Social Impact Assessment Report

October: 2021

Project ID: P154990

Sub-Project: Construction of Rigid Pavement of I.G road from Peerbagh Bridge to Humhama Chowk (District Srinagar)

Kashmir.

Jhelum Tawi Flood Recovery Project
(World Bank Funded)

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ABBREVIATIONS

BPL Below Poverty Line

CBO Community Based organisations

COI Corridor of Impact

CPR Common Property Resources

DC District Collector

DSC Design & Supervision Consultant

DED Detailed Engineering Design

EIA Environmental Impact Assessment

EP Entitlement/Eligible Persons

ERA Economic reconstruction Agency

ESMF Environment and Social Management Framework

ESSR Environment & Social Screening Report

EM Entitlement Matrix

GBV Gender Based violence

GESI Gender Equality and Social Inclusion

Govt. Government

GRC Grievance Redressal Cell/Committee

HP Halqa Panchayat

IRC Indian Road Congress

IDA International Development Agency

IRAP International Road Assessment Programme

JTFRP Jhelum Tawi Flood Recovery Project

J&K Jammu & Kashmir

DSC Design & Supervision Consultant

DEA Department of Economic Affairs

DPR Detailed Project report

NGO Non-Governmental Organization

OP Operational Policy

PAP Project Affected Person

PAF Project Affected Family

PDF Project Displaced Family

PDP Project Displaced Person

PIU Project Implementation Unit

PMU Project Management Unit

PMC Project Management Consultant

R&R Resettlement & Rehabilitation

RAP Resettlement Action Plan

RFCTLAR&R Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and

Resettlement act, 2013

RDNA Rapid Damage and Needs Assessment

ROW Right of Way

RTI Right to information Act

SAR Social Assessment Report

SES Socio- Economic Survey

SEO Site Engineering Office

SH State Highway

SIA Social Impact Assessment

SC/ST Schedule Caste and Schedule Tribe

SMF Social Management Framework

SMP Social Management Plan

SOR Schedule of Rates

Definition of Words and Phrases

Affected Persons (APs)

Affected Persons (APs), for this Project, means all the people directly affected by a project-related land acquisition that leads to their physical relocation or loss of assets, or access to assets, with adverse impacts on livelihoods. This includes any person, household (sometimes referred to as project affected family), firms, or public or private institutions who on account of project-related land acquisition would have their;

- 1. standard of living adversely affected;
- 2. right, title or interest in all or any part of a house, land (including residential, commercial, artisanal mining, agricultural, plantations, forest and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or
- 3. business, occupation, place of work or residence, or habitat adversely affected, with or without displacement. APs therefore include;
 - persons affected directly by the acquisition or clearing of the right-of-way or construction work area;
 - persons whose agricultural land or other productive assets such as mining, trees or crops are affected;
 - persons whose businesses are affected and who might experience loss of income due to project-related land acquisition impacts;
 - persons who lose work/employment as a direct result of project-related land acquisition; and
 - people who lose access to community resources/property as a result of project-related land acquisition.

Census

Census means the pre-appraisal population record of potentially affected people, which is prepared through a count based on the village or other local population data or census.

Compensation

Compensation means payment in cash or kind for an asset to be acquired or affected by a project at replacement costs.

Cut-off-date

Cut-off-date means the date after which people will not be considered eligible for compensation if they are not included in the list of APs as defined by the census. Normally, the cut-off date for the titleholders is the date of the detailed measurement survey.

Displacement

Displacement means either physical relocation or economic displacement directly caused by project-related land acquisition.

Encroachers

Encroachers mean those persons who extend their property beyond that for which they hold a Title are encroachers and would not be eligible for compensation for land for which they do not possess a title.

Entitlement

Entitlement means the range of measures comprising cash or kind compensation, relocation cost, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to /business restoration which is due to APs, depending on the type and degree nature of their losses, to restore their social and economic base.

Livelihood Restoration

Livelihood Restoration means the measures required to ensure that APs have the resources to at least restore, if not improve, their livelihoods. Restoration of livelihood of all APs is one of the key objectives of the World Bank's resettlement policy. It requires that people are given the means and assistance necessary for them to improve, or at least restore, their livelihood and living conditions to pre-project levels. Inventory of Losses means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets.

Land Acquisition

Land Acquisition means the process whereby a person is compelled by a public agency to alienate all or part of the land s/he owns, possesses, or uses, to the ownership and possession of that agency, for public purposes, in return for prompt and fair compensation. This includes direct acquisition and easement.

Non-Titled

Non-titled means those who have no recognizable rights or claims to the land that they are occupying and includes people using private or state land without permission, permit, or grant.

Rehabilitation

Rehabilitation means the assistance provided to severely affected APs to supplement payment of compensation for acquired assets to improve, or at least achieve full restoration of, their preproject living standards and quality of life to pre-project level.

Resettlement

Resettlement means all social and economic impacts that are permanent or temporary and are:

- (i) caused by the acquisition of land and other fixed assets,
- (ii) by the change in the use of land, or
- (iii) restrictions imposed on land as a result of the project.

Resettlement Plan

Resettlement Plan means the time-bound action plan with budget setting out resettlement strategy, objectives, entitlements, actions, responsibilities, monitoring, and evaluation.

Structures

Structures mean all structures affected, or to be acquired, by the project such as living quarters, wells, hand pumps, agricultural structures such as rice bins, animal pens, stores/warehouses, commercial enterprises including roadside shops and businesses.

Squatters

Squatters mean the same as a non-titled person i.e. those people without legal title to land and/or structures occupied or used by them. World Bank policy explicitly states that such people cannot be denied assistance to restore livelihoods and living conditions based on the lack of title.

Vulnerable

Vulnerable means any people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement i.e; (i) single household heads with dependents; (ii) disabled household heads; (iii) poor households; (iv) elderly households with no means of support; (v) the landless or households without the security of tenure; and (vi) ethnic minorities.

Social Impact Assessment (SIA)

Social impact assessment (SIA) is the process of identifying and managing the social impacts of industrial projects. It can also be applied to policies, plans, and programs. SIA is used to predict and mitigate negative impacts and identify opportunities to enhance benefits for local communities and broader society.

Project Area Influence

The area likely to be affected by the project, including all its ancillary aspects, such as power transmission corridors, pipelines, canals, tunnels, relocation, and access roads, borrow and disposal areas, and construction camps, as well as unplanned developments induced by the project (e.g., spontaneous settlement, logging, or shifting agriculture along access roads).

Executive Summary

The catastrophic deluge of September 2014 harmed the socio-economic aspects of the Union territory of Jammu and Kashmir (erstwhile state) and massive infrastructure damaged in which not only Srinagar was most affected but other districts as well. It left behind a trail of siltation in most of the water bodies as environmental degradation, which is always synonymous with major floods. In connection to the catastrophic flood, a mission of the World Bank visited the Union territory of Jammu and Kashmir (erstwhile state) during February 1-6, 2015 on request of the Government of India to review and assess the damages 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.

Based on the RDNA results, restoration works underway, and discussions with the Govt. of J&K, "Jhelum and Tawi Flood Recovery Project (JTFRP)" will focus on restoring critical infrastructure using international best practice on resilient infrastructure. One of the sub-project identified under Component 2 of JTFRP is "Construction of rigid pavement of I.G road from Peerbagh Bridge to Humhama Chowk in District Srinagar" and having a total length of 1.5 Km including longitudinal surface drainage. The project road connects Srinagar to Sheikh ul Alam International Airport, having the moderate intensity of commercial vehicles. Urban built-up section observed on both sides of the road with settlements of Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama.

Sub-projects under "Jhelum and Tawi Flood Recovery Project" 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 with a sensitive area criterion. The screening for this sub-project has been conducted to identify the potentially significant social issues of the sub-project at an early stage for detailed Environmental and Social impacts. The screening does not envisage any significant impact due to sub-project. The project information was shared and disseminated with the stakeholders in the public consultations Peerbagh and Humhama Chowk. These were conducted successfully with the people on 12.07.2019.

The revenue record obtained from revenue department revealed that existing road does not passes through private land, there is no requirement of private land acquisition. The existing road passes through Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama (District Budgam). It is clear from the revenue record that road passes under khasra

numbers 1026/1 and 351 and land is under the ownership of the government. Total land under these khasra numbers is 26.038 acre.

Project Manager (Transport, Kashmir division), JK ERA, vide letter no ERA/PMT/20/1121 dated 07.04.2020 has issued an encumbrance free certificate which confirms that upgradation and strengthening of the road for a length of 1.5 km under JTFRP shall be restricted to the existing and available RoW. Further, it is also certified that there are no residential commercial, religious structure or any CPR in the existing RoW.

The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW for the sub-project road is 21.00 meters. Approved DPR and the site visits envisaged that for the proposed sub-project no land acquisition either private or government is required. Therefore, on the basis of certificate issued by Project Manager (Transport, Division Kashmir), available revenue record, site visits and approved DPR, it can be said that the sub-project does not have any adverse impact on the structures, land or on livelihood of anyone.

However, if during the execution, there is any unanticipated impact of the sub-project same shall be addressed as per the provisions Environment & Social Management Framework (ESMF) of the project other applicable policies of the WB and that of U.T of J&K.

1. Background 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, Chenab, and Tawi Rivers as well as many other streams/tributaries to flow above the danger mark. The Jhelum River also breached its banks flooding many lowlying areas in the Kashmir region, including the capital. In many districts, the rainfall exceeded the normal by over 600%. In the Jammu division also, many districts received rainfall above normal. Jammu district itself recorded over 467.3 mm of rainfall during Sept 2014, which is 339% excess of the normal (source-Indian Meteorological department website). 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.

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 Union territory of Jammu and Kashmir (erstwhile state) were impacted.

A joint team led by the **Department of Economic Affairs (DEA), GoI,** with representation from the World Bank visited J&K on October 21, 2014. Subsequently, GoI 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 Union territory of Jammu and Kashmir (erstwhile state). In response, a mission of the World Bank visited the Jammu and Kashmir (erstwhile state) during February 1-6, 2015 to produce a rapid multi-sectorial 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 centers 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 practices on resilient infrastructure. Given the Jammu and Kashmir (erstwhile 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 Jammu and Kashmir (erstwhile 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 Jammu and Kashmir (erstwhile state) and increase the capacity of the Jammu and Kashmir (erstwhile state) entities to respond promptly and effectively to an eligible crisis or emergency.

1.3 Project Components

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.

1.4 Sub-Project Background

Component 2 of the "Jhelum and Tawi Flood Disaster Recovery Project" is 'to restore and improve the connectivity disrupted due to the disaster through the reconstruction of damaged roads and bridges. The component will finance and support the reconstruction of about 300 km. of damaged roads and associated drainage works, retaining walls, breast walls, and other structures to increase resilience, designed to be seismic resilient (as per the guidelines of the Bureau of Indian Standards) and concerning topography and

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

hydrology (as per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways), and projected demographic changes.

The government of Jammu & Kashmir decided to undertake 27 numbers of roads under JTFRP which were damaged due to the 2014 floods in the State. Out of the 27 roads, 7 will be executed in Jammu and rest in Srinagar province.

One of the sub-project identified under Component 2 of JTFRP is "Construction of rigid pavement of I.G road from Peerbagh Bridge to Humhama Chowk in District Srinagar" and having a total length of 1.5 KMs including longitudinal surface drainage. The project road connects Srinagar to Sheikh ul Alam International Airport, having the moderate intensity of commercial vehicles. Urban built-up section observed on both sides of the road with settlements of Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama.

