September: 2020 Project ID: P154990

Construction of Rigid Pavement of Eastern Foreshore Road (Brari Nambal) including allied link road in District Srinagar, Kashmir (2.890 Km)

Jehlum Tawi Flood Recovery Project (World Bank Project)

Prepared by: PIU (JK ERA Kashmir): Government of Jammu and Kashmir for World Bank.

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EXECUTIVE SUMMARY

Catastrophic deluge of September 2014 shows negative impact on economic aspects of the State and massive infrastructure damages in which capital city Srinagar was most affected and a trail of siltation in most of the water bodies as environmental degradation which is always synonymous with major floods. In connection to catastrophic flood, a mission of the World Bank visited the State during February 1-6, 2015 on request of Government of India to review and assess the damages in order to produce a rapid multi-sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211,975 million (US\$ 3,550.45), most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value.

Sub-projects under "Jhelum and Tawi Flood Recovery Project" commonly known as JTFRP have a prior requirement of screening which is based on three categories; viz., nature of the project, size of the project and location of the project that is sensitive area criteria. The objective of Environment and social screening is to identify the potentially significant environmental/ social issues of the sub-project at an early stage. One of the sub-projects identified under JTFRP is "Construction of Rigid Pavement of Eastern Foreshore Road (Brari Nambal) including allied links in District Srinagar".

The proposed subproject has a total design length of 2.890 km (Main Road) including Link Road of 0.710 km. This is one of the important roads as it connects the old city via new constructed City Gate "Babul Iqbal". The road is located in the urban settlement having mainly commercial setup and residential areas (interior areas) and traverses through localities of Baba Demb/ Brari Nambal, Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mahalla, Munawarabad.

One of the important requirements of this study is dissemination of project information by way of "Consultation with stakeholders and general public". Public consultation was done at Baba Demb/ Brari Nambal locality of the sub-project corridor with local people and shopkeepers as part of environment and social screening study. Local people were made aware about the upcoming work, rigid pavement concept and World Bank funding and guidelines.

The proposal is to develop a total 2.900 km and 710 m link four lane carriageway having formation width 19.00 m under JTFRP. The proposed formation width is 19.20 meter which is less than the existing RoW available. Chief Engineer, PWD (R&B) Kashmir vide letter no. CE/RBK/HD/7165, dated 14th June 2019 has confirmed that the available existing Right of Way (ROW) is minimum 21.00 m. It shows that no land acquisition either government or private is required for the sub-project. Further, Project Manager (PIU) has certified that the available RoW is encumbrance free.

The screening study revealed that there are no potential social and environmental impacts of the proposed sub-project since the construction activities will be carried out within available RoW. However, the sub-project road is passing through many settlement areas and to identify the permanent and temporary impact due to sub-project activities at these congested/ narrow

locations, Social Impact Assessment would be conducted. Whereas no detailed EIA needs to be carried out for the sub-project.

1. INTRODUCTION

1.1 Project Background

In September 2014, Jammu & Kashmir experienced torrential monsoon rains in the region causing major flooding and landslides. The continuous spell of rains from September 2-6, 2014, caused Jhelum and Chenab Rivers as well as many other streams/tributaries to flow above the danger mark. The Jhelum River also breached its banks flooding many low-lying areas in Kashmir, including the capital. In many districts, the rainfall exceeded the normal by over 600%. The Indian Meteorological Department (IMD) records precipitation above 244.4 mm as extremely heavy rainfall, and J&K received 558mm of rain in the June- September period, as against the normal 477.4 mm. For example, the district of Qazigund recorded over 550 mm of rainfall in 6 days as against a historic normal of 6.2 mm over the same period.

Due to the unprecedented heavy rainfall the catchment areas particularly the low lying areas were flooded for more than two weeks. Some areas in urban Srinagar stayed flooded for 28 days. Water levels were as high as 27 feet in many parts of Srinagar. The areas from the main tributaries of river Jhelum vis-à-vis Brengi nallah, Vishav nallah, Lider nallah and Sandran nallah started overflowing due to the heavy rainfall causing water levels in Jhelum river to rise. Subsequently, the discharge of the river Suran was 200 thousand cusecs as against an average of 50 thousand cusecs. With the excessive discharge of water, the river Suran affected the basin areas and also took a different course at various locations causing damages to the surrounding villages in the catchment area. Water levels also increased in the rivers of Chenab and Tawi, both of which were flowing above normal levels. Due to the rivers overflowing nearly 20 districts of the State were impacted.

