

National Mission for Clean Ganga

**Ministry of Water Resources, River Development & Ganga Rejuvenation
Government of India**

Environmental and Social Management Framework (ESMF)

For

The Namami Gange Programme

May 2011

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List of Abbreviations

AF	Affected Family
BPL	Below Poverty Line
CPRs	Common Property Resources
EA	Executing Agency
EMP	Environmental Management Plan
EP	Entitled Person
ESA	Environmental and Social Assessment
ESMF	Environmental and Social Management Framework
GAP	Ganga Action Plan
GoI	Government of India
GSMP	Generic Safeguard Management Plan
ha	Hectare
LAA	Land Acquisition Act
MoWR,RD&GR	Ministry of Water Resources, River Development & Ganga Rejuvenation
MoEF&CC	Ministry of Environment ,Forests& Climate Change
NGO	Non-Government Organization
NGP	Namami Gange Program
NMCG	National Mission for Clean Ganga
NLCP	National Lake Conservation Plan
NRCD	National River Conservation Directorate
PAP	Project Affected Person
RFCTLARR 2013	Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act
R & R	Resettlement and Rehabilitation
RAP	Resettlement Action Plan
ROW	Right of Way
SC	Scheduled Caste
SPMG	State Programme Management Group
SRCA	State River Conservation Authorities
SECs	State Executive Committees

ST

u/s

ULB

Scheduled Tribe

Under Section

Urban Local Body

Glossary of Terms

Bigha	1/5 of an acre
Development Block	A number of villages grouped together form a Development Block.
District Collector/ Magistrate	Administrative head of a District.
Divisional Commissioner	Administrative head of a division comprising of a number of districts.
Grievance Redressal Cell	A cell set up for grievance redressal by the competent authority at various levels
Hectare	A unit for measuring land area. (10,000 m ²).
Kachha	Structures with stone/ mud wall/ thatch roof
Non-titleholders	Drawing economic benefits from a piece of land, but not the owner of the land
Panchayat	Elected local self-governing body at village level.
Panchayat Samiti	Local Self-governing body at Block level
Pucca	Cement, bricks or concrete build structure
Sarpanch	Elected Head/chief of a village level body.
Semi Pucca	Structures with tiles/ thatch roof/ brick cement wall
Tehsil/ Subdivision	A group of Blocks

Section 1 Background

1.1 Background

1. River Ganga has significant economic, environmental, and cultural value in India. Rising in the Himalayas and flowing into the Bay of Bengal, the river traverses a course of more than 2,500 km through the plains of north and eastern India. The Ganga basin (which also extends into parts of Nepal, China and Bangladesh) accounts for about 26 percent of India's landmass, 30 percent of its water resources, and more than 40 percent of its population. Ganga is India's holiest river and has a cultural and spiritual significance that far transcends the boundaries of the basin.
2. Increasing population in the basin and haphazard urbanization and industrial growth has significantly impacted the water quality of River Ganga, particularly during the dry season. The primary sources of pollution are untreated sewage and industrial wastewater. Non-point pollution sources from agriculture and livestock, religious activities at various locations along the river, as well as poor solid waste management, also contributes to pollution. In addition, substantial abstraction of water, primarily for irrigation, has led to low flows and associated poor water quality in the critical middle stretch of the river.
3. The previous attempt to clean the river, such as Ganga Action Plan (GAP) launched in 1985 have provided some gains in arresting rate of water quality degradation, but lot more needs to be done.
4. Lessons from earlier experience indicate that improving water quality in the Ganga cannot be achieved by plugging the infrastructure gap alone. Any effective initiative will have to adopt a three-pronged approach by (i) establishing a basin-level multi-sectoral strategy for addressing pollution in the river (ii) making relevant institutions operational and effective and (iii) implementing a phased program for Ganga clean-up.
5. As a major first step in this direction, the Government of India (GoI) has established the National Ganga River Basin Authority (NGRBA) in 2009 and in 2016 National

Council for River Ganga (Rejuvenation, Protection and Management), as an Authority has been created for comprehensive management of the river. The Namami Gange Programme will adopt a river-basin approach and has been given a multi-sectoral mandate to address both water quantity and quality aspects. The Namami Gange Program has resolved that by year 2020 no untreated municipal sewage or industrial effluent will be discharged into River Ganga. National Ganga River Basin Project (NGRBP) started in 2011 is funded by World Bank has now been included as a part of Namami Gange Programme.

1.2 Objective

6. The Namami Gange program will finance infrastructure investments to reduce pollution loads at priority locations on the river. The investments are intended to exemplify, among other attributes, the high standards of technical preparation and implementation, sustainability of operations, and public participation. The majority of investments in the Namami Gange program are expected to be in the wastewater sector, particularly in wastewater treatment plants and sewerage networks. Investments will also be supported in industrial pollution control and prevention (e.g. common effluent treatment plants), solid waste management (e.g. collection, transport and disposal systems), and river front management (e.g. improvement of the built environment along river stretches, improvement of small *ghats* and electric crematoria, and the conservation and preservation of ecologically sensitive sites). Many investments are likely to combine elements of more than one of these sectors.
7. An investment framework has been finalised for selection of program investments. The objectives of this investment framework are to:
 - a) provide a filter for all the Namami Gange investments, for ensuring that the selected investments are well-prepared and amongst the most effective in reducing the pollution loads;
 - b) make transparent the decision-making process on investments selection; and
 - c) Ensure that the investments are implemented in a sustainable manner.
 - d) Investment projects need to ensure compliance with National and local Environmental and Social legislation/regulation as well as World Bank safeguards policies (wherever applicable).

1.3 The ESMF

8 Given the distributed nature of investments in multiple states, the investments under the program may entail environmental and social impacts. The environment and social framework is intended to help manage the social and environmental impacts through appropriate measures during the planning, design, construction and operation phases of various investments. The framework will identify the adverse environment and social impacts and provide specific guidance on the policies and procedures to be followed for environmental and social assessment along with roles and responsibilities of the implementing agencies.

9 The document essentially comprises the following key sections:

- A brief summary of key probable Environmental and Social Impacts
- Environment and Social Regulatory Framework applicable for the program
- Environment Management Framework
- Social Management Framework
- Project Appraisal, Monitoring and Reporting Arrangements
- Institutional Arrangements
- Training and Capacity Building for ESMF

Section 2 Environmental and Social Impacts

2.1 General

- 10 The implementation of the river pollution mitigation investments may have environmental and social issues like pollution of surface and ground water bodies or other natural resources, issues related to air pollution or other environmental health and sanitation, inconvenience to public due to traffic diversions and construction activities, issues of land acquisition and rehabilitation and resettlement. The NMCG recognizes these environmental and social issues and prepares itself to address their mitigation through a set of management procedures elaborated in this Environmental and Social Management Framework (ESMF). NMCG, through state level SPMGs will ensure that policies and procedures described in the ESMF are applied to all investments.
- 11 To evolve its environmental and social management procedures, the NMCG has carefully examined the portfolio of investments previously executed under the river pollution mitigation investments under Ganga Action Plan (Phase I and II) along with similar other urban infrastructure investments implemented elsewhere in the country under various Government of India sponsored schemes, supplemented by detailed environmental and social analysis of Ganga Basin and field visits to existing and proposed sample investments.

2.2 Portfolio of Investments

- 12 The portfolio of investments to be implemented is presented in **Table 2.1**. These investments in the first phase of program is spread across several cities and/or towns within the Ganga main stem states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal and may be extended to entire Ganga basin comprising of 11 states in later phases.

TABLE 2.1 PORTFOLIO OF INVESTMENTS UNDER NAMAMI GANGE PROGRAM

S.No.	Portfolio of investments	Possible Portfolio Components
1	Sewerage and Sanitation Systems/ Sewage Treatment Plants (New / Upgradation)	<ul style="list-style-type: none"> • Provision for an entirely new sewerage network including individual house connections • Extensions to existing sewerage networks in some parts of cities/towns to include areas which are un-sewered hitherto or to newly developed areas in the recent years • Entirely new sewage treatment plant/facility • Augmentation of capacities in existing sewage treatment plant/facility • Remodelling /Renovation of existing sewage treatment facilities, resulting in better effluent quality and augmented treatment capacity
2	Solid Waste Management	<ul style="list-style-type: none"> • Engineered landfills with leachate collection and treatment systems • Waste segregation and composting facilities • Waste Processing or Waste to Energy Facilities
3	Industrial Pollution Control Initiatives	<ul style="list-style-type: none"> • Common Effluent Treatment Plant • Common Hazardous Waste Management Facilities • Pilot treatment facilities for various industrial sectors • Waste Minimization and Clean Technology Programs
4	River Front Management Investments	<ul style="list-style-type: none"> • River Front Management and beautification • Construction of Bathing Ghats • Development of Cremation grounds Improvement to existing crematoriasituated on river banks

13 The Investments aims at preventing discharge of untreated sewage into River Ganga and thus aiding abatement of river water pollution and improvement in water quality. Consequently, this also contributes to the improvement in the status of environment health and sanitation for the citizens of the concerned cities and towns. The Investments, to be implemented, have its own beneficial as well as adverse impacts. The significance of these impacts depends on the individual project, its size and location. The likely beneficial impacts of the investments include the following.

- Improvement in sewerage collection and treatment within the cities/towns
- Prevention of storm drains carrying sanitary sullage or dry weather flow
- Prevention of ground water and soil pollution due to infiltration of untreated liquid waste
- Prevention of discharge of untreated sewage into River Ganga
- Improvement in water quality of River

- Improvement in environmental sanitation health and reduction in associated health hazards within the cities/towns
- Improvement in quality of life, human dignity and increased productivity
- Reduced nuisance of open defecation due to low cost sanitation and reduced malarial risks and other health hazards
- Improved community participation and sense of ownership

2.3 Environment and Social Impacts

14 This section identifies the environmental and social impacts of the investments with a view to facilitate early evaluation of such impacts and integrate suitable mitigation measures during planning stage itself. Based on field visits and discussion with the potential executing agencies, the typical adverse impacts associated with the investments are summarized below:

2.3.1 Sewerage Schemes

15 The investments involve laying of sewers (both gravity and pressure lines), provision of sewer connections to individual houses, gravity based interception and diversion arrangements to drains carrying sanitary sullage/dry weather flow, construction of new sewage pumping stations including installation of electro-mechanical works, renovation and/or remodelling of existing sewage pumping stations among others. Most of these investments would be concentrated in one location except for laying of sewers (both gravity and pressure lines), which are linear investments and the sewers are largely buried below ground or sometimes may be laid on or above the ground depending upon the available/required slope or gradient.

16 Although there would not be any permanent negative or adverse environmental impacts, **the potential environment issues** associated with sewerage and sanitation investments are:

- surface and groundwater contamination due to leakage and/or improper joints in sewers
- severance of utilities and requirement for relocation due to sewer laying
- disruption due to local traffic diversion and congestion during sewer laying works
- impact on public/private properties and other sensitive receptors along the sewer alignment during construction

- disposal of excess excavated soil and construction debris
- Exploitation of water sources for meeting construction water demand.
- air and noise pollution from construction equipment's
- Health and safety concerns of workers, while laying or rehabilitating existing sewers.

2.3.2 Sewage Treatment Plants

17 The investments may involve construction of new sewage treatment plants, augmentation of treatment capacity in existing sewage treatment plants and renovation and/or re-modelling of existing sewage treatment plants, resulting in improved effluent quality and disposal as per prescribed standards. Most of these investments would be concentrated in one location and the requirement of land for these investments is small as compared to other infrastructure development investments.

18 Although there would not be any permanent negative environmental impacts, the **potential environment issues** associated with sewage treatment facility are:

- change in land use pattern, in case of proposed sewage treatment plants at new locations
- change in channel hydraulics, triggering erosion and siltation problems, if sewage treatment plants are proposed in flood plains
- change in hydrology and drainage patterns due to the construction activity, particularly, if sewage treatment facility is located in flood plains
- health and safety issues associated with operation and maintenance of sewage treatment facility, particularly exposure to methane and other noxious gases, sludge contaminated with heavy metals etc.
- issues associated with the disposal of sludge, if sewage is likely to be contaminated with heavy metals due to mix of industrial waste with sewage
- emission of methane, if not utilized for power generation or any other gainful applications
- water logging problems due to improper/ inadequate disposal of treated effluent or effluent not conforming to stipulated discharge standards during operation

Most of the portfolio of infrastructure investment under Namami Gange programme belongs to sewerage infrastructure and River Front Development. A sample construction and operation stage impacts and management measures are given in Annexure-

2.3.3 Solid Waste Management Investments

19 These investments may involve construction of municipal waste receiving and segregation yards, composting yards, engineered landfills with leachate collection and disposal arrangements among others. Most of these works would be spread over in one location and the requirement of land for these investments is rather small as compared to other infrastructure development investments. Generally, the land for the solid waste treatment facility will be selected away from habitations.

20 Although there would not be any permanent negative environmental impacts, the **potential environment issues** associated with Solid Waste Management are:

- surface and ground water contamination due to unmanaged leachate collection and disposal
- change in channel hydraulics, triggering erosion and siltation problems, if solid waste management facility is proposed in flood plains
- change in hydrology and drainage pattern, if the facility is located in flood plains
- air quality, odour and fly nuisance due to the improper operation of waste disposal or processing facilities
- issues pertaining to siting of facility such as change in land use pattern, proximity to settlements, cultural properties and any other sensitive receptors
- air and noise pollution from construction equipment's
- Health and safety issues associated with operation and maintenance of solid waste treatment facility, particularly of workers manually handling wastes.

2.3.4 Industrial Pollution Control Initiatives

21 Investments under this component could involve development of common industrial effluent treatment plants or hazardous waste management plants, etc. However, implementation of these pollution control facilities may lead to certain **environmental impacts** such as the following:

- Pollution of water resources
- Soil contamination due to the disposal of untreated / partially treated effluents and / or hazardous wastes

- air quality, odour and fly nuisance due to the improper operation of treatment facilities
- health impacts on the neighbouring communities
- Issues of leachate and loss of productivity to agriculture lands due to the disposal of sludge from the facilities.

2.3.5 River Front Management Investments

22 These works involve river front development schemes, beautification of river banks, construction of bathing *ghats* along rivers, lakes and water bodies improvement, redevelopment of cremation grounds among others. These works would be included under one investment. The requirement of land for these works is moderate and much lesser than that is required for the sewage treatment or solid waste treatment facility. Although, these facilities are frequently used by the citizens, the location of these investments will not generally involve displacement of people.

23 There would not be any permanent adverse or negative impacts due to these investments, if there are no major interferences in the river flow channel hydraulics, which can trigger erosion and siltation issues either *in situ* or elsewhere along the course of the river. Impacts due to such investments could be minimized or mitigated by appropriate interventions and engineering designs.

24 The **environmental issues** that may arise due to investments like river front development schemes, beautification of river banks, construction of bathing *ghats*, and development of cremation grounds are:

- change in land use, and drainage pattern
- change in channel hydraulics, triggering erosion and siltation problems either at *in situ* or elsewhere along the course of river
- impact due to inadequate solid and liquid waste disposal arrangements
- impact due to inadequate sanitation, health and safety facilities
- impact on river water quality due to proposed amenities
- impact on environmental aesthetics and cultural value

25 As regards to the **Social Impacts**, the requirement of land for all these investments is rather small. However, wherever there is displacement of titleholders/non-titleholders, it may

involve resettlement issues and may result in temporary loss of access to private and common properties during construction. Social issues that may arise due to these kinds of investments are:

- Direct purchase of small land parcels for SPS/ Lifting station
- Land acquisition / taking for sewerage treatment plant leading to loss of livelihood / displacement of non-titleholders / titleholders
- Temporary land taking causing inconvenience to local community
- Temporary loss of common grazing area

So far, in most cases, SPS and STPs have been designed in existing government land that is free of encroachment and other encumbrances. In case of requirement of private land, EAs have preferred direct purchase on the basis of willing buyer – willing seller. Where ever, government land has been taken, non-titleholders have been compensated for assets and assisted in relocation (e.g, Patna RFD).

Most of these investments would be concentrated in one location and the requirement of land for these investments is rather small as compared to other infrastructure development investments. Hence, the social impacts would be minimal but in case of displacement Resettlement Action Plan¹ need to be prepared.

¹ e.g. places where Government land is available and no displacement is involved a Generic ESMP is prepared/to be prepared. Places where private land acquisition is involved /physical displacement or displacement of Non title holders is required (e.g cases like Patna RFD and Begusarai WWT) , an abbreviated RAP /RAP is prepared/to be prepared.

Section 3 Environment and Social Regulatory Framework

3.1 General

26 The national, state and local environmental and social regulatory requirements that are applicable to the investments proposed are given in this section. As the applicability of these legal requirements would depend on the nature of the specific investments, the exact applicability cannot be determined at this stage. SPMGs and the State level executing agencies (EA) would ensure compliance of these requirements by all concerned.

27 NMCG would verify whether the investments are in compliance with these regulatory requirements prior to granting approval to the investments and disbursement of funds. During implementation, NMCG would ensure that SPMGs monitor the ESMF compliance in all investments on an on-going basis.

3.2 Applicable Laws and Regulations - Environmental

28 The following laws and regulations are applicable to the environmental and social aspects of the investments implemented under the programme:

- Policy and Regulatory Framework of Government of India (GoI)
- Environmental Policy and Regulations of the respective State Governments
- Legislations applicable to construction activities

3.2.1 Legal Framework of Government of India

29 The Government of India has laid out various policy guidelines, acts and regulations pertaining to environment. The Environment (Protection) Act, 1986 is umbrella legislation for the protection of environment. As per this Act, the responsibility to administer the legislation has been jointly entrusted to the Ministry of Environment and Forests & Climate Change (MoEF&CC) and the Central Pollution Control Board (CPCB)/State Pollution Control Boards (SPCBs).

3.2.2 Key Environmental Laws and other related Regulations

30 The key environmental laws and regulations as relevant to the investments under the NGRBP are given in **Table 3.1**. The key environmental regulations can also be accessed at www.MoEF&CC.nic.in/rules-and-regulations

TABLE 3.1 ENVIRONMENTAL REGULATIONS AND LEGISLATIONS

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
1	Environment Protection Act,1986	To protect and improve overall environment	Yes	As all environmental notifications, rules and schedules are issued under this act.	MoEF&CC, Gol, DoE, State Govt. CPCB, SPCBs
2	Environmental Impact Assessment Notification 14th Sep-2006	Mandatory environmental clearance to certain category of new development activities following environmental impact assessment	Yes	This notification is applicable only for Sewage Treatment Facility and Solid waste Treatment facility investments	MoEF&CC, EIAA
3	Municipal Wastes(Management and Handling)Rules, 2000	To manage collection, transportation, segregation, treatment, and disposal of municipal solid wastes	Yes	This notification is applicable only for Municipal Solid waste Treatment facility investments	MoEF&CC, EIAA, CPCB, SPCBs
4	Coastal Regulation Zone(CRZ) Notification 1991 (2011)	Protection of fragile coastal belt	No	If Project location is located along coastal belt	
5	Land Acquisition Act, 1894 (As amended)	Sets out rules for acquisition. of land by government	Yes	applicable in case of acquisition of land for investments	Revenue Department, State Government
6	The Forest (Conservation) Act,1980	To check deforestation by restricting conversion of forested areas into non- forested areas	Yes	applicable if there is diversion of forest land for non-forest activities i.e. forest land required for any of the investments	Forest Department, State Government and Ministry of Environment and Forests, Government of India

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
7	Wild Life (Protection) Act, 1972	To protect wildlife through National Parks and Sanctuaries	No	This act will be applicable, if there are any points of wildlife crossings in proximity to project locations	Chief Conservator Wildlife, Wildlife Wing, State Forest Department and Ministry of Environment and Forests, Government of India
8	Air (Prevention and Control of Pollution) Act, 1981	To control air pollution by controlling emission of air pollutants as per the prescribed standards.	Yes	This act will be applicable during construction;	SPCBs
9	Water Prevention and Control of Pollution) Act, 1974	To control water pollution by controlling discharge of pollutants as per the prescribed standards	Yes	This act will be applicable during construction	SPCBs
10	The Noise Pollution (Regulation and Control) Rules, 2000	The standards for noise for day and night have been promulgated by the MoEF&CC for various land uses.	Yes	This act will be applicable for all construction equipment deployed at worksite	SPCBs
11	Ancient Monuments and Archaeological Sites and Remains Act, 1958	Conservation of cultural and historical remains found in India	Yes	This act will be applicable, only if any of the investments is in proximity to any Ancient Monument, declared protected under the act.	Archaeological Dept. GoI, Indian Heritage Society and Indian National Trust for Art and Culture Heritage (INTACH).
12	Public Liability and Insurance Act, 1991	Protection from hazardous materials and accidents.	Yes	Contractor need to stock hazardous material like diesel, Bitumen, Emulsions etc.	SPCBs
13	Explosive Act, 1984	Safe transportation, storage and use of explosive material	Yes	For transporting and storing diesel, Oil and lubricants etc.	Chief Controller of Explosives
14	Minor Mineral and concession Rules	For opening new quarry.	Yes	Regulate use of minor minerals like stone, soil, river sand etc.	District Collector
15	Central Motor Vehicle Act, 1988	To check vehicular air and noise pollution.	Yes	This rule will be applicable to vehicles deployed for construction activities and construction Machinery.	Motor Vehicle Department

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
16	National Forest Policy, 1988	To maintain ecological stability through preservation and restoration of biological diversity.	No	This policy will be applicable if any eco sensitive feature exists in and around the investments	Forest Department, State Government and Ministry of Environment and Forests, Government of India
17	The Mining Act	The mining act has been notified for safe and sound mining activity.	Yes	The construction activities for investments will require aggregate. These will be procured through mining from approved quarries	Department of Mining, State Government

3.3 Applicable Laws and Regulations - Social

31 All strategic interventions on human development, spread across all social issues, need directives of policies and legal support to operationalise the appropriate actions. These policies and legislations help to overcome the constraints and support administrator, implementer, community and individual in delivery of justice. This section includes the National policies and Acts as detailed under:

TABLE 3.2: RELEVANT NATIONAL SOCIAL POLICIES AND ACTS

Acts/Rule/Policy	Year	Objective	Applicability to this project	Responsible Agency
Right to fair compensation and transparency in land acquisition, rehabilitation and Resettlement Act	2013	Fair compensation for acquisition of immovable assets; Resettlement of displaced population due to LA and economic rehabilitation of all those who are affected due to land acquisition.	Yes. as some subprojects will be acquiring private land	Revenue Department of respective state governments.
Seventy Third Constitution Amendment Act,	1992	The Act enables participation of Panchayat level institutions in decision-making by broadening the village level functions, supporting implementation of	Yes, as some sub projects may come in panchayat areas	Department of Panchayati Raj of respective state governments.

Acts/Rule/Policy	Year	Objective	Applicability to this project	Responsible Agency
		<p>development schemes.</p> <p>The Act provides for involvement of the PRIs especially, the Gram Sabha/ Panchayat during project preparation and implementation. The Panchayats at the village level will be involved for preparation and implementation of the project.</p>		
The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act	2006	<p>Grants legal recognition to the rights of traditional forest dwelling communities, partially correcting the injustice caused by the forest laws.</p> <p>Makes a beginning towards giving communities and the public a voice in forest and wildlife conservation</p>	Yes, as some sub projects especially in Jharkhand may be located in tribal areas	Ministry of Tribal Affairs, GOI and Department of Tribal Welfare of various state governments.
State Specific laws				
Bihar Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2014.	2014	To assist implementation of National Act on land Acquisition and R&R. Fair compensation for acquisition of immovable assets; Resettlement of displaced population due to LA and economic rehabilitation of all those who are affected due to land acquisition.	Yes, as some sub projects will be acquiring private land	Revenue department and requiring body

Acts/Rule/Policy	Year	Objective	Applicability to this project	Responsible Agency
Bihar Rayati Land Lease Policy	2014	Allows government to take land on perpetual lease from land owners by paying four times of the minimum value registered in rural areas and two times in urban areas.	Yes, if land acquisition is not necessary and land owner agrees to give land on lease.	Revenue department and requiring body
Uttar Pradesh Land Purchase through Mutual Consent	2015	Allows government to directly purchase land from land owners through mutual consent. The policy apart from land cost also provides for R&R assistance	Yes, as private land will be required for the purpose of the project	Revenue department and requiring body

3.4 Other legislations applicable to construction activities

37 Construction stage generally involves equity, safety and public health issues. The construction agencies therefore will be required to comply with laws of the land, which include inter alia, the following:

- Workmen's Compensation Act 1923 (the Act provides for compensation in case of injury by accident arising out of and during the course of employment);
- Payment of Gratuity Act, 1972 (gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years);
- Employees PF and Miscellaneous Provision Act 1952 (the Act provides for monthly contributions by the employer plus workers);
- Maternity Benefit Act, 1951 (the Act provides for leave and some other benefits to women employees in case of confinement or miscarriage, etc.);
- Contract Labor (Regulation and Abolition) Act, 1970 (the Act provides for certain welfare measures to be provided by the contractor to contract labour);
- Minimum Wages Act, 1948 (the employer is supposed to pay not less than the Minimum Wages fixed by the Government as per provisions of the Act);

- Payment of Wages Act, 1936 (it lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers);
- Equal Remuneration Act, 1979 (the Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees);
- Payment of Bonus Act, 1965 (the Act provides for payments of annual bonus subject to a minimum of 83.3% of wages and maximum of 20% of wages);
- Industrial Disputes Act, 1947 (the Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment);
- Industrial Employment (Standing Orders) Act; 1946 (the Act provides for laying down rules governing the conditions of employment);
- Trade Unions Act, 1926 (the Act lays down the procedure for registration of trade unions of workers and employers. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities);
- Child Labour (Prohibition and Regulation) Act, 1986 (the Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labour is prohibited in Building and Construction Industry);
- Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979 (the inter-state migrant workers, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home to the establishment and back, etc.);
- The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996 (all the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act; the employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for Workers near the workplace, etc.);

- The Factories Act, 1948 (the Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours and rendering information-regarding accidents or dangerous occurrences to designated authorities);
- Hazardous Wastes (Management and Handling) Rules, 1989 (the Rules govern handling, movement and disposal of hazardous waste);
- Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, amended 1994 and 2000 (the Rules provide indicative criteria for hazardous chemicals and require occupiers to identify major accident hazards and prepare on-site and off-site emergency plans).