1.5 Sub-Project Description

The project road connects Srinagar to Sheikh ul Alam International Airport, having the moderate intensity of commercial vehicles. Urban built-up section observed on both sides of the road with settlements of Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama. During floods in the year 2014, the existing International Airport Road was fully submerged and regular submergence history was also found in this particular stretch due to drainage issues. There is no longitudinal drain, only cross drainage structure exists which is only used to carry the discharge of cross flows of water, not carry the water on existing roads. As a result, submergence of this particular stretch is a common phenomenon each & every year. Moreover, existing flood channels is of full debris, lost their carrying capacity. The provision of Rigid Pavement is not the only solution that may cover up this situation. In addition to that, the larger section of box culverts (used as cross drainage) & cover longitudinal drains on both sides are propose along the roads to channelize the water up to the existing cross drainage with a proper slope which also escalates the system of pumping whenever rains are beyond the speculation

1.6 Benefits of the Sub-Project

The reconstruction of the proposed road will be a great help to the residents and businessmen to commute easily, less traffic congestion and transport agricultural products. Children would be able to travel faster and safer to go to school, as well as the local people when accessing basic facilities such as health center/hospital, markets, working place, place of worship, and other areas. Besides that, the road will have fewer bags of dust during the

dry season which may aggravate the health condition of the children and elderly; unlike the condition of the road during the rainy season which is muddy and slippery, is risky for the lives of the road users especially those using bicycles and motorcycles.

The project will not cause adverse impacts for the local people including women and there is no cultural heritage and forest that will be affected. During the civil works, there will be minimal social impacts but these are temporary disturbances and will be mitigated under the SMP. Overall, the project will provide long-term benefits for the local people. People expressed full support to the project 100% among consulted persons and are in favour of the project, and they would suggest having the civil work starts as soon as possible.

1.7 Need for Social Impact Assessment

Social Impact Assessment (SIA) is a tool for anticipating and mitigating the potentially negative impacts of projects, such as dams, roads, power projects, mining, and other development projects. SIA alerts project planners (public and private bodies) as to the likely social and economic costs and benefits of a proposed project. The knowledge of the potential costs, when weighed against the likely benefits of a project, helps decision-makers in deciding whether the project should be carried out, with or without modifications, or abandoned completely. The agency carrying out the SIA also develops a mitigation plan to overcome the potential negative impacts on individuals and communities.

The purpose of the SIA is to ascertain whether a project proposed by the developer is truly in the public purpose, and whether the project is located at a site which is least-displacing and requires the bare minimum amount of land.

1.7.1 Need for SIA in IG road from Peerbagh bridge to Humama Chowk Road Sub-Project

Social Impact Assessment study in the sub-project road was conducted to identify and assess the land requirement for the proposed sub-project besides identifying the temporary and permanent impacts. Peerbagh bridge to Humama chowk sub-project road is going to be improved and upgraded on existing alignment and the existing RoW is 21 meters. No additional land is required for improvement and up-gradation of the road. Though the sub-project does not require private land acquisition, therefore, the Social Impact Assessment was conducted to identify and assess any other impact on the people and communities due to project implementation such as any impact on private assets (of both titleholders and non-titleholders), on the livelihood of people, common property resources or any other type of impacts. Further, it will guide Executing Agency (EA) to

prepare a sound Social Management Plan that will provide guidance to the contractor & PIU to manage social issues during execution and post execution.

1.8 Objective of Social Impact Assessment

The major objectives of the SIA are given below:

- To gather baseline data for assessment of impacts (both direct and indirect);
- To suggest mitigation measures to effectively manage potential adverse impacts;
- To involve local people in the SIA study and project activities.

1.9 The methodology adopted for the SIA

1. Defining the Impact area

The first step undertaken was to define the Area of Impact. For defining the project area (both directly and indirectly), a map that will show the project area was prepared. Besides, a field visit to the area were undertaken on 12.07.2019 to have a better understanding of the geographic limits of the area and the people living there.

2. Identifying the Information/Data Requirements and their Sources

The existing secondary data (census 2011) on impacts likely to follow from the project was reviewed and used for assessment purposes. This has provided disaggregated data according to caste, religion, sex, and other administrative categories, such as persons below the poverty line.

3. Public Consultation

Project-related information's were shared with all the concerned stakeholders in Bijbehara and Peerbagh and Humhama Chowk on 12.07.2019. This was the first step in developing plans for consultation and participation is to identify stakeholders who will be involved in the consultative processes. Since the sub-project does not envisage acquisition of assets such as land and structures and there is no adverse impact on the livelihood either. Therefore, only people residing along the sub-project road were involved in the consultation and identified as major stakeholder along with PIU, PMU and line departments. The basic questions to consider in identifying stakeholders include:

- Who will be directly or indirectly and positively and negatively affected?
- Who are the most vulnerable groups?
- Who might have an interest or feel that they are affected?
- Who supports or opposes the changes that the project will produce?

- Whose opposition could be detrimental to the success of the project?
- Whose cooperation, expertise, or influence would be helpful to the success of the project?

4. Screening

Social Impact Assessment (SIA) process began with screening. Screening was undertaken in the very beginning stages of project development. The purpose of screening was to screen out "no significant impacts" from those with significant impacts and get a broad picture of the nature, scale, and magnitude of the issues. This helped in determining the scope of detailed SIA that would be subsequently carried out. The screening results revealed that the project will not have any significant impact. It has been decided that the proposed road will be upgraded in the available RoW and there are no structures either commercial, residential or any CPR in the alignment of the road.

5. Carry Out Scoping in the Field

The next step was scoping. Essentially, this involves a visit to the project site, and consultation with all stakeholders. It is important to confirm their understanding of key issues. On-site appreciation of impacts is indispensable for projects that cause displacement on a large scale. The local knowledge can be invaluable in finding alternatives that help avoid or at least reduce the magnitude and severity of adverse impacts.

6. Developing a Mitigation Plan

SIA study helps and guides in the preparation of social mitigation and management plan for the envisaged and unanticipated impacts. In this study SMP has been prepared in consultation with the locals, PIU and other stakeholders which will serve as blueprint for managing and mitigating social issues/impacts during execution of the sub-project.

1.10 Structure of SIA Report

Executive Summary

- 1. Introduction & Background
- 2. Project Description
- 3. Legal and Regulatory Framework
- 4. Socio-Economic Profile of the Project Impact Area
- 5. Analysis of Alternatives
- 6. Stakeholder's Consultation
- 7. Analysis of Social Impacts
- 8. Mitigation Measures

- 9. Grievance Redressal Mechanism
- 10. Institutional Arrangements
- 11. Monitoring and Evaluation

2. Project Description

2.1 Description of the Project

The Jammu & Kashmir region owing to its geographical and geo-climatic setting is a multi-hazard prone region that has experienced natural disasters like earthquakes, floods, landslides, avalanches, high-velocity winds, and snowstorms. Most of the project roads in Kashmir Valley fall in plain terrain whereas roads under Jammu Province are passing through hilly terrain. In Kashmir, Floods and flash floods are also frequent. Floods generally occur in the summer when heavy rains are followed by snowmelt. Flooding of the river Jhelum is the main cause of floods in the region. In Jammu province, hill roads are mainly damaged frequently during the beginning of summer due to snowmelt and due to heavy rain. Hill slopes are badly damaged and sliding comes on the roads as there is no such protection work exists towards hill slide slope. Even Jammu Srinagar National Highway is not unturned from it.

In September 2014, the northern region of India experienced torrential monsoon rains in the region causing major flooding and landslides. The continuous spell of rains from September 2nd to 6th, 2014, caused Jhelum and Chenab Rivers as well as many other streams/tributaries to flow above the danger mark. Due to the unprecedented heavy rainfall, the catchment areas particularly the low laying areas were flooded for more than two weeks. As a result, the main tributaries of river Jhelum vis-a-vis Brengi Nallah, Vishav Nallah, Lider Nallah, and Sundran Nallah started overflowing. The water level also increased in the rivers of Chenab and Tawi, both of which the water flowing above normal levels. Due to the rivers overflowing nearly 20 districts were impacted. The total damage and loss caused by the flood is about INR 211,975 million, most of it to housing, livelihoods, and roads and bridges, which combined represented more than70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

The project "Jhelum & Tawi Flood Recovery Project" will focus on restoring critical infrastructure using the international best practice of resilient infrastructure. Given the region'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, a study followed by detailed reports on flood management aims at both restoring essential services disrupted by the floods and improving the design standards and practices to increase resilience.

Based on the RDNA results, restoration works underway, and discussions with the Govt. of J&K, "Jhelum and Tawi Flood Disaster Recovery Project (JTFRP)" will focus on restoring critical infrastructure using international best practice on resilient infrastructure. Component 2 of JTFRP is 'to restore and improve the connectivity disrupted due to the disaster through the reconstruction of damaged roads and bridges. The project will finance the restoration and improvement of about 27 damaged roads, as per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways.

2.2 Sub-Project Description

Categorically, it is a 4-lane arterial road, falling under plain terrain connecting Srinagar Airport, having the moderate intensity of commercial vehicles. Built-up sections were observed on both sides of the road. During the flood in the year 2014, the stretch was fully submerged and regular submergence history was also found in these particular stretches due to drainage problems only. There is no longitudinal drain, only cross drainage structure exists which only use to carry the discharge of cross flows of water, not carry the water on existing roads. As a result, submergence of this particular stretch is a common phenomenon each & every year. Moreover, the existing flood channel is full of debris, lost its carrying capacity. The provision of Rigid Pavement is not the only solution that may cover up this situation. In addition to that, the larger section of box culverts (used as cross drainage) & cover longitudinal drains on both sides are proposed along the roads to channelize the water up to the existing cross drainage with a proper slope which also escalates the system of pumping whenever rains are beyond the speculation.

2.3 Project Location

The project road connects Srinagar to Sheikh ul Alam International Airport, having the moderate intensity of commercial vehicles. Urban built-up section observed on both sides of the road with settlements of Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama.

GIS Map of the Proposed Sub-project of "Construction of Rigid Pavement of IG rod from Peerbagh bridge to Humama Chowk in District Srinagar has been annexed in annexure 2.

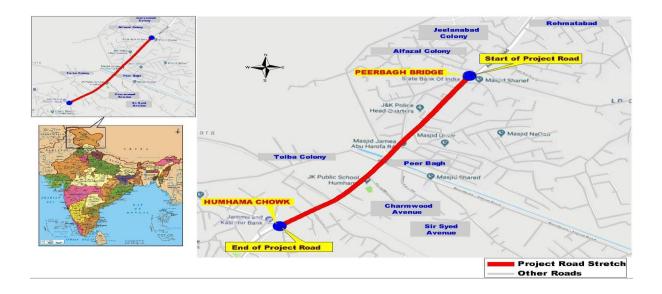


Figure 1: Overview of Peerbagh bridge to Humama Chowk Road Sub Project

2.4 Details of Existing Project Road

The existing road is a 4-lane arterial road, falling under plain terrain connecting Srinagar Airport, having the moderate intensity of commercial vehicles. Built-up section observes on both sides of the road. One RUB (Railway Bridge) and Bridge on Flood Channel exists at Ch 1.150 Km and Ch 0.714 Km respectively. During the flood in the year 2014, the stretches were fully submerged and regular submergence history was also found in these particular stretches due to drainage problems only. There is no longitudinal drain, only cross drainage structures exist which only use to carry the discharge of cross flows of water, not carry the water on existing roads. As a result, submergence of this particular stretch is a common phenomenon each & every year. Moreover, existing flood channels is of full debris, lost their carrying capacity. The provision of Rigid Pavement is not the only solution that may cover up this situation. In addition to that, the larger section of box culverts (used as cross drainage) & cover longitudinal drains on both sides are propose along the roads to channelize the water up to the existing cross drainage with a proper slope which also escalates the system of pumping whenever rains are beyond the speculation. Though Traffic Census has been conducted in lean period at Ch. 1.200 Km having PCU, ADT & CVPD is 8629, 7146 & 1645 respectively. Development of the project road is essential as it is the most important arterial road in Kashmir which only connects the Srinagar city or Kashmir Valley with Airport.

