Clean Ganga (NMCG). The due diligence process was accomplished through detailed interactions with implementing agency, contractors, site visits and consultation with communities at site wherever feasible. Available DPR, design, drawings were also reviewed during the process.

2. PROJECT BACKGROUND AND DESCRIPTION OF PROJECT COMPONENTS

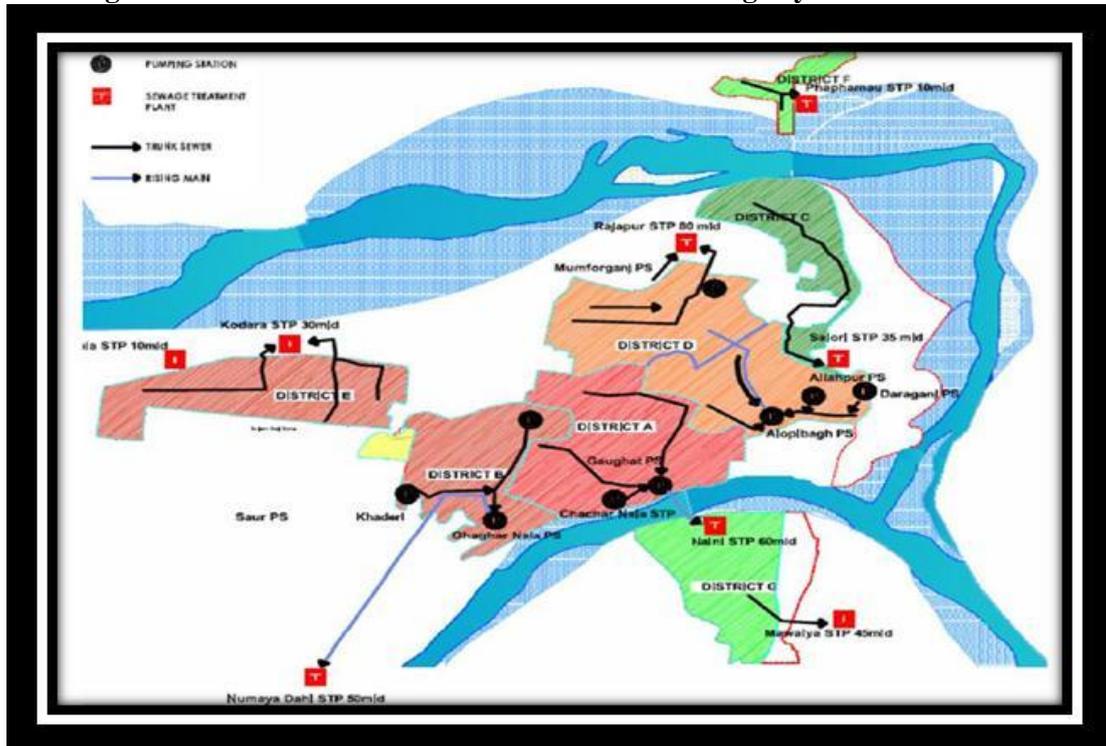
The proposed project aims effective abatement of pollution of river Ganga by providing comprehensive sewage collection, disposal system using laterals, branches and trunk mains in District E of Allahabad City in Uttar Pradesh, India. The sewage collected from this district is connected to Sewage Treatment Plants which are being implemented in other sub projects.

The Allahabad city is divided under various districts for sewage network and STPs construction purposes (Figure 1). The City of Allahabad’s wastewater collection system covers about 45% of the city area and most of this is within the densely populated centre city area. Wastewater (from toilets) is mostly discharged to soak pits or septic tanks where solids are retained and partially reduced in volume.

Sewerage system in Allahabad city is quiet old (commissioned in the year 1910) and poorly maintained. The large amount of wastewater currently flows through open drains pollutes the river Ganga and Yamuna. Total wastewater generation in the City is about 225 million litres per day.

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Figure 1: Overview of Administrative Area and Sewage System of Allahabad



District E, the area under proposed district is devoid of any sewage network and complete sewage system is proposed to be developed under this subproject. Spread over an area of 928 ha and with projected population in 2025 as 223789, about 34.69 MLD of sewage is expected to be generated from the district. This district is divided into three Nalas catchments, namely PonghatNala to the west, KodaraNala (central), and Nehru Park Nala to the east. The sewage of this district is proposed to be treated at 2 STPs being built under sub project II².