A Joint team led by the Department of Economic Affairs (DEA), Gol, with representation from the World Bank visited J&K on October 21, 2014. Subsequently, Gol has sent a request to the World Bank on January 5, 2015 to field a Joint Rapid Damage and Needs Assessment (RDNA) Mission within the State. In response, a mission of the World Bank visited the state during February 1-6, 2015 in order to produce a rapid multi-sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211,975 million (US\$ 3,550.45), most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centres were also severely damaged and are still not fully operational.

Based on the Rapid Damage Needs Assessment (RDNA) results, restoration works underway, and discussions with the GoJ&K, the project will focus on restoring critical infrastructure using international best practice on resilient infrastructure. Given the state's vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features, and will include contingency planning for future disaster events. Therefore, the project

aims at both restoring essential services disrupted by the floods and improving the design standard and practices in the state to increase resilience.

1.2 Project Development Objective¹

The Project Development Objective (PDO) is to support the recovery and increase disaster resilience in targeted areas of the State, and increase the capacity of the State entities to respond promptly and effectively to an eligible crisis or emergency.

The project is comprised of the following seven components:

- 1. Reconstruction and strengthening of critical infrastructure
- 2. Reconstruction of roads and bridges
- 3. Restoration of urban flood management infrastructure
- 4. Strengthening and restoration of livelihoods
- 5. Strengthening disaster risk management capacity
- 6. Contingent Emergency Response
- 7. Implementation Support

1.3 Subproject Background

The objective of component 2 "Reconstruction of roads and bridges" is to restore and improve the connectivity disrupted due to the disaster through the reconstruction of damaged roads and bridges'. The infrastructure will be designed to withstand earthquake and flood forces as per the latest official design guidelines. The affected areas will benefit by the restored access to the markets thereby increasing the economic growth in these areas and timely access to health and education services. Restoration of roads will also serve as supply/rescue lines in the event of disaster.

The component will finance support the reconstruction of about 300 km of damaged roads and associated drainage works, retaining walls, breast walls and other structures to increase resilience. It will also finance the restoration and improvement of about 40 damaged bridges, designed to be seismic resilient (per the guidelines of the Bureau of Indian Standards) and with regard to topography and hydrology (per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways), and projected demographic changes.

One of the identified roads is "Construction of rigid pavement Eastern Foreshore Road (Brari Nambal) including allied Link Road in District Srinagar" and having a total design length of 1.9 Km. This report covers the Environmental and Social Screening study of proposed road.

1.4 Project Description

The Srinagar city lies 340 0' - 34014'N (Latitude) and 740 43' - 740 52'E (Longitude) with an altitude of 1585 m (5200 ft) above mean sea level (msl). The city has a unique physiographic

¹ Source: JTFRP- Environmental & Social Management Framework (ESMF), 2015

setup with steep hills in the East and North East, low lying paddy fields falling in the flood plain of Jhelum in the South and West, the Karewas of Budgam in the extreme South and towards the North we encounter the uplands with moderate slopes. The famous Dal lake is situated in the heart of the city. The city of Srinagar experiences a temperate type of climate. The city receives most of the precipitation in winter season in the form of rain and snow with an annual average rainfall of 720mm.

The sub-project road takes off from Munawarabad and traverses through Brari Nambal, Baba Demb, Shamaswari, Chinkral Mohalla etc. The eastern Foreshore road connects old city of Downtown area via Babul Iqbal gate which was recently constructed. Categorically, it is a 4 lane road, falling under plain terrain, having high intensity of commercial vehicles. Built-up area observed on both side of the road. During flood in the year 2014, the stretches fully submerged and regular submergence history also found in this particular stretches due to drainage problem only. There is a marshy land named "Babdemb" which actually acts as buffer zone to storage excess water when "Dal Lake" overflows and then after channelizing water towards "River Jhelum" via Fateh Kadel outfall channel. Project Road cover up the "Brari Nambal lagoon also known Babademb" as a ring road and connect several habitation namely Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mohalla, Munawarabad. It is also noticeable that, storage capacity of "Brari nambal or Babademb" reduces due to continuous siltation and deposition of debris. Moreover, there are 2 parallel HP sewerage system exists under each lane having 600 mm dia only at different depth which is insufficient to drain out the water during heavy rain. Without developing proper drainage system, provisions of rigid pavement not serve the submergence problem during heavy rain.