2.4.1 The embankment, Carriageway, and Shoulder

The average width of the existing carriageway is 7 m on either side of the lane divider of the project road with a 1.8 m raised footpath resulting in the formation width of 17.6 m. In the

stretch from Km 0.000 to Km 0.537 and from Km 1.023 to 1.491 Km regular submergence reported after every rain. As the project road passing through built-up stretches, embankment height becomes zero. To avoid submergence, FRL rising is not possible due to the existence of RUB & built-up sections. Mastic Asphalt may be laid from on the existing bridge and its slope. The details of carriageway, land Use Pattern and Shoulder width, etc are mentioned in Table 3.1 of DPR.

2.4.2 Horizontal and vertical alignment

Mostly the road runs in plain terrain and the existing alignment is fair. The existing vertical alignment follows in plain type.

2.4.3 Pavement Condition

The existing pavement is of flexible type from Ch 0.000 Km to 1.500 Km having a different thickness as reflected from pavement investigation are in Good condition. But, the pavement thickness is not homogeneous throughout the stretches. Depending upon the existing crust component and type of proposed pavement, the entire stretch has been divided into several sections. Excavation for a depth of 570 mm requires constructing the Rigid Pavement section.

2.4.4 Cross Drainage Structures

Table 1: Details of Cross drainage structures

	Existing Structure										
Sl	Chainage (Km)	Type of Structure	Span / Dia (m)	Total Width (m)	Length of Head/Parafet Wall/Railing (m)	Condition					
1	0+572	Drain	0.600	38	-	Fair					
				(in Skew)							
2	0+714	Bridge	35	24.4	70	Good					
3	0+875	SC	4	21.5		Fair					
4	1+206	SC	4	31.4		Fair					

2.4.5 Submergence area

Frequent submergence is found along the corridor is as below:

Table 2: Details of submergences area

Sl. No.	Starting Km	Ending Km	Length (Km)	Side
1	0.000	0.477	0.477	Both
2	0.903	1+491	0.588	Both
	Total		1.065	

2.4.6 Existing Lined and Unlined Drain

There is a longitudinal existing drain along the project Road which is very insufficient to carry the discharge from the road.

2.4.7 Existing Pavement Composition

The said road is a very old road which was initially constructed based on the traffic on the section. Afterward, several maintenances work of the different specifications have been undertaken over the road. Specification adopted for such maintenance widely varies from year to year as well as from stretches to stretches. So the road section does not have a homogeneous crust. Trial Pit Investigation has been conducted for detailing pavement composition at different locations and on average following composition is found as existing hard crust. Details of the existing pavement composition is shown in Table 4.

The total thickness of the hard crust varies from 640 mm –800 mm. The existing crust comprises of GSB consists of soling materials – 350 mm to 450 mm thick (average 390 mm), partly disintegrated base course with WBM - 210 mm to 270 mm thick (average 250 mm) and Bituminous/ Binder course- varying from 70 mm to 80 mm thick (average 72.5 mm).

Table 3: Details of Existing Pavement Composition

		Thickness (mm)								
Location	Description of Layers	Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub- Base Course in mm	Total				
DD 0.000 / FD 4	Bituminous	80			450					
RD-0.000 / TP 1 (LHS)	WBM	270	80	270		800				
	Metal Soling	450								
RD 0.500 / TP 2	Bituminous	70	70	270	350	690				
(RHS)	WBM	270				370				

		Thickness (mm)							
Location	Description of Layers	Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub- Base Course in mm	Total			
	Metal Soling	350							
DD 1 000 / TD 2	Bituminous	70			360				
RD 1.000 / TP 3 (LHS)	WBM	210	70	210		640			
	Metal Soling	360							
DD 4 500 / MD 4	Bituminous	70							
RD 1.500 / TP 4 (LHS)	WBM	250	70	250	400	720			
	Metal Soling	400							
Average Thickne	ss from Km 0.000 t	o Km 1.500	72.5	250	390				
Minimum Thickn	ess from Km 0.000	70	210	350	640				
Maximum Thicki	ness from Km 0.00	0 to Km 1.500	80	270	450	800			

2.4.8 RoW Details of Sub-Project Road

Project Manager (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1121 dated 07.04.2020 provided a non-encumbrance certificate which confirms that the sub-project road does not have any temporary or permanent structure in the whole stretch (annexure 4). The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW in the sub-project road is 21 meters (annexure 5).

2.4.9 Major Utilities Along the Existing Road

A detailed road inventory survey was carried out at 500 m intervals mainly the proposed alignment. Detailed information was collected and utilized for planning, design, and cost estimate.

An inventory of the project road has been carried out through dimensional measurement and visual inspection. Features like chainage, terrain and land-use, the height of fill or depth

of cut, the width of pavement and shoulders, important road junctions and geometric deficiencies, utilities, etc., were recorded.

These surveys were carried out by visual observation supplemented with sample measurements using tape etc. The road inventory has been referenced to the existing km posts established along the roadside.

2.5 Proposed Activities (Improvement & Upgradation)

Table 4: Overview of the proposed road

Sl.No.	Description of item	Details					
1	Road length	Existing Length – 1.500 Design Length – km.					
2 (a)	Road Configuration (Present Scenario)	4 Lane Dual carriageway					
2 (b)	Road Configuration (Based on 30 years Design Period)	4 Lane Dual carriageway					
3	Terrain	Plain					
4	Land use pattern	Mixed land use Built up					
5	Existing Surface of carriageway	Existing - Flexible pavement	Propose- Rigid pavement				
6	Existing Formation width						
7	Right of Way (ROW)	21.00 m					
8	Pavement Condition	Fair					
	New Rigid Pavement thickness (Section derived based on average						
9	thickness of existing crust of that particular stretch)						
10	Design CBR	5.20 % (80 th Percentile)					
11	Junctions	Major- 01, Minor - 24					
12	Traffic	From Km 0.000 to Km 1.500 ADT-7145, CVPD - 1358, PCU -8584, MSA- 153.85					
13	Cross drainage structures	Existing: Bridges - 01, Slab Culverts-03, RUB - 01	Proposed: Bridges-01 (retain), Box Culverts-03, RUB - 01 (retain)				

2.5.1 Carriageway/ Roadway Width

Settlement

In general, the proposed cross-section comprises 2 lanes dual carriageway (Rigid Pavement) with median and 1.5 m width RCC Cover Drain on either side proposed from Km 0.000 to 0.477 Km and from Km 0.903 to Km 1.491. The camber on either side of the carriageway is 2.0 %. In addition to that, from Km 0.477 to Km 0.903 stretches maintained as flexible and retained the pavement. Mastic Asphalt is only laid in this particular stretch over the flexible pavement. Based on the available width, New Construction of Rigid Pavement has been considering which is mentioned in table 5.

Table 5: Detail of Rehabilitation and strengthening stretches in Segment I & Segment II

SI No	From Ch	To Ch	Length (km)	BT/Formation Width (m)	reyu. Rehabilitation Width (m)	Section	TCS Type	Type of Proposal	Type of Pavement
1	Km 0.000	Km 1.500	1.500	2 x 7	-	I	TCS-1	NC	Rigid

2.5.2 Horizontal and vertical alignment

Existing alignment is followed for Rehabilitation and strengthening of the existing road and it is found that mostly the required average design speed of 80 km/hour is maintained. The existing carriageway will be provided with the required grade after making the provision for a profile corrective course with proper two-directional cambers over the existing carriageway surface. Horizontal & Vertical Curve details are mentioned in Annexure IV of DPR.

2.5.3 Improvement of Sight Distance

Improvement of sight distance on the proposed alignment has been taken care of while designing the alignment. However, a necessary road sign has to be provided where speed is restricted wherever required.

2.5.4 Improvement of Cross Drainage Structures

All Slab Culverts are replacing by Box culverts having a minimum section of 2x2 up to total formation width. In addition to that, longitudinal drains are proposed on both sides of the

road to carry the water on the project stretch accumulated during rain. Details are given in table 6.

Table 6: List of Cross drainage structures

		F	Existing S	tructure	Proposed Structure					
SI	Chaina ge (Km)	Type of Structure	Span Lengt h (m)	Total Width (m)	Lengt h of Head/ Paraf et Wall/ Railin g (m)	Condition	Type of Structu re	Span / Dia (m)	Widening Required	Remarks
1	0+572	Drain	0.600	38 (in Skew)	-	Fair	ВС	2 x 2	-	R & NC
2	0+714	Bridge	35.0	24.4	-	Good	-	-	-	Retained
3	0+875	SC	4.0	21.5		Fair	ВС	4 x 2.5	-	R & NC
4	1+206	SC	4.0	31.4		Fair	ВС	4 x 2.5	-	R & NC

2.5.5 Drainage Works

There are roadside habitations, the market area beside the project road where the drain is necessary; proposals for drains in new stretches apart from existing ones are given in Table 7.

Table 7: List of Drains

Sl.	Starting Chainage	Ending Chainage	Length (m)	Side	Type of Structure
1	0+000	0+675	2 x 675	Both	RCC Cover Drain
2	0+800	1+491	2 x 791	Both	RCC Cover Drain
	Total Length		2732		

2.5.6 Pavement Design

After doing the pavement investigation and pavement condition survey, it has been studied thoroughly. After that pavement design has been done as per the following considerations:

- Rehabilitation on existing pavement
- Reconstruction of existing pavement

The consultants have worked out the designs for all the above cases based on results of survey/investigations about traffic, axle load spectrum, pavement condition, and strength, subgrade/material properties, etc. The design life adopted in the analysis is 30 years for rigid pavement from the date of opening the road to traffic. Pavement design for various cases has been illustrated in the following paragraphs.

The following Survey has been conducted and procedure followed for design and construction:

- 1. Conducted the Traffic Study and based on PCU, lane configuration finalized. In the case of land constraint, lane configuration has been restricted upto the availability of space between properties of both sides.
- 2. Raising of Existing Carriageway is not done where roadside establishment exists. On those stretches, reconstruction has been proposed. Where lane configuration is not feasible for the upgrade, the carriageway has been restricted upto the availability of space between properties of both sides.
- 3. The existing condition of the road is poor. Hence, the BBD test was not carried out. Existing bituminous layer to be dismantled and re-compaction to be done after dismantling bituminous layer.

Soil samples were collected from the sub-grade level after excavating the existing pavement thickness at the selected locations along the carriage way edge. Soil Samples taken to the laboratory were tested for L.L., P.L., and Gradation. Remolded soil samples were thereafter made by compacting at the maximum dry density and OMC. The samples were then soaked for 4 days and then tested for CBR value. For each location, three such remolded samples were prepared and tested for soaked CBR, and the average value of CBR at each location determined. The CBR value varies in between 5.2 % & 5.9 %. Based on the Traffic density, whole stretches have one homogeneous section. As per Clause 6.2.2 of IRC 37-2018, the 80th percentile value of sub-grade CBR (5.2%) consider for both type segments and pavement design for 153.85 MSA for 30 years design period. Mostly ML & MI classified soil exists on the stretch.

Design of flexible pavement for new construction has been done following "Tentative Guidelines for the Design of Flexible Pavement" (IRC: 37-2018). This is described as following.