Proposed Activities in District E- Subproject III:

- A. **Laying /Replacement of Trunk Sewers - 11 Km:** The construction of sewage network is in progress and it is mostly placed on the existing carriageway of the PWD or Municipality roads.
- B. **Construction of New SPS (Sewage Pumping Station) at Kalimandir:** No construction work started yet.
- C. **Construction of New SPS at Vivekanand Park:** No construction works started yet.

3. STATUS OF ENVIRONMENTAL AND SOCIAL ASSESSMENT

JICA carried out an Environmental Impact Assessment in 2005 as part of feasibility report preparation for the master plan for the entire city. This report focuses on impacts both during construction and operation stage. The report also provides suggestions for mitigation measures, Environmental Management Plan including Monitoring and Capacity Building.

² These sewage treatment plants are proposed one of 25 MLD near the outfall of KodaraNala and another of 10 MLD at PonghatNala. This smaller capacity STP at PonghatNala because it is not feasible to intercept and divert wastewater by gravity from PonghatNala to Kodra STP because of geological compulsions.

However, no separate environmental assessment specific to the sub-project was carried out at DPR (Detailed Project Report) stage. DPRs are also doesn't integrate environmental management aspects into the design except JICA's technical suggestion for disinfection of treated water with chlorine before discharge to land for irrigation or to river. Also no social impact assessment (SIA) was carried out for the project.

4. ENVIRONMENTAL AND SOCIAL PROFILE OF THE AREA AND SCREENING

Allahabad is among the largest cities in Uttar Pradesh. Allahabad city lies on the 25°28' North latitude and 81° 52' East longitude. Main land of the city is surrounded by river Ganga and Yamuna in three directions i.e. north, south and east direction. The river Ganga flows on the north and east boundary of the old city while river Yamuna flows on south boundary of old city. New and ongoing developments of the city are across the river Ganga and Yamuna.

Hindu mythology says that for PrakrishtaYajna, Lord Brahma, the creator God of the Trinity, chose a land on earth, on which the three rivers would flow in to a quiet confluence. Brahma also referred to it as 'Tirth Raj' or the 'king of all pilgrimage centres'. Recorded evidence also exists in the revered scriptures – the Vedas and the grand epics, the Ramayana and the Mahabharata, as also in the Puranas – of this holy place formerly called Prayag. Allahabad stands at the confluence of two of India's holiest rivers, the Ganga and the Yamuna. Sangam, as the confluence is called, is the venue of many sacred fairs and rituals, and attracts thousands of pilgrims throughout the year. This number swells to millions during the worldfamous KumbhMela. A third mythical Saraswati river, believed to flow underground towards the Sangam, gives the confluence its other name 'Triveni'.

The total population of Allahabad Municipal Corporation as per 2011 census is 1,112,544 out of which 60,0386 (54%) are male and 51,2158 (46%) are female. The sex ratio of the city population is 853. The scheduled caste (SC) population is 144,013 (13%) and the scheduled tribe (ST) population is only 1849 (0.2%) within the municipality area.

The literacy status of the Allahabad city shows that 846,038 persons (76%) are literate, of which 79% of male population and 72% of female population are literate. 370,199 (33%) of the city population, constitute working population. The work force participation among male is 48% and in case of female it is only 16%.

The mean monthly temperature of the city varies from minimum 8.7°C (January) to maximum 44.3°C (May). The normal annual rainfall is 1017.7 mm. The months of June to September accounts for about 87% of total rainfall and the highest precipitation of 307.6 mm is recorded in August. The topography of the Allahabad city is flat and the highest flood level of river Ganga recorded is 88.00 meters in 1978.

The ambient air quality in the city is reported to be higher than the prescribed standards particularly with respect to particulate matters (PM₁₀) at most of the city areas.

None of the project area involves forest land, or is located close to any ecologically sensitive areas. No archeologically protected monument is located in close proximity. No issue related to indigenous people or involuntary resettlement, are identified in the project.

Environmental and social screening carried out as part of this due diligence exercise using the screening matrix of the Environmental and Social Management Framework of NGRBA Project (**Annexure-1**), concludes that the project components have limited impact to environment and can be mitigated with provision adequate mitigation measures and adoption of environmental management plan. The project hence is categorized as 'Low Impact' category.

5. THE DUE DILIGENCE PROCESS

As part of the due diligence, the team visited the project area on October 14-15, 2013 and carried out detailed interactions with implementing agency, contractors, visited project sites, and consultation with communities. A review of the project DPR, design, drawings was also carried out by the team.

6. ENVIRONMENTAL AND SOCIAL FINDINGS

The due diligence findings are summarised below and Annexure-2 (through photographs) presents the profile of the project area.