1.5 The Existing Road Features & Its Proposal:

Existing road is 4 lane roads, falling under plain terrain, having high intensity of commercial vehicles. Built-up section observed on both side of the road. During flood in the year 2014, the stretches fully submerged and regular submergence history also found in this particular stretches due to drainage problem only. There is a marshy land named "Brari Nambal Lagoon" which actually acts as buffer zone to storage excess water when "Dal Lake" over follows and then after channelize water towards "River Jhelum". Project Road cover up the "Brari Nambal" as a ring road and connect several habitation namely Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mahalla, Munawarabad. It is also noticeable that, storage capacity of "Brari nambal Lagoon" reduces due to continuous siltation and deposition of debris. Moreover, there are 2 parallel HP sewerage system exists under each lane having 600 mm dia only at different depth which is insufficient to drain out the water during heavy rain. Without developing proper drainage system, provisions of rigid pavement not serve the submergence problem during heavy rain.

The Traffic Census has been conducted in lean period at Ch. 3.200 Km having PCU, ADT & CVPD is 8466, 6997 & 1618 respectively. According to that, Main alignment demands 2 lane with paved shoulder in the year of 2023 which can be resolved by 2 lane dual carriageway. Development of the project road is essential as it is the most important arterial road in

Kashmir which connects several habitation of Srinagar namely Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mahalla, Baba Demb, Brari Nambal Munawarabad etc. Snapshots are provided as Appendix V for reference.

1.6 Technical description of the proposed road

The following table is presented the technical description of proposed road. Geo location of the sub-project road is provided as Appendix-VI

S. No.	Description of item	Details		
1	Road length	Existing Length 2.900 km (Main alignment) 0.710 Km (Link Road)	Design Length 2.890 km (Main alignment) 0.710 Km (Link route)	
2 (a)	Road Configuration (Present Scenario)	Main alignment 2 Lane Dual Link Road 2 Lane Dual carriage way with Median without Median		
2 (b)	Road Configuration (Based on 30 years Design Period)	Main alignment & Link Road 2 Lane I	Dual carriageway with Median	
3	Terrain	Plain		
4	Land use pattern	Built up		
5	Existing Surface of carriageway	Flexible pavement		
7	Existing Formation width	17 m – 19 m		
8	Right of Way (ROW)	21 m		
9	Pavement Condition	Fair		
10 (a)	New Rigid Pavement thickness	For Main Alignment & Link Road GSB – 150 mm, DLC – 100 mm, PQC – 260 mm, Sand - 500 mm		
11	Design CBR	5.04 % (80 th Percentile)		
12	Junctions	Major- 05 and Minor-04		
13	Traffic	Main Alignment (From Km 0.000 to Km 1.500) ADT-6997, CVPD - 1618, PCU –8466, MSA- 139.42		
14	Cross drainage structures	2 Bridges on Main Alignment		
15	Settlement	Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mahalla, Baba Demb, Brari Nambal, Munawarabad etc		