1. Calculation of Design Traffic in terms of MSA at segment 1 (Ch $0.000~{\rm Km}$ to Ch $1.500~{\rm Km}$)

Computation of Design Traffic

[Vide Clause 4.6.1 of IRC:37-2018]

The Traffic in the year of completion (A) is estimated using the following formula:

A =
$$P(1+r)^x$$
 = $1358 \times (1+0.06)^1$ = 1439

Where:

P = CVPD as per traffic census report. = 1358

Number of years between the last

x = count and the year of completion of = 1

construction.

The **design traffic** in terms of the cumulative number of standard axles to be carried during the design life of the road has been computed using the following equation: As per clause 4.6.1 of IRC:37-2018.

$$N_{Des} = \begin{array}{c} 365 \times [(1+r)^n - 1] \\ N_{Des} = \\ r \end{array}$$

$$Where: \begin{array}{c} N_{Des} = \\ R_{Des} =$$

Therefore:

= 153846888 ESA

2. Calculation of Design CBR

The CBR value varies between 5.2% & 5.9% from Ch 0.000 Km to Ch 1.500 Km whereas from Km Mostly ML & MI classified soil exists on the stretch. Based on the Traffic density, the whole stretch has one homogeneous section As per Clause 6.2.2 of IRC 37-2018, the 90th percentile value of sub-grade CBR (5.2%) is considered. Design traffic is 153.85 MSA for 15 years design period. As per IRC 58:2015, the required CBR for Rigid Pavement is 8%. The average Thickness of Pavement is 720 mm, whereas the proposed thickness of Rigid Pavement is 570 mm. In such a case, excavation is only made for a thickness of 570 mm, and the remaining 150 mm crust composition retained which will be treated as sub-grade as CBR of this metal soiling layer is more than 8%.

Determination of Pavement Layers: The Pavement composition of different layers has been done as per IRC 58:2015. The Detail calculation is enclosed in Annexure V of DPR. Summary of the pavement composition has been mentioned below:-

Pavement design has been done using Design Traffic as 155.4 MSA & 80th percentile CBR as 5.2%.

2.5.7 Traffic Safety and Other Appurtenances

Following road furniture and miscellaneous items have been designed keeping safety aspects in mind.

I. Road Markings

Road Markings on the carriageway and the objects within and adjacent to the roadway are used as a means of guiding and controlling the traffic. They promote road safety and ensure the smooth flow of traffic in the required paths of travel.

The location and type of marking lines, material, and the colour is followed using IRC: 35-2015 – "Code of Practice for Road Markings".

The road markings were carefully planned on carriageways, intersections, and bridge locations.

II. Road Signs

Road signs were planned to supply information, to regulate traffic by imparting messages to the drivers. The type, locations, sizes were planned using IRC: 67-2012 "Code of Practice for Road Sign".

III. Delineators

The role of delineators is to provide visual assistance to the driver about the alignment of the road ahead, especially at night. Reflectors are used on the delineators for better night visibility. IRC: 79-1981 "Recommended Practice for Road Delineators" was followed to plan location details. Two types of road delineators were planned i.e. hazard markers and object markers. Hazard markers are to define obstructions like guardrails, and abutments adjacent to the carriageway, for instance at culverts and bridges. Object markers are used to indicate hazards and obstructions within the vehicle flow path, at channeling islands close to intersections.

IV. Crash Barrier

Metal crash barriers are proposed/ provided for the safety of the traffic on the stretches on approaches of bridges. It is also proposed on the curves for the safety of traffic irrespective of embankment height as per NHAI Circular (NHAI/PH-II/NHDP/ADB/GM (NS)-I dated May 19, 2004).

V. Parapet Wall

Parapet walls are provided along the edge of the shoulders at the valley side throughout the project stretch excluding the settlement areas. These are provided to prevent the vehicles from toppling over.

3. Legal and Regulatory Framework

This section deals with the laws, regulations, and policies, of the Government of India, the State Government, and the World Bank, related to environmental and social issues. Only the laws, regulations, and policies relevant to the project are discussed here. This section needs to be updated as to when new laws, regulations, and policies are made and enforced or the existing ones are revised.

3.1 Operational Policies of World Bank

The safeguard policies, the triggers for each policy, as well as the status of their relevancy for the proposed project are presented in the table below:

Table 8: World Bank's Operational Policies

Operational Policy	Key Features	Applicability
Involuntary Resettlement (OP 4.12)	Physical relocation and land loss resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location.	Not Applicable The sub-project has no impact on any asset or livelihood of anyone.
Indigenous Peoples (OP 4.10)	If there are indigenous peoples in the project area, and potential adverse impacts on indigenous peoples are anticipated, and indigenous peoples are among the intended beneficiaries.	Not Applicable The sub-project does not adversely impact any Schedule tribe population
Physical Cultural Resources (OP 4.11)	The policy is triggered by projects which, prima facie, entail the risk of damaging cultural property (e.g., any project that includes large-scale excavations, movement of earth, surface environmental changes or demolition).	Not applicable No impact on any cultural resources

3.2 World Bank's Environment Health and Safety Guidelines

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs.

Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. The applicability of the EHS Guidelines should be tailored to the hazards and risks that may occur in the subproject on the basis during pre-construction, construction, and operation phases.

3.3 National & U.T.'s Policies

Table 9: National and U.T.s Policies

S.No.	Acts/Policies/Rules	Relevance to this project	Applicability in the sub-project
1	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	The Act has provisions to provide fair compensation to those whose land is taken away, brings transparency to the process of acquisition of land to set up factories or buildings, infrastructural projects, and assures rehabilitation of those affected.	Not Applicable Sub-project does not have any adverse impact of private land livelihood of anyone.
2	State Land Acquisition Act 1990 (1934 AD)	The State Land Acquisition Act1990 (1934 AD) is in force in the state of Jammu and Kashmir. This Act provides the legal framework for land acquisition for public purposes in J&K. It enables the State Government to acquire private lands for a public purpose, and seeks to ensure that no person is deprived of land except under the Act.	Not Applicable Sub-project does not have any adverse impact of private land.
5	Jammu and Kashmir Common Lands (Regulation) Act, 1956	An Act to regulate the rights in common lands. Provide relief to the user of the lands, used for common purposes like roads, streets, lanes, pathways, water channels, drains, wells, tanks, or any other source of water supply to the villagers in general. Provision for the prohibition of encroachments over such common lands and public places and eviction thereof and in case of encroachments, to restore the rights of the users. Provision for assigning land for extension of "Village Abadi", if existing land is inadequate for the habitation of the villagers at any point of time.	Not applicable. The sub-project as per available revenue record does not have any impact upon common Lands.

3.4 Other Central and State acts which may be applicable in the Subproject:

- Minimum Wages Act, 1948
- Contract Labor Act, 1970
- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013
- The Bonded Labor System (Abolition) Act, 1976
- Child Labor (Prohibition and Regulation) Act 1996 along with Rules, 1988
- Children (Pledging of Labor) Act, 1933 (as amended in 2002)
- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996
- Untouchability Offences Act, 1955
- The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act,
 1989
- The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Rules, 1995
- Disaster Management Act 2005: specifies that while providing compensation and relief to victims of disasters there shall be no discrimination on the grounds of sex, caste, community, descent or religion.
- The Jammu and Kashmir Protection of Human Rights Act 1997
- The Jammu and Kashmir Natural Calamities Destroyed Areas Improvement Act, 1955:
- The Jammu and Kashmir Right to Information Act 2004
- Backward Classes Commission Act, 1997
- Persons with Disabilities Act, 1998
- J&K Reservation Act, 2004

4. Socio-Economic Profile of the Project Impact Area

4.1 Physical features

Srinagar district is situated at an altitude of 1730 meters above sea level and lies between 33°- 14′ and 38°-25′ North latitude and 74°-38′ East Longitude, in the centre of valley of Kashmir. It is bounded in the north by district Kargil, in the south by district Pulwama, in the north-east by district Anantnag, in the west by district Baramula and in the south-west by district Badgam. It possesses almost central position in Kashmir region. Besides being summer capital of Jammu and Kashmir State it has great antiquity and chequerred history which dates back to 250 BC.

Srinagar was also known as Hemavar, Praverpora and Praversenpur. It has remained the centre of power, with different kings shifting their capital from one place to another. The grim mountain Hurmukh (16,903 feet.) which guards the valley of Sindh stands in the east. Further, south is Mahadeo which seems to almost look down on Srinagar. The geographical area of the district is 1979.00 Square kilometers and it ranks number 16 in terms of area among 22 districts of Jammu & Kashmir.

4.2 Physiography

The valley of Kashmir is distinctly marked by lakes, streams, luscious fruits, magnificent forests and mighty mountains; the features which contribute to the making of valley a paradise on earth. Situated in the lap of the Himalayas the green fertile valley of Kashmir is guarded by a long chain of mountains with an average height of about 1828.8 metres above the sea level. The general aspect of the valley is that of a basin, surrounded on every side, by a range of lofty mountains and with it is extensive tract alluvial soil water by the Jehlum and its various tributaries which flow down from the mountains and are fed by the heavy snow and rain falling in the elevated regions. The valley resembles a gem set in the casket of the ever lasting Himalayas. The physiography of Kashmir can be studied with three major physical divisions plain, plateau and mountains.

4.3 Drainage

The valley of Kashmir is famous for rivers, clear streams, land of lakes, green turfs of magnificent trees and mighty mountains. This description is particularly true of the territory falling within the jurisdiction of Srinagar district. The area of Srinagar district

² Source: https://censusindia.gov.in/2011census/dchb/DCHB_A/01/0116_PART_A_DCHB_DODA.pdf

occupies the central part of the valley. The flat valley is interwoven with rivers, streams, nallahs, springs and underground water resources. The river Jehlum cuts the district diagonally from south-east to North West. Nine bridges span the river, shrines and temples dot the entire area. The view from any of the old city's bridges is wholly and mistakably Kashmiri, old brick building line the banks. The main source of the Jehlum River is a spring at Verinag and its course through the valley. It carries the waters of a host of streams that flow down from the bordering mountain slopes. The length of the River Jehlum from its source upto Baramulla is 159 kms. It is navigable throughout its entire course.

4.4 Underground Water Resources

There is plenty of ground water in the district especially in Karewas and alluvial stratra. The ground water exists in confined as well as unconfined conditions. The depth of water level varies from the land surface level. The outflow areas are not uncommon in Srinagar. Ground water has a little content of dissolved minerals. Other chemical properties are upto the norms for drinking water fixed by Bureau of Indian Standards. The water is however, contaminated by the presence of Hydrogen Sulphide (H2S) in Karewa areas and is, therefore, not fit for drinking. Water is still being supplied to most of the localities through water tankers as new residential colonies are developed in the city of Srinagar, resulting more significance for development of ground water resources for drinking purposes, but very little has been achieved and there is scarcity of potable water in most of the localities in and around the city of Srinagar. The Department of Irrigation and Flood Control has procured several rigs for development of ground water resources on scientific methods.

4.5 Climate

The climate of the district is more or less similar to that of other districts of the valley. Areas situated at higher altitudes experience severe cold for major part of the year and are not accessible for more than few months. The Kashmiris have determined their own norms to describe the seasons of the year and accordingly calendar their agricultural activities. The duration of these seasons with local names is as follows:-

- 1. Soonth Spring (Mid March to Mid May)
- 2. Grishim Summer (Mid May to Mid July)
- 3. Wahrut Rainy season (Mid July to Mid September)
- 4. Harud Autumn (Mid September to Mid November)
- 5. Wand Winter (Mid November to Mid January)
- 6. Sheshur Sever cold (Mid January to Mid March)

4.6 Soils

The character of the soil in the district which is a central part of Kashmir valley has been studied with reference to broad physiographic division and accordingly the main soil types are classified as under:

- 1. The highlands mainly between 1850 and 3350 metres.
- 2. The Karewa uplands.