3.5 Applicable World Bank Policies

The Operational Policies of World Bank that are applicable in the project are as under:

TABLE 3.5: SAFEGUARD POLICIES OF WORLD BANK

World Bank Safe Guard Policies	Objective	Applicability	Safeguard Requirements
OP/BP4.01	Environment Assessment: The objective of this policy is to help in ensuring that the projects proposed for World Bank financing are environmentally sound and sustainable through Environment Assessment (EA). EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation.	Applicable for all infrastructure projects under Namami Gange programme. The scale and detailing of the EA report depends largely upon the project categorization.	EA report and ESMP (combined with social report) for projects under DBOT/EPC mode. Environment and Social Due Diligence (ESDD) for projects under PPP mode followed by a detailed EIA report during the detailed design stage. For High category projects

World Bank Safe Guard Policies	Objective	Applicability	Safeguard Requirements
OP 4.04: Natural Habitats	Natural Habitats: The objective of this policy is to protect the natural habitats including the forest areas and wildlife in order to protect and enhance the environment which is essential for long-term sustainable development. World Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue. The Bank supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.	Applicable on case to case basis where disturbance to forest areas/natural habitats are envisaged to be impacted from the projects.	Necessary requirement include permission from competent authorities in the state government as well preparation of documents for necessary action plan to protect the surrounding natural habitats/forest areas.
OP/BP 4.12	Involuntary Resettlement-The objective of this policy is to avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs. Furthermore, it intends to assist displaced person in improving their former living standards; community participation in planning and implementing resettlement; and to provide assistance to affected people, regardless of the legality of title of land	There will be need for limited land acquisition for some sub projects such as waste water treatments or river front development resulting in relocation or loss of shelter for non-titleholders; loss of assets or access to assets; loss of income sources or means of livelihood.	Resettlement Action Plan in consultation with the community and project authorities
OP 4.10	Indigenous People -This policy aims to protect the dignity, right and cultural uniqueness of indigenous people; to ensure that they do not suffer due to development;	This policy is triggered as some projects may be	Indigenous Peoples Plan will be prepared in consultation with

World Bank Safe Guard Policies	Objective	Applicability	Safeguard Requirements
	that they receive social and economic benefits	located in tribal areas.	the community and project authorities.

Section 4 Environment and Social Management Framework

4.1 Objectives

38 There may be adverse impacts that have to be effectively managed during the planning, design, construction and operational phases of Namami Gange investments. These impacts may have the potential to cause major and minor, and reversible and irreversible societal/community damage; as well as result in project delays, incomplete implementation, partial achievement of the project development goals and, reputation risks to various stakeholders. Proper management is therefore necessary for smooth and effective project implementation.

39 The Objective of Environment and Social Management Framework (ESMF) is to ensure environmentally sustainable development in NGP's endeavour of Mission Clean Ganga by effective management of environmental and social issues in all the investments with a special focus on the following:

- ensure that all investments adhere to the national, state and local regulatory requirements during the design, implementation and operation stages
- ensure that best environmental and social practices are mainstreamed/ integrated during design, implementation and operation of the investments
- strive to enhance environmental conditions wherever feasible
- undertake to develop communication strategy, capacity building and training initiatives for all stakeholders such as the SPMG, EAs, ULBs, NGOs and common citizens.

4.2 Purpose of the ESMF

40 The purpose of the ESMF is to facilitate the management of environmental and social issues of the river pollution mitigation investments. At this stage, although the portfolio of investments has been broadly identified, the specific investment projects, i.e. their size, type and location, are yet to be identified. Therefore, at this stage it is not possible to develop specific environment and social management plans for each of the specific investments. The specific project identification will be a need based/ demand-driven process, consistent with the overall objectives of 'Mission Clean Ganga'. The

Environment and Social Management Framework (ESMF), therefore, would be used as an umbrella by the Namami Gange program (the NMCG and SPMGs) and all implementing agencies while preparing and/ or appraising, approving and executing the investments.

- 41 Environmental impacts: There may be adverse environmental impacts for which mitigation plans are essential. These impacts include direct, indirect, cumulative, and induced impacts in the project's area of influence. Each project needs to be scrutinized as to its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. Environmental impacts include those related to the natural environment (air, water, and land); human health and safety; and trans-boundary and global environmental aspects. Environmental guidelines – policies and requirements – seek to avoid, minimize, or mitigate adverse environmental impacts.
- 42 Social impacts: Project-related social impacts include displacement impacts and impacts to vulnerable groups. Broadly, this includes physical displacement (relocation, loss of residential land or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources or means of livelihood). If a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of SC/ ST/ BPL groups or affects the territories or natural or cultural resources. Social management plan seeks to avoid, minimize or mitigate these adverse impacts. Related to displacement impacts, if these adverse impacts cannot be avoided, then affected people should receive assistance/ compensation so that they are at least as well off as they were in the absence of the project.
- 43 Through the ESMF, the SPMGs and the NMCG will also be implementing international good practices for managing social and environmental issues.

4.3 Screening and categorization of Investments (during the Feasibility Study stage)

- 44 Each project is scrutinized as to its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. The extent of assessment required to identify and mitigate the impacts largely depends upon the complexities of project activities. The scrutiny and screening will be based on a detailed Environment and Social Screening exercise, summarized in the following Format:

TABLE 4.1

SCREENING FORMAT

Environment and Social information format for screening			
	Project Title: Implementing agency: Project cost: Project components: Project location (Area/ district)		
	Screening Criteria	Assessment of category (High/ low)	Explanatory note for categorisation
1	Is the project in an eco-sensitive area or adjoining an eco-sensitive area? (Yes/No) If Yes, which is the area? Elaborate impact accordingly.		
2	Will the project create significant/ limited/ no social impacts? <ul style="list-style-type: none"> • Involuntary land taking resulting in loss of income from agricultural land, plantation or other existing land-use. • Involuntary land taking resulting in relocation of title holder or non-titleholder 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. 		
3	Will the project create significant / limited / no environmental impacts during the construction stage? (Significant / limited / no impacts) <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. • Flooding of adjacent areas • Improper storage and handling of substances leading to contamination of soil and water • 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 		

4	Will the project create significant / limited / no environmental impacts during the operational stage? (Significant / limited / no impacts) <ul style="list-style-type: none"> • Flooding of adjacent areas • Impacts to water quality due to effluent discharge • Gas emissions • Safety hazards 		
5	Do projects of this nature / type require prior environmental clearance either from the MOEF&CC or from a relevant state Government department? (MOEF&CC/ relevant State Government department/ No clearance at all)		
6	Does the project involve any prior clearance from the MOEF&CC or State Forest department for either the conversion of forest land or for tree-cutting? (Yes/ No). If yes, which?		
7	Please attach photographs and location maps along with this completed Environmental Information Format For Screening.		
Overall assessment			

*Detailed explanation/ justification for arriving at specific category (high/ low) to be provided in the specified column

45 The level of impact category (high/ low) shall be determined through a process of environmental and social screening as described above and shall be provided as part of the Feasibility Report, and has to be agreed by the SPMG.

45A The NGRBA program as per World Bank safeguard policies is categorized as A. However, sub-projects are categorized as high / low impact categories where high impact category project will correspond to Category A and low impact corresponds to Category B projects as per World Bank's safeguard operational policy 4.01.

4.3.1 Addressing safeguard issues in projects for retroactive financing

It is likely that some project may be considered for financing retroactively. These projects shall carry out the following due diligence, prior to the approval for financing under NGRBA Project.

For each project, Environmental and social screening will be carried out as part of due diligence exercise using the screening matrix of the Environmental and Social Management Framework of NGRBA Project (**Table 4.1 above**), **to identify the category of the project**. The bank team will follow the steps as described below:

Step 1: As part of the due diligence, NMCG will visit the project area to carry out detailed interactions with implementing agency, contractors, and consultation with the communities.

Step 2: The project DPR, design, drawings will also be carried out by the team.

Step 3: A report summarizing the findings along with the project profile including baseline, shall be prepared under following heads:

1. Compliance to the Environmental and social regulatory requirements
2. Issues related to planning and design of the sub project
3. Issues related to construction and OHS
4. Land requirement and acquisition
5. Status of Compensation disbursement
6. Disbursement of R&R Assistancess
7. Stakeholders Consultation, documentation and disclosure
8. Grievance redress mechanism

Step 4: The findings including gap analysis with respect to the agreed EMF of NGRBA project shall be summarised in a tabular form as shown below:

Summary Gap Analysis

The gap analysis matrix from environmental and social safeguard planning and implementation point of view based on the due diligence study will be summarized as below:

Key Principles and Attributes	Gap	Remarks
Assessment of environmental Impacts		
Implementation of Mitigation and Management Measures		
Principle of Avoidance		
Linkages with other projects		
Involuntary restriction of access to legally designated parks and protected areas		
Recognition of untitled persons such as squatters and encroachers including customary rights		
Avoiding displacement of Indigenous People		
Planning		
Threshold for Resettlement Plan (RP)		
Need to replace / restore CPRs		
Consultation and participation of PAPs during project planning		
Participation of NGOs in project planning		
Cut-off date		
Definition of a family for R&R assistance		
Need and scope of census and socio-economic surveys		
Compensation		
Primary Authority for Land Acquisition		
Principle to restore/improve living standards		
Compensation for land at replacement value		
Treatment of depreciation and Salvage		
Transaction and transition fee		
Land for Land as an option for compensation		
Resettlement Assistance		
Cash assistance over and above compensation		

Key Principles and Attributes	Gap	Remarks
Assistance to poorest of the poor or vulnerable people		
Provision of infrastructure and public services at resettlement sites		
Implementation		
Implementation of RP		
Participation of civil society in implementation of RP		
Opportunity for PAPs to participate in planning, design and implementation		
Disclosure of Resettlement Plan		
Grievance Redressal Mechanism		
Procedure for dispute resolution and appeals		
Composition of Grievance Redress Committee		
Participation of representative of PAPs and civil society		
Monitoring		
Independent monitoring		
Periodic evaluation and monitoring		

Step 5: The due diligence report (DDR) will also provide specific recommendations to ensure compliance with the ESMF.

Step 6: The report will be shared with the Bank, for review and clearance, prior to the approval of retro-active financing

The final due-diligence report shall follow disclosure requirements, as agreed in the ESMF and will also be disclosed at World Bank's Infoshop.

4.3.2 Addressing safeguard issues in projects for PPP Projects:

Under the NGRBA framework, National Mission for Clean Ganga (NMCG) under Namami Gange programme shall finance commercially viable projects under PPP model. Viable projects may also include those projects that will become viable after receiving viability gap funding under a government scheme. The necessary procedures for preparation of safeguard documents with respect to PPP mode of projects are included in the Addendum-I.

4.4 Addressing environmental and social impacts (during preparation of the DPR)

4.4.1 High impact categories

46 A proposed investment will be classified as High impact category, if it is likely to impact (adverse or moderate) the environmental and social aspects of the investments. The High Category investments will also include all those investments which require the

mandatory environmental clearance as per the EIA notification S.O 1533 (E) dated Sept 2006, published by Ministry of Environment and Forests.

- 47 The investments categorized as 'High' would require conducting an Environmental and Social Assessment (ESA) by an independent agency (other than the agency designing the project) and the scope of the assessment will be decided based on the nature of the investment and the environmental and social sensitivity of the area. The ESA shall examine all the potential negative and positive environmental and social impacts of the investment, compare them with those of feasible alternatives (including the "without investment" situation), and recommend any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.
- 48 The ESA may include (a) a detailed description of the environmental and social condition of the project area; (b) an assessment of the potential impacts; (c) formulation of mitigation measures; and (d) preparation of an Environment and Social Management Plan. The ESA report will contain the following chapter scheme: (1) Introduction; (2) Description of the project; (3) Description of the environment; (4) Alternatives; (5) Anticipated environmental and social impacts and mitigation measures; (6) Socio-economic assessment; (7) Environmental and Social Management Plan; (8) Public consultation and disclosure; and (9) Conclusions.

4.4.2 Resettlement Policy and Land Acquisition Framework (RPLAF)

- 49 NMCG has developed an Entitlement Matrix, which is in line with Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation & Resettlement 2013 other applicable laws and Acts of the Government of India to address the issues related with affected persons.

R&R will be undertaken as per the entitlement matrix or State R&R policy where applicable, to address the issues related to the resettlement and rehabilitation of the affected persons.

This aims to resettle and rehabilitate the affected persons on account of its investments in a manner that they do not suffer from adverse effects and shall improve or at the minimum retain their previous standard of living, earning capacity and production levels. It is also the endeavour of the Namami Gange program that the resettlement shall minimize dependency and be sustainable socially, economically and institutionally.

Special attention will be paid for the improvement of living standards of marginalized and vulnerable groups.

The broad principles of the R&R policy are as below:

- The adverse impacts on persons affected by the project would be **avoided** to the extent possible.
- Where the adverse impacts are unavoidable, the project-affected persons will be assisted in improving or regaining their standard of living. Vulnerable groups will be identified and assisted to improve their standard of living.
- All information related to resettlement preparation and implementation will be disclosed to all concerned, and community participation will be ensured in planning and implementation.
- Private negotiations will also be used for land acquisition as required.
- The persons affected by the project who does not own land or other properties but who have economic interest or lose their livelihoods will be assisted as per the broad principles brought out in this policy.
- Before taking possession of the acquired lands and properties, compensation and R&R assistance will be made to those who are available and willing to receive the entitlements in accordance with this policy.
- There would be no/or minimum adverse social, economic and environmental effects of displacement on the host communities but if needed specific measures would be provided.
- Broad entitlement framework of different categories of project-affected people has been assessed and is given in the entitlement matrix. Provision will be kept in the budget. However, anyone moving into the project area after the cut-off date will not be entitled to assistance.
- Appropriate grievance redress mechanism will be established at project level to ensure speedy resolution of disputes.
- All activities related to resettlement planning, implementation, and monitoring would ensure involvement of women. Efforts will also be made to ensure that vulnerable groups are included.
- All consultations with PAPs shall be documented. Consultations will continue during the implementation of resettlement and rehabilitation works.

- Cut of Date shall be preliminary notification under RFCTLAR&R Act 2013 for titleholders and in case of Non-title holder's end date of socio –economic survey. As required, a Resettlement Action Plan will be prepared including a fully itemized budget and an implementation schedule.

Preparation of Resettlement Action Plans

- 50 Having identified the potential impacts of the relevant investments, the next step is to develop action plans to mitigate the impacts. The RAPs will provide the link between the impacts identified and proposed mitigation measures to realize the objectives of involuntary resettlement. The investment specific RAP will take into account magnitude of impacts and accordingly prepare a resettlement plan that is consistent with this framework before the sub-project is accepted for Namami Gange program financing. Any affected person will be assisted as provided in the National Policy or State Policy where applicable on resettlement and rehabilitation.
- a) The above plan will be prepared as soon as subproject is finalized, prior to NMCG/SPMG's approval of corresponding civil works bid document.
 - b) Investments that are not expected to have any land acquisition or any other significant adverse social impacts; on the contrary, significant positive social impact and improved livelihoods are exempted from such interventions.

Sub Project Approval

- 51 In the event that a subproject involves land acquisition against compensation or loss of livelihood or shelter, the implementing agency shall:
- a) not approve the subproject until a satisfactory RAP has been prepared and shared with the affected person and the local community; and
 - b) not allow works to start until the compensation and assistance has been made available in accordance with the framework.

Procedure to be followed for Social Impact Assessment (SIA)

- 52 The EA will undertake a survey for identification of the persons and their families likely to be affected by the project. Every survey shall contain the following municipality or ward / village-wise information of, the project affected families:

- i. members of families who are residing, practicing any trade, occupation or vocation in the project affected area;
- ii. Project Affected Families who are likely to lose their house, commercial establishment, agricultural land, employment or are alienated wholly or substantially from the main source of their trade occupation or vocation or losing any other immovable property.
- iii. Agricultural labourers and non-agriculture labourers.
- iv. Families belonging to scheduled caste and scheduled tribe categories
- v. Vulnerable persons such as the disabled, destitute, orphans, widows, unmarried girls, abandoned women, or persons above the age of 50 years of age, who are not provided or cannot immediately be provided with alternative livelihood, and who are not otherwise covered as part of a family;
- vi. Families that are landless (not having homestead land, agriculture land or ether homestead or agriculture land) and are below poverty line, but residing continuously for a period of not less than three years in the affected area preceding the date of declaration of the affected area;
- vii. Losing access to private property or common property resources

53 The EA on completion of the survey will disseminate the survey results among the affected community. Based on the social impact assessment survey, EA will prepare an action plan to mitigate or minimize the adverse impacts as identified during the survey. The draft mitigation plan in form of resettlement action plan (RAP) will be again disseminated among the affected individuals/ community. The feedback received from the affected groups will be incorporated to the extent possible before finalization of the RAP.

54 Every-draft Resettlement Action Plan (RAP) prepared shall contain the following particulars namely.

- a) the extent of area to be acquired for the project, the name(s) of the corresponding village(s)/ municipality area and the method employed for acquiring land with the relevant documentation.
- b) village wise or municipality wise list of affected families and likely number of displaced persons by impact category

- c) family-wise and the extent and nature of land and immovable property in their possession indicating the survey numbers thereof held by such persons in the affected zone;
- d) Socio-economic survey of affected people including income/asset survey of APs.
- e) a list of agricultural labourers in such area and the names of such persons whose livelihood depend on agricultural activities;
- f) a list of persons who have lost or are likely to lose their employment or livelihood or who have been alienated wholly and substantially from their main sources of occupation or vocation consequent to the acquisition of land and / or structure for the project;
- g) information on vulnerable groups or persons for whom special provisions may have to be made;
- h) a list of occupiers; if any
- i) a list of public utilities and Government buildings which are likely to be affected;
- j) a comprehensive list of benefits and packages which are to be provided to project affected families by impact category;
- k) details of the extent of land available which may be acquired in settlement area for resettling and allotting of land to the project affected families;
- l) details of the basic amenities and infrastructure facilities which are-to be provided for resettlement;
- m) the entitlement matrix;
- n) the time schedule for shifting and resettling the displaced families in resettlement zones;
- o) grievance redressal mechanism;
- p) institutional mechanism for RAP implementation;
- q) monitoring and evaluation indicators and mechanism;
- r) budget; and
- s) Any other particulars as the Administrator for Resettlement and Rehabilitation may think fit to include for the information of the displaced persons.

Land Acquisition, R&R Benefits for Affected Families

55 In case land/house is acquired, as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLAR&R) Act, 2013 the compensation will be paid to the land holders/house owners and the resettlement and

rehabilitation (R&R) benefits shall be extended to all the affected families as per provisions of the Act or state R&R Policies, where applicable and entitlement framework of this ESMF. Any affected and/ or displaced family/ person will be assisted as per the provisions of the RFCTLAR&R Act 2013 and/or state R&R Policies wherever applicable.

56 Value of land to be determined as per various sections of the RFCTLAR&R Act, 2013 namely:

- Section 11 (1) publication of preliminary notification
- Section 26 (Market value of the land)
- Section 28 (parameters to be considered for market value)
- Section 29 (determination of value of attached things to the land).
- Section 30 (award of solatium)
- Project will be guided by First Schedule of RFCTLAR&R Act, 2013 for determination of land value.
- In case of land purchase through private negotiation, section 46 of RFCTLAR&R Act 2013 will be applicable. Project may also use any state specific instrument for direct purchase of land.

57 Provisions for R&R at the community level will be as follows:

- The common property resources and the community infrastructure shall be relocated in consultation with the community.
- During construction phase alternative access shall be provided in case of loss of access to private land / or common resource property.

58 Any unforeseen impacts shall be document and mitigated based on the principles agreed upon in policy Guideline.

The following is the entitlement matrix, as per RFCTLAR&R Act, 2013:

TABLE 4.2 ENTITLEMENT MATRIX

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
1 Agricultural Land		
Acquisition of agricultural land	Land Holder	<ul style="list-style-type: none"> • Cash compensation as defined in First Schedule of RFCTLAR&R Act, 2013 or any state policy

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
		<ul style="list-style-type: none"> • Where jobs are created through the project, after providing suitable training and skill development in the required field, make provision for employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or (b) one-time payment of five lakhs rupees per affected family; or (c) annuity policies that shall pay not less than two thousand rupees per month per family for twenty years with appropriate indexation to the Consumer Price Index for Agricultural Labourers (RFCTLARR Act, 2013, Second Schedule – clause 4). • In case of a project involving land acquisition on behalf of an acquiring body, each affected family which is involuntarily displaced shall get a monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award. (RFCTLARR, 2013 – Second schedule; clause 5 para 1) • Each affected family that is displaced and has cattle, shall get financial assistance of such amount as the appropriate Government may decide but not less than Twenty Five thousand rupees, for construction of cattle shed. (RFCTLAR&R Act, 2013 Second Schedule clause) • Each affected family shall be given a one-time resettlement allowance of fifty thousand rupees only (RFCTLARR, 2013 – Second schedule; clause 10) • In case of a project involving land acquisition on behalf of an acquiring body, the stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the acquiring body. The land for house allotted to the affected families shall be free from all encumbrances. The land or house allotted may be in the joint names of wife and husband of the affected families (RFCTLAR&R Act, 2013. Second Schedule – clause 11).
2 House		
i) Acquisition of House	Affected Family	<ul style="list-style-type: none"> • If a house is lost in rural area, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban area, a constructed house shall be provided, which will be not less than 50 sq mts in plinth area (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 1). • Provided that any such family in urban areas which opts not to take the house offered, shall get a one-time financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 3). • Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
		<p>of the constructed house (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 4).</p> <ul style="list-style-type: none"> • Each affected family which is displaced from the land acquired shall be given a monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award (RFCTLARR, 2013 – Second schedule; clause 5 para 1). • Right to salvage material from the demolished structures • Three months’ notice to vacate structures • One-time financial assistance of such amount as the appropriate Government may decide but not less than fifty thousand rupees, for shifting of the family, building materials, belongings and cattle. (RFCTLARR, 2013 – Second schedule; clause 6) • Each affected family that is displaced and has cattle, shall get financial assistance of such amount as the appropriate Government may decide but not less than Twenty Five thousand rupees, for construction of cattle shed. (RFCTLARR, 2013 – Second schedule; clause 7) • Each affected person who is rural artisan, small trader or self-employed person who has been displaced shall get a one-time financial assistance of such amount as the appropriate Government may decide but not less than (Rs. 25,000/-) twenty-five thousand rupees, for construction of working shed or shop. (RFCTLARR, 2013 – Second schedule; clause 8) • Each affected family shall be given a one-time resettlement allowance of fifty thousand rupees only(RFCTLARR, 2013 – Second schedule; clause 10) <p>In case of a project involving land acquisition on behalf of an acquiring body, the stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the acquiring body. The land for house allotted to the affected families shall be free from all encumbrances. The land or house allotted may be in the joint names of wife and husband of the affected families (RFCTLAR&R Act, 2013. Second Schedule – clause 11).</p>
		<ul style="list-style-type: none"> •
iii)BPL without homestead land and residing in the area for not less than three years	Affected Family	<ul style="list-style-type: none"> • Has been residing in the affected area continuously for a period of not less than three years preceding the date of declaration of the affected area and which has been involuntarily displaced from such area, shall be entitled <ul style="list-style-type: none"> • If a house is lost in rural area, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban area, a constructed house shall be provided, which will be not less than 50 sq mts in plinth