Table 1-1: Te	chnical description	of the proposed road

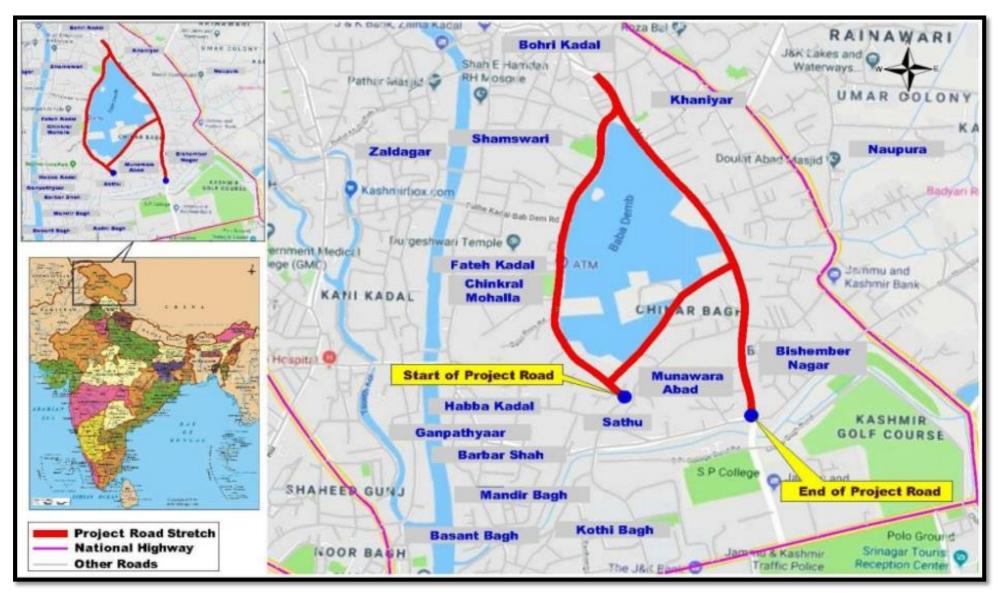


Figure 1-1: Map showing location of the proposed road

1.7 Objective of the Environmental and Social Screening

Subprojects under "Jhelum and Tawi Flood Recovery Project" commonly known as JTFRP have a prior requirement of environmental and social screening as per World Bank obligation which is based on three categories; viz., nature of the project, size of the project and location of the project that is sensitive area criteria. Based on this assessment, sub-projects with potentially significant environmental/ social issues are identified at an early stage for detailed Environmental/ Social impacts. Environmental and social aspects were evaluated as per ESDS and assessed, based on the level of expected environmental and social impacts.

1.8 Methodology adopted for the Screening Study

Approach adopted for this screening study is mainly based on the approved Environment and Social Management Framework (ESMF) which is developed by the World Bank for the project Jhelum Tawi Flood Recovery Project (JTFRP) as a guiding principle for the preparation of Environmental and Social reports. The initial stage adopted for the screening, was identification of environmental and social impacts as a preliminary stage, the environmental and social impacts were identified through filling in an Environmental and Social Data Sheet (ESDS) annexed as Appendix-1.

The basic objective of the filling in this data sheet is to collect basic information on environmental and social aspects of the proposed sub-project. Basic information was collected through field visits, examination of primary/ secondary data of the subproject area and through transect walk and public consultation- which involves participatory process as adopted for this screening study of proposed "Construction of rigid pavement of Eastern Foreshore Road (Brari Nambal) including allied link road in District Srinagar". Further, in accordance to ESMF requirement, environmental and social data pertaining to the proposed sub-project was compiled during the field data collection stage.

2. ENVIRONMENT AND SOCIAL FINDINGS

2.1 Environmental Impacts

The Environmental Screening undertaken for the project shows that the project is not anticipated tohave adverse significant or irreversible negative environmental impacts, neither during the construction stage or operation phase. Impacts of the construction phase will be typical for all medium scale construction activities, short-term/ temporary and limited to the project site. However, comprehensive Environmental Management Plan (EMP) will be developed and which will capture detailed mitigation measures for the proposed "Construction of rigid pavement of Eastern Foreshore Road (Brari Nambal) including allied link road in District Srinagar" which will form part of the Environmental Assessment study.

Brari Namabal is situated at the entrance of Shahr-e-Khaas in Srinagar, Brari Nambal is one of the outflow channels of Dal Lake. It is a lagoon i.e. a shallow body of water separated from a larger body of water. The waters of Dal flow to river Jehlum through Brari Nambal via a conduit (outfall channel) at Fateh Kadal area. In the absence of sustained conservation measures over the decades, Brari Nambal has shrunk from five to less than a square kilometer. The subproject road (Eastern Foreshore Road) which is already an existing road around the Brari Namabl Lagoon, which is proposed to be upgraded to Rigid Pavement Road (Brari Namabal) including allied link road from STP side.

From starting point of the road number of scheduled trees like Chinar (Platinus orientalis) and Mulberry (Morus sp.) are present in the Central verge of the road and periphery of foothpath. Similarly, non-scheduled trees like Ulmus sp., Cypress sp., Privet (Ligustrum sp.), Ausculus indica, Willow (Salix sp.), Alanthus sps, and ornamental flowering trees (small) are also present along the road foothpath. ROW details of trees along the road corridor will be incorporated in EA report along with the protective measures will be captured in EMP.