The soil on the flanks of the River Jehlum is most fertile as it gets periodically renewed and enriched with fresh deposition of silt by recurrent floods. The soil on highlands and Karewas is different at different places and their fertility depends upon the site, nature of slope and altitude of the places.

4.7 Flora and Fauna

The flora of Kashmir displays a vivid transition from a narrow belt of sub-tropical temperate, sub-alpine to alpine zones. Srinagar district falls a temperate zone between 1500 and 2300 metres altitude and has a temperate climate. The marshes swamps and lakes form important habitats in the region. The forests of the district have a wide range of woods and flowers, Deodar, Kail Pine, and Firewood etc. are found in abundance. There is also wide range of medicinal herbs in the area. The dense forests also provide a good habitat and conducive environment for birds and wild animals.

The charming side-valleys of varied scenery and meadows covered with lovely wild flowers of all colours attract different kinds of birds during different seasons of the year and thus enrich its bird life. A large variety of birds, particularly ducks and cranes in large flocks visit the valley in winter and some also breed here. The water bodies enable various species of fish to grow in abundance. This region is also rich in different species of colourful and fascinating butter flies.

4.8 Population

In 2011, Srinagar had population of 1,236,829 of which male and female were 651,124 and 585,705 respectively. In 2001 census, Srinagar had a population of 1,027,670 of which males were 558,353 and remaining 469,317 were females.

4.9 Sex Ratio

With regards to Sex Ratio in Srinagar, it stood at 900 per 1000 male compared to 2001 census figure of 841.

4.10 Literacy

Average literacy rate of Srinagar in 2011 were 69.41 compared to 63.13 of 2001. Total literate in Srinagar District were 748,584 of which male and female were 431,746 and 316,838 respectively.

4.11 Cropping Patterns

Agriculture is the main source of livelihood in the rural areas of the district. The district has a total area of 0.51 lakh hectares of which 0.46 lakh hectares of land is used for agricultural purposes excluding 0.04 lakh hectares which are sown more than once in a year. Area-wise distribution of various crops as registered during the year, 2008-09 is given as under:

Table 10: Area wise distribution of crops

Sl.No.	Name of the Crops	Area (in Hectares)	Area (in Hectares)
1.	Rice	2511	Total Food Crops
2.	Wheat	3	
3.	Maize	101	2688
4.	Grim Spices	Nil	
5.	Pulses	73	
6.	Fruit	1330	Total Non-Food Crops
7.	Vegetables	1393	
8.	Oil Seeds	434	4097
9.	Fodder	599	
10.	Other Food Crops	104	
11.	Other Non-Food Crops	237	
Total Area Sown		6785	6795

Source: District statistical Handbook (2008-09)

4.12 Horticulture

Apples, walnuts, almonds, pears, cherry, grapes and apricots are the main fruits of the district. The Horticulture department is striving to improve the quality plant material and production of the fruit grown in the district. Orchardists were provided plants and fencing material on subsidized rates. Many departmental nurseries were developed. A Fruit Preservation and Utilization Extension Centre is functioning at Lal Mandi where people are trained in converting fruit and vegetables into various by-products.

4.13 Irrigation

Major portion of cultivable land has irrigation facilities. According to the data supplied by Planning Department, the gross area sown in the year, 2008-09 stood at 5547 hectares or 05 Sq. kms. Of this 4116 hectares or 41 Sq.kms. were irrigated by canals, springs and other sources. Government as well as private canals irrigate an area of 3770 hectares or 37 Sq.kms. The area irrigated by springs was only 187 hectares or 1 sq.km. Whileas land irrigated by other sources was 75 hectares or 0.7sq.kms. Wells and tube wells irrigate an area of 111 hectares.

4.14 Animal Husbandry

Livestock rearing is an important occupation of the village folks in general and migratory population in the district. The Government is giving special attention in animal husbandry and sheep breeding. According to Livestock Census the total number of animals recorded in the district in 2007 is 1.02 lakh livestock heads out of a total 2.82 lakh heads in the State.

5. Analysis of Alternatives

For this sub-project, the analysis of alternatives has been made, considering the "with and without project scenarios" which considered the potential social impacts, both positive and negative, of the sub-project.

5.1 'Without' and 'With' Project Scenario'

5.1.1 'Without' Project Scenario

Categorically, it is a 4-lane arterial road, falling under plain terrain connecting Srinagar Airport, having the moderate intensity of commercial vehicles. Built-up sections are observed on both sides of the road. During the flood in the year 2014, the stretch was fully submerged and regular submergence history was also found in this particular stretch due to drainage problems. There is no longitudinal drain to drain off the surface water from this area. Cross drainage structures exist which only use to carry the discharge of cross flows of water. It does not carry the water collected on the existing road. As a result, submergence of this particular stretch is a common phenomenon each & every year. To avoid submergence, FRL rising is not possible due to the existence of RUB & built-up sections. Moreover, the existing flood channel, which crosses the road, is full of debris, it has lost its carrying capacity.

5.1.2 'With' Project Scenario

The component will finance the reconstruction of damaged roads, bridges, and associated drainage and slope stabilization work, retaining walls, breast walls, and other structures to increase resilience. The sub-project will save the area from submergence therefore in case of any future floods, the people will not suffer as they suffered in 2014.

The sub-project will not require any private land acquisition and will not impact any other private asset. This has been confirmed through discussion with engineers from PIU and PMU, JTFRP (Kashmir division) and site visits done by technical team of DPR consultants. Later on, Social Safeguard expert from PMU, JTFRP visited the site and has confirmed the same.

6. Stakeholder's Consultation

Stakeholder's Consultation is basically concerned with involving, informing and consulting the public in planning, implementation and other decision-making activities. It tries to ensure that due consideration is given to public views, concerns, and preferences when decisions were made.

One of the key aims of the stakeholder engagement exercise is to ensure that all relevant stakeholders are provided with the opportunity to express their concerns and opinions, which are incorporated as early as possible in the project development: at planning, implementation and operation phase and in the efforts to minimize the potential unexpected opposition of the proposed project and potential adverse effects to the environment and society at large.

6.1 Identification of Stakeholder

Identification of stakeholder ensure social sustainability of the projects. Good practice suggests that as long as stakeholder groups are offering a perspective that is relevant to the project, there is no need to determine whether these stakeholder groups are the main representatives of the stakeholders or not. Since the sub-project does not have any adverse impact in terms of land or asset acquisition, therefore, the key stakeholders in the project corridor were the local people, PIU and PMU. The project information was shared with

6.2 Objective of Stakeholder's Consultation

The main objective of this exercise is to inform stakeholders about the project and its likely effects, which in turn would incorporate their inputs, views, and concerns, and thus enable their views to be taken into account during the decision-making. The specific objectives of the consultations are geared towards:

- Informing the stakeholders about the project and its potential impacts.
- Obtaining local and traditional knowledge that may be useful in decision making.
- Facilitating consideration of alternatives, mitigation measures, and trade-offs (if any).
- Ensuring that important impacts are not overlooked and benefits are maximized
- Reducing chances of conflict through early identification of contentious issues
- Providing an opportunity for stakeholders to influence the Project design and operational plan in a positive manner.
- Improving transparency and accountability of decision making.
- Increasing public confidence in the SIA process.

- To gather baseline data for assessment of impacts (both direct and indirect) on the communities of the project area;
- To suggest appropriate mitigation measures to effectively manage potential adverse impacts;
- To do the socio-economic profiling of the project;
- To involve Gram Panchayat and its member's in the SIA study and project activities.
- To involve the stakeholders especially the people of the project impact area in the project activities.

6.3 Approach for Consultation

A very sensitive and pro people approach was adopted to engage locals in the sub-project activities. Project design and available RoW details along with other project related information were shared with them in order to instil faith and confidence among them about the proposed sub-project and its activities.

Following steps were taken to engage stakeholders.

- 1. Site visits and informal meetings with the local to know their views and perceptions about the sub-project.
- 2. Reconnaissance survey and transect walks.
- 3. Involving local people in stakeholder consultation
- 4. Understanding the needs and requirement of the local people.
- 5. Collection of Baseline information.

6.4 Details of Public Consultation in sub-project road

Several public consultations had been organised to disseminate the project concept and plan among the stakeholders. Consultations were conducted successfully with the people of Peerbagh and Humhama Chowk on 12.07.2019 (Annexure 8). The purpose and objective of this consultation is the involvement of residents/ stakeholders and to make them aware of the proposed activity of the subproject. Public Consultation needs to be a continuous process throughout the project cycle.

6.5 Information Shared

The following information was shared with the people:

About project and its source of assistance, its implementation/execution, etc. People
were apprised about the technical aspects of rigid pavement and its benefits.

- Information on perceived benefits from the proposed sub-project including better road quality by way of rigid pavement surface, efficient surface drainage system.
- Information of perceived losses from the proposed sub-project during the execution stage in terms of inconvenience to the public, air, and noise pollution, etc.
- Construction activity whether causing any type of health hazard or not? And mitigation measures.
- Discussion among the public for sharing of information related to project, environment policy of World Bank direct and indirect impacts of improvement/ construction work on the environment.
- Any loss of land/structure/ business or other community property due to construction activity?
- Safeguarding of religious/ cultural/educational places like Mosques, Schools along project road during the construction phase.
- Any impact on trees and measures to be taken for saving scheduled trees in close vicinity of the proposed road.
- Possible types of problems faced by the locals in their daily activities due to construction work.
- Livelihood generation by involving local labor with the project during the construction stage of the project.

PIU,ERA (Kashmir division) ensured that the requisite social management measures shall be incorporated in SMP and public consultation shall be a regular process during all stages of the sub-project execution to solve any issues arising out of proposed works.

6.6 Feedback received

During the consultation process of the proposed sub-project, people have expressed keen interest in the proposed sub-project. The local people are expecting a good road to be developed and were apprised about the project details like rigid pavement surface development of the airport road from Peerbagh to Humhama chowk and construction of longitudinal surface drainage throughout this stretch of the road. People, in general, were very enthusiastic about the benefits of the sub-project in terms of longevity of the road, no road submergence or waterlogging with the inclusion of an efficient road drainage system. The major problems faced by people are related to the dilapidated condition of the existing road due to the constant submergence of the road during the rainy season. People are ready to extend all types of support during the execution of the sub-project as their major difficulties will overcome after completion of the sub-project. The sub-project during the construction stage will generate employment opportunities for local people.

7. Analysis of Social Impacts

7.1 Impact on Land

The revenue record obtained from revenue department revealed that existing road does not passes through private land, there is no requirement of private land acquisition (annexure 3). The existing road passes through Peerbagh, Jeelanabad, Cooperative Colony, Noorani Colony, Nadru, Humhama (District Budgam). It is clear from the revenue record that road passes under khasra numbers 1026/1 and 351 and land is under the ownership of the government. Total land under these khasra numbers is 26.038 acre.

The total length of the sub-project road for reconstruction is 1.50 KMs. The average width of the existing carriageway is 7 m on either side of the lane divider of the project road with a 1.8 m raised footpath resulting in the formation width of 17.6 m. Project Manager (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1121 dated 07.04.2020 provided a non-encumbrance certificate which confirms that the sub-project road does not have any temporary or permanent structure in the whole stretch (annexure 4). The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW in the sub-project road is 21 meters (annexure 5).

Therefore, on the basis of available revenue record, DPR, site visits and encumbrance free certificate issued by the PIU (K), it can be said the sub-project will not trigger any involuntary resettlement. However, during execution, if there will be any unanticipated impact in terms of land requirement or acquisition of any asset, same shall be brought into the notice of the World Bank and it will be addressed as per the applicable provisions given in the ESMF of the Project, applicable WB policies and that of U.T of J&K.