A. Environmental Regulatory Requirements

1. It is advisable to undertake tree plantation around the SPSs which will help improve aesthetics and also bad odour to the neighbouring communities.

B. Project Design/Planning Issues

2. None of Sewage Pumping Stations (SPS) have defined system of appropriate collection and disposal of bio-degradable and non-biodegradable waste screened out at each of the SPSs. Currently waste is collected and stored intermittently within SPS site area and disposed to low lying area of the city or to locations where municipal solid waste is being disposed off. As most of these SPSs are located close to habitations, people in close vicinity to these SPSs have indicated issue of bad smell of sewage.
3. Substantial debris and mud is generated during laying of trunk sewer, construction of SPS and STP. Top soil with good productivity and debris is being disposed off through contractor at low lying areas where ever available. No management plan is prepared for reuse of top soil for agricultural purposes, use of debris as filling material and safe disposal of unusable material. Soil and debris can be well managed for planned land filling and landscaping.
4. No environmental management plan has been prepared for the project during detailed project report stage for management and monitoring of environmental impacts and mitigation during construction and operation phase. Since environmental impact is minimal and issues are simple, this EMP can be easily evolved with certain guidance. Even simple guidelines can be evolved and referred by implementing agency as reference guidance document. This can be suitably modified as required specific to each sub project.
5. DPR reviewed does not have any separate budget for environmental components including specific monitoring and corrective actions.

C. Construction / OHS Issues.

6. Occupational health and safety is another area requiring attention. Workers are seen working without any PPEs.

D. Operational Aspects and Social - Land Acquisition

7. The proposed *Kalimandir* SPSs being constructed within the government land belonging to Allahabad Development Authority (ADA) which is now transferred in the name of Allahabad Municipal Corporation.
8. *No squatter or encroacher was found in any of the project sites.*
9. The proposed site of Vivekanad SPS belongs to Allahabad Development Authority (ADA) and presently not under any use. The local community living nearby wants to

use the land as Community Park and requested the Implementing Agency to develop the remaining land as park. The ownership of land is yet to be transferred to the Allahabad Municipal Corporation.

10. The construction of sewage network is in progress and it is mostly placed on the existing carriageway of the PWD or Municipality roads.
11. Project has not carried out any assessment of adverse impact that sub project may have on the community.
12. No specific staff employed or assigned by the implementing agencies to deal with the social safeguard issues in any of these subprojects.

E. Details of Compensation and other assistance

13. No such issue is involved since land belongs to Allahabad Municipal Corporation. There is no encroacher or squatter found in the designated land under the subproject.

F. Stakeholder Consultations

14. The local communities are aware of the subproject works but no specific public consultations were carried out during project preparation to disseminate project information.

G. Grievance Redressal Arrangements

15. Though no formal grievances have been recorded, project has not established any project specific grievance redressal mechanism. The only mechanism available is the District Grievance Cell through District Magistrate's office. UP Jal Nigam officials also informally handles grievances if any.

H. Summary Gap Analysis

The summary gap analysis matrix from safeguard planning and implementation point of view based on the due diligence study is presented in the table below:

Key Principles and Attributes	Gap	Remarks
Assessment of environmental Impacts	Not Carried out	The due diligence indicates no significant impact (except during the construction phase) due to the project
Analysis of Alternatives	Was done as part of project planning, but no specific analysis / documentation done	Carried out as part of the site identification for pumping stations But not documented.
Implementation of Mitigation and Management Measures	Measures to mitigate construction stage impacts being implemented through standard construction contract provisions	Need specific mitigation measures to avoid and manage the construction stage environment and safety issues.
Involuntary restriction of access to legally designated parks and protected areas	Not applicable	Does not apply to this project