An increase in ambient air and noise pollution, dust generation, protective measures for trees, occupational safety and health due to site preparation works like major concrete works, transportation of construction material, and other associated construction activities is anticipated. This impact shall be temporary, site specific and reversible in nature and shall be addressed with efficient mitigation measures. Interruption in traffic movement and inconvenience to people is expected as up-gradation by way of rigid pavement will involve corridor diversion. However, traffic inconvenience will easily be managed as newly constructed "Expressway Flyover Corridor" by J&K ERA has already eased out the traffic volume in this road. However, comprehensive traffic management plan will be developed which will address the traffic issues.

Therefore, based on the findings during survey, there are no significant environmental as well as social impacts in sub-project area, hence no further special study or detailed environmental impact assessment (EIA)/ Social impact assessment (SIA) needs to be undertaken. A

comprehensive Environmental and Social Management Plans (EMP/SMP) will be developed to provide specific actions deemed necessary to assist in mitigating the environmental & social impacts, guide the environmentally-sound execution of the subproject, and ensure efficient lines of communication between the project implementing agency (PIU), project management unit (PMU) and the contractor.

The EMP/SMP will be included in the bid documents and will be further reviewed and updated during implementation. The ESMP will be included in the contractual clauses and will be made binding on all contractors operating on site. Non-compliance with, or any deviation from the conditions set out in this document constitutes a failure in compliance. Any requirements for corrective action will be reported to the World Bank.

2.2 Social Issues

2.1.1 Impact on land and structures

The proposal is to develop a total 2.900 km and 710 m link four lane carriageway having formation width 19.00 m under JTFRP. The proposed formation width is 19.20 meter which is less than the existing RoW available. Chief Engineer, PWD (R&B) Kashmir vide letter no. CE/RBK/HD/7165, dated 14th June 2019 has confirmed that the available existing Right of Way (ROW) is minimum 21.00 m (Appendix II). It shows that no land acquisition either government, private is required for the sub-project. Further, Project Manager (PIU) has certified that the available RoW is encumbrance (Appendix III).

The screening study revealed that there are no potential social impacts of the proposed subproject since the construction activities will be carried out within available RoW. However, the sub-project road is passing through many settlement areas and to identify the permanent and temporary impact due to sub-project activities at these congested/ narrow locations, Social Impact Assessment would be conducted.

2.1.2 Impact on Livelihood

There is no adverse impact on the livelihood of anyone since the existing RoW is free from any encroachment or commercial structures. Rather, the project will provide opportunities of employment during construction stage.

3. PUBLIC CONSULTATION

Public consultation was conducted in accordance with the World Bank guidelines and ESMF of JTFRP which is the pre-requisite for the screening process. The purpose and objective of this consultation is the involvement of residents/ stakeholders and to make them aware about the proposed activity of the sub project. Public consultation was conducted at the project location on 15.09.2019 with people of the sub-project area as part of environment and social screening study (Appendix-IV). Public Consultation is a continuous process and needs to be carried out throughout the sub-project cycle.

3.1 Consultation

The following information was shared with the people:

- About the project and proposed sub-project and its source of assistance, its implementation / execution etc.
- Information on perceived benefits from the proposed sub-project including travel time, fuel costs, noise and air pollution.
- Potential social and environmental impacts during construction stage.
- Social and Environmental safeguards policies of World Bank.
- Temporary problems during execution stage.
- Livelihood opportunities during construction stage.
- Livelihood generation by involving of local labour with the project during the construction stage of the project.
- Safeguarding of religious/ cultural/educational places like Mosques, Schools along project road during construction phase?

3.2 Feedback received

People were aware about the sub-project and shared the requirement of the sub-project. All were in support of the sub-project. During consultation, local people and shopkeepers suggested that this is the right time to design the road by lowering of the road surface by at least 6 inches. People asked for the efficient surface drainage system throughout the project corridor on the both sides wherever applicable especially low lying area. People want to know more about the project funding and role of WB and how it functions for the bid/ tender process here, design aspects of the project like geometric alignment/ quality control as per standard specifications and Bank's role in safeguard aspects during execution of the project.