7.2 Impacts on Structures

The proposed alignment is devoid of any structure i.e., residential, commercial, and religious or any CPR. Project Manager (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1121 dated 07.04.2020 provided a non-encumbrance certificate which confirms that the sub-project road does not have any temporary or permanent structure in the whole stretch (annexure 4). Strip plan of the road annexed as Annexure 6 also confirms that there is no structure inside the alignment of the proposed road.

7.3 Impacts on Livelihood

There is no commercial structure either temporary or permanent in the proposed alignment of the road. Further, there is no squatter on the road earning livelihood by using the available RoW and none has encroached upon the road. Therefore, there will be no impact on livelihood in the project corridor due to this project

8. Mitigation Measures

8.1 Social Management Plan

The Social Impact Assessment study does not envisage any significant adverse impact of the sub-project i.e., there is no involuntary displacement and land acquisition. Further, there is no temporary or permanent impact of any kind on the livelihood of people. Structures proposed shall be improved in the existing RoW. Technical department from PMU & PIU have made required modifications in design at initial stages to avoid negative impact as a part of mitigation measures.

The Social Management Plan suggests the mitigation measures needs to be adopted during execution to deal with unanticipated impact of the sub-project.

8.2 Objectives

The main objective of the Social Management Plan is to mitigate the various adverse social impacts which may arise during the pre-construction, construction, and post-construction of the sub-project. The objective of SMP in preconstruction, construction & post-construction stages are as follows:

Pre-construction Stage:

To discuss the design and technical proposal with the stakeholders to know their suggestions and inputs. To inform them about the project, its funding, land requirements, and policies and guidelines of funding agencies and applicable to the project.

Construction Stage:

To ensure that the provision of the SMP (Social Management Plan) is strictly followed and implemented by strengthening implementation arrangement.

To address the construction stage social impacts arising due to various project activities en route the corridor and particularly at habitations through specific measures that need to be applied across and certain specific measures that shall be determined on a case by case basis.

Post-construction Stage:

To ensure that all the issues that arose during the construction stage shall be addressed properly. In case land and other assets utilized by the EA or contractor shall be restored to the satisfaction of communities and owners of that assets.

8.3 Scope

The Social Management Plan (SMP) in the sub-project, consists of the set of mitigation, monitoring and institutional measures to be taken during the pre-construction, construction, and operation stages of the project to eliminate adverse social impacts, to compensate them, offset them, or to reduce them to acceptable levels following the mitigation hierarchy. The plan also includes the actions needed for the implementation of these measures.

The major components of the Social Management Plan are:

- Mitigation of potentially adverse impacts;
- Integration of SMP with Project in construction and operation phases;
- Institutional Capacity Building and Training;
- Monitoring during project implementation and operations;

8.4 Context for the SMP

This Social Management Plan for **Peerbagh bridge to Humhama chowk** sub-project road is based on Social Impact Assessment study during which site visits were carried out in the project corridor. Consultations and meetings were conducted with the people and project design was discussed and evaluated on the ground.

The sub-project does not have any impact on private land and all the construction activities will be carried out within the available ROW. There would be no impact on the private assets, CPRs and any other religious property due to any project activities. There can be few temporary impacts due to construction activities and to address these impacts, a Social Management Plan has been prepared which lays down mitigation measures that needs to implemented for any impact on site. SMP will be implemented by the contractor under the supervision of PMU & PIU, JTFRP.

8.5 Methodology for SMP preparation

The comprehensive social management approach for the project involves following key steps and processes.

- Screening of social impacts during the SIA study
- Public consultation with the stakeholders.
- Discussion of Technical Proposal with the stakeholders.
- Transect walk and Identification of issues that can crop up during the construction stage.

 Development of measures aimed at avoiding, mitigating, and offsetting, or reducing impacts to levels that are socially accepted during implementation and operation of the project road.

8.6 Probable social issues that may arise during construction stage

- Loss of land due to land-slides resulting from hill cutting activities.
- Cracks in structures or damage due to construction works e.g. hill cutting activities
- Temporary short duration or prolonged disruption to services such as water supply, power supply etc.
- Temporary Disruption to traffic movement leading to time delays.
- Possibility of gender-based violence arising from influx of migrant labour for construction works.
- Labour influx issues may arise if contractor will employ the manpower from outside
- Labour issues like unequal wages to men and women, discrimination in employment opportunities, Child labour.
- Inconvenience and Nuisance to Public due to accumulation of excavated earth
- Stagnation of water leading to mosquito breeding and public health problems.
- Spread of diseases at construction and camp sites due to influx of labour like HIV AIDs, COVID 19 etc.

8.7 Social Management Plan

Based on the findings and issues identified during SIA study, Social Management Plan has been prepared for the sub-project. The mitigation measures for the potential impacts are presented in form of a matrix according to the sequential flow of activities in the project life cycle. These measures would be further updated by Contractor during the implementation of the SMP. The Social Management Plan will be a part of Bid document.

Table 11: Social Management Plan

Sl.N o.	Project Phase/Activity ning/Pre-construc	Issues/ Potential impacts ction Phase	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
1	Pre- construction phase	 Sharing of design with the community. Utilization of private land temporarily if required Provision of alternative 	 Consultation with local community and stakeholder engagement. Written consent from the community or owner of the land required for stocking 	Contractor	PIU

Sl.N o.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
		access to the community for commuting wherever required. • Restoration and relocation of Common Property Resources if any	construction material temporarily. • Involving locals (Gram Sabha) wherever any issue arises		
Const	ruction Phase	•			
2	Influx of labor	 Construction Camp Locations Selection, Design, and Lay-out. Conflict with the community due to social and cultural differences with the host community. The potential impact of spreading infectious diseases from labor to the local or vice versa. Possibility of Sexual abuse and assault in the labor camps or otherwise. Drug abuse, gambling, etc. 	 Minimize labor influx as much as possible by engaging the local labour force. Ensure labor camps for the labor (Away from religious places and localities to the extent possible). Awareness of the health and sanitation for the labor. Ensure the least contact between the host community and the labor. Awareness of sexual assault & drug abuse. 	Contractor	PIU/ PMU Monthly Monitoring
		• Facilities for the Labour in camp and on the worksite	 Providing accommodation facilities to the migrant laborers with proper ventilations. Provision for safe drinking water and appropriate cooking arrangement at labor camps; Provision of Separate toilet and bathing facilities for men and women Provision of medical facility which includes first aid kit at the camp site and also ambulance facility to take patients to the hospital in case of emergency. Proper drainage facility at the camp site along with water sewerage treatment facilities. No waste water should be discharge to any surrounding area without required permission and proper treatment. Provision of prayer rooms as per the religious beliefs of 	Contractor	PIU/ PMU Monthly Monitoring

Sl.N o.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
			 Safe storage facilities for the gas cylinder, petroleum, and other chemicals, used by laborers. Proper solid waste collection and disposal system at the camp site. The camp should have proper security arrangements, like a Security fence. Preparing a code of conduct for the migrant workers. Conducting awareness programme about sexually transmitted diseases among the migrant workers, laborers and for the community around project site; Awareness program on COVID-19. Provision of hand sanitizer, masks in the labor camps. Provision a separate accommodation for COVID-19 infected labors or persons engaged by the contractor. Provision of crèche on site for children. Training programs for construction workers in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of sexually transmitted infections (STI) HIV/AIDS. Labour Registration. Awareness program for labor rights 		
		Davistustian	No employment of child labor.	Contractor	DIII / DMII
		Registration of Complaints received from labor.	 Arrangement to register and redress the grievance of workers. Grievance Redressal System for the project to address such issues including sexual harassment at the workplace 	Contractor	PIU/ PMU Monthly Monitoring
		• Equality of opportunity to work.	To be ensured throughout the project cycle.	Contractor,	PIU/ PMU Monthly Monitoring

Sl.N o.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
		Equal Pay for equal workPreference to the Women Laborers	Maintenance of payment registers by the contractor.		
3	Community Health and Safety	• Injury & sickness due to construction work and movement of heavy vehicles, contamination, or other natural or human-made hazards.	 Provision of access to the community, shops, religious places during the construction phase. Better marking and signage. Provision of alternative transportation routes for vehicles and ambulances wherever required. Undertaking regular surveillance at the site to check on Hygiene conditions for disease control. Treating mass awareness on HIV and STDs and COVID-19. Ensure the least contact between the labor and the local population. Sharing grievance redressal system with the community and displaying contact numbers at the site to register any grievances due to the project. contamination of water bodies due to stocking of construction material etc. Safeguarding pedestrians' safety including women, children. During construction of side, drains provide temporary/safe access to shops, kids, hospital/clinic, religious places, etc. Community Consultation 	Contractor	PIU/ PMU Monthly Monitoring
4	Occupational health and safety	• Injury and sickness of labor	 Provide training on health and safety to all the workers. Provide PPE to workers as per work requirements. Regular checking of body temperature and other symptoms among the laborers for COVID-19 and maintaining a register. Awareness program on COVID-19. Provision of hand sanitizer, masks in the labor camps and on the sites. Displaying of COVID-19 help 	Contractor	PIU/ PMU Monthly Monitoring

Sl.N o.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
			line numbers on-site as well as in labor camps. Provide separate toilets for male and female labor at the construction site Provide safe drinking water at the construction site. Providing a separate resting area at the site for breaks during the work period Provide adequate lighting in the construction area and along the roads. Conduct an initial health screening of the laborers working at the construction site, especially those who are coming from outside the project area. Provide first aid facility at the construction site Provide HIV awareness programming, including STI (Sexually Transmitted Infections) and HIV information, education, and communication for all workers on regular basis.		
5	Gender-Based Violence	 Sexual Exploitation and Abuse (SEA) Workplace Sexual Harassment Human Trafficking Non-SEA 	 Awareness program for the Contractors, Local Communities, and laborers on national laws. Introducing a worker's code of conduct. Displaying of various legal provisions on-site, in labor camps, and at prominent locations in the project area. Ensure that complaints of GBV are registered and maintain a register. Strict code of conduct for workers with no tolerance for physical or verbal abuse of women or children. 	Contractor	PIU/ PMU Monthly Monitoring
Post 0	Construction Phase Rehabilitation of site used for camp, storage etc.	Handing over temporarily used private/ community land to the landholders/ community by the contractor without restoration work and payment of dues/ lease	 Consultation with the private party or Community and restoration of their land. Removing left over construction material from the site. Payment of lease 	Contractor	PIU/PMU Within one Month

Sl.N o.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsib ility	Monitoring Agency/ Frequency
		amount.	amount/rent, if any due, to		
		 Non-removal of debris 	the private party or		
		and other construction	community for utilization of		
		material from the site.	their resources.		İ

8.7.1 Impact of the labor influx in project area

- The contractor will preferably engage the local labor force except for the laborer's requiring special skills and the non-availability of such skilled laborers from the local area.
- Awareness-raising of laborers/ workers on societal norms, taboos, and other cultural practices
- Organise awareness creation and educational programmes for all workers and the general public on the behavioural changes required to prevent the spread of HIV/AIDS and other STDs
- The 'Labor Influx and Construction Workers Campsite Management Plan' will be implemented
- Project to assess and manage labor influx risk based on risks identified in the project. Depending on the risk factors and their level, appropriate site-specific Labor Influx Management Plan and/or a Workers' Camp Management Plan.
- The project will incorporate the SMP into the civil works contract. The responsibilities for managing these adverse impacts will be reflected as a contractual obligation, with a mechanism for addressing non-compliance.
- Employment of any person under 18 years of age will be strictly prohibited. The contractor will maintain a labor register with name, age, and sex with supporting documents (preferably a copy of Aadhar card or voter's ID card). This will be monitored by the Safeguard Experts from PMU.
- The contractor and laborer will sign a code of conduct to maintain good manners with the community and avoid GBV
- The project will undertake an awareness-raising program for the workers and community on the risk of labor influx.