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
		<p>area (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 1).</p> <ul style="list-style-type: none"> • Provided that any such family in urban areas which opts not to take the house offered, shall get a one-time financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 3). • Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house (RFCTLAR&R Act, 2013. Second Schedule – Clause 1 para 4). <ul style="list-style-type: none"> • Right to salvage material from the demolished structures • Three months’ notice to vacate structures • One-time financial assistance of such amount as the appropriate Government may decide but not less than fifty thousand rupees, for shifting of the family, building materials, belongings and cattle. (RFCTLARR, 2013 – Second schedule; clause 6) •
3 Livelihood losses		
i) Rural artisan, small trader or self-employed Person displaced	Each affected person	<ul style="list-style-type: none"> • Will get a one-time financial assistance of such amount as the appropriate Government may decide but not less than (Rs. 25,000/-) twenty-five thousand rupees, for construction of working shed or shop. (RFCTLAR&R Act, 2013. Second Schedule – clause 8)
ii) Employment Assistance	Affected Family	<ul style="list-style-type: none"> • Where jobs are created through the project, after providing suitable training and skill development in the required field. make provision for employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required (RFCTLAR&R Act 2013, Second Schedule, Clause 4(a)); • The acquiring body shall give preference to the affected persons or their groups or cooperatives in the allotment of outsourced contracts, shops or other economic opportunities coming up in or around the project site; and • The acquiring body shall give preference to willing landless labourers and unemployed affected persons while engaging labour in the project during the construction phase
4 Other Benefits		
i) Additional assistance for Scheduled Caste and Scheduled Tribe families	Affected Family	<ul style="list-style-type: none"> • As far as possible, no acquisition of land shall be made in the Scheduled Areas. Where such acquisition does take place it shall be done only as a demonstrable last resort. (RFCTLAR&R Act, 2013 section 41 (1) and (2).) • In case of acquisition or alienation of any land in the Scheduled Areas, the prior consent of the concerned Gram Sabha or the Panchayats or the autonomous District Councils, at the

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
		<p>appropriate level in Scheduled Areas under the Fifth Schedule to the Constitution, as the case may be, shall be obtained. in all cases of land acquisition in such areas, including acquisition in case of urgency, before issue of a notification under this Act, or any other central Act or a state Act for the time being in force (RFCTLAR&R Act, 2013 section 41 (3)).</p> <ul style="list-style-type: none"> • In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of the Scheduled Castes or the Scheduled Tribes families, a Development Plan shall be prepared, in such form as may be prescribed. laying down the details of procedure for settling land rights due, but not settled and restoring titles of the Scheduled Tribes as well as the Scheduled Castes on the alienated land by undertaking a special drive together with land acquisition (RFCTLAR&R Act, 2013 section 41 (4)). • Where the affected families belonging to the Scheduled Castes and the Scheduled Tribes are relocated outside of the district then, they shall be paid an additional twenty-five per cent rehabilitation and resettlement benefits to which they are entitled in monetary terms along with a one-time entitlement of fifty thousand rupees (RFCTLAR&R Act, 2013 section 41 (11)). • Provided that in every project those persons losing land and belonging to the Scheduled Castes or the Scheduled Tribes will be provided land equivalent to land acquired or two and a one-half acres, whichever is lower (RFCTLAR&R Act 2013, Second Schedule; clause 2) • In addition to subsistence allowance of INR 50,000, the Scheduled Castes and the Scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to fifty thousand rupees. (RFCTLAR&R Act, 2013, Second Schedule, , clause 5, para 2) • In cases of displacement from the Scheduled Areas, as far as possible, the affected families shall be relocated in a similar ecological zone, so as to preserve the economic opportunities' language, culture and community life of the tribal communities. (RFCTLAR&R Act 2013, clause 5 para 3)
ii) One time Resettlement allowance	Any Affected family not already covered under clause 2 (iii)	<ul style="list-style-type: none"> • Shall be entitled to one time resettlement allowance of fifty thousand rupees (RFCTLAR&R Act 2013, Second Schedule clause 10).
5 Exemptions from stamp duty etc.		

Type of Impact/Loss	Unit of Entitlement	Entitlements as per Policy
		In case of a project involving land acquisition on behalf of an acquiring body, the stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the acquiring body. The land and house allotted will be in the joint names of wife and husband of the affected families. The land for house allotted to the affected family shall be free from all encumbrances (RFCTLAR&R Act, 2013 clause 11)
6 Trees and standing crops		
Trees on land being acquired	Land holders	<ul style="list-style-type: none"> Market value of the trees to be computed as per the provisions of Horticulture and Forest Department.
Standing crops at the time of acquisition, if any	Land holders	<ul style="list-style-type: none"> Advance notice to harvest crops Market value of standing crops to be computed as per provisions of Agriculture Department.

Please note that this is bare minimum and Project should also consider the additional R&R provisions given in state specific policy / rules.

59 According to the assessment of the preliminary list of prioritized works, there may be need for private land acquisition in some cases which could result in involuntary displacement and loss of livelihood. However, project involuntary resettlement is likely to be of small scale and would not trigger the need for a full resettlement action plan. Nevertheless, as a precaution, the classification of subprojects of the ESMF describes actions and procedures to be followed in case any involuntary displacement does occur. In the event that involuntary displacement takes place, the principles and procedures defined in the Framework will apply.

60 Once the location of the works is known during project implementation, individual resettlement or land acquisition plans will be prepared for each sub-project. The Resettlement Action Plans will be reviewed and approved by SPMG/ NMCG before being implemented.

61 During DPR preparation, analysis of alternatives will be carried out to avoid or reduce involuntary acquisition of private land.

Immediately after FR approval and in parallel with DPR preparation, the EA along with the ULB would initiate land acquisition process for the project. This would facilitate identification of the land, its survey and preliminary cost estimation so that the State Govt. is in readiness to issue the appropriate notification under prevalent LA Act upon approval of DPR for speedy acquisition of the land.

4.4.3 Tribal Management Framework (TMF)

62 Though to the extent possible, private land owned by a tribal family will not be acquired, as part of ESMF, a Tribal Management Framework (TMF) is being prepared. The TMF aims at effectively promoting participation of tribal families throughout the project cycle. The general objective of the TMF is the inclusion of tribal communities in the project in order to achieve the highest possible positive impact of the interventions to improve their quality of life, throughout strengthening of their organization, self-management, and integral capacity of their members. The specific objectives are to ensure that: (a) works are culturally appropriate (b) works and services provided do not inadvertently induce inequality by limiting project benefits to the elite elements of the community, (c) the project engages with communities through a consultation process appropriate to the local cultural context and local decision making process; and (d) establish appropriate information-, communication-, and diversity-training strategies with the different TPs and communities in all stages of the project.

Objectives

The principal objectives of the framework are to:

- (i) Ensure that project engages in free, prior, and informed consultation with the tribal community wherever they are affected.
- (ii) ensure that project benefits are accessible to the tribal community living in the project area
- (iii) avoid any kind of adverse impact on the tribal community to the extent possible and if unavoidable ensure that adverse impacts are minimized and mitigated
- (iv) ensure tribal peoples participation in the entire process of preparation; implementation and monitoring of the sub project activities
- (v) minimize further social and economic imbalances within communities; and
- (vi) Develop appropriate training / income generation activities in accordance to their own defined needs and priorities.

63 The grievance if any will be addressed as per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, which recognizes the rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers over the forest areas inhabited by them and provides a Guideline for it.

4.4.4 Gender Assessment and Development

64 Gender Development plan is being designed under the project as part of ESMF which will help analyze gender issues during the preparation stage of sub project and design interventions. At the sub project level, gender analysis will be part of the social assessment and the analysis will be based on findings from gender specific queries during primary data collection process and available secondary data. The quantitative and qualitative analysis will bring out sex disaggregated data and issues related to gender disparity, needs, constraints, and priorities; as well as understanding whether there is a potential for gender based inequitable risks, benefits and opportunities. Based on the specific interventions will be designed and if required gender action plan will be prepared. The overall monitoring framework of the project will include sex disaggregated indicator and gender relevant indicator.

The participation of beneficiaries and focus on poverty reduction are two other key determinants of the effectiveness and sustainability of any project. Any project must address the constraints on women's participation in project design, construction, operation and maintenance (O & M), training, and monitoring and evaluation (M & E). The project must also focus on the linkage between gender and poverty, by identifying, for example, households headed by females and those households' special needs. An adaptive, learning, and process-oriented approach works better than a blue print approach; continuous dialogue between the EA and the beneficiaries is therefore important. Project beneficiaries are likely to have a stronger sense of ownership when the project gives them enough time, design flexibility, and authority to take corrective action. In this way, they find it easier to incorporate their earlier learning and negotiate with project staff and service providers. Therefore, a mechanism must be built into the project to allow such two-way interactions between the beneficiaries and the service providers.

Gender analysis will be an integral part of the initial social assessment at the screening stage itself. The issues identified can be scaled up during the feasibility and detailed analysis can be carried out during the DPR stage.

65 The project designs should be gender responsive based on the gender analysis, and should be included in the DPR. The findings and recommendations from the gender

analysis during project planning and feedback from beneficiaries during implementation must be discussed thoroughly to determine the need for further action. Listed below are the key action points:

- 66 Develop a feedback mechanism in which both male and female have a voice. Identify organizations that could facilitate women's participation during implementation and M & E.
- 67 Document the gender-responsive design features in the DPR and include covenants in the loan agreement to ensure gender-sensitive project design mechanisms to be complied by the executing agency

4.4.5 Consultation and Information Disclosure

Consultation

- 68 The Consultation process envisages involvement of all the stakeholders' at each stage of project planning and implementation. The EA /NMCG will be responsible for ensuring participation of the community at sub-project level. Involvement of the community is not limited to interactions with the community but also disclosing relevant information pertaining to the project tasks. Community participation shall be undertaken at the following stages:
 - Sub Project identification stage - to sensitize the community about the project and their role;
 - Planning Stage - for disseminating information pertaining to the project, work schedule and the procedures involved; finalisation of project components with identification of impacts, entitled persons, mitigation measures; and Grievance Redressal; and
 - Implementation Stage - for addressing temporary impacts during construction and monitoring for transparency in the project implementation

Identification Stage

- 69 Dissemination of project information to the community and relevant stakeholders is to be carried out by the EA at this stage of the project initiative. The community at large shall be made aware of the project alternatives and necessary feedback is to be obtained. This should include the process being followed for prioritisation of the identified investments. Community and other stakeholders should be involved in the decision making to the extent possible. Information generated at this stage should be documented for addressal of queries arising out of the Right to Information Act, 2005.

Project Planning Stage

- 70 Sub-project information is to be distributed amongst the community towards increasing their awareness and their roles and responsibilities. Planning stage is intended to be an interactive process with the community at least in two stages. Initially while finalizing the best fit alternative to a sub-project and second at the finalisation of the detailed designs. This would be a joint responsibility of the consultants undertaking the design if not carried out by the EA in house and the EA itself.
- 71 Consultations with Project Affected Persons and their profiling are mandatory as per the requirements of SIA and preparation of RAP. This needs to be done as socio-economic and census surveys as part of the detailed designs. Consultations with respect to and cultural aspects are to be carried out as part of the Social Impact Assessments for all alternatives and the selected alternative sub-project option.

Implementation Stage

- 72 Consultations as part of the implementation stage would be direct interactions of the implementation agency with the Project Affected Persons. These would comprise of consultations towards relocation of the PAPs, relocation of cultural properties, and towards addressal of impacts on common property resources (CPRs) such as water bodies, places of religious importance, community buildings, trees etc.
- 73 With the implementation of the R&R provisions in progress, consultations and information dissemination is to be undertaken to let the affected persons informed of the progress. Implementation stage also involves redressal of grievances in case of R&R aspects as well as relocation of common property resources through the grievance redressal mechanisms. These would usually be one to one meeting of PAP or community representatives with the grievance redressal committees established for the project.

Information Disclosure

- 74 The mechanism of information dissemination should be simple and be accessible to all. Two of the important means that have been followed until now include briefing material and organization of community consultation sessions. The briefing material

(all to be prepared in local language) can be in the form of (a) brochures (including project information, land requirements and details of entitlements including compensation and assistance to be given to the PAPs) that can be kept in the offices of local self-government (municipal office in case of urban area and gram panchayat office in case of rural area) and EA;(b) posters to be displayed at prominent locations and (c) leaflets that can be distributed in the impacted zone of the sub project. Consultation meetings should also be organized at regular intervals by the EA to acquaint the PAPs of the following:

- Timeline and progress of the project;
- Information on compensation and entitlements;
- Information on land acquisition and market valuations of property;
- Time line for acquisition.

75 Also, opinion and consensus of the community needs to be sought for common and cultural property relocation. Information disclosure procedures are mandated to provide citizen centric information as well as all documentation necessary for addressing any queries under Right to Information Act that came into effect from October 2005. Disclosure of information will enhance governance and accountability specifically with respect to strengthening of monitoring indicators to help Namami Gange program.

76 This Information Disclosure Policy is intended to ensure that information concerning the Namami Gange program, activities will be made available to the public in the absence of a compelling reason for confidentiality. Information shall be provided in a timely and regular manner to all stakeholders, affected parties, and the general public. Access by the public to information and documentation held or generated by NMCGand EAs will facilitate the transparency, accountability, and legitimacy as well as operations overseen by it. As a part of its disclosure policy, all documents shall be made available to the public in accordance with relevant provisions of the RTI Act, except when otherwise warranted by legal requirements. A designated Information Officer shall be responsible for ensuring timely and complete dissemination in accordance with this policy.

Information to be disclosed

77 The Table below specifies the type of additional information and frequency of dissemination for investments which are financed either from domestic or donors' funds. In addition to the information specified in the table, the following information shall also be displayed / disseminated, wherever applicable.

- Project specific information need to be made available at each contract site through public information kiosk
- Hard copy of the ESAMP and RAP shall be placed at construction site and also at SPMG office. Community will be informed about the same during finalization of RP / ESMP and through social intermediation process”.
- Project Information brochures shall be made available at all the construction sites as well as the office of implementation agency and the office of Engineer in charge.
- Reports and publications, as deemed fit, shall be expressly prepared for public dissemination e.g., English versions of the SIA and RAP and Executive Summary of SIA and RAP in local language.
- Wherever civil work will be carried out a board will be put up for public information which will disclose all desired information to the public, for greater social accountability.
- All information will be translated into local language and will be disclosed to the public through the *Panchayat*, District Magistrate's office, concerned EA offices, websites of NMCG and SPMGs.

TABLE 4.3 INFORMATION TO BE DISCLOSED

Topic	Documents to be disclosed	Frequency	Where
Resettlement, Rehabilitation and Land Acquisition	Resettlement Action Plan (RAP).	Once in the entire project cycle. But to remain on the website and other disclosure locations throughout the project period.	On the website of NMCG, SPMG and EAs The client would make the RAP available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to the PAPs in the following offices: DM's Office State and District Libraries Local municipal and <i>gram panchayat</i> office Office of the contractor Office of the EA
	Resettlement & Rehabilitation Policy translated in local language	Once in the entire project cycle.	Distributed among Project Affected Persons (PAP)
	Information regarding impacts and their entitlements in local language	Once at the start of the project and as and when demanded by the PAP.	Through one-to-one contact with PAPs. Community consultation List of PAPs with impacts and entitlements to be pasted in the EA office and website of SPMG and EAs
	R&R and LA monthly progress report.	10th day of every month	Website of EA. Hard copy in the office of EA and contractor in local language
	RAP Impact Assessment Report	At midterm and end of the RAP implementation	NMCG, SPMG and EA's website in local language.
	Land Acquisition notifications	As required under the LA Act	SPMG and EA's website. Hard copy in the office of EA and contractor in local language

Topic	Documents to be disclosed	Frequency	Where
	Grievance redressal process.	Continuous process throughout the project cycle.	On the web sites of NMCG, SPMG, EAs Hard copies in local language in the following offices: DM's Office Local municipal and <i>gram panchayat</i> office Office of the contractor Office of the EA; Also PAPs to be informed on one to one contact by EAs
Public Consultation	Minutes of Formal Public Consultation Meetings	Within two weeks of meeting	On the web sites of NMCG/SPMG, EAs Hard copies in local language in the following offices: DM's Office Local municipal and <i>gram panchayat</i> office Office of the contractor Office of the EA

Stakeholder mapping

78 Through the formal and informal consultation, following stakeholder mapping has been done, identifying their interests concerned with the project activities.

TABLE 4.4 STAKEHOLDER MAPPING

Stakeholder Category	Interests	Potential/Probable impacts
Primary stakeholders		
Project affected people	Access to the facility, Project entitlement, Time-bound delivery of benefits, enhanced quality of life	(+/-)
Beneficiaries	Access to the facility, Project entitlement, Time-bound delivery of benefits, enhanced quality of life	(+/-)
Secondary stakeholders		

NMCG; SPMG; Municipalities; EAs (For e.g., Uttarakhand Peyjal Nigam, UP Jal Nigam, Bihar Urban Infrastructure Development Corporation, Urban Development Department, Kolkata Metropolitan Development Authority)	Project implementation, Contracting; Project management, Monitoring and evaluation	(+/-)
NGOs, CSOs, Research institutes (GB Pant Institute of Himalayan Environment and Development, PSI, Shree Hari Ganga Samiti, IIT Kanpur, Ganga Sewak Samaj, WWF, CEE, Centre for flood management studies, Krishi Gram Vikas Kendra, IIT Kharagpur, Calcutta University, Ramakrishna Mission)	Development, Community participation, and Community welfare	(+/-)

This is a tentative mapping is likely to change during the project implementation. Each of these stakeholders will be part of the consultation process and their views will be incorporated in to the project design. The key stakeholders in can be grouped into two categories viz., primary and secondary. Their respective roles are presented below:

Primary Stakeholders

79 **Project Affected Persons (PAPs) have the following roles:**

- i) Participate in public meetings and identify alternatives to avoid or minimise displacement
- ii) Assist DPR consultants and NGOs in developing and choosing alternative options for relocation and income generation
- iii) Participate in census survey and meetings with host population
- iv) Provide inputs to entitlement provisions, thus assisting in preparation of the resettlement action plan
- v) Participate in grievance redress as members of grievance redress cells (GRC)
- vi) Decide on relocation and management of common properties
- vii) Labour and other inputs in the project
- viii) Members of implementation committee

80 **Beneficiaries and Host Population has the following roles:**

- i) Assist DPR consultants and NGOs in data collection and design
- ii) Provide inputs to site selection
- iii) Identify possible conflict areas with PAPs
- iv) Identify social and cultural facilities needed at resettlement sites

- v) Assist in identification and design inputs for IG schemes
- vi) Help develop consultation process between hosts and PAPs.
- vii) Manage common property
- viii) Participate in local committees.
- ix) Assist PAPs in integration with hosts.

Secondary Stakeholders

81 NMCG, SPMGs, EAs, Municipalities have the following roles:

- i) Establish separate cell for social development
- ii) Notification at various stages for land acquisition and joint measurement of land to be acquired along with the revenue department
- iii) Design and approval of resettlement policy
- iv) Coordinate with line departments such as telephone, state electricity board, public health engineering department and forest department for shifting of utilities and cutting of trees
- v) Participate with NGOs in verification survey of PAPs and categorisation of PAPs
- vi) Participate in consultations with PAPs and beneficiaries
- vii) Designing and distribution of ID cards along with NGO
- viii) Coordinate and facilitate relocation of displaced persons including designing and construction of resettlement colony / vendor market; provision of basic amenities; distribution of plots / houses / to residential and/or commercially displaced persons
- ix) Coordinate with NGO in identifying land for relocation of common property resources
- x) Coordinate with civil construction contractor to relocate common property resources
- xi) Permission and liaison with line departments for provision of basic amenities in resettlement colonies, land acquisition and income restoration schemes;
- xii) Coordinate with revenue department for facilitating disbursement of compensation and resettlement and rehabilitation assistances
- xiii) Monitoring of physical and financial progress
- xiv) Approval of micro plans
- xv) Participate in training programmes for income restoration organized by NGOs

- xvi) Consult with panchayat and block office to facilitate inclusion of PAPs' name for poverty alleviation schemes of government of India.

82 NGOs have following roles:

- i) Develop rapport with PAPs and between PAPs and EAs
- ii) Verification of PAPs
- iii) Consultations with the community
- iv) Assess the level of skills and efficiency in pursuing economic activities, identify needs for training and organise programmes either to improve the efficiency and/or to impart new skills
- v) Assist PAP in receiving rehabilitation entitlements due to them
- vi) Motivate and guide PAP for proper utilisation of benefits under R&R policy provisions
- vii) Assist PAPs in obtaining benefits from the appropriate development programmes.
- viii) Help PAPs in increasing their farm income through provision of irrigation facility or improving farm practices, and
- ix) Ensure marketing of produce particularly those under self-employment activities.
- x) Complete the consultation at the community level and provide support by describing the entitlements to the entitled persons (EPs) and assisting them in their choices
- xi) Accompany and represent the EPs at the Grievance Redress Committee meeting.
- xii) Assist EPs to take advantage of the existing government housing schemes and employment and training schemes that are selected for use during the project, and
- xiii) Promote location specific Community Based Organisations (CBOs) of PAPs to handle resettlement planning, implementation and monitoring.
- xiv) Create awareness among PAPs of HIV/AIDS, trafficking of women and child, childlabour, health and hygiene,

4.4.5 Low impact categories

- 83 Low impact category investments are those which are likely to cause minimal or no adverse environmental impacts on human populations or the physical environment. The

impacts in case of low category investments are largely localized and are temporary in nature. In such cases, detailed ESA would not be required.

- 84 These investments would require the preparation of an Environmental and Social Mitigation Plan as a part of the DPR either as a separate chapter or a volume (as needed), analysing the environmental and social issues and providing the corresponding mitigation measures. There will also be a separate section in the summary of the document mentioning the key mitigation measures proposed through the ESMP.

A Guidance Note for carrying out ESA is provided in Annex I, and an outline Environment and Social Management Plan for low impact category investments is provided in Annex II. However, during the project preparation, these measures shall be validated with actual site conditions and updated to make these more project-specific.

All ESAs, ESMPs, and RAPs of all investments will be shared with the SPMGs for review and clearance. The NMCG and SPMGs may obtain expert opinion as necessary for reviewing environmental and social screening, ESAs, ESMPs and RAPs.

- 85 The EA/DPR consultant will prepare the ESMP in accordance with the specifications and conditions included in the bid documents. The generic terms of reference for the scope of DPRs would be suitably amended in each case in accordance with the screening and assessment provided in the FR.

4.5 Stakeholder Consultations and Disclosure of ESA

- 86 Planning and design of all the investments will include adequate consultations with the project-affected groups and other stakeholders and will specifically focus on the project's environmental and social impacts. For High impact category investments, the consultation with these groups shall be carried out at least twice: (a) shortly after screening and before the terms of reference for the ESA are finalized; and (b) once a draft ESA report is prepared. In addition, such groups will be consulted throughout project implementation as necessary to address ESA-related issues that affect them. This will enable to elicit and address the concerns of the stakeholders and address them upfront in the project feasibility and design of the project.

- 87 In order to facilitate meaningful consultations and also effective participation of the stakeholders in the project, all the project related information will be shared with the

likely project-affected groups and local NGOs, in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.

- 88 In case of High impact category investments, a summary of the proposed project's objectives, description, and potential impacts will be provided for the initial consultation. For consultation after the draft ESA report is prepared, a summary of the ESA's conclusions will be provided. In addition, the draft ESA report will be made available at all relevant public locations, accessible to project-affected groups and the stakeholders. The ESA report will also be disclosed in website of the SPMGs and NMCG.

4.6 Environmental Regulatory Compliance

- 89 In addition to the above, the investments should also comply with all the applicable environmental regulations and should secure required clearances / authorizations. Tables **Table 4.5** and **4.6** provide a summary of such clearances and permissions.