Key Principles and Attributes	Gap	Remarks
Recognition of untitled persons such as squatters and encroachers including customary rights	Not applicable	No non-titleholder affected by this sub project
Avoiding displacement of Indigenous People	Not applicable	No indigenous person in the project area
Planning		
Threshold for Resettlement Plan (RP)	No RAP prepared	Land belong to Govt. and No non-titleholder affected
Need to replace / restore CPRs	Not applicable	CPRs not affected
Consultation and participation of PAPs during project planning	No consultations carried out	
Participation of NGOs in project planning	No NGO involved	
Cut-off date	Not applicable	Not required in this sub project
Definition of a family for R&R assistance	Not applicable	ESMF defines family. Not required in this sub project
Need and scope of census and socio-economic surveys	Not applicable	
Compensation	Not applicable	Land belong to Govt.
Primary Authority for Land Acquisition	Not applicable	Not required in this sub project
Principle to restore/improve living standards	Not applicable	No loss of livelihood
Compensation for land at replacement value	Not applicable	Land belong to Govt.
Treatment of depreciation and Salvage	Not applicable	No loss of structure
Transaction and transition fee	Not applicable	
Land for Land as an option for compensation	Not applicable	Not required in this sub project
Resettlement Assistance		
Cash assistance over and above compensation	Not applicable	Not required in this sub project
Assistance to poorest of the poor or vulnerable category of people	Not applicable	Not required in this sub project
Provision of infrastructure and public services at resettlement sites	Not applicable	Not required in this sub project
Implementation		
Implementation of RP	Not applicable	Not required in this sub project
Participation of civil society in implementation of RP	Not applicable	Not required in this sub project
Opportunity for PAPs to participate in planning, design and implementation	Not applicable	Not required in this sub project

Key Principles and Attributes	Gap	Remarks
Disclosure of Resettlement Plan	Not applicable	Not required in this sub project
Grievance Redressal Mechanism		
Procedure for dispute resolution and appeals		Government's grievance handling mechanism through the office of district magistrate
Composition of Grievance Redress Committee	NO project specific GRC established	
Participation of representative of PAPs and civil society	No public consultation ever carried out	
Monitoring		
Independent monitoring	No monitoring mechanism in place	
Periodic evaluation and monitoring	No evaluation process in place	

7. RECOMMENDED ACTION PLAN

EMP Preparation and Implementation

1. An EMP shall be developed which shall identify key environmental issues, the mitigation measure, capacity building training and awareness. Nature of reporting and frequency shall also be defined which should preferably be six monthly. The EMP shall be integrated in the contract documents, with necessary amendments (if necessary) or agreements with the contractor and shall be implemented for the remainder of the construction period.
2. Independent Environment and Social/ Compliance Monitoring Audit by the third party independent inspection agency shall be carried out annually, as per the ESMF requirements of NGRBA program.

Design and Operational Specific

3. Specific site shall be identified for intermittent storage of waste at each SPS and shall be disposed in the designated site.
4. Tree plantation shall be made on the periphery of the SPS site to prevent spread of bad odour and undertake landscaping to enhance aesthetic at each SPS locations.
5. Consideration³ may be given for constructing garland drain around the site with small opening intermittently in the boundary wall to allow run off rainwater to drain off without accumulating in the adjacent residential areas.
6. It is recommended that keeping in view the need and demand of local community, the Implementing Agency should carry out consultation with them and consider developing the remaining area as park

Land Acquisition

7. The issue of construction of SPS at Vivekanand Park and development of remaining land as Community Park needs to be resolved in consultation with local residents. It is recommended that the remaining land after construction of SPS should be developed by the IA as Community Park for the local residents.
8. NOC from Municipal Corporation for construction of SPS needs to be obtained by the IA.

³The residents are apparently used to current situation due inadequate sanitation situation as present. Water in any case finds its way otherwise and accumulated water drains off gradually.

9. Advance notice to local residents / shop owners and vendors to avoid inconvenience to vendors/squatters. UP Jal Nigam to (i) buy time on FM radio; (ii) space in local newspaper; (iii) print and distribute pamphlets about the project through newspaper vendors; and (iv) put up information boards at construction site for information dissemination.
10. UP Jal Nigam to (i) provide adequate safety measures during construction; (ii) ensure access to residences and shops; and (iii) spray water to control dust.

Stakeholder Consultation and Disclosure

11. Since the public consultation was not carried during the project preparation stage, this should be organised during this implementation stage through awareness campaign and disclosure of information related to the subproject interventions. UP Jal Nigam to hire services of local NGO / CBO for information dissemination and public consultation
12. Approximate time required to close the work should also be made public.

Grievance Redresses

13. UP Jal Nigam to establish district specific grievance redress mechanism for the subproject as outlined in ESMF to address the grievances of the community. UPJN also to appoint / designate one Grievance Redress Officer.