8.8 Gender Action Plan

8.8.1 Status of Women in J&K

Women constitute around 47% of the total population of the State. The development of women, no doubt, has been a part of the development planning process right from the inception of Five Year Plans but the shift in approach from welfare to development toward women took place in a focused manner in the 6th and 7th Five Year Plans. The 8th Five Year Plan promised to ensure that benefits of development do not by-pass women. The 9th Five Year Plan changed the strategy for women from development to empowerment and emphasis on preparation of a separate Women Component Plan (WCP) by identifying specific Schemes/Projects having a direct bearing on the welfare and development of Women. The 10th Five Year Plan further strengthened the implementation of the Women Component Plan (WCP).

Moreover, the Women and Child Development Department in the Ministry of Social Justice and Empowerment has also enjoined upon the states to monitor closely the flow of benefits of various schemes for the empowerment of women on regular basis. These initiatives have helped in improving the status of women in various spheres to a great extent, but the imbalance still exists which needs to be addressed over the years. The 11th Plan had taken numerous steps forward. However, the targets set out could be only partially achieved. In the 12th plan, the Government's priority would be to consolidate the existing initiatives and interventions relating to women, build upon the achievements and also move beyond to respond to new challenges. The female population of J&K State slashed down from 47.15% of the total population in 2001 to 46.88% in 2011. As per details from Census 2011, Jammu and Kashmir have a population of 1.25 Crore souls over the figure of 1.01 Crore in the 2001 census. The total population of Jammu and Kashmir as per the 2011 census is 12,548,926 of which male and female are 6,665,561 and 5,883,365 respectively indicating a reduced sex ratio of 883. The corresponding figures of male and female as per Census 2001 were 5,360,926 and 4,782,774 respectively indicating a sex ratio of 892. Sex ratio (females per thousand of males) is an important indicator of the social conditions particularly for women's status in any society.

The low sex ratio shows indulgence of artificial interventions, distorting the biological trend and natural balance in terms of the number of females per thousand males. An important concern in the present status of Jammu and Kashmir's demographic transition relates to the adverse sex ratio. The sex-ratio as per census 2011 was 883 which is a matter of great concern and needs to be addressed on priority. Education of the women is very effective tool for women's empowerment not only from the point of view of literacy, but it has inter-linkage with other social parameters viz. population growth, health care,

education of children, etc. It enables rural women to acquire new knowledge and technology, required for improving and developing their tasks in all fields, besides availing new opportunities and combating emerging challenges of a dynamic society.

Female education is essential for higher standards of health and improved "maternal competence" which leads to lower infant mortality. It also raises women's economic productivity. Despite its linkage to so many positive outcomes and the progress made over the past 50 years, female literacy remains low in J&K State as compared to men. Jammu and Kashmir's literacy rate has increased by 13% in the last decade i.e. from 55% in the 2001 Census to 68% in the 2011 Census. While female literacy has increased from 42.22% in the 2001 Census to 58.01% in 2011. Gender differential still exists both in rural and urban areas but it is comparatively higher in rural areas. This can be attributed to some factors viz., lack of access to schools, parents feeling insecure about sending girl children to schools, their engagement in agricultural and other domestic activities, etc. Though still being at a disadvantageous position, the womenfolk are breaking the barriers/shackles to get an equal share in basic human rights. With a higher growth rate than male literacy, the goal is expected to be achieved in near future.

8.8.2 Legal Provision Related to Women in J&K

- J&K Protection of Women from Domestic Violence Act, 2010
- Jammu and Kashmir Juvenile Justice (Care and Protection of Children) Act, 2013
- State Commission for Women Act, 1999

8.8.3 Strategy

Suggestive Actions to be taken in the sub-project

- Ensure participation of vulnerable groups in the project activities.
- Ensuring facilities in construction camps.
- Carrying out other responsibilities towards vulnerable groups.

Suggestions for increasing the Women's Participation in the sub-project

- Allow women to take part in the consultation process. Ensure that the women are
 consulted and invited to participate in group-based activities, to gain access and
 control over the resources.
- Encourage women to evaluate the project outputs from their point of view and their useful suggestions should be noted for taking necessary actions for further modifications in the project creating better and congenial situation for increasing participation from women.

• Devise ways to make other vulnerable to participate in the project activities.

Involvement during Construction

Wherever possible, women's involvement in construction activities should be encouraged in order to help them have access to benefits of project activities.

Ensuring Facilities in Construction Camps

Foreseeing the involvement of women, both direct and indirect in the construction activities, PMU, PIU & PMC shall ensure certain measures that are required to be taken by the construction contractor towards welfare and well- being of women and children during the construction phase such as:

- **Temporary Housing:** During the construction, the families of laborers/workers should be provided with residential accommodation suitable to nuclear families.
- **Health Centre:** Health problems of the workers should be taken care of by providing basic health care facilities through health centres temporarily set up for the construction camp.
- **Day Crèche Facilities:** It is expected that among the women workers there will be mothers with infants and small children. Provision of a day crèche may solve the problems of such women, who can leave behind their children in such a crèche and work for the day in the construction activities. If the construction work involves women in its day-night schedules, the provision of such a crèche should be made available on a 24-hour basis.
- **Proper Scheduling of Construction Works:** Owing to the demand for fast construction work, it is expected that a 24 hours-long work-schedule would be in operation. Engaging women labour during night services should be avoided by the project or can be permitted only after getting written request from the women labour. In this case crèche facilities in the construction camps must be extended to them in the night.
- **Control on Child Labor:** Minors, i.e., persons below the age of 14 years, should be restricted from getting involved in construction activities. It will be the responsibility of the Social and Environmental experts of PMU, JTFRP to ensure that no child laborers is engaged in the activities. PMU& PIU shall keep strong vigilance to ensure the cessation of such exploitation.

8.8.4 Avoiding Gender based violence

The contractor will prepare and implement robust measures to address the risk of gender-based violence that include:

- Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women;
- ➤ informing workers about national laws that make sexual harassment and genderbased violence a punishable offense which is prosecuted;
- introducing a Worker Code of Conduct as part of the employment contract and including sanctions for non-compliance (e.g., termination), and (iv) contractors adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

8.9 Labor influx and Labor Management

Since the construction activities are mostly labor intensive by nature, therefore, it is also envisaged that both local and migrant labor shall be employed by the project. These migrant laborers will be accommodated in a temporary campsite within the project area.

8.9.1 Objectives

The influx of migrant labor will have both negative and positive impacts on the nearby community and local environment. The labor will be accommodated in a temporary campsite within the project area which can have a significant interface with the host community. The influx of migrant workers would lead to a transient increase of population near the project area for a limited time. This would put pressure on the local resources such as roads, fuel for cooking, water, etc. Hence, a plan has been designed to demonstrate the:

- Potential impacts associated with the influx on the host population and receiving environment are minimized;
- Provision of safe and healthy working conditions, and a comfortable environment for migrant labor; and
- To ensure compliance with the national labor laws, including guidance provided on the latest COVID 19 epidemic in the country.

8.9.2 General Requirements

All migrant workers are envisaged to be accommodated in a proper temporary campsite within the project area. If migrant workers are accompanied by their families, provisions should be made accordingly. As per the National Acts, the inclusion of requirements for labor camp to be established by contractors during the construction phase of the project. Contractor(s) shall ensure implementation of the following measures to minimise the potential negative impacts of worker accommodation and workers on local communities:

- Cleanliness and Sanitization: Pest extermination, vector control, and disinfection are to be carried out throughout the living facilities in compliance with local requirements and/or good practice. In light of the COVID-19 outbreak and increased risks to community health and safety and occupational health and safety, the contractor needs to place necessary arrangements.
- **Complaints and incident reporting:** A formal Complaints Procedure will be implemented to ensure the timely and transparent response to complaints as received from labor.
- **Labor education:** The workforce will be sensitized to local social and cultural practices through the provision of an induction course for all employees that stipulates expected behaviour;
- Labor behaviour in the campsite provided: A Code of Behaviour governing appropriate behaviour in the accommodation facilities to be kept in place and to be strictly enforced. The contractor shall ensure implementation of the "rules of engagement" between laborers living in the campsite and community and shall be implemented by construction contractors for all engaged laborers.
- **Labor Accommodation:** JTFRP shall ensure that laborers are provided with benefits such as leave, weekly rest day, etc. Accommodation to be provided for the construction labor which covers facilities (including catering facilities, dining areas, washing and laundry facilities, etc.) and supporting utilities.

8.9.3 Hiring & Recruitment Procedures

- The manpower wherever possible shall be locally recruited by the contractor. The following general measures shall be considered for the workforce during their employment tenure:
- The implementing agency in consultation with the PMU will include a code of conduct relating to the accommodation to be signed with the contract document of contractors.

• The contractor shall not employ any person below the age of 18 years nor will have any forced labor; The construction laborers will be provided with documented information regarding their rights under national labor and employment law such as but not limited to Factories Act, Minimum Wages Act, 1948 Trade Unions Act, and Workmen's Compensation Act; 1923.

8.9.4 Worker's Accommodation

The EA has to supervise and monitor the activities performed by their contractor and accommodation facilities provided in the campsite. The following measures shall be provided:

- The laborers to provide with accommodation made of insulating material and locally available building material, etc. along with storage of personal belongings;
- The migrant workers with families will be provided with individual accommodation comprising bedroom, sanitary, and cooking facilities;
- The units to be supported by common latrines and bathing facilities duly segregated for male and female labor; A minimum of 1 unit to 15 males and 1 unit for 10 females shall be provided;
- The contractor shall provide a canteen facility with the facility to cook food of appropriate nutritional value respecting religious/cultural backgrounds;
- All doors and windows shall be lockable and mobile partitions/curtains shall be provided for privacy;
- Dust bins to be provided for collection of garbage and to be removed daily;
- It is also required to provide first aid box in adequate numbers; and
- Ventilation should be appropriate for the climatic conditions and provide workers with a comfortable and healthy environment to rest and spend their spare time.

8.9.5 Security

The contractors shall put in place the following security measures to ensure the safety of the workers. The following measures shall be incorporated:

- Access to the campsite shall be limited to the residing workforce;
- The contractor shall be responsible for deploying an adequate number of guards;

- Adequate, day-time night-time lighting shall be provided;
- The security personnel shall be provided with training to respect the community traditions and in dealing with, use of force, etc.; and
- The rental accommodation shall be provided with firefighting equipment and portable fire extinguishers.

8.9.6 Provisions for Drinking Water

- Access to an adequate and convenient supply of free potable water is a necessity for workers. The domestic water conforming to the IS 10500:2012 supply shall be made available by the contractor.
- The direct usage of water from bore well should not be allowed;
- The Contractor(s) should regularly monitor the quality of drinking water. In case of non-compliance with the Drinking Water Specifications, additional treatment shall be provided, or alternative sources of water supply shall be arranged; and
- All storage container of drinking water to be monitored from becoming polluted or Contaminated.

8.9.7 Cooking Arrangements

- Places for food preparation are designed to permit good food hygiene practices, including protection against contamination between and during food preparation;
- Adequate personal hygiene including a sufficient number of washbasins designated for cleaning hands with clean, running water; and
- All kitchen floors, ceiling and wall surfaces adjacent to or above food preparation and cooking areas are built using durable, non-absorbent, easily cleanable, nontoxic materials;
- Food preparation tables are equipped with a smooth, durable, easily cleanable, noncorrosive surface made of non-toxic materials.
- To ensure that the fuel need of laborers in the project area does not interfere with the local requirements, necessary arrangements for the supply of fuel to the laborers shall be done by the contractor.