**TABLE 4.5 ENVIRONMENTAL REGULATORY REQUIREMENTS FOR NAMAMI
GANGE INVESTMENTS**

S. No.	Type of Clearance	Applicability	Project Stage	Responsibility	Time Required
1	Environmental Clearance from MoEF&CC/SIAA	Applicable for select investments	Pre-Construction	EA	Not Applicable
2	Forest Clearance for land diversion	For forest land acquisition	Pre-Construction	EA	6-8 Months
3	Tree felling permission	For roadside tree cutting, incase sewers are to be laid	Pre-construction	EA	15 days
4	NOC and consents under Air, Water & Environment Act and noise rules from SPCB	For establishment of construction camp.	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months
5	NOC and consents under Air, Water & Environment Act and noise rules from SPCB	For operating construction plant, crusher, batching plant etc.	Construction stage (Prior to initiation of any work)	Contractor	1-2 Months
6	Explosive License from Chief Controller of Explosives,	For storing fuel oil, lubricants, diesel etc. at construction camp	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months
7	Permission for storage of hazardous chemical from CPCB	Manufacture storage and Import of Hazardous Chemical	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months
8	Quarry Lease Deed and Quarry License from State Department of Mines and Geology	Quarry operation (for new quarry)	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months
9	Permission for extraction of ground water for use in road construction activities from State Ground Water board	Extraction of ground water	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months
10	Permission for use of water for construction purpose from irrigation department	Use of surface water for construction	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months

S. No.	Type of Clearance	Applicability	Project Stage	Responsibility	Time Required
11	Labour license from labour commissioner office	Engagement of Labour	Construction stage (Prior to initiation of any work)	Contractor	2-3 Months

TABLE 4.6 ENVIRONMENTAL REGULATORY COMPLIANCE DURING CONSTRUCTION AND OPERATION OF NAMAMI GANGE INVESTMENTS

S. No	Project Portfolio	Applicable Legislations	Obligations	Responsibility
A Sewerage & Sanitation Investments				
1.	Laying entirely new sewer Net Work or extension to existing network including providing house connections and gravity based interception and diversion arrangements to drains carrying sanitary sullage/dry weather flow	None	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's • Ensure minimum hindrance to traffic, pedestrians and minimum interruption to services 	<ul style="list-style-type: none"> • Contractor during construction and operating agency during operation & maintenance • ULB/EA/Contractor
2.	Sewerage Network and Pumping Stations	Air Act, 1981 & Noise Rules as per EP Act, 1986	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's 	<ul style="list-style-type: none"> • Contractor during construction and operating agency during operation & maintenance • ULB/EA/Contractor
3.	Sewerage Network, Pumping Station and Treatment Plant	Water Act, 1974 Hazardous Wastes (Management and Handling) Amendment Rules, 2000	<ul style="list-style-type: none"> • Secure Consent to establish and Operate for sewage treatment plant from SPCBs and Ensure Air and Noise quality is within the stipulated limits of SPCB and CPCB 	<ul style="list-style-type: none"> • Contractor during construction and operating agency during operation & maintenance • ULB/EA/Contractor
4.	Low Cost Sanitation	None	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's • Ensure minimum hindrance to traffic, pedestrians and minimum interruption to services 	
5.	Generators at Sewage Pumping Stations and Sewage Treatment Plant	Air Act 1981 & Noise Rules as per EP Act, 1986	<ul style="list-style-type: none"> • Secure Consent to establish and Consent to Operate for sewage treatment plant from SPCBs 	ULB/EA/Contractor

S. No	Project Portfolio	Applicable Legislations	Obligations	Responsibility
			<ul style="list-style-type: none"> • Ensure Air and Noise quality is within the stipulated limits of SPCB and CPCB 	
B Industrial Pollution Control Investments				
1.	Common Effluent Treatment Plants	Hazardous Wastes (Management and Handling) Amendment Rules, 2000	<ul style="list-style-type: none"> • Secure the Consent to Establish and Consent to Operate from SPCBs • Obtain Environmental Clearance from MOEF&CC • Ensure Air, water(surface and ground) and Noise Quality is within stipulated limits of SPCB's/CPCB 	ULB/ EA/ Contractor
2.	Hazardous Waste Receiving, Treatment, Storage and Disposal Facilities	Hazardous Wastes (Management and Handling) Amendment Rules, 2000	<ul style="list-style-type: none"> • Secure the Consent to Establish and Consent to Operate from SPCBs • Obtain Environmental Clearance from MOEF&CC • Ensure Air, water(surface and ground) and Noise Quality is within stipulated limits of SPCB's/CPCB 	ULB/ EA/ Contractor
CSolid Waste Management Facilities				
A.	Engineered Landfill Sites	MSW Rules, 2000 Air, Act, Water Act and EPA	<ul style="list-style-type: none"> • Secure the Consent to Establish and Consent to Operate from SPCBs • Obtain Environmental Clearance from MOEF&CC • Ensure Air, water(surface and ground) and Noise Quality is within stipulated limits of SPCB's/CPCB 	ULB/ EA/ Contractor
B.	Composting Facilities	MSW Rules, 2000 Air Act Water Act and EPA	<ul style="list-style-type: none"> • Secure the Consent to Establish and Consent to Operate from SPCBs • Obtain Environmental Clearance from MOEF&CC 	ULB/ EA/ Contractor

S. No	Project Portfolio	Applicable Legislations	Obligations	Responsibility
			<ul style="list-style-type: none"> • Ensure Air, water(surface and ground) and Noise Quality is within stipulated limits of SPCB's/CPCB • Ensure no odour and fly nuisance in and around the waste segregation units within the compost yard through appropriate mitigation measures 	
D River Front Development Schemes				
A.	River front development and beautification schemes	None	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's • Ensure minimum hindrance to traffic, pedestrians and minimum interruption to services 	ULB/ EA/ Contractor
B.	Construction of Bathing Ghats	None	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's • Ensure minimum hindrance to traffic, pedestrians and minimum interruption to services 	ULB/ EA / Contractor
C.	Redevelopment of cremation grounds situated along river banks	None	<ul style="list-style-type: none"> • Ensure Air and Noise Quality is within stipulated limits of SPCB's • Ensure minimum hindrance to traffic, pedestrians and minimum interruption to services 	ULB/ EA/ Contractor
D.	Modification of electric /CNG crematoriums situated along river banks	Air Act, 1981	<p>Secure No Objection Certificate from SPCB</p> <ul style="list-style-type: none"> • Consent to establish • Consent to Operate • Ensure Water, Air and Noise quality is within the stipulated limits of SPCB. 	ULB/EA/ Contractor

Section 5 Implementation, Monitoring and Reporting Arrangements

5.1 General

90 In order to achieve the objective of ‘Mission Clean Ganga’ by 2020, Namami Gange program provides financial assistance for implementation of river pollution abatement/mitigation investments in Ganga main stem states. In addition to complying with various technical and performance standards, the investments to be supported under this program shall comply with the Environmental and Social Management Framework. The implementation, monitoring and reporting arrangements for the ESMF have been worked out within the overall institutional structure for implementation of the Namami Gange program, as described in the sections below.

5.2 Namami Gange Institutional Arrangements

91 As nodal Ministry for the Namami Gange program, the MoWR, RD&GR through NMCG is the primary implementing agency for the project at the national level. The implementing agencies at the state level are the SPMGs. At the local level, specific Executing Agencies (EAs) will be selected for implementation of various activities, including infrastructure investments under the Namami Gange program. EAs may include para-statal organizations, Special Purpose Vehicles and Joint Ventures (SPVs/JVs), Urban Local Bodies (ULBs), appropriate state-level departments, NGOs, or public institutions.

92 The main functions of the various agencies with regard to the Namami Gange program include the following:

- The NMCG will be responsible for overall project planning and management at the national level; direct implementation of the national level activities; ensuring satisfactory implementation of the state-level investments and activities; providing guidance, support and approvals to the SPMGs where needed; and monitoring implementation performance;
- The SPMGs will be responsible for project planning and management at state level, ensuring satisfactory implementation of the state-level investments and

activities; direct implementation of some of the state-level activities; providing guidance, support and approvals to the state EAs where needed; and monitoring implementation performance of the EAs;

- The EAs will plan and implement the activities/investments and put in place arrangements for satisfactory and sustainable operation and maintenance of the assets created. The EAs will be responsible for all contract management, including preparation of feasibility reports and DPRs, and seeking the necessary approvals.

5.3 Implementation, Monitoring and Reporting Arrangements for the ESMF

93 Within the above overall implementation Guideline of the Namami Gange program, environmental and social due diligence will be carried out by the relevant agencies at each stage of the project cycle in accordance with the guidance provided in the ESMF.

94 A Social Development Officer and an Environmental Officer will be appointed for managing social and environmental issues (including safeguards issues) at both central level as well as in each of the project states. These officers will assist the EAs in implementation of ESMF provisions.

95 In the EA, an officer each will be designated as social and environment officer who will be responsible for the implementation of ESMF tasks at the field level with the assistance and participation of the local self-government. These officers will also have the responsibility of implementing safeguard activities along with other project components, and for co-ordination among different agencies, such as the local self-government, Revenue Department etc. During implementation, meetings will be organized by the SPMGs inviting all EAs in the state for providing information on the progress of the project work.

96 An independent Environment and Social/Compliance Monitoring Audit will be conducted by third party inspection agency for each of the sub projects, A sample terms of reference for the audit is presented in **Annex IV**.

The project cycle for an investment under the Namami Gange program and the interface with the ESMF requirements are summarized hereunder.

Project Screening

- 97 Upon receipt of request for funding, SPMG will assess the eligibility of the sub-project in line with the agreed framework. The scope of the project would be discussed and the guidelines for project preparation would be shared. The screening criteria and categorisation of sub-projects on that basis would also be explained. Once the FR is approved and the categorisation of the sub-project has been agreed upon, the EA would be advised on the appropriate DPR preparation toolkit that needs to be followed.
- 98 The EA will prepare a Detailed Project Report (DPR) including environment and social management plan (ESMP) tailored to the specific sub-project (for Low impact category investments). For High impact category investments, the EA will engage external agencies to undertake preparation of the ESMP (including RAP as relevant) in line with the requirements of ESMF. While initiating the ESMP (including RAP, as relevant), the EA/ external agency will be guided by the model Terms of Reference annexed and shall interact with the Environmental and Social Specialists in the SPMG to seek guidance in the finalization of scope of work and the development of the plans.
- 99 On receipt of the ESMP (including RAP, as relevant), specialists will evaluate the completeness of the documents and their compliance with the ESMF. Further actions, if any required, will have to be carried out by the EA prior to the appraisal of the project.

Project Appraisal

- 100 During project Appraisal, the SPMG will appraise the project preparation leading to the approval of the DPR. The aspects that will be appraised during the project appraisal will include the following aspects:
- Environmental and social suitability of site
 - Adequacy of the ESMP (including RAP, as relevant) as per the ESMF including analysis of alternatives, if possible
 - Compliance with regulatory requirements and clearances

- Comprehensiveness of the ESMP (including RAP, as relevant) in light of the project specific environmental and social issues
- Integration of environmental and social mitigation measures in to the design, wherever relevant/required
- Arrangements for implementation of ESMP (including RAP, as relevant), including institutional capacity and contractual provisions
- Inclusion of ESMP (including RAP, as relevant) budgets in the project cost and contract documents
- ESMP (including RAP, as relevant) monitoring and reporting arrangements
- Need for any legal covenant to address specific environmental risks including regulatory risks, if any
- Risk analysis / allocation
- environment and social enhancements (if any / applicable)

101 The Environment and Social Management Plan (ESMP) prepared for the project will form part of the bidding documents, in addition to the references to various acts relating to environment and labor, and the implementation of the same will be monitored by SPMG and NMCG.

Project Approval and Disbursement

102 After requisite approvals and concurrence are obtained, SPMG will discuss implementation of environmental and social management measures of the project with the EA to ensure that these are suitably incorporated into the respective legal /contractual documents, for implementation by the EA.

103 The civil works will be initiated only after the required land has been acquired and declared free from encroachments and other encumbrances and the EA has the physical possession of the land. Before the start of civil works the compensation has to be disbursed to the land owners. During implementation, consultations with the communities shall be undertaken by the EA / NGOs for providing information on the progress of the project work. The roles and responsibility of each of the Agency/Official involved are further detailed in **Annex III**.

Monitoring and Reporting Arrangements

- 104 The NMCG, through the respective SPMGs will monitor all the approved investments under the Namami Gange program to ensure conformity to the requirements of the ESMF. The monitoring will cover all stages of construction, operation and maintenance. The monitoring will be carried out through the environmental and social safeguard compliance reports that form a part of Quarterly Progress Reports for all investments and regular visits by the environmental and social specialists of the NMCG and SPMGs. In addition to the above, the NMCG will undertake an annual ESMF audit and will review the status of ESMF compliance, as per the sample terms of reference provided in Annexure IV.
- 105 The NMCG will review these audit reports and identify technical, managerial, policy or regulatory issues with regards to the compliance of the ESA reports. The identified technical issues will be duly incorporated in the subsequent investments. Policy and regulatory issues will be debated internally by the NMCG's internal review committee and the need for appropriate interventions will be determined. These interventions could include appropriate revision of ESMF document or suitable analytical studies to influence policy or programs of the state, if found necessary / warranted.
- 106 An external evaluation of the RAP implementation prepared under Namami Gange program will also be undertaken twice during the implementation of the project – midterm and at the end of the implementation. The Table 5.1 below details out the mitigation measures for each impact type, monitoring measures, responsibility and timeline.
- 107 Tribal Management Framework (TMF) will be implemented by SPMGs with the help of EAs. In absence of in-house capacity of EAs, third party may be hired, either an NGO or a consulting firm.
- 108 During implementation, meetings will be organized by the SPMGs inviting all EAs in the state for providing information on the progress of the project work. The project cycle for an investment under the Namami Gange program and the interface with the ESMF requirements are summarized **Table 5.1**.

TABLE 5.1 MITIGATION, MONITORING, RESPONSIBILITY AND TIMELINE

S. No	Impact	Monitoring Measures	Responsible Agency	Timeline
1	Land acquisition	Regular internal monitoring by the EA and SPMG and periodic evaluation	EA	12 months from the start date. Compensation to be paid before the start of civil works.
2	Acquisition of house/ structure	Regular internal monitoring by the EA ,SPMG and periodic evaluation	EA	
3	Loss of livelihood or source of livelihood	Regular internal monitoring by EA; midterm and end term evaluation	EA	12 months from the start date of the activities of the priority investment. Assistance to be paid before the start of civil works.
4	Loss of access to private and / or common property	Regular internal monitoring by the EA; ; midterm and end term evaluation	EA, ESMF Auditors	12 months from the start date of the activities of the priority investment. Assistance to be paid before the start of civil works.
5	Displacement of Non Titleholders	Regular internal monitoring by the EA; a; midterm and end term evaluation	EA, ESMF Auditors	
6	Group support to Tribal community	Regular internal monitoring by the social development professional of EA along with NGO; midterm and end term evaluation	EA; District Administration; ESMF auditors	12 months from the start date of the activities of the priority investment, followed by annual audit

7	Gender Action Plan	Regular internal monitoring by the social development professional of EA along with NGO;midterm and end term evaluation	EA, ESMF Auditors	12 months from the start date of the activities of the priority investment, followed by annual audit
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TABLE 5.2 ESMF IMPLEMENTATION AND MONITORING ARRANGEMENTS

Milestones	Objectives	Process	Responsibility	Decision/Target/ Deliverable
1. Sub- Project Screening (at the FR stage)	To approve categorisation of proposed sub-projects into high/ low impact investments	a. Discussions with EA to - assess eligibility of project based on Namami Gange’s priorities in consonance with Mission Clean Ganga - identify scope of project report b. EA to submit FR along with proposed impact categorisation c. SPMG may seek expert opinion	<ul style="list-style-type: none"> • NMCG • SPMG • EA 	<ul style="list-style-type: none"> • Decision to proceed or not • Identification of impact category
2. Sub- Project Appraisal (at the DPR stage)	To ensure satisfactory compliance with ESMF	Detailed appraisal of the ESMP (including RAP, where relevant), including site visits/investigations if necessary assess suitability of site, adequacy of ESMPs, risk analysis and regulatory clearances EA to submit ESMP as part of DPR for approval	<ul style="list-style-type: none"> •SPMG •NMCG 	<ul style="list-style-type: none"> • Review report and decide to <ul style="list-style-type: none"> - accept - accept with modifications - reject and instruct to resubmit DPR
3. Approval	Approvals from SPMG/ NMCG/ World bank	a. SPMG to recommend to NMCG b. NMCG to recommend to Empowered Committee and World Bank (wherever applicable) c. Review of Sub Project EAs and ESAMPs by the World Bank including review and clearance of EA TORs for High Impact projects by the Bank	<ul style="list-style-type: none"> • SPMG • NMCG 	<ul style="list-style-type: none"> • Approval of DPR

Milestones	Objectives	Process	Responsibility	Decision/Target/ Deliverable
4. ESMP Implementation Monitoring and Review	Ensure Implementation of agreed ESMP (including RAP, where applicable)	a. Prepare quarterly progress reports b. Schedule field visits as required c. Third party audit	SPMG, EA, Contractors	<ul style="list-style-type: none"> • Quarterly Progress Report

5.4 Social Accountability and Grievance Redressal Mechanism

109 Social Audit, a viable instrument of sustainable program delivery, is in fact People's Audit, which provides a succinct view of performance based on society's perceptions and analysis at large. Citizen's Monitoring Committee will perform Social Audit in a manner prescribed by the Government of India.

110 An integrated system will be established with Grievance Redressal Cells (GRCs), with necessary officers, officials and systems, at the local EAs, ULBs, SPMGs and the NMCG levels. Grievances may be submitted through various mediums, including in person, in written form to a noted address, through a toll free phone line or through direct calls to concerned officials, and online. All local contact information and options for complaint submission will be available on site on local information boards. Moreover, they will be in addition to the PIO officers to be appointed under the RTI Act. Under GAAP, a half yearly report on Grievance Redressal by the NMCG, SPMG and EA will be prepared. The project will abide by the RTI Act of 2005 and under provisions of Section 4 of the Act; it will commit itself for proactive disclosure and sharing of information with the key stakeholders, including the communities/beneficiaries. The project will have a communication strategy focusing on efficient and effective usage of print and electronic media, bill boards, posters, wall writing, and adoption of any other method suiting local context, logistics, human and financial resources.

As part of IGRM, a Grievance Redress Cell (GRC) will be set up at the district level wherever investments have been or will be planned. Since each project town / city will have Citizen's Monitoring Committee (CMC), the GRC will be a subcommittee of the citizen's monitoring committee. The staffing of GRC will include two representatives from CMC and the concerned executive engineer of EA. The head of the cell will be a person of repute but not continuing in the government service. The GRC will have its own bye laws. The functions of the GRC will include: (i) to redress grievances of project affected persons (PAPs) in all respects; (ii) rehabilitation and resettlement assistance and related activities; (iii) GRC will only deal/hear the issues related to R&R and individual grievances; (iv) GRC will give its decision/verdict within 15 days after hearing the aggrieved PAPs; (v) final verdict of the GRC will be given by the

Chairman/Head of GRC in consultation with other members of the GRC and will be binding to all other members.

5.5 Training and Capacity Building

- 111 Being a new entity, the NMCG&SPMGs staff will need additional training in the management of environmental and social issues of the program. The training program for various relevant stakeholders will include an orientation program on the ESMF, Project Management, Engineering and Public Health. Course outline for various modules, the duration and the participation envisaged has been illustrated in **Table 5.3**
- 112 The training program is to be co-ordinated and anchored by NMCG with the support from agencies / individuals experienced in safeguard aspects of urban infrastructure investments for developing courses on conducting training programs.
- 113 The training will focus on the environmental and social issues. The contents will basically focus on the ESMF, concept, regulatory requirements, Environment and Social priority issues, project cycle of Namami Gange program investments, outline of EA / SA and report formats in respect of the Environmental aspects. In respect of social aspects the course content will focus on the R & R policies and procedures, Land Acquisition process, identification of PAPs, Social entitlement frameworks, social assessment, RP techniques, and Risk Assessment and management skills. The generic training program is elaborated in Table 5.3
- 114 In addition to the above, Namami Gange program will make a conscious effort to mainstream the environmental and social issues within the training programs of NMCG. The program will be structured in such a way that it clearly brings out the value addition and enhancement benefits of proper management of environmental and social issues.
- 115 As part of the capacity building exercise, NMCG also aims at developing decentralized local capacity on managing environmental and social issues associated with various investments. In order to achieve the above objective, the specialists will develop a network of technical man power resources such as staff from universities / research

institutions, civil society organisations, etc. These persons will be trained during the course of Namami Gange program, so that they can provide support to the ULBs in implementing ESMP (including RAP, as relevant) recommendations and also offer support on an on-going basis.

Table 5.3: Generic Training Programme

<p>Program 1</p> <p>Orientation Program / Workshop for Project Development agency</p>	<p>Module 1 - ESMF Profile</p> <ul style="list-style-type: none"> • Namami Gange Concept • ESMF Concept • Regulatory Requirements-E&S Priority Issues • Sub project types of Namami Gange program • ESA and SESA Process Outline • Reports & Formats 	<p>Module 2 Environmental Assessment Process</p> <ul style="list-style-type: none"> • Environmental Laws & Regulations • EIA process • Identification of Environmental Impacts • Impact Identification Methods • Identification Mitigation Measures • Formulation of Environmental Management Plan • Implementation and Monitoring • Institutional Mechanism 	<p>Module 3 Social Assessment Process</p> <ul style="list-style-type: none"> • Social Assessment process • Description of Namami Gange program R&R, tribal and gender frameworks and procedures and National requirements • LA process • Necessity for RAP and its preparation process 	<p>1½ day</p> <p>(1st, 3rd and 5th year of the project)</p>	<ul style="list-style-type: none"> • Environment and social staff of NMCGand SPMG • Heads of Statutory Boards and other monitoring agencies
<p>Program - 2</p> <p>Orientation Program / Workshop for Project Implementing agency</p>	<p>Module 1 - ESF Profile</p> <ul style="list-style-type: none"> • Namami Gange Concept • ESMF Concept • Regulatory Requirements-E&S Priority Issues • Sub project types of Namami Gange program • ESA and SESA Process Outline • Reports & Formats 	<p>Module 2 Environmental Assessment Process</p> <ul style="list-style-type: none"> • Environmental Laws & Regulations • EIA process • Identification of Environmental Impacts • Impact Identification Methods • Identification Mitigation Measures • Formulation of Environmental Management Plan • Implementation and Monitoring • Institutional Mechanism 	<p>Module 3 Social Assessment Process</p> <ul style="list-style-type: none"> • Social Assessment process • Description of Namami Gange's R&R, tribal and gender frameworks and procedures and National requirements • LA process • Necessity for RAP and its preparation process 	<p>1½ day</p> <p>(1st, 3rd and 5th year of the project)</p>	<ul style="list-style-type: none"> • Municipal Commissioners of the ULBs and Heads of EAs • Engineering/Public Health personnel from the ULBs and social and environment staff of EAs • Engineering personnel from Statutory Boards, and environment and social staff of potential private operators / consultants.

Programs	Contents				Duration / Schedule	Participants
<p>Program -3</p> <p>Workshop on Sectoral Environmental and Social Assessment</p>	<p>Module 1– Water supply, sewerage and sanitation</p> <ul style="list-style-type: none"> • ESMF Concept • Regulatory Requirements-E&S Priority Issues • Outline of ESA Process • Identification of Environmental and Social Impacts • Developing Mitigation Measures including entitlement frameworks • Formulation of Environmental and Social Management Plan including preparation of Resettlement Action Plan • Implementation and Monitoring arrangements • Budget preparation for implementation of ESMP • Case Studies 	<p>Module 2– Solid waste management</p> <ul style="list-style-type: none"> • ESMF Concept • Regulatory Requirements-E&S Priority Issues • Outline of ESA Process • Identification of Environmental and Social Impacts • Developing Mitigation Measures including entitlement frameworks • Formulation of Environmental and Social Management Plan including preparation of Resettlement Action Plan • Implementation and Monitoring arrangements • Budget preparation for implementation of ESMP • Case Studies 	<p>Module 3– River Front Development</p> <ul style="list-style-type: none"> • ESMF Concept • Regulatory Requirements-E&S Priority Issues • Outline of ESA Process • Identification of Environmental and Social Impacts • Developing Mitigation Measures including entitlement frameworks • Formulation of Environmental and Social Management Plan including preparation of Resettlement Action Plan • Implementation and Monitoring arrangements • Budget preparation for implementation of ESMP • Case Studies 	<p>Module 4 – Open Forum</p> <p>Feedback and comments from the Participants.</p>	<p>1½ days</p> <p>(every alternate years)</p> <p>(Introduction will be common to all and participants will be split according to their respective sectors)</p>	<ul style="list-style-type: none"> • Municipal Commissioners of the ULBs and heads of other EAs. • Engineering/ Public Health personnel from the ULBs and other EAs. • Engineering personnel from Statutory Boards, and potential private operators / consultants. • Environment and social staff of NMCG; SPMGs; and EAs

Section 6 Public Consultations and Disclosure

6.1 General

- 115 The development of the ESMF is based on a consultative process that engaged key stakeholders at the national, state, and local levels and sought their feedback. Key government agencies have been consulted at the various levels to obtain their consent on the ESMF in general and specially on the land acquisition process and resettlement framework.
- 116 National level consultations on ESMF were held as follows:
- (i) April 17, 2010: A meeting on the international River clean-up experiences was held at Scope Complex, Lodi Road, New Delhi where MoEF&CC, World Bank, States, ULBs, NGRBA expert members, and some NGOs participated. Consultations on broad outline of ESMF were conducted.
 - (ii) Sept.1, 2010: A meeting was organized in MoEF&CC with States and PIAs – It was first consultant meeting on ESMF where MoEF&CC made a presentation and draft of ESMF was shared with the States.
 - (iii) Oct. 25-26, 2010: A workshop for consultation on Investment frameworks and ESMF was organized in the World Bank where States, PIAs, NMCG and World Bank participated and agreed on the broad contours of the ESMF. It was agreed that States would conduct the public consultations at important towns where projects are likely to be implemented under the program.
- 117 Following the national level consultations, public consultations have been carried out in sample sub project areas in each of the five participating states to get feedback and suggestions from the affected community on the ESMF. The dates of these consultation meetings were announced in the local newspapers in advance so that all interested parties could participate and provide suggestions. The ESMF was translated into local language and disclosed on the websites and placed with the offices of the nodal agencies prior to the consultation meetings. Representatives of the State Nodal Agencies facilitated the public consultation meetings. The consultants preparing the ESMF attended the public consultation meetings in all the states to note the stakeholder

suggestions and feedback. The minutes of the meeting was prepared highlighting the key discussions and issues raised by the stakeholders.