Appendix – I: Environmental and Social Screening Checklist

Part-A: General Information

1. Name of the sub-project	. Name of the sub-project Construction of Rigid Pavement of Eastern Foresho Road of Brari Nambal Lagoon and allied link Road				
2. Type of proposed activity (tick the applicable option and provide details)					
• Road		v			
• Bridge		-			
Fire Station		-			
Hospital/Health Facility		-			
Educational Institute		-			
Building for Livelihoods		-			
Flood Infrastructure Related		-			
Other Public Building					
Any Other (Please Specify)		-			
3. Location of the proposed sub-project					
Name of the Region	Kashmir (J&K State)				
Name of the District	Srinagar				
Name of the Block	Srinagar				
Name of the Settlement	Sathu, Khaniyar, Bohri Kadal, Shamswari, Fateh Kadal, Habba Kadal, Chinkral Mahalla, Baba Demb/ Brari Nambal Munawarabad etc.				
 Latitude 34°4'47.26"N (Start of the Project Munawarabad- 0+000), 34°5'7.89"N (End of the Projectat Brari Nambal- Ch 3+ 					
 Longitude T4°49'11.24"E (Start of the Project at Munawarak 0+000), 74°49'7.21"E (End of the Project at Brari Nam 					
4a. Proposed Nature of Work (tick the applicable options)					

Minor Repairs	-
Major Repairs/Rehabilitation	-
Upgrading/Major Improvement	√(Rigid Pavement)
• Expansion of the facility	-
New Construction	-
Any Other	-
4b. Size of the sub- project (approx. area in sq. mt/hac or length in mtr./km, as relevant)	2.890 KM (Main Road) 0.710 KM (Allied Link Road)
5. Land Requirement (in hac./sq.mt.)	
Total Requirement	Nil
Private Land	Nil
Govt. Land	Nil
Forest Land	Nil
6. Implementing Agency Details (sub-	project level)
Name of the Department/ Agency	PIU (JK ERA)
Name of the contact person	Mr. Abdul Wahid
Designation	Project Manager
Contact Number	7006152713
E-mail Id	projectmanager49@gmail.com
7. Screening Exercise Details	
Date on which it was carried out	22 th July, 2019
Name of the Person	Akhter R. Bhat/ Divakar
Contact Number	+91-7006543364; 8667726488
• E-mail Id	akhter_b@hotmail.com; vdhivakar@gmail.com

Part B (1): Environment Screening

Question	Details				
1. Is the sub-project located in whole or part within 1 km of the following environmentally sensitive areas?					
a. Biosphere Reserve		No	-		
b. National Park		No	-		
c. Wildlife/Bird Sanctuary		No	-		
d. Wildlife/Bird Reserve		No	-		
e. Important Bird Areas (IBAs)		No	-		
f. Habitat of migratory birds (outside protected areas)		No	-		
g. Breeding/Foraging/Migratory route of Wild Animals (outside protected areas)		No	-		
h. Area with threatened/rare/ endangered fauna (outside protected areas)		No	-		
i. Area with threatened/rare/ endangered flora (outside protected areas)		No			
j. Reserved/Protected Forest		No	-		
k. Other category of Forest		No	-		
I. Wetland		No			
m. Natural Lakes		No			
n. Rivers/Streams	Yes				
Question Yes No Details					

o. Swamps/Mudflats		No	-
p. Zoological Park		No	-
q. Botanical Garden		No	
2. Is the sub-project located in whole or part w sensitive features?	ithin 50	00 mts	s. of any of the following
a. World Heritage Sites		No	-
b. Archaeological monuments/ sites (under ASI's central/state list)		No	-
 c. Historic Places/Monuments/ Buildings/Other Assets (not listed under ASI list but considered locally important or carry a senti d. mental value) 		No	
e. Religious Places (regionally or locally important)		No	-
f. Reservoirs/Dams		No	-
g. Canals	Yes		Chunt Kul (near starting point) and Water Channel (crosses road at Ch 0+715km via bridge) are within the 500
h. Public Water Supply Areas from Rivers/Surface Water Bodies/ Ground Water Sources		No	-
3. What is the High Flood Level in the sub-project area?		2014	HFL

4.	Is any scheduled/protected tree like Chinar, Mulberry or Deodar likely to be affected/ cut due to the project?	No	
5.	Is the sub-project located in a landslide/heavy erosion prone area or affected by such a problem?	No	
6.	Is sub-project located in an area that faces water paucity or water quality issues?	No	

Part B (2): Result/Outcome of Environmental Screening Exercise

1.	Environment Impact Assessment Required	No
2.	Environment Clearance	No
3.	Forest land Clearance/Diversion	No
4.	Tree Cutting Permission	Νο
5.	ASI (Centre/State) Permission Required	Νο
6.	Permission from ULB/Local Body/Department Required	No
7.	Any other clearance/permission required	Consent to Establish (CTE) and Consent to Operate (CTO) from SPCB will be required for Batching Plant (BC) Wet Mix Plants, Stone Crusher Plant (SCP), PUC's and other fitness certificates of equipment etc.