8. IMPLEMENTATION SCHEDULE OF THE ACTION PLAN

S.No	Action	Responsibility	Time frame
Environment Management			
1.	Prepare Environment Management Plan and incorporate in the construction contract	UPJN/SPMG	Immediate / Prior to the Disbursement of retroactive claim under the project
2.	Initiate design measures (points 3 to 6 above) and implement	UPJN/SPMG	During the Implementation
Social Safeguards			
3.	The issue of construction of SPS at Vivekanand Park and development of remaining land as Community Park to be finalized in consultation with local residents.	UPJN/SPMG	Immediate / Prior to the Disbursement of retroactive claim under the project
4.	NOC from Municipal Corporation for construction of SPS	UPJN/SPMG	Immediate / Prior to the Disbursement of retroactive claim under the project
5.	Hiring of NGO/ CBO for information dissemination	UPJN/SPMG	Immediate / Prior to the Disbursement of retroactive claim under the project
6.	Preparation of IEC material	UPJN/SPMG	One Month after action 5
7.	Establishing district level GRC	UPJN/SPMG	Immediate/ Prior to the Disbursement of retroactive claim under the project
8.	Designate Grievance Redress Officer	UPJN/SPMG	Immediate after Action 7
9.	Information dissemination	UPJN/SPMG	Continuous after Action 5
10.	Disclose DDR,EMP,GRC in ULB,UPJN,SPMG&NMCG website	ULB,UPJN,SPMG&NMCG	Immediate

Environment and Social information format for screening

<p>Project Title:Sewerage System in District 'E' of Allahabad in Uttar Pradesh-Sub Project III. Implementing agency: Uttar Pradesh Jal Nigam (Ganga Pollution Control Unit) Project cost: Project components:</p> <ol style="list-style-type: none"> 1. Laying /Replacement of Trunk Sewers - 11 Km. 2. Construction of New SPS (Sewage Pumping Station) at Kalimandir. 3. Construction of New SPS at Vivekanand Park. <p>Project location (Area/ district) : District 'E' of Allahabad</p>		
Screening Criteria	Assessment of category (High/ low)	Explanatory note for categorisation
1	No	
2	No	
3	No	
<ul style="list-style-type: none"> • Land acquisition resulting in loss of income from agricultural land, plantation or other existing land-use. • Land acquisition resulting in relocation of households. • Any reduction of access to traditional and river dependent communities (to river and areas where they earn for their primary or substantial livelihood). • Any displacement or adverse impact on tribal settlement(s). • Any specific gender issues. 	No	
<ul style="list-style-type: none"> • Clearance of vegetation/ tree-cover • Direct discharge of construction run-off, improper storage and disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes. • Improper storage and handling of substances leading to contamination of soil and water • Flooding of adjacent areas 	Limited	The excavated soil and other waste may affect the water quality if stored in-appropriate manner.
	Limited	The boundary wall may act as barrier in absence of garland drains and opening in the boundary wallsof SPS.

	<ul style="list-style-type: none"> Elevated noise and dust emission Disruption to traffic movements Damage to existing infrastructure, public utilities, amenities etc. Failure to restore temporary construction sites Possible conflicts with and/or disruption to local community Health risks due to unhygienic conditions at workers' camps Safety hazards during construction 	<p>Limited</p> <p>Limited</p> <p>Limited No</p> <p>Limited</p> <p>Limited</p> <p>Limited</p>	<p>Use of noise making equipment like compressors without acoustic enclosures and absence of dust suppression measures may lead to this. This will happen especially during working in the narrow lane areas.</p> <p>Due to inadequate adherence to Occupational Health & Safety Practices including use of PPEs.</p>
4	<p>Will the project create significant / limited / no environmental impacts during the operational stage? (Significant / limited / no impacts)</p> <ul style="list-style-type: none"> Flooding of adjacent areas Impacts to water quality due to effluent discharge Gas emissions Safety hazards 	<p>No</p> <p>No</p> <p>No</p> <p>No</p>	
5	<p>Do projects of this nature / type require prior environmental clearance either from the MOEF or from a relevant state Government department? (MOEF/ relevant State Government department/ No clearance at all)</p>	<p>No</p>	
6	<p>Does the project involve any prior clearance from the MOEF or State Forest department for either the conversion of forest land or for tree-cutting? (Yes/ No). If yes, which?</p>	<p>Yes</p>	<p>Permission for cutting trees from concerned district/forest departments.</p>
7	<p>Please attach photographs and location maps along with this completed Environmental Information Format For Screening.</p>	<p>Attached</p>	
Overall assessment		Low Impact	

Photographs taken during Due Diligence – Site Visit
View of Kalamandir SPS Site



View of Construction Work in Progress



View of Construction Work in Progress



View of Construction Work in Progress



View of Approach to SPS Site



View of Proposed SPS at Vivekanand Park



View of Proposed SPS at Vivekanand Park



View of Proposed SPS at Vivekanand Park



View of Proposed SPS at Vivekanand Park