118 The schedule of the public consultations at the state level is provided in **Table 6.1**. The minutes of the meetings are given in the sections that follow.

TABLE 6.1 DETAILS OF THE PUBLIC CONSULTATIONS HELD AT THE FIVE SELECTED STATES

S.No	State	State Nodal Agency	Venue	Date	Time
1	Uttarakhand	Uttarakhand Peyjal Nigam	Nagar Pallika Bhawan, Haridwar, Uttarakhand	10th December 2010.	2:30 pm to 5:00 pm
2	West Bengal	Urban Development Department	Kolkata, West Bengal	21st December 2010	2:00 pm to 4:00 pm
3	Jharkhand	Urban Development Department, (Jharkhand)	Vikash Bhawan D.C. Office, Sahibganj, Jharkhand	23 rd December 2010	11:00 am to 2:00 pm
4	Uttar Pradesh	Ganga Pollution Control Unit, U.P JalNigam	Nagar Nigam, Guest House, Kanpur, Uttar Pradesh	28 th December, 2010	3:00 pm to 5:30 pm
5	Uttar Pradesh	Ganga Pollution Control Unit, U.P JalNigam	Sadan Hall, Nagar Nigam, Allahabad, Uttar Pradesh	29 th December 2010	3:00 pm to 5:00 pm
6	Bihar	Department of Urban Development	Patna, Bihar	4 th January 2011	3:00 pm to 5:00 pm

6.2 Minutes of Public Consultation Meetings

119 Public Consultation on Environment and Social Management Framework (NGRBA Program), held at Haridwar, Uttarakhand

Minutes

Date: 10th December 2010. **Time:** 2:30 PM to 5:00 PM

Venue: Nagar Pallika Bhawan, Haridwar, Uttarakhand

Attended by:

- State Nodal agency (UttarakhandPeyjal Nigam): Mr. Prabhat Raj (Executive Engineer), Mr. S. C Gupta (General Manager), Mr. Y. K Mishra (Project Manager),
- Consultancy team from TERI: Mr. Sakaram Somayaji, Mr. C. G Hiremath, Ms. C. Sita Lakshmi
- Number of participants: 22 (representatives from NGOs, elected members of Nagar PallikaHaridwar and concerned individuals from Uttarkashi, Gangotri, Dehradun and Haridwar, list attached)

The public consultation meeting was flagged-off by Mr. Y. K Mishra who welcomed the participants and briefed them about the agenda of the meeting. Further the meeting was carried forward by Mr. Prabhat Raj, who presented the details about the Environment and Social Management Framework, starting from the current status of river Ganga, future government plans, possible assistance by World Bank, overall significance of ESMF, stake-holder participation during the project, etc. A brief summary of all the important points discussed during the meeting are mentioned in the following points:

- A target-oriented, continuous and regular mechanism to create education and awareness among the people, particularly the younger generation about the importance of keeping river Ganga clean.
- Provide proper sanitation facilities, along with efficient operation and maintenance systems, to the tourists and pilgrims (like the Kaavadis) who visit the state during religious occasions and other festivals.
- Active participation from the NGOs, the local communities and the *panchayats* needs to be ensured in the process of planning, implementation and monitoring of the project.

- All efforts should be made to safeguard and minimize any possible negative impact on the socio-cultural beliefs and traditions of the local communities regarding river Ganga, while implementing the sub-projects.
- Regular operation and maintenance mechanism for sustainable management of the facilities created during the sub-projects, along with sufficient budgetary provisions.
- In order to ensure proper cleaning of Ganga, all the tributaries in the state also needs to be covered under the project.
- A common concern among the stakeholders was the lack of any solid waste management plan, as of today, in the district. This project should incorporate suitable mechanisms for proper solid waste management in the river basin.
- To avoid time and cost run-over, the time gap between planning and implementation of the project needs to be minimised. This will also prevent the project to suffer due to price-escalations and consequent budget insufficiency.
- All safety and precautionary measures must be taken to avoid any accidents during the construction phase of the projects. Although the notice of the project along with other details and the specific agenda of the meeting was made available on the website of Peyjal Nigam, the ward members of Nagar Pallika, Haridwar suggested that hard copies of these details be provided to them individually, as internet is not easily accessible by everyone, so as to make their participation more effective.
- Ensure proper coordination between different government agencies/ departments with clear allotment of responsibilities and provide sufficient accountability at each level.

The meeting was concluded by Mr. Y. K. Mishra followed by vote of thanks given by Mr. S.C Gupta.

120 **Public Consultation Meeting on Environment and Social Management Framework (NGRBA Program) held at Kolkata**

Minutes

Date: Tuesday, 21 December 2010 **Time:** 2 p.m.

Venue: Unnayan Bhawan, Salt Lake, Kolkata

Attended by:

- Mr. N Dey, Special Secretary, Urban Development Department, Government of West Bengal, MrChunarDey, DGO, GAP
- Consultancy team from TERI: DrSujanaDhar, Ms Avanti Roy Basu

- No. of participants: 43 (including representatives from Barrackpore, Khardah, Panihati, Kamarhati, Gaeshpur, Konnagar, Serampore, Naihati, Halisahar, Mahestala, Behrampore, Jangipur, Nabadwip, Bhatpara municipalities, Kolkata Metropolitan Development Authority, Howrah Municipal Corporation, Chandannagar Municipal Corporation, West Bengal Pollution Control Board, Jadavpur University, ME Directorate and KMW&SA). Signed list of participants attached as Annexure IV.

The public consultation meeting was initiated by Mr N Dey who welcomed the participants and briefed them about the agenda of the meeting. The details of the Environment and Social Management Framework (ESMF), including the future activities planned by the government, possible assistance by World Bank, overall significance of the ESMF, stakeholder participation during the project, etc. were discussed. He also discussed the objectives of setting up the National Ganga River Basin Authority (NGRBA).

A brief summary of the important points discussed during the meeting are mentioned below.

- The various river pollution mitigation projects to be implemented under NGRBP, namely sewerage and sanitation schemes, sewage treatment plants (new/ up gradation), solid waste management, industrial pollution control initiatives and river front development schemes were highlighted. He stressed on the importance of the treated sewage water to only flow into the river.
- Mr. Dey presented the genesis of the NGRBP and informed the participants that the mission is to clean River Ganga by 2020 and to bring the water quality to acceptable limits, which primarily flows through 5 states, namely, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand and West Bengal.
- He described the structure of the NGRBA, chaired by the Hon'ble Prime Minister of India. The organizational structure of the NGRBP is as follows: At the national level, NGRBA is chaired by the Hon'ble Prime Minister of India, and the Empowering Steering Committee (ESC) has been formed. At the state level, SGRBA (State Ganga River Basin Authority) is chaired by the Hon'ble Chief Minister of the respective states. Also, State Project Planning and Monitoring Unit (SNMCG) will be the state nodal agency and will be formed

in West Bengal shortly. The SNMCG will be a registered body and will be headed by the Principal Secretary of the State Urban Development Department. The State Executing Agency (SEA) will be formed at the state level. For execution of the project, EA (Executing Agency) – NGO or any state agency. City level monitoring agencies at the district level will also be formed.

- He discussed in length about the purpose of the ESMF (Environment and Social Management Framework) including matters related to land acquisition, entitlement issues, resettlement and rehabilitation of the Project Affected Persons (PAPs).
- The laws and regulations as well as World Bank Safeguard policies applicable to the project were discussed.
- The environmental categorization of the various sub-projects envisaged under the NGRBP was discussed.
- He mentioned that based on proper guidelines, feasibility reports (FR) will be prepared, and after obtaining necessary approvals from the state government and GoI, the DPR will be documented. The modifications will be made at the FR stage, and not at the DPR stage.
- Many activities related to RFD have already been implemented in many parts of the state. He stressed on the need of ladies' changing room (as part of the RFD sub-project) and the need of low-income scheme (as part of the sewerage and sanitation sub project).
- The O&M cost for the first five years will be included within the project cost, and will follow the 70:30 pattern (70% by GoI and 30% by state government). The funds will flow from GoI to SPMG to EA.
- The representatives of Panihati, Mahestala, Bhatpara, Gayeshpur and Chandan Nagar municipalities raised their queries, which were successfully handled by MrChunarDey (GAP), Prof. A Majumdar (Jadavpur University) and Dr T K Gupta (WBPCB).
- Observations that the different agencies mostly failed to operate and maintain properly the sewage treatment plants e.g. Activated Sludge Process, Trickling Filters etc. constructed under GAP-Phase I and Phase- II were heard. The STPs like Waste Stabilization Ponds (WSP), however installed under GAP Phase I and Phase II operated and maintained satisfactorily. So, efforts must be exerted

for installation of WSP for treatment of city sewage. Accordingly land selection (in rural areas) and acquisition should receive priority for interest of the work.

- Prof Mazumder stated that the current phase of GAP envisages installation of sewerage system in the town. The storm water during rain will flow along surface drains leading to Ganga. Thus house connections in the sewerage system need guarantee from the municipal authorities. If house connections are not done then sullage will continue to get discharged in the river. Thus house connection is a challenge for the future action plan.
- He also mentioned that recycling and reuse of treated waste water must receive serious attention in the projects. This will ensure use of treated wastewater in agriculture, pisciculture, ground water recharging etc. One has to conceive ecologically balanced wastewater treatment system for abatement of river pollution
- One of the objectives of GAP must be the positive impact on public health, Non-point pollution needs also to be addressed, and more thrust is needed to ensure peoples' participation in the programme.

Representatives of certain municipalities expressed their opinions and suggestions during the participatory discussion, and a few experts present in the meeting presented their views accordingly. A brief summary of the interactive session is given below:

- **Panihati Municipality** – Under the Ganga Action Plan, 13 nos of towns were covered in the 1st phase within KMA including Panihati. However, the representative of Panihati Municipality complained that the sewage treatment plant (STP) constructed under GAP I is currently non-functional.
- **Mahestala Municipality** – There are several small-scale industrial units in Mahestala, which discharge untreated/partially treated wastewater directly into the river and pollute it. The representative of Maheshtala Municipality opined that due to financial reasons, it is not possible for these small units to set up wastewater treatment facilities at an individual level. Also, there is no sewerage network in Maheshtala. As a response to this, Dr T K Gupta, Chief Engineer, West Bengal Pollution Control Board (WBPCB) suggested that Common Effluent Treatment Plant (CETP) will be constructed for which land has to be identified. The formalities of land possession (for the CETP) may be discussed in the Committee meeting at a later stage during the project. The smaller

industries need to be shifted to the common location so that their wastewater is managed in an efficient manner (through the CETP).

- **Bhatpara Municipality** – There are 18-19 large-scale industries in Bhatpara. The sewerage system in Bhatpara is decades old, with problems like sewerage congestion due to weak O&M practices. Even after making repeated requests to the WBPCB, no actions were taken from their end. Therefore, the problems related to management of industrial wastewater as well as sewage do exist in a big way. Dr T K Gupta assured that he will take necessary actions to address their grievances.
- **Gayeshpur Municipality** – The problems discussed by the representative of Gayeshpur municipality are similar to that of Bhatpara. He added that there is land available in Gayeshpur for any construction that might be required.
- **Chandan Nagar Municipality** – Untreated sewage from various point and non-point sources fall into the river. The representative from Chandan Nagar Municipality was of the opinion that municipal engineers should be involved in the decision making process

The meeting ended with the vote of thanks given by MrDey. He was grateful for the overwhelming response of the participants for the meeting, and requested their whole-hearted participation throughout the project.

121 **Public Consultation on Environment and social management Framework (NGRBA Program), held at Sahibganj, Jharkhand**

Minutes

Date: 23/12/2010 **Time:** 11:00 am to 2:00 pm

Venue: Vikash Bhawan, D.C. Office, Sahibganj, Jharkhand

Attended by:

- State nodal agency:
 - Mr. K. Ravi Kumar (District commissioner, Sahibganj)
 - Mr. Sangram Besra (Deputy Secretary, Urban Development Department)
 - Mr. Gajanand Ram (Associate town planner, Urban Development Department, Jharkhand)
 - Mr. Sisir Kumar Soren (Executive officer, Sahibganj)

- Mr. Suresh Kumar (Executive officer, panchyat, Rajmahal)
- Consultancy team from TERI: Mr. Sunil Kumar, Ms. G. Mini
- Number of Participants: 75 Representatives from NGOs, elected members of Nagar palika Sahibganj and concerned individuals from Sahibganj and Rajmahal. Signed list of participants attached as Annexure IV.

The public consultation meeting was flagged-off by Mr. K. Ravi Kumar (District Commissioner, Sahibganj) and Mr. Gajanand Ram (Associate town planner, Urban Development Department, Jharkhand) who welcomed the participants and briefed them about the agenda of the meeting.

Further the meeting was carried forward by Mr. Gajanand Ram, who presented the details about the Environment and Social Management Framework (ESMF), starting from the current status of river Ganga, future government plans, possible assistance by World Bank, stakeholder participation during the project and the overall significance of ESMF. Various agencies involved in implementing the current programme were also explained in detail to the gathering. The guidelines were translated to vernacular and made available to public and also all the documents related to NGRBA program has been uploaded in the MoEF&CC/NMCG website.

Mr. K Ravi Kumar and Mr. Gajanand Ram also briefed the gathering about the earlier efforts (GAP I and GAP II) to clean Ganga. The main reasons for the programme to be not so successful were cited as lack of proper operation and maintenance of assets created and comprehensive planning.

The Projects Planned under NGRBA program in Sahibganj and Rajmahal are:

- Sewage treatment system
- Solid waste management
- Improved crematorium
- River front beautification

A no. of sub-Projects would be considered under the above mentioned categories. Another important component considered under NGRBA program would be to create public awareness to check activities, which contribute to pollution in the river.

A brief summary of all the important points discussed during the meeting are mentioned below:

- It was informed that in Rajmahal & Sahibganj majority of the population lived in slum areas and they also need to be considered and sensitized while planning any projects/schemes. At the moment the fringe population are availing all the infrastructural benefits without being accountable to any kind of maintenance. Earlier there were only 18 wards in 2001 census and currently there are around 28 wards.
- It was emphasized that the projects have to be location specific and the paying capacity of the community has to be considered while planning the projects.
- Small industrialists were conspicuous by their absence in public consultation meeting, hence it was opined that they should also be included in any further meetings especially the brick manufacturing industries which are normally situated at the bank of the rivers.
- The public wanted to know whether the levy of public contribution/tax for operation and management of the existing projects and upcoming projects under the scheme would be same for the local public and the industrialist. It was clarified that reference of taxation system would be as per State Govt. decision.
- It was expressed that in the upcoming sewerage project there should not be any mixing of drinking water pipelines with sewerage pipelines. Also solid waste should not be diverted towards sewer drainage. In response to the questions raised, the DC clarified the technical details of the drainage system and assured that mixing of drainage and drinking water cannot happen.
- A common concern among stakeholders was the indifference towards the rules and regulations when it comes to usage and maintenance of the infrastructure facilities provided. For instance, in spite of some existing drainage network people still continue to dispose their waste into the river, open defecation is common, littering of riverbanks is widespread. So how will the agency ensure discipline when the new projects come up? in response to the questions and concerns raised the D.C. conveyed that part of the problem is due to lack of manpower in Urban Local Bodies. New recruitments will take place and effective measures will be put in place to abide by the rules and regulations.
- It was suggested that projects should not be like a showcase it should be fruitful to the entire beneficiary.

- It was suggested that anti erosion projects/ works, which is currently under CWC, should be included in the Ganga main stem project.
- Since Sahibganj is a underdeveloped district levy of tax should be lesser as compared to other major towns and cities. Another justification given for less levy of tax is that Sahibganj being a non-industrial area/zone becomes the least polluter of the river. Hence, “polluter pay “concept has to be considered and higher taxes have to be levied from high polluting towns and cities.
- Currently dead animals are disposed in river Ganga as there are no burial places for animals. Nagar Palika also does not have any disposal place for dead animals.
- Another suggestion was to ensure proper coordination between different government agencies/ departments especially the Drinking Water and Sanitation Department and the urban body while implementing the project.
- The community was keen to know both tangible and in tangible benefits of the project, which was explained to them in detail by the District collector and the Associate town planner.
- People did not voice any concern regarding R&R issue. They mentioned that they are largely satisfied by the existing compensation scheme.
- A common concern voiced by the stakeholders was regarding the difficulty of land acquisition in *khashmahal* estate of government. Nearly 1000 acres of land in Sahibganj comes under *khashmahal* estate. There is a high possibility that certain portion of the *khashmahal* land would come under project (mainly for – laying pipelines, sewerage junctions, pump house, sewage treatment plant etc.) and giving compensation for such land will create problems as these lands are claimed both by the government and the community.
- Peoples were also largely concerned about the decreased river flow of Ganga, and expressed their doubts about the existence of the river in another 10 to 12 years. Most of the queries related to planning and implementation of the project raised were satisfactorily answered by the D.C. and Associate Town planner.

The meeting was concluded by Mr. Gajanand Ram followed by vote of thanks, especially to Mr. K.Ravi Kumar (District commissioner) for their presence and valuable suggestions.

122 **Public Consultation on Environment and Social Management Framework (NGRBA Program), held at Kanpur, Uttar Pradesh**

Minutes

Date: 28th December 2010.

Time: 3:00 PM to 5:30 PM

Venue: Nagar Nigam, Guest House, Kanpur, Uttar Pradesh

Attended by:

- State Nodal agency (Ganga Pollution Control Unit, U.P Jal Nigam): Mr. C M. Chaudhary (General Manager), Mr. Mukesh Kumar (Project Manager)
- Consultancy team from TERI: Ms. Sonia Grover, Ms. Swati Dabral, Mr. C. G Hiremath
- Number of participants: 38 (Mayor, Commissioner, Additional Municipal Commissioner, elected members of Kanpur Municipal Corporation, representatives from NGOs and Schools, concerned government officials, list attached as Annexure IV).

The public consultation meeting was initiated by Mr. C M. Chaudhary who welcomed the participants and briefed them about the agenda of the meeting. Further Mr. Mukesh Kumar presented the scope and objectives of the Environment and Social Management Framework (ESMF). Details about the ongoing and proposed projects under NGRBA program for Kanpur city was also presented during the meeting. A summary of the important points discussed during the meeting are mentioned below:

- Disposal of unburnt or half burnt dead bodies into the river Ganga should be prohibited and promotion of social institutions to perform last religious rites of unidentified and unclaimed dead bodies.
- More crematoriums should be built and existing ones should be renovated to cater to the need of growing population.
- Stakeholders' involvement at both project planning and implementation phase of the projects.
- Provision of proper sanitation facilities during religious occasions and other festivals.
- Inclusion of social development projects in the projects portfolio proposed by NGRBA program.
- Promotion of awareness generation at community and school levels especially in the fields of better solid waste disposal (idols, calendar, flowers, polythenes), promote usage of crematoriums, etc.

- Involvement of local communities (Pandits) for maintaining the river *ghats* to curb pollution. Initiative to start same rituals with the bodies specified for burning in electric crematorium as is done with normal bodies to enhance acceptance of e-crematoria.
- Administrative and financial support for regular operation and maintenance of the projects.
- Establishment of institutional facilities for monitoring and maintaining the minimum flow (at least 50% of the volume generated) in the river, which is currently being interrupted by infrastructural activities (dams, barrages, diversions) on the upstream side of river Ganga.
- Facilitate reuse of treated wastewater for agricultural practices, parks, fire fighting, etc.
- Provision of segregated wastewater treatment from industry and domestic sectors.
- Provision of buffer zones (no-man zone)/integrated river front development for protection of river *ghat* against pollution (solid and liquid waste disposal, infrastructural development). Facilitate usage of this buffer zone for afforestation or flower plantation)
- Creation of Ganga Heritage Zone to focus development and protection against pollution.
- Adopt bioremediation techniques for treating wastewater until the new STPs become functional.
- Facilitate proper solid waste management along with the provision of utilisation of compost in agricultural/gardening activities.
- Prohibition of reverse boring of wastewater by the industries which are likely to pollute groundwater.
- Proper coordination between different government agencies during appraisal of the proposals and environmental impact assessment of the projects which may cause time delay for execution.

The meeting was concluded followed by vote of thanks given by Mr. C M. Chaudhary.

Minutes

Date: 29th December 2010.

Time: 3:00 PM to 5:00 PM

Venue: Sadan Hall, Nagar Nigam, Allahabad, Uttar Pradesh

Attended by:

- State Nodal agency (Ganga Pollution Control Unit, U.P Jal Nigam): Mr. A K Mittal (General Manager)
- Consultancy team from TERI: Ms. Sonia Grover, Ms. Swati Dabral, Mr. C. G Hiremath
- Number of participants: 22 (Mayor, elected members of Nagar Palika Allahabad, representatives from press and concerned government officials, Signed list of participants attached as Annexure IV.

The public consultation meeting was flagged-off by Mr. A K Mittal who welcomed the participants and briefed them about the agenda of the meeting along with details of upcoming and proposed projects under NGRBA program. Further the meeting was carried forward by TERI's representatives, who presented the scope and objectives of the Environment and Social Management Framework and requested participants to share their concerns/suggestions with respect to the framework. A brief summary of the important points discussed during the meeting are mentioned below:

- A continuous and regular mechanism of creating awareness among community and school children's through street plays, public and religious gatherings (Mela), displaying banners, etc.
- Provision of proper sanitation facilities along with efficient operation and maintenance systems during religious occasions and other festivals.
- Community involvement needs to be ensured during the project initiation and implementation stage of the project.
- The implementation activities of the projects must be completed in time to avoid the problems of traffic diversions, public congestions, and commercial displacement especially during *Maha Kumbh Mela*.
- Promote reuse of treated wastewater for irrigation and gardening purposes.
- Mechanism for proper solid waste management along the banks of both river Ganga and Yamuna.

- Provision of wastewater treatment facility at Dhobi *Ghat* for caustic soda based effluents.
- Imposing strict regulation on upcoming new colonies to establish their own STPs.
- Ensure proper site selection for pumping stations along with efficient operation and maintenance of pumping stations in order to avoid back flow or clogging of sewers.
- Request to start sewer and drainage projects simultaneously and completed in time to avoid mixing of wastewater with drainage water.
- Ensure technically feasible solutions while designing the alignment of sewer lines and dimensions of the sewer to cater the needs of growing population.
- Request to maintain minimum size of the sewer more than 150mm to avoid clogging of sewers.
- Ensure sufficient distance/depth while aligning the sewer lines adjacent to the water supply lines to avoid contamination of drinking water.

The meeting was concluded followed by vote of thanks by Mr. A K Mittal

124 **Public Consultation on the Environmental and Social Management Framework (ESMF) for the National Ganga River Basin Authority (NGRBA Program) held at Patna, Bihar**

Minutes

Date: 04/01/2011

Time: 03:00 pm to 5:00 pm

Venue: Conference hall, urban development office, VikasBhawan, Patna, Bihar.

Attended by:

- State nodal agency:
 - Dr. D.K. Shukla (Special Secretary, Urban Development and Housing Department, Government of Bihar)
 - Mr. A.K. Sharma (CGM, Bihar Urban Infrastructure Development Corporation Ltd. Bihar)
 - Mr. P.U. Asnani (Team leader, UTAST-SPUR, Bihar)
 - Mr. Satish Chand Agrawal (Senior Environment and Public Health Engineer, SPUR-UTAST, Bihar)

- Mr. Sanjay Shakya (Infrastructure and Procurement specialist, SPUR-UTAST, Bihar)
- Mr. Chand Rehmani (BUDA, Urban Development and Housing Deptt.)
- Consultancy team from TERI: Mr. Sunil Kumar, Mr. Avneesh Nayal
- Number of Participants: 26 Representatives from NGOs, elected members of Nagar Palika and concerned individuals from Patna and other districts of Bihar. Signed list of participants attached as Annexure IV.

The public consultation meeting was flagged-off by Mr. Satish Chand Agrawal (Senior Environment and public health engineer, SPUR-UTAST, Bihar), and Mr. P.U. Asnani (Team leader, UTAST-SPUR, Bihar) who welcomed the participants and briefed them about the agenda of the meeting.