Part C (1): Social Screening

1. Does the sub-project activity require acquisition of land?					
Yes		No	V		
Give the following details:	Private Land (sq mts/hac.)		Nil		
	Govt. Land (sq mts/hac.)		Nil		

	Forest Land (sq mts/hac.) Nil		Nil
2. Does the proposed sub-project activity res existing structures?	ult in demolit	ion/removal of	
Yes		No	٧
f so, give the following details:			
Number of public structures/buildings		Nil	
 Number of common property resources (such as religious/cultural/ drinking water/wells/etc.) 		Nil	
 Number of private structures (located on private or public land) 		Nil	
3. Does the proposed project activity result i	n loss of crop	s/trees?	
Yes		No	v
4. Does the proposed Project activity result i	n loss of direc	t livelihood/ em	ployment?
Yes		No	V
5. Does the proposed activity result in loss residents/local population are dependent?		/ forest/pastures	on which nearb
Yes		No	٧
If yes, give the details of the extent of area tacres/hac).	o be lost (in	-	
6. Does the proposed Project activity affect s	cheduled trib	e/caste commun	ities?
Yes		No	V

Part C (2): Result/Outcome of Social Screening Exercise

S. No.	Result/Outcome	Outcome
1	Answer to all the questions is 'No' and only forest land is being acquired	NA
2	Answer to any question is 'Yes' and the sub-project does not affect more than 200 people (i.e. either complete or partial loss of assets and/or livelihood)	No Abbreviated RAP is required
3	Answer to any question is 'Yes' and the sub-project affects more than 200 people (i.e. either complete or partial loss of assets and/or livelihood)	No SIA/RAP Required

Outcome of Screening:

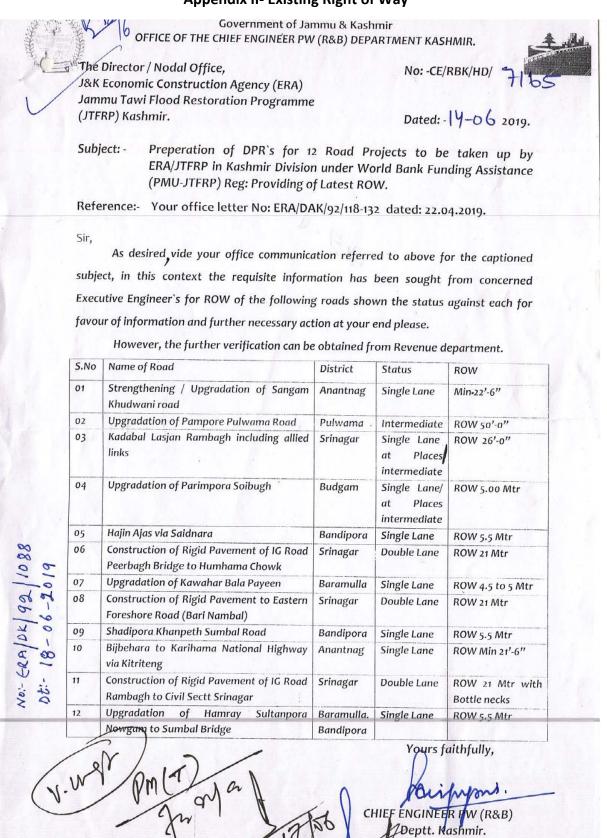
The screening study revealed that there are no potential social and environmental impacts of the proposed sub-project since the construction activities will be carried out within available RoW. However, the sub-project road is passing through many settlement areas and to identify the permanent and temporary impact due to sub-project activities at these congested/ narrow locations, Social Impact Assessment would be conducted.