Further, the meeting was carried forward by Mr. P.U. Asnani, who presented the details about the Environmental and Social Management Framework (ESMF), starting from the current status of river Ganga, future government plans, possible assistance by the World Bank, stakeholder participation during the project and the overall significance of the ESMF. Various agencies involved in implementing the current programme were also explained in detail to the gathering.

The guidelines were translated to vernacular and made available to public and also all the documents related to NGRBA program have been uploaded onto the MoEF&CC/NMCG, department website.

Mr. P.U. Asnani and Mr. Satish Chand Agrawal also briefed the gathering about the upcoming projects and list of towns selected under the NGRBA program. Total 21 towns have been selected from 9 districts of the Bihar state.

The upcoming Projects Planned under NGRBA program in Bihar are:

- Sewage treatment plants including Dhobi Ghat and Community toilet
- Integrated Solid waste management
- Improvement of crematorium
- River front development

A number of sub-projects would be considered under the above-mentioned categories. Another important component considered under NGRBA program would be to create public awareness to check river-polluting activities

A brief summary of all the important points discussed during the meeting are mentioned below:

Social and Organizational concerns/suggestions:

- Awareness about the program projects and sub-projects must be generated to a large extent in order to ensure implementation and effectiveness.
- For all projects, elected representatives of the state must lead the way and communicate efficiently with the public.
- Documents and messages delivered to the public must be made in simple language and easily comprehensible. This will ensure that they are made aware, will respond positively to their duties and will contribute to the implementation of projects.
- It is absolutely essential for good communication and transparency between the elected representatives (ward councillors, mayor) and government officials to ensure efficient execution of the projects.
- A higher level of cooperation and contribution from the State Pollution Control Board will be required.
- ‘Livelihood links’ that exist with the Ganga River and the related projects should be highlighted. For this, a task force or Ganga Panchayat should be constituted. These task force units would partake in Capacity Building of locals and training of Urban Local Bodies.
- Before implementation of projects, the location of projects must be consulted with the local people of the project-affected area.
- Local Institutional support could be taken for project planning and development.
- Encroachment of lands and construction of residential complex should not take place in the River Catchment areas.

Environmental and Technical concerns/suggestions:

- Solid Waste Management related projects must implement a door-to-door collection system in order to reduce the number of waste collection points. All efforts to be made to make the town a bin free city.

- Effluent discharge limits for slaughterhouses along the riverbanks should also be established. In addition, these slaughterhouses must be made modern and more environment-friendly. The State Pollution Control Board should strictly implement the Environment Protection Act particularly for slaughter houses discharging their waste in to river Ganga without treatment.
- Various check dams could be built on the tributaries of the river Ganga in order to achieve better flood and disaster management. In this way, formation of islands in the course of Ganga can also be stopped. In addition, small hydropower plants could also be setup.
- There are various 'Arsenic-zones' adjacent to the riverbanks that must be addressed.
- A master plan is to be developed for the entire Ganga River Basin using Remote Sensing and GIS under the NGRBA program.
- Integrated River Basin projects should also be developed under NGRBA program.
- The demarcation of 'Heritage Zones' must be done about 1-2 km adjacent to the riverbank area. These zones will be protected and could serve as recreational and scenic areas.
- Technical trainings should be provided to concerned officials and elected members for better implementation of the projects.

The SPUR-UTAST on behalf of Urban Development Department has submitted comments on ESMF (copy attached).

Finally the meeting was concluded by Mr. P.U. Asnani followed by vote of thanks.

125 **Consultation with the SPMGs and EAs on the revised ESMF for Namami Gange Programme held at New Delhi on 04.08.2017.**

Minutes

Date: 04/08/2017

Time: 10:30 am to 1:30 pm

Venue: Conference Room, National Mission for Clean Ganga, New Delhi

Attended by:

- Dr. Nikhil Ranjan, Monitoring and Evaluation Officer, SPMG, Bihar
- Shri R.B.Singh, Senior Procurement Specialist, SPMG, UP
- Shri Biplab Debnath, EE/KMDA, Govt of West Bengal

- Shri Kinkar Sarkar, EE/KMDA, Govt of West Bengal
- Shri Faizuallah Khan, Enforcement Coordinator, NMCG
- Shri K.K. Sapra, Under Secretary, NMCG, MoWR, Rd&GR
- Shri Vijay Yadav, Asst. Civil Engineer, NMCG
- Dr. Pravin Mutiyar, Director (T-III), NMCG
- Shri Mohd. Najeeb Ahsan, Sr. Social Management Specialist, NMCG
- Shri Saumyasib Mukhopadhyay, Sr. Environmental Specialist, NMCG

A brief presentation of the revision of ESMF was given by the NMCG's Environmental and Social Experts. The provisions of revised land acquisition and R&R acts were discussed in length and new entitlement matrix was also explained. Further the provisions made in the revised ESMF for implementation of (i) Retro-financing of projects and (ii) Hybrid Annuity based PPP projects were discussed in length.

- For the Hybrid Annuity Based projects, it was agreed that at the DPR stage only Environment and Social Due Diligence Report (ESDDR) along with Environment and Social Management Action Plan (ESMAP) will be prepared.
- The ESDDR will cover the basis nature of the projects, a very brief description of the environment and present status along with screening checklist and an analysis of environmental and social issues associated with the project.
- The ESMAP to describe the future action plan to be taken during the detailed design stage by the Hybrid annuity operator like:
 - Various regulatory clearances (e.g. environmental clearance, forest clearance, NOC etc. as applicable)
 - Preparation of Environmental and Social Assessment (ESA)/EIA
 - Resettlement Action Plan (RAP), as applicable
 - other actions, and management measures to be implemented by the SPV / PPP Concessionaire / operator

125 (A) The public consultation and disclosure process will continue during project implementation. The draft EIA/EMP/RAP etc. for the specific sub-projects will be discussed with the affected communities and the final documents will be placed on the websites of the NMCG and the SPMGs. The copies of the EMP and RAP will also be placed at the offices of the executing agencies, district magistrate and contractor's office. The

executive summary of the EIA and RAP will also be translated into local language and placed in the office of the Gram Panchayat of the affected villages.

End Notes

Definitions

The following definitions are used in the documents:

Cut-off date: In the cases of land acquisition affecting legal titleholders, the cut-off date would be the date of issuing the preliminary notice u/s 11(1) of the RFCTLARR Act, 2013. In cases where people lack title, the cut-off-date shall be the date of start of the Census survey undertaken by the project authority.

Project Affected Person:

Affected persons are those who stand to lose all or part of their physical and non-physical assets including homes, productive land, community resources, commercial properties; livelihood; and socio-cultural network.

Project Displaced person: A displaced person is a person who is compelled to change his/her place of residence and/or work place or place of business, due to the project.

Affected family means:

- (i) A family whose land or other immovable property has been acquired;
- (ii) a family which does not own any land but a member or members of such family may be agricultural labourers, tenants including any form of tenancy or holding of usufruct right, share-croppers or artisans or who may be working in the affected area for three years prior to the acquisition of the land, whose primary source of livelihood stand affected by the acquisition of land;
- (iii) the Scheduled Tribes and other traditional forest dweller who have lost any of their forest rights recognised under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006 due to acquisition of land
- (iv) family whose primary source of livelihood for three years prior to the acquisition of the land is dependent on forests or water bodies and includes gatherers of forest produce, hunters, fisher folk and boatmen and such livelihood is affected due to acquisition of land;
- (v) a member of the family who has been assigned land by the State government or the Central Government under any of its schemes and such land is under acquisition;
- (vi) a family residing on any land in the urban areas for preceding three years or more prior to the acquisition of the land or whose primary source of livelihood for three years prior to the acquisition of the land is affected by the acquisition of such land.

Definition of Family: "family" includes a person, his or her spouse, minor children; minor brothers and minor sisters dependent on him: Provided that widows. Divorcees and women deserted by families shall be considered separate family.

Displaced Family: "displaced family" means any family, who on account of acquisition of land has to be relocated and resettled from the affected area to the resettlement area;

Wage Earner: A person who is working with a commercial establishment or working as a labour in an agriculture land, which is being affected by the project.

Non-Title Holder: A person, who has trespassed Government land, adjacent to his/her own land or asset, to which he/she is not entitled, and deriving his/her livelihood prior to the cut-off date.

or a person who is land less and has settled on publicly owned land without permission and has been occupying publicly owned building without authority prior to the cut-off date.

Below Poverty Line (BPL): A family whose annual income from all sources is less than a designated sum as fixed by the concerned State Government in which the project falls, will be considered to be below Poverty Line.

Vulnerable Person: Unless otherwise specifically mentioned in this document, a person who has been designated under 'Below Poverty Line' category as identified by the concerned State Government will be considered a vulnerable person. Disadvantaged persons belonging to SC, ST, disabled/handicapped, and woman heading the household are also recognized as vulnerable persons. Also vulnerable persons such as the disabled, destitute, orphans, widows, unmarried girls, abandoned women ,or persons above fifty years of age; who are not provided or cannot immediately be provided with alternative livelihood , and who are not otherwise covered as part of family;

Entitled Person: person adversely impacted by the project and is entitled to some kind of assistance as per the project entitlement framework

Titleholders (THs): Persons who possess legal documents in support of claims made towards ownership of structure or land are titleholder.

Sharecroppers: Persons who cultivate land of a titleholder on certain conditions

Land owner: "land owner" includes any person,-

- (i) whose name is recorded as the owner of the land or building or part thereof, in the records of the authority concerned; or
- (ii) any person who is granted forest rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or
- (iii) under any other law for the time being in force; or who is entitled to be granted Patta rights on the land under any law of the State including assigned lands: or
- (iv) any person who has been declared as such by an order of the court or Authority

Interested Person: "person interested" means-

- (i) all persons claiming an interest in compensation to be made on account of the acquisition of land under this Act;
- (ii) the Scheduled Tribes and other traditional forest dwellers, who have lost any forest rights recognised under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006;
- (iii) a person interested in an easement affecting the land;
- (iv) persons having tenancy rights under the relevant State laws including sharecroppers by whatever name they may be called; and
- (v) any person whose primary source of livelihood is likely to be adversely affected;

ANNEXURES

Annexure I

Guidance on EIA of High impact category Sub-Project

(To be finalised by SPMG with inputs from NMCG/ MoWR,RD&GR as applicable)

Introduction

High impact category investments require a full EA to be done by environmental consultants, separate from any evaluation performed by the design consultants. The environmental consultants have to closely interact with the design consultants in order to obtain the necessary data, information, reports and support as required. The EA process has to be carried out, and the EA & EMP reports have to be prepared. This guidance includes a typical terms of reference and also suggests the structure and content of the EA & EMP report. The terms of reference are general in content. As it is likely that there are some specific environmental issues that require to be addressed and these are known in advance, these need to be informed to the environmental consultants.

Terms of reference

The following terms of reference should be used:

Description of Project

- To provide a full description of the project, with details on specific sites, populations impacted, project design, implementation schedule, number / types of connected industries, details of any pre-implementation activities (i.e. public education and/or involvement, pilot studies, etc.), operation and maintenance activities, required off-site investments, project life span, etc. Project description should also include any and all required information as stipulated below.

Policy and legal Guideline

- To collect information on the prevailing national, state and local laws, pertinent to environmental quality, health and safety, waste management guidelines, air and water quality regulations, protection of sensitive areas, land uses control and others. Manner of complying with relevant laws, such as the appropriate avenue for submission of required materials, should be described in detail.

- To convey to the contractor / relevant implementing actor the manner in which the enforcing body will conduct its monitoring / enforcement activities, as well as information as to what government assistance (e.g. technical assistance) government bodies can provide to the actor so as to facilitate the actor's compliance.
- To determine its applicability of all laws to the proposed sub-project and to include the specific clearances/ approvals that has to be obtained by the SGRBA/ contractor/ relevant implementing actor.
- To assist the SPMG/ contractor/ relevant implementing actor in any clearances/ approvals that may be required to implement the sub-project in terms of completing forms/ applications, and defending the sub-project before Government committees.

Baseline Study of Proposed Project Area

- To assemble, evaluate and present baseline data on the relevant environmental characteristics of the sub-project area, including changes anticipated before the commencement of the project. The description of the baseline environmental setting shall be worked out from the secondary data sources supplemented by the primary data collected as part of the various surveys carried out as part of the EA preparation.
- To describe the physical environment: geology; topography; soils; climate and meteorology; ambient air quality; noise quality; surface and ground- water hydrology; existing sources of air emissions; existing water pollution discharges; and receiving water quality, etc. Description should include both a general overview of overall study area, as well as more detailed information for specific implementation sites.
- To describe the biological environment: flora; fauna; rare or endangered species; sensitive habitats, including reserved forests, wildlife reserves and sanctuaries etc. Description should include both a general overview of overall study area, as well as more detailed information for specific implementation sites.
- To describe the socio-cultural environment: population; land use; planned development activities; community structure; employment; distribution of income, goods and services; recreation; public health; cultural properties; and tribal people and their usufruct rights, common property resources, etc. Description should include both a general overview of overall study area, as well as more detailed information for specific implementation sites.

Public consultation

- To carry out public consultation and participation as an integral part of the EA. Consultation sessions shall be carried out with different stakeholder groups at the local, regional and district levels, so as to incorporate the various environmental concerns and needs of the community and the relevant stakeholders. Specific attention should be paid to Project Affected Persons

(PAPs), namely, those whose habitations or livelihoods will be directly impacted by the proposed sub-project.

- To ensure the effectiveness of the consultations and the full participation of all stakeholders in the project, all relevant information shall be shared with the likely PAPs and local NGOs in a timely manner prior to the consultation and in a form and language that are understandable and accessible to the groups being consulted.
- To ensure that consultations with these groups are carried out at least at the following two occasions: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. Such groups should also be consulted throughout project implementation as necessary to address EA-related issues relevant to them, allowing relevant stakeholders the opportunity to share their concerns during both the design and implementation phases of the project.
- To make available both the initial draft EA and the report's conclusions at all relevant public locations accessible to PAPs and relevant stakeholders. The EA report shall also be disclosed in website of the SPMG and NMCG.

Impact analysis

- To identify, analyse and evaluate the different kind of impacts, and to distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts.
- To determine the impacts on sensitive receptors identified during the baseline environmental analysis.
- To determine the impacts on sensitive areas: critical natural habitats (such as conservation areas, sanctuaries, sacred groves, etc.) and migration routes; "induced development"; historic, cultural and religious buildings and sites; archaeological sites and tourism areas, etc.

Analysis of alternatives

- To describe alternatives that were examined in the course of developing the proposed project and identify other alternatives, which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures.
- To compare alternatives in terms of potential environmental impacts and suitability under local conditions. A "no project," or Business as Usual, scenario should also be considered, wherein the environmental impacts of taking no action will be estimated.

Mitigation

- To identify feasible and cost-effective mitigation measures that may reduce potentially significant adverse environmental impacts to acceptable levels, capital and recurrent costs of the measures. These measures should be identified prior to construction of any investments or investments.
- To specify in a table the description of the measure along with who is responsible and when it has to be implemented.
- To include relevant drawings and technical specifications that would be required to implement the mitigation measure effectively during the design phase of any project or sub-project.

Monitoring

- To prepare detailed arrangements in a plan for monitoring implementation of mitigating measures and the impacts of the sub-project during construction and operation.
- To include in the initial plan an estimate of capital and operating costs, and a description of other inputs (such as training and institutional strengthening) needed to carry it out. These estimates should occur during the initial design/planning phase of the sub-project.
- To document in the initial plan what will be monitored, who would do it, who would receive its outputs, how much it would cost, how it would be financed and what other inputs (e.g. training) are necessary.
- To include in the initial plan a list of environmental monitoring parameters, and detailed specifications (methods, schedule, etc) for performance/compliance monitoring during construction, and operation stage of the sub-project.

Management

- To identify institutional needs to implement the recommendations of the EA. This would include manpower requirements, skill requirements and training, organisational mechanisms and information dissemination requirements.
- To recommend any further studies of environmental issues which should be undertaken during project implementation.

Others

- To document the important contributors to the EA and to record interagency/forum/consultation meetings; including list of both invitees and attendees.

Suggested structure and content of an EIA report

The EIA report should have the following structure and content:

- Executive Summary- project details, policy Guideline, baseline conditions, significant environmental impacts, salient points of the analysis of alternatives, salient mitigation and monitoring measures, and budget.

- Project Description - Concise description of the proposed project and its geographic, ecological, social and temporal context.
- Policy, Legal and Administrative Guideline - Government policies, environmental legislations and regulations currently under force.
- Baseline Data - Assessment of the physical, biological and socioeconomic conditions of the project locations.
- Environmental impacts - Prediction and assessment of the project's likely positive and negative impacts, in quantitative terms to the extent possible. The more significant environmental impacts and those that are considered critical by the public are to be further focused in this chapter.
- Analysis of Alternatives - Comparison of feasible alternatives to the project site / right-of-way, technology, design and operation – including the 'without project' situation – in terms of their potential environmental impacts
- Mitigation and monitoring measures - Enlisting and description of environmental impacts and the remedial measures to be taken. Preferably, this contains a comprehensive table containing a brief description of the impact, the type of remedial measure (prevention or mitigation or enhancement), the description of the measures, phase wherein applicable - pre-construction, construction and operational phases, and implementation responsibility.
- Budgets

Structure and content of an EMP

The EMP report should have the following structure and content:

- Introduction - Objective, scope, proponent's background, brief description of the sub-project and the purpose of the EMP
- Remedial Measures - Description and enlisting of the environmental impacts and remedial measures to be taken. Preferably, this contains a comprehensive table containing a brief description of the impact, the type of remedial measure (prevention or mitigation or enhancement), the description of the measures, phase wherein applicable - pre-construction, construction and operational phases, and implementation responsibility.
- Organizational arrangements for implementation - Institutional Guideline being established to ensure the implementation of the EMP.
- Environmental performance indicators are to be chosen and the basis for their selection. A linkage between these indicators and the important environmental impacts and the associated remedial measures needs also to be established.
- Monitoring mechanisms to be adopted that include reporting progress, frequency of monitoring, enhanced monitoring during specific seasons such as monsoons, etc.

- Mechanisms to ensure an ongoing dialogue with the public during the construction and operational phases.

The budget for the EMP implementation should be included in the overall sub-project. This should cover costs – mitigation, monitoring, training and public / stakeholder consultation and participation - due to be incurred during the construction and operational phases.

Annexure II

Generic Environmental Guidelines / Management Plan for Low impact category Investments

(To be finalised by SPMG with inputs from NMCG as applicable)

Activity	Potential Negative Impact/Concern	Mitigation Measures	Responsible Agency for Mitigation	Monitoring Agency
<i>I. Sewerage and Sanitation Investments</i>				
<i>A. Design and Development Phase</i>				
Land Acquisition **	Loss of tree cover	<ul style="list-style-type: none"> Undertake afforestation in nearby areas 	ULB/ Project Implementing Agency	SPMG/ NMCG
Treated Water Disposal into nearby stream ***	<ul style="list-style-type: none"> Pollution of stream water and other water bodies receiving STP discharges due to reduction in efficiency or non working of STP 	<ul style="list-style-type: none"> Ensure efficient working condition. – Choice of treatment process, construction technique, equipment and skilled operation and supervision critical to maintain effluent quality compliance. The treated water quality shall comply with the standards laid down by the state pollution control board for disposal onto the land, water body or for irrigation use. 	ULB/ Project Implementing Agency	SPMG/ NMCG
Sludge Disposal***	<ul style="list-style-type: none"> Disposal of sludge leading to contamination of land and water. 	<ul style="list-style-type: none"> Providing adequate and safe sludge disposal facilities 	Design Consultant, ULB/ Project Implementing Agency	SPMG/ NMCG
Provision for Accidental leakages/ bursts **	<ul style="list-style-type: none"> Flooding of the nearby areas with untreated sewage in event of accidental leakages or bursts 	<ul style="list-style-type: none"> The Design Consultants should design for bypass arrangements, to discharge untreated sewage. 	Design Consultants and EA	SPMG/ ULB
	<ul style="list-style-type: none"> Low lying areas in the site, which can get flooded during monsoons 	<ul style="list-style-type: none"> Provide proper drainage arrangements so that the water does not stagnate on the site 	Design Consultants and EA	SPMG/ ULB

Activity	Potential Negative Impact/Concern	Mitigation Measures	Responsible Agency for Mitigation	Monitoring Agency
Location of STP*	<ul style="list-style-type: none"> Nuisance hazards to neighbouring areas. 	<ul style="list-style-type: none"> Careful planning and design of STP with adequate buffer zones. Future growth of the surrounding areas shall be considered. 	Design Consultants and EA	SPMG/ ULB
Developing sewage pumping station*	<ul style="list-style-type: none"> Noise and odour nuisance to surrounding areas. 	<ul style="list-style-type: none"> Select appropriate location away from sensitive locations such as schools and hospitals. Provide sufficient buffer areas Follow standard codes for selection pumps and other apparatus. Use less noise making and easy to operate equipment. 	Design Consultants and EA	SPMG/ ULB
B. Construction Phase				
Excavation, cutting and filling operations***	Soil and water contamination by improper disposal of construction and demolition waste.	<ul style="list-style-type: none"> Ensure immediate transportation of accumulated waste to an identified site. 	Contractor/ Project Implementing Agency	SPMG/ ULBNMCG
	Damage to standing crops due to construction activities.	<ul style="list-style-type: none"> Construction activities shall be planned so as not to damage any crops. In case if it is inevitable provide monetary compensation to the owners Immediately transport accumulated construction waste to a site identified for the purpose. 	Contractor / Project Implementing Agency	SPMG/ ULBNMCG
	Temporary flooding due to excavation during monsoons.	<ul style="list-style-type: none"> Provide suitable arrangements for drainage control. 	Contractor / Project Implementing Agency	SPMG/ /NMCG
	Noise, vibration and dust from construction activities.	<ul style="list-style-type: none"> Use of less noise generating equipment for all activities, provision for personal protective equipment, ear muffs, etc. for construction; avoid construction activities during nights; and sprinkle water on site and remove excess matter from the site as soon as possible. 	Contractor / Project Implementing Agency	SPMG/ /NMCG
	Safety hazards to labor.	<ul style="list-style-type: none"> Provide adequate safety precautions such as helmets, safety shoes, gloves, etc. 	Contractor / Project Implementing Agency	SPMG/ / NMCG

Activity	Potential Negative Impact/Concern	Mitigation Measures	Responsible Agency for Mitigation	Monitoring Agency
Laying of sewer network *	Spillage of fuel and oil	<ul style="list-style-type: none"> Store tanks and drums for excess capacity; forbid pouring into soils or drains; enforce adequate equipment maintenance procedures 	Contractor / Project Implementing Agency	SPMG// NMCG
	Noise and vibration disturbances to residents and businesses	<ul style="list-style-type: none"> Establish schedule and other specific restrictions; limit work to daylight hours as possible; use of less noise generating equipment, proper maintenance 	Contractor / Project Implementing Agency	SPMG// NMCG
Laying of sewer network *	Dust generation	<ul style="list-style-type: none"> Water sprinkling, removal of excess materials, cleaning of sites upon completion of activities. 	Contractor / Project Implementing Agency	SPMG// NMCG
	Reduced pedestrian and vehicle access to residences and businesses	<ul style="list-style-type: none"> Establish work sequence and methods to minimize access disruption; provide alternative safe access as possible; temporary bridges and crossings, detours and walkways. 	Contractor / Project Implementing Agency	SPMG// NMCG
	Temporary water supply interruptions	<ul style="list-style-type: none"> Establish coordination procedures for cut-off; minimize time for replacement operations; and appropriate scheduling as necessary. 	Contractor/ Project Implementing Agency	SPMG/ /NMCG
	Increased traffic inconvenience (emissions, congestions, longer travel times)	<ul style="list-style-type: none"> Use alternate traffic routing; ensure coordination with local authorities; routine control and maintenance of equipment. 	Contractor/ Project Implementing Agency	SPMG/ and Traffic Police
Construction Camps*	Health impacts due to absence of housing and sanitation facilities in labour camps.	<ul style="list-style-type: none"> Provision of appropriate housing, water supply, and sanitation facilities. 	Contractor / Project Implementing Agency	SPMG/ NMCG
	Impacts on surrounding environment due to improper drainage and solid waste management facilities in construction camps.	<ul style="list-style-type: none"> Provide proper temporary drainage and solid waste collection and disposal facilities at the construction site. 	Contractor / Project Implementing Agency	SPMG/ /NMCG

Activity	Potential Negative Impact/Concern	Mitigation Measures	Responsible Agency for Mitigation	Monitoring Agency
• C. Operation Phase				
Treatment and Disposal ***	Impairment of receiving water quality in surface/sub-surface source due to inadequate /inefficient treatment. Contamination groundwater supplies due to leaching and impact on soil and agriculture	<ul style="list-style-type: none"> Monitor the treated sewage/effluent quality and ensure compliance with PCB standards for effluent disposal into surface water bodies, on land or for the agricultural use. The treated water quality shall comply with the standards laid down by the state pollution control board for disposal onto the land, water body or for irrigation use. 	Operator/ EA	SPMG/ /NMCG
Treatment and Disposal ***	Problems arising due to bad odour, insects, polluted air, noise pollution, etc.	<ul style="list-style-type: none"> Provide buffer zones in the form of green belt around the STP; to be ensured during the design and development phase itself. 	Operator/ EA	SPMG/ /NMCG
	Indiscriminate disposal of sludge leading to contamination of land and soil.	<ul style="list-style-type: none"> Prepares a sludge disposal plan and adheres to the same. 	Operator/ EA	SPMG/ /NMCG
	Health and safety of workers due to the release of toxic gases and hazardous material.	<ul style="list-style-type: none"> Ensure safe operation and maintenance practices are followed, and plans for emergencies are in place. 	Operator/ EA	SPMG/ /NMCG
	Reduced land values in nearby areas and aesthetics affected.	<ul style="list-style-type: none"> Adequate buffer zones during development and construction phase should mitigate the affect considerably. 	EA	SPMG/ /NMCG

Note: *** denotes – Significant Impact; ** Denotes-Moderate Impacts and *- Minor Impact.

Annexure-IIA: Sample EMP for the Sewage Treatment Plant

Activity	Potential Impact/Concern	Negative	Duration	of	Mitigation Measures	Responsible agency
<i>Sewerage and Sanitation Investments</i>						
<i>A. Design and Development Phase</i>						
Sewage Treatment plant	Treated water disposal into nearby stream	<ul style="list-style-type: none"> • Pollution of received water body (river) or land due to inefficient treatment or non-operation of STP 	Temporary		<ul style="list-style-type: none"> • The treated water quality shall comply with the prescribed standards of the bid document and other applicable conditions of consent to establish issued by the state pollution control board. • Selection of best available sewage treatment technology with High BOD removal efficiency. • Ensuring development and compliance to standard operation and maintenance practices. • Provision of effective screening at inlet of STP for removal of grit, fine plastics and other suspended solids • Provision of effective separation and controlled disposal of digested sludge • Provision effective disinfection before discharge of treated water for irrigation or to river 	DBO Operator
	STP Breakdown	<ul style="list-style-type: none"> • Discharge of untreated sewage leading river pollution. 	Temporary		<ul style="list-style-type: none"> • Provision of adequate holding capacity adequate for storage of sewage to prevent flow of untreated sewage to river. 	DBO Operator

Flooding of STP area	<ul style="list-style-type: none"> • Rain water may flood the STP area in absence of adequate provision of diverting rain water flow towards STP from periphery area. 	Temporary	<ul style="list-style-type: none"> • Suitable drainage provision shall be made to divert the rain water likely to be accumulated from peripheral catchment area of STP, to natural drainage stream or area. 	DBO Operator
Sludge disposal	<ul style="list-style-type: none"> • Disposal of sludge leading to contamination of land and water. 	Permanent	<ul style="list-style-type: none"> • Efficient Sludge dewatering with minimum land involvement shall be adopted. • Provision shall be made for intermittent storage of digested sludge at STP site. • The digested sludge shall be utilised as manure or disposed to suitable site as approved by DBO engineer. If disposal is made for land fill, the site shall be located away from habitation, and water bodies and shall be pre-approved by concerned authorities like Municipal corporation, Pollution Control Board or urban development authority. 	DBO Operator
Provision for safety of workers and safe operation of STPs	<ul style="list-style-type: none"> • Accidents leading to injury or death of workers (Fall of workers from Height, Fall into deep water tanks, Short Circuiting) • Accidental slip, trip and fall in walk ways or work areas • Fire • Exposure to toxic gas such as chlorine 	Permanent	<ul style="list-style-type: none"> • Ensure adequate provision of Handrails on both sides of walkways close to deeper tanks and STPs need to be ensured; • All electric switches (including unit specific on-off switches installed at respective units) and panels should have adequate protection from rain water to prevent short circuiting • Proper earthing with installation of earth circuit breakers shall be made • Walk ways designs shall be made with proper slope to avoid accumulation of rain water. 	DBO Operator

				Material handling and storage shall be so designed that walk way surface remains free from wet or oil surface situation to prevent slips, trip or fall accidents.	
				<ul style="list-style-type: none"> • Provision of interlock system to either stop STP or divert untreated effluent to holding tanks in case of short circuiting, or mall functioning of STP • Prepare emergency preparedness plan including identification of assembly area in case of fire 	
	Location of STP	<ul style="list-style-type: none"> • Noise/Odour/fly nuisance hazards to neighbouring areas. • Cutting of Trees 	Permanent	<ul style="list-style-type: none"> • Ensure minimum noise generation at pump station in STP; • Minimize Tree cutting if involved. • Tree plantation of at least two row around the periphery of STP site and landscaping to prevent spread of bad odour with large canopy/ broad leaves trees like Sesum, Neem, Bargad, Teak, Sal, etc. • Accumulated sludge and solid waste to be cleared within 24 hours and spraying of suitable herbicides on accumulated sludge/solid waste to reduce odour. 	DBO Operator
Sewage Pumping Station	Pumping of sewage to STP	<ul style="list-style-type: none"> • Noise and odour nuisance hazards to neighboring areas. • Cutting of Trees 	Permanent	<ul style="list-style-type: none"> • Ensure minimum noise generation at pump station in SPS by use of less noise generating equipment meeting prescribed noise standards as applicable and enclosed generators. • Minimize Tree cutting if involved. • Tree plantation of at least two row around the periphery of SPS site and landscaping to prevent 	DBO Operator

spread of bad odour with large canopy/ broad leaves trees like Sesum, Neem, Bargad, Teak, Sal, etc.

- Accumulated sludge and solid waste to be cleared at short intervals and spraying of suitable herbicides on accumulated sludge/solid waste to reduce odour.
- Provision for regular maintenance and switching off equipment when not in use;

B. Construction phase

Sewage treatment plant and Sewage pumping station	Excavation	Loss of topsoil due to excavation activities.	Temporary	<ul style="list-style-type: none"> • Excavation shall be planned in such a manner that such that no damage occurs to existing structures. • Top soil should be separately stockpiled and utilized for green belt development or landscaping after completion of work 	DBO Operator
		Construction waste	Temporary	<ul style="list-style-type: none"> • All the associated construction waste should be properly managed by storing and disposing off at suitable refusal sites approved by DBO engineer. 	DBO Operator
		Nuisance due to domestic solid waste disposal	Temporary	<ul style="list-style-type: none"> • Provide two bins for recyclable and non-recyclable wastes. • Ensure that recyclable and non-recyclable waste are collected in segregated manner in these bins before disposal. Recyclable material should be sold. Non-recyclable material should be disposed to designated land fill area of the city. • Provide adequate sanitation facility for workers at construction sites. 	DBO Operator

	Dust Generation due to Temporary construction activities	<ul style="list-style-type: none"> • Excavated material transported by trucks will be covered and/or wetted to prevent dust nuisance. • Suppressing dust generation by spraying water on stockpiles and unpaved movement areas • Water sprinkling over excavated areas, unpaved movement areas and stockpiles. • Transportation of loose construction material through covered trucks. • Use dust curtains (polysheets/ sheets) around the construction area for containing dust spread. • Construction equipment must comply with pollution norms and carry Pollution under Control certificate. 	DBO Operator
	Temporary flooding due to Temporary uneven dumping of construction waste	<ul style="list-style-type: none"> • The construction waste material should be stored on the higher areas of the site and or areas where water may accumulate creating flooding like situation 	DBO Operator
	Temporary flooding due to Temporary uneven dumping of construction waste	<ul style="list-style-type: none"> • The construction waste material should be stored on the higher areas of the site and or areas where water may accumulate creating flooding like situation 	DBO Operator
	Spillage of fuel and oil Temporary	<ul style="list-style-type: none"> • Care to be taken to store fuel and oil (if required) at a place away from any drainage channel/nalla preferably to be stored in drums mounted on a concrete paved platform with slop draining to small spills collection pit. 	DBO Operator

		Noise and vibration disturbances to residents and businesses	Temporary	<ul style="list-style-type: none"> • Construction activities to be carried out in day time with prior intimation to local residents and shop keepers. • Use of low noise and vibrating equipment (such as enclosed generators with mufflers, instruments with built in vibration dampening and improved exhaust), to meet standards as prescribed by CPCB². • Provision of protective equipment (PPE) like ear muffs and plugs for construction workers. . • Provision of noise barriers as feasible in inhabited areas, particularly near sensitive zones like hospitals, schools etc. • DG set to be fitted acoustic enclosure. 	DBO Operator
General: safety during construction	Safety and Health Hazard	Safety hazards to labours and public	Temporary	<ul style="list-style-type: none"> • Comply with the Occupational health and Safety act of India • Ensure that the contact details of the police or security company and ambulance services nearby to the site. • Ensure that the handling of equipment and materials is supervised and adequately instructed. • Follow safe practices for working at height or confined area or underground working for safety of workers • Erect warning signs/ tapes and temporary barriers and/or danger tape, marking flags, lights and flagmen around the exposed 	DBO Operator

²<http://moef.gov.in/citizen/specinfo/noise.html>

				<p>construction works warn the public and traffic flow of the inherent dangers.</p> <ul style="list-style-type: none"> • Provide adequate PPE to workers such as helmets, safety shoes, gloves, dust masks, gumboots, etc. to workers • Provide handrails on both sides of walkways close to deeper tanks and STPs need to be ensured; • Smaller on and off switches at STP units to be installed with protection from rain water to minimize electrical short circuit; • Monthly reporting of all accidents and immediate reporting to DBO engineer and owner. 	
Construction camps (if adopted)	Sanitation	Nuisance due to absence of facility of sanitation and solid waste management	Temporary	<ul style="list-style-type: none"> • Labour camp if provided, must have adequate provision of shelter, water supply, sanitation and solid waste management 	DBO Operator
C. Operation phase					
Sewage treatment plant and Sewage pumping station	Treatment and Disposal of Treated Water and Sludge	River, land or ground water pollution due to discharge of untreated or partially treated sewage due to inadequate or inefficient STP operations.	Permanent	<ul style="list-style-type: none"> • Monitor the treated sewage quality and ensure compliance with PCB standards for effluent disposal into surface water bodies, on land or for the agricultural use. • Follow standard operating procedures for operation and maintenance. • Undertake periodic audit as per these procedures. 	DBO Operator

Problems arising due to bad odour, insects, polluted air,	Temporary	<ul style="list-style-type: none"> • Comply with all applicable condition of consent to operate • Quarterly monitoring of influent sewage, treated sewage, upstream and downstream point of treated sewage disposal point to river • Maintain the green belt as per provision of design to prevent spread of bad odour with large canopy/ broad leaves trees like Sesum, Neem, Bargad, Teak, Sal, etc. • Accumulated sludge and solid waste to be cleared within 24 hours and spraying of suitable herbicides on accumulated sludge/solid waste to reduce odour. • Quarterly monitoring of Ambient Air Quality with respect to PM10, PM2.5, Sox and NOx, CO and Odour at three locations (at STP site, minimum 500 m away from STP site in up-wind and down-wind direction of STP area. 	DBO Operator
Increase in Ambient Noise Level and discomfort to neighbouring people	Temporary	<ul style="list-style-type: none"> • Proper handling and regular maintenance of operating machines including pumps, generators, air diffusers, etc. • Quarterly Monitoring of Ambient Noise level to check compliance to standards. • Quarterly monitoring of ambient noise levels (day and night) at same locations as of ambient air monitoring 	DBO Operator
Indiscriminate disposal of sludge leading to contamination of land and soil.	Temporary	<ul style="list-style-type: none"> • Prepares sludge disposal plan as per desire stage provisions and guidelines and adhere to the same. 	DBO Operator

				<ul style="list-style-type: none"> • Ensure proper functioning of STP for digestion of sludge and ensure adequate functioning of dewatering units for efficient functioning of system 	
		River, land or ground water pollution due to discharge of untreated or partially treated sewage due to inadequate or inefficient STP operations.	Temporary	<ul style="list-style-type: none"> • Ensure compliance with PCB standards for effluent disposal into surface water bodies, on land or for the agricultural use. • Follow standard operating procedures for operation and maintenance. • Undertake periodic audit as per these procedures. • Comply with all applicable condition of consent to operate 	DBO Operator
Sewage Pumping Station	Waste Handling	Bad odour, Health hazard and public nuisance	Temporary	<ul style="list-style-type: none"> • Provision for regular clearance of sludge and solid waste to minimize odor nuisance • Ensure maintenance of Green belt as planned • Periodic disposal of accumulated sludge/solid waste to designated land fill sites of the city. 	DBO Operator
General Safety	Workers exposure to hazardous materials/ situations	<ul style="list-style-type: none"> • Serious/health/ safety hazards 	Temporary	<ul style="list-style-type: none"> • Ensure availability of PPE for maintenance workers. • Follow safety measures and Emergency preparedness plan evolved at design stage 	DBO Operator

Annexure-IIA: Sample EMP for the Sewerage Network

Activity	Potential Impact/Concern	Negative	Duration of impact	Mitigation Measures	Responsible agency
<i>Sewerage and Sanitation Investments</i>					
<i>A. Design and Development Phase</i>					
Sewerage Network (Trunk Sewer Line)	Accidental leakages/ bursts	<ul style="list-style-type: none"> Due to accidental burst or leakage of sewers, flooding of the nearby areas Backlogging due to unexpected heavy flow rates 	Temporary	<ul style="list-style-type: none"> Designing sewers with adequate capacity and flow velocity Provision for Regular inspection and maintenance of the sewers Preparation of safety and Emergency Preparedness plan 	DBO Operator
Sewage Pumping Station	Location of Sewage Pumping Station and Pumping of sewage from District C to STP	<ul style="list-style-type: none"> Noise and odour nuisance hazards to neighboring areas. Cutting of Trees 	Permanent	<ul style="list-style-type: none"> Ensure minimum noise generation at pump station in SPS by use of less noise generating equipment meeting prescribed noise standards as applicable and enclosed generators. Minimize Tree cutting if involved. Tree plantation of at least two row around the periphery of SPS site and landscaping to prevent spread of bad odour with large canopy/ broad leaves trees like Sesum, Neem, Bargad, Teak, Sal, etc. Accumulated sludge and solid waste to be cleared at short intervals and spraying of suitable herbicides on accumulated sludge/solid waste to reduce odour. 	DBO Operator

Provision for regular maintenance and switching off equipment when not in use;

B. Construction phase

Sewerage (laying of sewers) and Sewage Pumping station	Excavation, cutting, back filling, and compaction and construction operations	Damage to underground utilities like water, gas line, electricity and telephone conduits, etc. due to construction activities.	Temporary	<ul style="list-style-type: none"> Identify existing underground other utility structures, lines through available records and in consultation with concerned authorities and plan construction activities accordingly to minimize damage to such utilities. These underground utilities encountered in excavating trenches carefully shall be supported, maintained and protected from damage or interruption of service until backfill is complete and settlement has taken place. 	DBO Operator
		Accidents/ damages due to erosion/ sliding of vertical sides of excavated trenches while places the pipes	Temporary	<ul style="list-style-type: none"> Maintaining the excavation by Shoring trench sides by placing sheeting, timber shores, trench jacks, bracing, piles, or other materials Exposed surface shall be resurfaced and stabilized. Exposed surface will be resurfaced and stabilized by making the sloping sides of trench to the angle of repose at which the soil will remain safely at rest. 	DBO Operator
		Generation of substantial debris, top soil and muck during construction	Temporary	<ul style="list-style-type: none"> Top soil shall be preserved and may be used for agricultural purpose or development of city parks. Soil and debris may be managed for planned land filling and landscaping; Debris may be suitably stored to filling back the excavated areas after placing the trunk sewer lines. 	DBO Operator
		Dust Generation (Air Pollution) due to excavation, cutting, back filling and compaction operations	Temporary	<ul style="list-style-type: none"> Water sprinkling over excavated areas, unpaved movement areas and stockpiles. Transportation of loose construction material through covered trucks. 	DBO Operator

		<ul style="list-style-type: none"> • Use dust curtains (polysheets/ sheets) around the construction area for containing dust spread at SPS building construction site. • Construction equipment must comply with pollution norms and carry Pollution Under Control certificate. 	
Noise and vibration disturbances to residents and businesses	Temporary	<ul style="list-style-type: none"> • Construction activities to be carried out in day time with prior intimation to local residents and shop keepers. • Construction work near schools and colleges to be carried out during vacations and work near hospitals to be completed on priority basis (in shorter time period with alternate provision of traffic, accessibility of exit/entry gates etc.). • Use of low noise and vibrating equipment meeting prescribed noise standards. • Provision of protective equipment (PPE) like ear muffs and plugs for construction workers. . • Provision of noise barriers in inhabited areas, particularly near sensitive zones like hospitals, schools etc. • DG set to be fitted acoustic enclosure. 	DBO Operator
Temporary flooding due to excavation during monsoons or blockage of surface drains	Temporary	<ul style="list-style-type: none"> • Stockpiled areas to be bordered by berms; • Stockpiles to be done in high areas to avoid flow in storm water run-off channels and erosion; 	DBO Operator
Increased traffic inconvenience (emissions, congestions, longer travel times, blockage of access)	Temporary	<ul style="list-style-type: none"> • Alternate traffic routing must be adopted in consultation with concerned traffic police authorities. Proper traffic planning be made for narrow lane areas. • Work should to be completed on priority near business and market place to minimize business loss. 	DBO Operator

		<ul style="list-style-type: none"> Care should be taken to minimize congestion and negative impacts at schools and hospitals. Safe access shall be maintained to these places during construction. Provide temporary crossing/ bridges as may be required to facilitate normal life and business 	
Settlement of backfilled area after construction	Temporary	<ul style="list-style-type: none"> The backfilling material shall be free from petroleum products, slag, cinders, ash or other material. Backfilling activity shall be completed within five days of laying of sewer. Proper compaction as per the soil condition and retain the original level of alignment and grade. 	DBO Operator
Spillage of fuel and oil	Temporary	Care to be taken to store fuel and oil (if required) at a place away from any drainage channel/nalla preferably to be stored in drums mounted on a concrete paved platform with slop draining to small spills collection pit.	DBO Operator
Nuisance due to solid waste disposal	Temporary	<ul style="list-style-type: none"> Provide two bins for recyclable and non-recyclable wastes. Ensure that recyclable and non-recyclable waste are collected in segregated manner in these bins before disposal. Recyclable material should be sold. Non-recyclable material should be disposed for designated land fill area of the city. Provide adequate sanitation facility for workers at construction sites. 	DBO Operator

<ul style="list-style-type: none"> General: safety during construction 	Accidents	Safety hazards to labours and public	Temporary	<ul style="list-style-type: none"> Comply with the Occupational health and Safety act of India Ensure that the contact details of the police or security company and ambulance services nearby to the site. Ensure that the handling of equipment and materials is supervised and adequately instructed. Erect warning signs/ tapes and temporary barriers and/or danger tape, marking flags, lights and flagmen around the exposed construction works warn the public and traffic flow of the inherent dangers. Provide adequate safety precautions such as helmets, safety shoes, gloves, dust masks, gumboots, etc. to workers <p>Monthly reporting of all accidents and immediate reporting to DBO engineer and owner.</p>	DBO Operator
<ul style="list-style-type: none"> C. Operation phase 					
Sewer line	Leakage/ overflows	Water pollution and possibility of mixing with water supply line	Temporary	<ul style="list-style-type: none"> Regular monitoring of sewer line and manholes for visible leakages/ overflows. <p>Immediate repair shall be carried out to plug the leakages. Restore the sewer and other utility services if damaged due to leakages.</p>	DBO Operator
Sewage Pumping Station	Waste Handling	Bad odour, Health hazard and public nuisance	Temporary	<ul style="list-style-type: none"> Provision for regular clearance of sludge and solid waste to minimize odor nuisance Ensure maintenance of Green belt as planned <p>Periodic disposal of accumulated sludge/solid waste to disposal site as approved by DBO engineer.</p>	DBO Operator

Sewage Cleaning Equipment	Extracted Sludge and equipment maintenance waste handling	Sewage handling cleaning waste	Bad odour, Health hazard and public nuisance and possible land contaminations	Temporary	<ul style="list-style-type: none"> • Ensure that extracted sewage sludge collected during sewers cleaning are disposed to disposal site as approved by DBO engineer. • Sewage solids shall not be disposed on road sides or non-designated areas. • Equipment cleaning waste shall be disposed to public sewer or STP inlet for treatment • Waste oil if any generated shall be separately collected. It shall be sold to authorized waste oil recyclers. 	DBO Operator
General Safety	Workers exposure to toxic gases in sewers and hazardous materials during sewer maintenance work	exposure to toxic gases in and hazardous materials during	<ul style="list-style-type: none"> • Serious/health/ hazards • The toxic gases are likely to contract communicable diseases from exposure to pathogens present in the sewage. 	safety Temporary	<ul style="list-style-type: none"> • During cleaning/ maintenance operation, the sewer line will be adequately vented to ensure that no toxic or hazardous gases are present in the line. • Ensure availability of PPE for maintenance workers. • Follow safety and Emergency Preparedness plan prepared at design stage <p>Monthly reporting of all accidents and immediate reporting to DBO engineer and owner.</p>	DBO Operator

Annexure III

Roles and Responsibilities of Social Development Specialists

LEVELS	ROLES and RESPONSIBILITIES
NMCG Social Development Officer	<ul style="list-style-type: none"> • Finalize ESMF; • Provide policy guidance to the state level counterparts • Ensure dissemination of R&R Policy at national level • Monitoring R&R and Land acquisition activities. Make budgetary provisions for R&R activities • Liaison with state administration for land acquisition and implementation of RAP; • Participate in state level meetings • Finalize TOR of contracting NGO for implementation and external agency for monitoring and evaluation • Prepare training schedule for state and project level social development officials for capacity building to implement the RAP; • Prepare TOR for any studies required and qualitative dimensions to the implementation of RAP; • Facilitate appointment of consultants to carry out the studies and co-ordinate them. • Monitor physical and financial progress on implementation of RAP;
SPMG/ – Social Development Officer	<ul style="list-style-type: none"> • Co-ordinate with district administration and NGO responsible for implementation of ESMF/ RAP; • Translation of R&R policy in local language and ensure dissemination at state; district and community level - prepare pamphlets on policy for information dissemination • Coordinate with the state and district level officials for acquisition of private land and implementation of ESMF/ RAP; Liaison with district administration for dovetailing of government schemes for Income Restoration Schemes • Monitor physical and financial progress of implementation of RAP, • Participate in the project level meetings • Report progress, highlighting social issues not addressed, to provide for mid-course correction, • Coordinate training of project level staff with agencies involved. • Organise by-monthly meetings with NGO to review the progress of R&R, Tribal people and gender actions
Project Level – Executing Agency (EA)	<ul style="list-style-type: none"> • Disclosure of RAP and entitlements and also ensure that copies are made available to the PAPs; • Oversee land availability and coordinate with local revenue official for land acquisition

LEVELS	ROLES and RESPONSIBILITIES
	<ul style="list-style-type: none"> • Dissemination of Project Information at various stages of project as envisaged in the ESMF/ RAP • Ensure community involvement in every stage of the sub project • Documentation and disclosure of consultations • Shall be first level of grievance redressal and will guide PAPs further to redress their grievances • Ensure disbursement of compensation and / or entitlements as per schedule • Responsible for addressal of additional unforeseen impacts during construction • Ensuring incorporation of social issues in DPRs • Supervising the ESMF tasks during implementation & its progress • Collect data pertaining to the evaluation and monitoring indicators • Will prepare monthly progress report and quarterly process documentation report
Social Specialist of Supervision Consultants	<ul style="list-style-type: none"> • Ensure social screening of investments; • Implement the agreed social mitigation measures; • Ensure compliance of national and other applicable laws and Acts pertaining to social, • Sensitize and help build capacity of the EA officials towards the implementation of the ESMF provisions. • Assist Environment and Social Development Officer of EA in preparing monthly progress and quarterly process documentation reports
NGO	<ul style="list-style-type: none"> • Conduct the verification for the affected families and update the census and socio-economic data • Develop rapport with PAFs and between PAFs and EA • Design and carry out information campaign and consultations with the local community during the implementation of the RAP, • Provide information to PAFs and local community and conduct awareness on R&R Policy and distribute the policy to the affected families • Prepare and submit the micro plans for the PAFs • Assist the PAFs in receiving the compensation and rehabilitation assistance • Motivate and guide PAP for productive utilization of the compensation and assistance amount • Assess the level of skills and efficiency in pursuing economic activities, identify needs for training and organize training program • Assist PAFs in approaching the grievance redressal mechanism • Assist the PAFs in getting benefits from the appropriate local development schemes • Prepare monthly progress reports and participate in monthly review meetings • Participate in the training program for capacity building • Carry out other responsibilities as required from time to time

Annex IV

Sample Terms of Reference for Environmental and Social Audit of Namami Gange Program Investments

1. Background:

The National Ganga River Basin Authority with an objective to ensure no entry of polluted water into the River Ganga is supporting number of pollution prevention and river conservation activities in the five basin states of UP, Bihar, Jharkhand, West Bengal and Uttaranchal.