No detailed EIA needs to be carried out for the sub-project. However, to mitigate temporary unforeseen and unanticipated environmental and social impacts during execution, ESMP will be prepared and implemented. The implementation of ESMP will be monitored in the monthly/quarterly progress reports.

Statutory Clearances/ No Objection Certificate

The subproject is "Improvement and Up-gradation by Rigid Pavement Surface" of existing Eastern Foreshore Road of Brari Nambal including allied link road, are operational and under use for long time and the site is under possession of R&B Department for long time. Tree cutting permission, if any and Statutory clearances and NOC's for establishment or operation of, batch mix plant, stone crusher plant, generators, vehicles, material etc. shall be required to be obtained by the Contractor prior to the start of work.

Appendix II- Existing Right of Way



Appendix III- Undertaking for Encumbrance free RoW



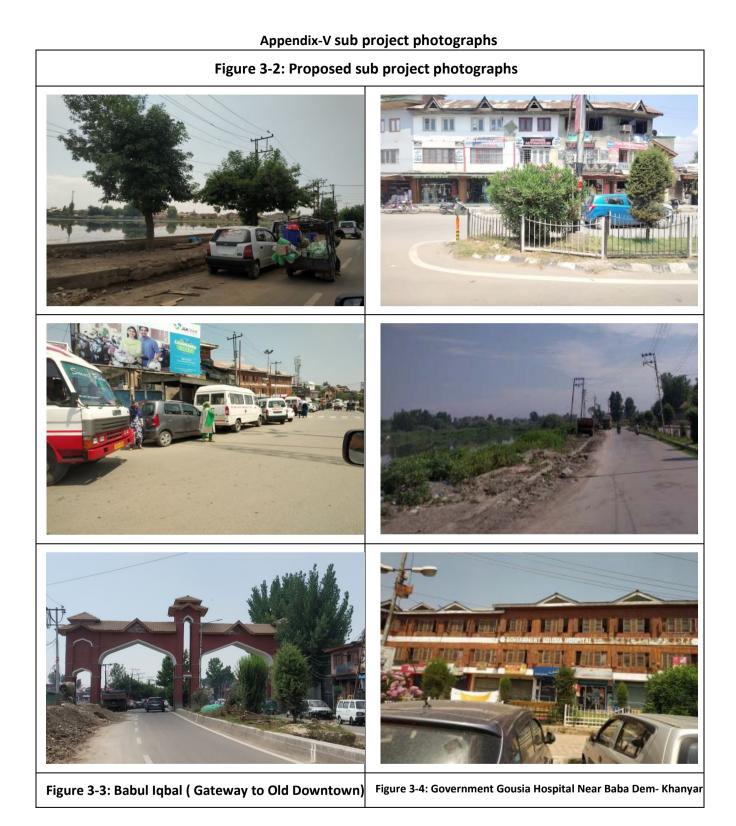




Figure 3-5: Photographs showing Brari Nambal Lagoon which is presently in highly degraded condition. During survey, solid waste is observed in Brari Nambal. Existing road (around Brari Nambal and main road from Munwarabad to Gousia Hospital) is proposed to be upgraded with the rigid pavement. Road surface is also lacking efficient longitudinal drainage system. STP (UEED) of 17.08 MLD capacities is located on the south side of Brari Nambal. The treated sewerage /waste water is discharged into Brari Nambal. During meeting with UEED officials at STP.

Appendix VI-Geographical location of the road in GIS map

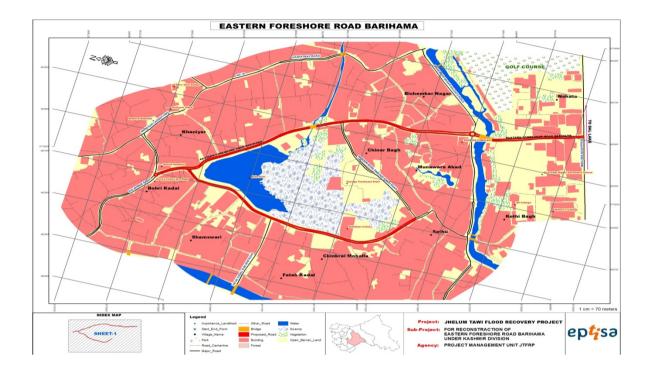


Figure 3-6: Geo Location of the subproject road

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Appendix VII- List of consulted participants and their signatures during consultation