Namami Gange program believes that each of its investments will improve living standards and the environment of the River in and around project locations. Namami Gange program is committed to implementing these activities in an environmentally sound, socially acceptable way. This has reflected its environmental and social commitments through its Environmental and Social Management Framework (ESMF). All investments financed by Namami Gange program should be in consonance with its ESMF.

2. Objectives:

- To audit the conformity of environmental and social categorisation of investments approved by the Namami Gange during the Financial Year _____, with respect to the categorisation prescribed in the ESMF of Namami Gange program
- To audit the compliance of the environmental and social aspects of approved investments, which are under implementation.

3. Outline of the tasks to be carried out:

The, following tasks are to be carried out:

(a) To Audit the Environmental and Social Categorisation of Approved Investments:

The audit process will check the conformity of environmental and social categorisation of investments approved by the Namami Gange with respect to environmental and social categorisation in the ESMF of Namami Gange program (i.e.) whether the Environmental and Social categorisation specified for the approved investments are in conformity with environmental and social categorisation specified in the ESMF.

- (b) Auditing the compliance of the Approved Investments:
The audit process will check the compliance of environmental and social aspects during construction, operation and maintenance of investments approved by Namami Gange program, across all categories and different sub-project locations.
Adequacy of the ESMP (including RAP, where relevant)
- Audit the adequacy of the ESMP (including RAP, where relevant) and recommend practicable measures to include/improve the management measures and the agency responsible for carrying out the measures, wherever found inadequate. The best practices and possible environmental and social enhancement measures with respect to the audited investments will be documented.
- (c) Reporting
To review the status report submitted by the project Management consultant on the implementation of ESMP (including RAP, where relevant) and the process adopted by design consultants in identification and mitigation measures while preparing the DPRs. To report on the adequacy and timely submission of the Quarterly Progress Reports including the process involved in addressing the risk management.
- (d) Audit Report
The findings of the review and audit should be summarized in a tabular form and will include compliance, non-compliance, best practices and enhancement measures along with the name of the agency responsible for each of the above. In case of non-compliances, the consultants need to undertake a follow up visit after giving sufficient time (depending on the type of corrective measures) for the agency responsible to take corrective actions.
4. Final outputs (i.e., Reports, drawings etc.). That will be required of the Consultant;
- Environmental and Social Audit Reports indicating conformity of investments approved by Namami Gange, relating to the financial year _____, with ESMF Framework.
 - Environmental and Social Audit report indicating the conformity to agreed standards during construction, operation and maintenance of the approved investments.

Annex V

Comparative Analysis of Right to Fair Compensation and Transparency in LAR&R (RFCTLAR&R) Act 2013 and World Bank Policy 4.12, Involuntary Resettlement and 4.11 Indigenous People.

Serial No.	Topics/Issues/Areas	World Bank OP4.12	RFCTLAR&R	Gaps and impacts
1	Application of LA	Direct economic and social impacts that both result from Bank-assisted investment projects. Applies to all components of the project that result in involuntary resettlement, regardless of the source of financing.	Section 2 Applicable to projects where government acquires land for its own use, hold and control, including PSU and for public purpose; for PPP where ownership of land continues to vest with govt; private companies where 80% of land owners ³ have given consent or 70% in case of PPP.	Currently not applicable to National Highways but will be applicable to state highways and rural roads. This is likely to create conflicts that state governments may face for meting out differential treatment to their citizen's for similar types of infrastructure i.e. roads.
	Principle of avoidance	Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project design	Alternatives to be considered as Act in chapter II, point # 4 (d) says "extent of land proposed for acquisition is the absolute bare minimum needed for the project; and (e) says land acquisition at an alternate palce has been considered and found not feasible.	RFCTLARR to prevail
	Linkages with other projects		No such provision	

³ Land Owner – whose land and immovable property acquired and land assigned by state or central govt under any scheme (Section 3 c (i) and (v))

2.	Application of R&R	Same as above	In addition to the above, <i>Section 2(3)</i> land purchased by private company as prescribed by Govt. or when part acquired by govt	
3.	Affected area	Involuntary take of land resulting in loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood	<i>Section 3(b)</i> : Area notified for ‘acquisition’	
4.	Family		<i>Section 3(m)</i> includes person, his and her spouse, minor children, minor brothers and sisters dependent. Widows, divorcees, abandoned women will be considered as separate family.	-
5.	Affected family for eligibility	All adversely affected people whether have formal legal rights or do not have formal legal rights on land	<i>Section 3 (a)</i> : whose land and other immovable property acquired. <i>(b)&(e)</i> : Family residing in affected area such as labourers, tenants, dependent on forest and water bodies, etc whose primary source of livelihood is affected due to acquisition <i>(c)</i> Scheduled tribes and other forest dwellers whose rights recognized under the Forest Dwellers Act 2006. <i>(f)</i> Family assigned land by state or central government under any schemes	This provision leaves scope for interpretation and some of the issues remain unanswered especially in context of urban areas when people use public land for shelter and livelihood and is not acquired but transferred from one agency to another. Will they be recognized as “affected family”?

			(g) Family residing on any land in urban area that will be acquired or primary source of livelihood affected by acquisition.	
6.	Cut-Off date	Date established by the borrower and acceptable to the Bank. In practice it is the date of census.	Section 3 c (ii), (iv) (vi): Families residing for preceding 3 yrs or more prior to “acquisition of land”.	In urban setting, it may be difficult for the families to provide proof of their residence on such land.
7.	Non-application of Chapter II	Stand-alone SIA for all investments	Section 6(2): Irrigation projects where EIA is required under other laws, provisions of SIA not applicable.	
7.	Consultation – Phase I during preparation	Consultation a continuous process during planning and implementation	Section 4(1) date issued for <i>first consultation</i> with PRIs, Urban local bodies, Municipalities, etc to carry out SIA. Section 5: Public hearing of SIA in affected area. Provide adequate publicity of date and time.	-
8.	Time duration to prepare SIA and SIMP	Draft Social Assessment, Resettlement Action Plan and or Social Management Framework prepared before appraisal.	Section 4 (2): <i>within six months</i> from the date of its commencement.	-
9.	Disclosure – Stage I	To be disclosed before appraisal and 120 days before board date.	Section 6(1): Translated in local language available in PRI institutions and local urban government bodies; district administrative offices and websites of concerned government agency.	-
10.	Formation of Expert Group to	Appraised by Bank staff	Section 7(1): Constitute a multi-disciplinary Expert Group include members of decentralized govt Institutes (PRIs, ULBs).	The Act does not stipulate the time for the formation of the group.

	appraise SIA and SIMP			
11.	Time stipulated for Group to submit its report	Before the decision meeting for appraisal	Section 7(4): Submit its report <i>within two months from the date of its constitution</i>	-
12.	Scope of work of the Expert group	Social Assessment, resettlement action Plan reviewed and appraised by Bank staff and approved by Regional safeguard advisor	Section 7 (4)(a&b): assess whether it serves any public purpose or not; if social costs outweigh potential benefits then should be abandoned; Section 7 (5) (a&b): if serves public purpose, then it has considered minimum land acquisition, and alternate options to minimize displacement; potential benefits outweigh social costs	-
13.	Consultation – Phase II during appraisal	In practice consultation workshops are organized in project affected areas at district and state level.	Section 2 (2): Prior consent of 80% and 70% of land owners in PPP and where private company has approached the govt to acquire balance land has been obtained,	-
14.	Disclosure – Stage II	Information dissemination through the planning and implementation	Section 7 (6): recommendations of expert group under 7(4&5) to be made public in local language in district and block administrative office and PRIs	-
15.	Minimize impact on multi-crop land	Select feasible design that has minimal adverse impact.	Section 10: In case multi-crop land is to be acquired under exceptional circumstances, the area to be acquired cannot exceed aggregate of land of all projects in district or state. The area to be acquired cannot exceed the total net sown area of the district or state.	-

			Wasteland equivalent to twice the area acquired will be developed.	
16.	Information dissemination of preliminary notice	Continuous part of the preparation and participation	Section 11 (1), (2) & (3): Notice published in local language and meetings called of gram sabahs, municipalities to provide full information about the purpose of the project, summary of SIA and particulars of administrator appointed for R&R' summary of R&R scheme	-
17.	Updating land records	To be part of RAP	Section 11 (5): Once established that the land is required for public purpose, accordingly notice to be issued <i>under section 19 following which land records to be updated within two months</i>	-
18.	Census and preparation of R&R schemes	To be part of RAP	Section 16 (1) (2): carry out census of affected people and their assets to be affected, livelihood loss and common property to be affected; R&R scheme including time line for implementation.	-
19.	Information dissemination and Public hearing - Stage III	Consultation throughout the process is mandatory	Section 16(4)&(5): mandatory to disseminate information on R&R scheme including resettlement area and organize public hearing on the Draft R&R scheme in each Gram Sabha, Municipality and consultations in Scheduled area as required under PESA.	-
20.	Approval of R&R Scheme		Section 17 & 18: Draft R&R Scheme to be finalized after addressing objections raised during public hearing and approved.	-

21.	Final declaration of R&R Scheme	Approved RAP including budgetary provisions to implement it	Section 19 (2): Only after the requiring body has deposited the money will the govt issue the notice along with 19(1) .	-
22.	Time period stipulated.	Included in RAP - Time line synchronized with Government's procedures or adopts innovative methods to reduce the time which is based operated on the principles of participation and transparency.	Section 19 (2): the entire process to update land records, disseminate information, preliminary survey, census, hearing of objections, preparation of R&R schemes and approval, deposit of money must complete within 12 months from the date on which section 11, the preliminary notice issued. Section 19 (7): If the final declaration not made within 12 months of section 11 (1), the process will lapse, except under special circumstances.	-
23.	Preparation of land acquisition plans		Section 20: Land marked, measured for preparation of acquisition plans.	-
24.	Hearing of claims		Section 21(1) (2): Notices issued indicating govt's intension to take possession of land, and claims on compensation and R&R can be made not less than one month and not more than six month from the date of issue of section 21(1).	-
25.	Time period stipulated for declaring the award		Section 25: It is required to announce the award within 12months of issue of Section 19 (final declaration to acquire land, approved R&R scheme) after completing land acquisition plans, hearing of objection, settling individual claims for declaration of the award. If award	There is still some ambiguity. Does it imply that notice issued under Section 11 to carry out SIA too will lapse?

		Included in RAP.	not made within the stipulated time, the entire proceedings will lapse.	
26.	LA Act 1984 deem to lapse and RFCTLAR&R is applicable		Section 24: where award is not declared under section 11, or where made five years ago but land not taken in possession or where award declared but money not deposited in the account of majority of beneficiary.	-
27.	Methodology for determining market value for land	Full replacement Cost	Section 26 and First Schedule: Recognizes 3 methods and whichever is higher will be considered which will be multiplied by a factor given in Schedule First; compensation given earlier will not be considered; if rates not available floor price can be set; steps to be taken to update the market value.	-
28.	Valuation of structures	Full Replacement cost	Section 29 (1) without deducting the depreciated value.	-
29.	Solatium and interest		Section 30(1) 100% of the compensation amount Section 30(3): 12% per annum on the market rate from the date of notification of SIA to the date of ward or land taken over	-
30.	R&R Award	Total cost included in RAP to resettle and rehabilitate the affected persons and assist in their efforts to improve their livelihoods and standards of living or at least to restore	Section 31, Second Schedule: A family as a unit will receive R&R grant over and above the compensation and those who are not entitled to compensation. Second Schedule: Homeless entitled to constructed house, land for land in irrigation projects in lieu of compensation, in case of acquisition for urbanization	-

		them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	20% of developed land reserved for owners at a prices equal to compensation' jobs or one time payment or annuity for 20 years' subsistence grant, transportation, land and house registered on joint name husband and wife, etc	
31	Transparency		Section 37(1): Information of each individual family including loss, compensation awarded, etc will be available on the website.	-
38.	Possession of land	Taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons.	Section 38(1): Land will be taken over by the government within three months of compensation and 6 months of R&R benefits disbursed; infrastructure facilities at resettlement sites will be completed within 18 months from the date of award made under section 30 for compensation; in case of irrigation and hydle projects R&R completed six months prior to submergence.	-
39.	Multiple displacement		Section 39: Additional compensation equivalent to compensation determined will be paid to displaced	This section does not cover those who may not be physically displaced but lose land over a period of time for multiple projects, expansion works or periodic widening of roads, etc. and may be left with marginal holding or landless.
31.	Acquisition for emergency purpose	Not permeable in bank funded projects	Section 40 (5): 75% additional compensation will be paid over and above the compensation amount	-

32.	Prior consent before acquisition and alienation	Mandatory to carry out Free, Prior, Informed Consultation with Indigenous people.	Section 41(3) Mandatory to get consent from Gram sabah, Panchayat, Autonomous Councils in Scheduled areas.	-
33.	Development plans for SC and ST	Indigenous Peoples' Development plan required along with RAP. Land for land for is an option across all sectors.	Section 41: Separate development plans to be prepared, settle land rights before acquisition; provision of for alternate fuel fodder, non-timber produce on forest land to be developed within 5 years; 1/3 rd compensation amount to be paid as first installment and rest at the time of taking possession; ST to be resettled within Scheduled area; land free of cost for community purpose; land alienation will be null and void and ST and SC considered for R&R benefits; fishing rights restored in irrigation and hydle projects; if wish to settle outside the district additional benefits to be provided in monetary terms; all rights enjoyed under other laws will continue. Second Schedule: additional provisions for SC&ST for land for land in irrigation projects, additional sum over and above the subsistence grant,	-
34.	Institutional arrangement	Institutional arrangement must be agreed upon and included in RAP, IPDP.	Section 43-45: Appointment of administrator, R&R Commissioner, when more than 100 acres of land is to be acquired, R&R Committee will be formed at project level, social audit to be carried out by Gram Sabha and Municipalities.	-
35.	Change of land use		Section 46(4): Land will not be transferred to the requisitioning authority till R&R is not complied with in full	-

36	Monitoring and Evaluation	Indicators and monitoring system included in RAP and IPDP	Section 48-50: Set up National and State level Monitoring Committee to review and monitor progress	-
37.	Authority to settle claims		Section 51-74: the Authority will be set up settle any legal disputes that arise from acquisition and R&R, the aggrieved party can move to the high court thereafter.	-
38.	Exempt from tax and fee		Section 96: Compensation and agreements will not be liable to tax	-
39.	No change in status of land acquired		Section 99: Once the land is acquired for a particular purpose, its purpose cannot be changed	-
40.	Return of unutilized land		Section 101: If the acquired land remains unutilized for 5 years, then it will be returned to original owner, heir or included in land bank	-
41.	Distribution of increased value of land transferred		Section 102: 40% of appreciated value of acquired land will be distributed to owners provided no development has taken place.	-

ADDENDUM-I

Addendum to Environmental and Social Management Framework of Namami Gange Programme (April 2017)

Environmental and Social Safeguards Management in PPP Projects

This addendum document shall be read in conjunction with Environmental and Social Management Framework (ESMF) for Namami Gange Program 2011(revised in December 2016)

A. Financing Projects under PPP Model:

1. Under the NGRBA framework, National Mission for Clean Ganga (NMCG) shall finance only commercially viable projects under PPP model. Viable projects may also include those projects that will become viable after receiving viability gap funding under a government scheme.
2. In order to be eligible for funding through NGRBA framework under Namami Gange program, in PPP mode:
 - a) The project will be developed (i.e. designed, financed, built and operated for a specific term) by a private sector entity selected under a Private-Public Partnership (PPP) concept through annuity or Hybrid annuity or any contractual arrangement between a public entity and a private company whereby risks from design, construction, and/or operations, and/or financing are fully or partially transferred to the private company.
 - b) A Special Purpose Vehicle (SPV) will be formed and will assign overriding priority to PPP projects that are implemented by private sector entities, selected through a competitive bidding process.
3. This addendum outlines the framework and procedures to be followed for managing environmental and social safeguard issues in PPP projects that may be implemented through NGRBA framework under Namami Gange Program.

B. Environmental and Social Safeguards Management for PPP Projects under

4. All sub-projects and activities to be developed and operated under PPP mode following NGRBA Framework shall carry out an Environmental and Social Due-Diligence (ESDD) of the respective sub-project. The ESDD shall be prepared by the Executing Agency (EA) as part of the feasibility / Detailed Project Report (DPR) and shall be based on (i) field investigations of all the proposed sub-project facilities and (ii) formal consultations with the stake holders.
5. The ESDD shall comprise of (i) a description of the sub-project and its components (ii) an environmental and social profile of the sub-project areas and the proposed project facilities (iii) an Environmental and Social Screening and

categorization of the sub-project as outlined in Section 4.3 of Environmental and Social Management Framework of NGRBA /

Namami Gange Program (iv) an analysis of environmental and social issues associated with the project and (v) Environmental and Social Management Action Plan (ESMAP) out lining various regulatory clearances, preparation of Environmental and Social Assessment (ESA) Resettlement Action Plan (RAP), other actions, and management measures to be implemented by the SPV / PPP Concessionaire / operator and various other participating agencies in line with the requirements of ESMF for a particular safeguard category of subproject.

6. The State Project Management Group (SPMG) will primarily be responsible for the preparation of ESDD and ESMAP and overall management of their implementation.
7. The ESDD along with ESMAP shall be submitted to NMCG along with the DPR for appraisal. Upon receipt of the ESDDR, NMCG will review the project categorization as per the ESMF, applicable regulatory clearance requirements and the ESMAP. The review will follow the process outlined in the Section 4 of the ESMF, including the approval of The World Bank.
8. The ESDD and ESMAP upon approval and prior to the initiation of the PPP bid process, shall be disclosed locally in the website of EA, SPMCG, NMCG and in the info-shop of the World Bank.
9. The ESMAP shall be included in the PPP bid document, clearly outlining the responsibility for various safeguard management actions including the preparation of ESA RAP for the sub-project in line with its safeguard requirements outlined in section 4 of the ESMF.
10. During the implementation, the selected SPV / PPP concessionaire / operator/ prepare a design specific detailed ESMP/EIA/SIA/RAP report (as applicable) as per the ESMF and obtain approval of NMCG and The World Bank before the technical closure of the subproject and starting the construction work. All necessary environmental clearance⁴, regulatory clearances and land clearances shall be obtained as per the applicable regulations of Government of India and the State Government before the commencement of construction works.
11. The ESMP/EIA/SIA/RAP reports shall be prepared by the SPV in line with the guidelines provided in the ESMF and shall be disclosed locally in the websites of EA , SPMG, NMCG and also in the info shop of The World Bank.
12. The SPV / PPP concessionaire / operator shall be responsible for the implementation of final ESMP/EIA/SIA/RAP and their recommendations. The EA for the sub-project will supervise the implementation and NMCG with the

⁴ For the present portfolio of projects under NGRBA programme, currently only Regional Solid Waste Management projects may attract Environmental Clearance. However, time to time the clearance requirement may also be applicable to other projects as well as per the amendments of EIA notifications.

help of SPMG will monitor the of all the safeguard actions. . This responsibility allocation and institutional arrangements for the sub-project shall be clearly spelled out in the bid document.

C. Safeguard Compliance Monitoring and Reporting for PPP Projects

13. Projects financed by NMCG on PPP mode will be periodically monitored by the Lender's Independent Engineer (LIE) or similar technical agency and the quarterly reports (including the compliance to ESMAP) shall be shared with the SPMG and NMCG. The following procedures related to safeguards compliance monitoring & reporting will apply.

- i) The PPP Partner/SPV will submit monthly Environmental and Social Compliance Monitoring Report (ESCMR) to LIE. EA and SPMG for various project activities/actions agreed as per the ESMAP/ESMP/EIA/SIA/RAP reports. A sample format for the compliance monitoring for a sewerage project is given in **Annexure 1**.
- ii) The LIE will review the ESCMR, conduct field inspections and submit the report to SPMG along with recommended follow up actions.
- iii) Environment and Social Safeguard Specialists of SPMG/EA will also conduct quarterly / monthly compliance monitoring of the projects through site visits based on ESCMR and LIE's recommendations. In absence of necessary specialists, such safeguard monitoring is to be done by the concerned safeguard specialists of PMC appointed by SPMG.
- iv) Safeguard specialists of NMCG will also to make quarterly visits to projects site to ensure compliance to the agreed ESMAP and other safeguard documents as prepared by SPV along with LIE report. An indicative checklist of the documents that are required to be checked during the site visits of SPMG/EA/NMCG are given in **Annexure-2**.
- v) An annual audit of all PPP projects will be conducted by the NMCG along with other sub-projects in line with the provisions of the ESMF.

Annexure 1: Sample Format for Periodic Environmental Monitoring Report

1.EMP for XXXX Sub-Project

1.1.Introduction – XXXTown

The components taken up for XXXare detailed in the following Table.

Package	Sub Project	Physical Completion (%)	Date of Award	Date of Completion
HRR-1	Providing Under Ground Drainage system to XXXCity Municipal Council)
	UGD Network (Total –.)			
	Manhole (Total - Nos.)			
	House Service Connections (Total – Nos.)			
	Wet well (No,)			
	Sewage Treatment Plant -			

The status of Environmental Management Plan (EMP) for the month of March, 2015 are presented in the following sections

1.2.Permissions/Consents/Clearances/Approvals:

Particulars	Sub Project	SPCB	Railways	PWD	Utility shifting	Forest	Minor Irrigation	Irrigation*
Consent/Clearances/Permissions/Approval Status (Date of Clearance and completion status)	UGD & STP	CFE obtained On xxxx	Cleared on)	Cleared on	Cleared	NA	NA	NA

Note: For details refer Monthly Progress Report March, 2015.; NA-Not Applicable;

1.3. Field Visits & Training Conducted

Field Visit	Date	Sites Visited	Persons Met	Remarks

1.4. Compliance to EMP

Particulars	Sub Project	Complied	Compliance to EMP
Pre Construction Phase	Sewerage System & STP	√	Details on EMP is made part of Contractor Agreement Page No. xx (Contract Agreement dated xxx)
Construction Phase	Sewerage & STP	√	Details on EMP is made part of Contractor Agreement Page No. xxxx1. Contractor complying with EMP are monitored by the Site Engineer and xxxx on daily basis (Provided in Annexure 1)
Monitoring Requirements & Specifications	Sewerage System & STP	√	Details on EMP is made part of Contractor Agreement Page No. xxxx Informed the Contractor to comply the same

Insert Construction Stage EMP (in Annexure) table here and provide compliance status, and Recommendations for each EMP measures

1.5. Redress of Grievances

Sub Project	Registers Maintained	No. of Grievances received in the month	Action Taken
Sewerage System & STP	√	xx	

1.6. Labour Registration

The contractor has submitted the renewed labour license with a validity period of one year from xxxxx (Annexure x of EMP Report,).

1.7. Summary and Conclusions

EMP monitoring being done daily (see Annexure 1) on the critical issues and following improvements/ positive developments are observed. Various issues are detailed out in Annexure 8).

SI	Details	Compliance Status
1	Labour License	Complied – Renewed upto xxx
2	Project Information Board	Complied at STP
3	Grievance Register	Complied
4	Identification of dumping land for surplus earth	Complied
5	In order to avoid drain blockages, removing of left out excavated material to be cleared on urgent basis	Complied,

However, the following issues need to be addressed.

SI	Issues/Deviations	Compliance status last visit	Corrective Actions to be taken	Compliance status during this month
1	Safety measures, Helmets, Gum boots, First Aid Kits, barricading etc. needs to be provided at all locations			
2	Name of contact person with phone number to be included in project information board.			
3	Labours staying in the STP Camp Site. Presently there is no toilet and no bathing facility			
4.	Accessibility for Public			

5	Maintaining safe slope at work site and avoid collapsing of soil/ avoid accidents			
6.	Drain Cleaning			
7	Soil Sinking stretches/Soil collapse			
8	Pipeline trenches and Manhole construction pit kept open since 10 to 15 days in xxx place			
9	Precautions for Opening Manhole			

Attachment 1: Photographs

Annexure 2: Checklist of Documents to be checked during the site inspection

1. Environmental Impact Assessment(EIA) and Environmental Management Plan (EMP) reports/ ESIA Study/ Initial Environmental Examination Study Report
2. Copy of various clearances like (Environmental Clearance, forest clearance and NOC) from various authorities like MoEF&CC, SPCB, other state level regulatory authorities etc. and , RAP and SMP as applicable and grievance register.
3. HSE Manual/Plan prepared for the project, if any
4. Detailed Project Report (DPR)
5. Proposed Institutional arrangement (Project Site Organogram) in place for implementation and monitoring of EMP;
6. Annual EMP Budget and its expenditure status
7. Disaster Management Plan (DMP),as applicable
8. Onsite and offsite Emergency Preparedness Plan, as applicable
9. Any other Miscellaneous study done for project regarding Environmental safeguards Aspects