8.9.8 Waste Water Generation

• There will of generation of wastewater from the campsite. About 80% of the water used shall be generated as sewage/wastewater.

- Contractors to ensure that the campsite is equipped with a septic tank and soak pit for disposal of sewage. It is also recommended that the stormwater and sewage system should be separated. The surface water drainage shall include all necessary gutters, downpipes, gullies, traps, catch pits, manholes, etc.
- Sanitary and toilet facilities are constructed of easily cleanable materials. Sanitary
 and toilet facilities are required to be cleaned frequently and kept in working
 condition.

8.9.9 Medical facilities

The following medical facilities shall be provided by contractors for the construction workers:

- A first-aid centre shall be provided for the labor within the construction site equipped with medicines and other basic facilities;
- Adequate first aid kits shall be provided in the campsite in an accessible place. The kit shall contain all type of medicines and dressing material;
- The contractor shall identify and train an adequate number of workers to provide first aid during medical emergencies;
- Regular health check-ups shall be carried out for the construction laborers every six month and health records shall be maintained;
- Labors should have easy access to medical facilities and first aider; where possible, nurses should be available for female workers;
- First aid kits are adequately stocked. Where possible a 24/7 first aid service/facility is available.
- An adequate number of staff/workers is trained to provide first aid; and
- Information and awareness of communicable diseases, AIDS, etc. shall be provided to workers.

9. Monitoring and Evaluation

The Project requires detailed supervision, monitoring, and evaluation of the impact on the environment and social aspects. Monitoring is the periodical checking of planned activities, which provides midway inputs, facilitates changes, if necessary, and provides feedback to Project Authority for better management of project activities. It helps in making suitable changes and modifications in safeguard documents during project implementation. Evaluation on the other hand assesses whether the activities have achieved the intended goal and objectives. Thus, monitoring and evaluation are critical to measuring the project performance and fulfilment of project objectives.

To carry out this, PMU has made specific arrangements. The executing agency has a dedicated unit to deal with the social and environmental safeguards. This unit is headed by Director Safeguards who is assisted by full-time Social Safeguards and Environmental Experts. To ensure compliance with the World Banks' social safeguard issues Director Safeguards will monitor and evaluate routine activities. Half-yearly Environmental and Social Audit, of ESMF implementation, will be done by the Technical Audits and Quality Control Consultants. Progress on social safeguards and other issues will be flagged in the MPR and QPRs.

9.1 Safeguards Supervision

This will be done by PMU with the support of PIU and consultants. All the sub-projects will be visited at regular intervals by PMU to check if all safeguard requirements are met and to identify any issues that need to be addressed. PMU should submit quarterly progress reports to The World Bank on safeguards implementation.

9.2 Concurrent Monitoring and Quarterly Reporting

The concurrent internal social monitoring will be done as part of the regular monitoring by the PIU, Implementing Agencies, and TAQAC. However, PMU, with the help of an in-house Social Specialist will do the regular social monitoring of sub-projects for safeguards compliance.

9.3 Safeguards Monitoring Plan

Apart from the quarterly monitoring reports submitted to the World Bank, once every year, the PMU will prepare a report of the environmental and social situation in the project districts including data and analysis of relevant parameters as given in the plan below. This report also should give a listing of relevant new legislation and regulations that have a

bearing on the environmental and social performance of the project. PMU will submit this report to The World Bank.

9.4 Independent Safeguard Audits

The PMU will appoint Independent Project Implementation Quality Audit Consultants with expertise in social and environmental safeguards to conduct a half-yearly project quality audit, which will include Environmental and Social Audit of selected sub-projects for compliance with the ESMF.

9.5 Right to Information and Disclosure

The Jammu and Kashmir Right to Information Act 2004 gives the right to persons to obtain any document or information relating to the affairs of the state or public body. In addition to the provisions of the above Act, the JTFRP provides for voluntary disclosure of information and project documents in English, Hindi, and Urdu on the Government and implementing agencies' websites for public consumption.

10. Grievance Redressal Mechanism

Grievance Redressal Mechanism is a process to address people's grievances related to land acquisition, resettlement, and rehabilitation, or any other social issue arising out of the project-related activities; executing agency will establish two bodies, one at a local level (site level) and another at District level. In case, the grievances are not resolved at these two levels, then they will be forwarded to R&R Committee at the Divisional level for this project which will be established under the Divisional Commissioner, Jammu/Srinagar. The grievances will be registered at the Project site. The local level grievance committee will try to resolve the case in a maximum of 14 days. In case the aggrieved person is not satisfied with the decision delivered at the local level or the grievance/s is not resolved, the same shall be forwarded to the district level committee, headed by District Collector. No grievance can be kept pending for more than a month which means the committee has to meet every month. Executing Agency through PMU, JTFRP will monitor the implementation of the decision of the committee. In case the aggrieved party is not satisfied with the proposed redressal measures, it can approach the Divisional Level Redressal Committee, headed by Divisional Commissioner, Jammu/Srinagar. If the aggrieved party is not satisfied with the decision delivered or the committee is not successful in resolving the grievance/s, they can approach the court of law at their own expenses. The committees' composition is detailed below:

10.1 Composition of Grievance Redress Committee (GRC) at various levels of the project

- A. **Grievance Redress** Committee **at Local Level:** This committee/cell will work at the local level i.e. site level. This will be comprised of the following members:
 - a. Engineer from PMU
 - b. Assistant Executive Engineer (PIU)
 - c. Site Engineer (PIU)
 - d. Local Revenue officer
 - e. Social Safeguard Officer
 - f. Ward Member/Halqa Panchayat member
 - g. Women representative (Retired Officer/Academicians/Development Professional)
- B. **Grievance Redress Committee at District Level:** In case of grievance/s are not addressed at the local level or PAP/ aggrieved person is not satisfied with the decision delivered at local level, he/she can approach to the grievance redressal committee constituted at the district level. The following will be the composition of the committee.
 - a) District Collector

- b) Director/Head PIU (Convener)
- c) Nodal officer of the Project Component (PMU)
- d) Nodal Officer (Social Safeguards, PMU)
- e) Representative of PRIs
- f) A Prominent Women (Retired Officer/Academicians/Development Professional)
- g) A senior representative of SC/ST Welfare Board
- C. Division Level Redressal Committee (DLC): In case, grievance/s are not addressed at the local and district level, the same will be forwarded to the Divisional Level Redressal Committee through PMU. The committee will provide a major platform to people who might have objections for the decisions taken at the two previous levels. The committee will look into the grievances of the people and will assign responsibilities to implement the decisions of the committee. This Committee (after formation) will be convened by the Chief Executive Officer, ERA/JTFRP, and headed by Divisional Commissioner Jammu/Srinagar. This committee should meet every quarter to solve any grievance/s and will decide within 03 months of receiving the grievance/complaint. Nodal Officer (Social Safeguards) will coordinate the meetings. This committee will also provide policy-related directions to the Grievance Redressal Committee and the participating departments about land acquisition and resettlement and rehabilitation.

The following will be the composition of the committee:

- a. Divisional Commissioner, (Chair)
- b. Chief Executive Officer, JPFRP/JK ERA (Convener)
- c. Heads of participating departments
- d. Director Technical (PMU/JTFRP)
- e. A senior representative, one each from BC & EBC and SC & ST Welfare
- f. A senior representative of the revenue department
- g. A senior representative of the Disaster Management Department
- h. Social Safeguard Specialist (Nodal officer, PMU)
- i. A prominent women representative (Retired/ Development Professional/Academician)
- j. A PRI representative
- k. A representative of PAPs who can articulate well.

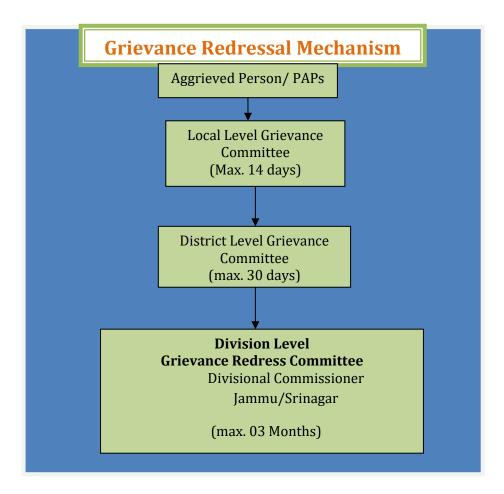


Figure 2: Structure of GRM

10.2 Approach to GRC

Project Affected Person/aggrieved party can approach GRC for the redress of their grievances through **any** of the following modes:

- **1. Web-based:** The grievance corner will be provided at the website of PIU/PMU so that the affected person can register their complaint online.
- **2. Telecom-based:** If needed a toll-free number will be issued by the PMU/ PIU so that affected people can register their complaints through telephone / mobile phone to the PIU/PMU office.
- 3. Through LGC: The LGC will collect the problems & issues of the community or affected persons and pass on the same to PIU/PMU and try to resolve them. A grievance register will be maintained by the contractor/PIU at each site office. The phone number of the concerned engineer shall be displayed at the site so that the aggrieved person can contact the concerned site engineer in case of an emergency.

4. Through PMU: PAPs/aggrieved party can register/file grievance/s directly to the PMU also. PMU will enroute the same through PIU to the site engineer who will try to resolve it within the stipulated time and the rest process will follow.

Besides the grievance redress mechanism of JTFRP, the state has an online grievance monitoring system known as Awaz-A-Awam (People's voice). The PAPs can also lodge their grievance online at http://www.jkgrievance.nic.in.

10.3 Legal Options to Aggrieved persons/PAPs

In case PAPs are not satisfied with the decision of GRC at the local/district level and Divisional Level committee, they are free to approach the court of law on their own will and expenses at any time to redress their grievance/s. The general public and PAPs specifically will be informed about the Grievance/s redress committee and mechanism through public consultations, disclosures, and distribution of PIBs. All PIBS will be translated into Urdu and will be distributed to the PAPs.

11. Institutional Arrangement

11.1 Institutional Arrangement in the project

A project steering committee has been set up for the overall strategic guidance and monitoring of the project. It is headed by Chief Secretary and comprises of all involved line departments and additionally departments of planning, environment and social welfare. A Project Management Unit (PMU) for the project (JTFRP), housed in Jammu & Kashmir Economic Reconstruction Agency (JK ERA) is responsible for the overall management of the "Jhelum Tawi Flood Recovery Project (JTFRP)". This PMU is headed by Chief Executive Officer (CEO). Social Development Specialist has been positioned in PMU to provide assistance and support to Director Safeguards to address all safeguard-related issues during documentation, execution, and implementation of ARAP and monitoring.

The Chief Executive Officer (JKERA/JTFRP) will be responsible for overall coordination, reporting, technical assistance, monitoring, and budgeting of all the components associated with the project. The CEO will have the administrative and financial powers for the implementation of the project including the implementation of ARAP wherever required. The Chief Executive Officer (CEO) will be supported by Director Technical, Director Safeguards, Director Planning and Coordination, Director Disaster Management, Executive Engineers, AEEs, and Social Development Specialist. The PMU will be responsible for providing overall policy guidance, training, and capacity-building support to PIU (JK ERA) to ensure compliance with World Bank's Safeguard Policies and applicable Union Territories and other acts, notifications, guidelines, etc. Director Safeguards with the assistance of a Social Development Specialist in EA will ensure that all social safeguards issues are complied with as detailed out in Social Management Plan. Social issues will be coordinated by Social Development Specialist (SDS) within the PMU and PIU. PMU will be assisted by Project Management Consultants (Technical Assistance and Quality Audit Consultants) for technical support and advice, monitoring and impact evaluation, etc.

11.2 Implementation Stage

The sub-project does not involve involuntary displacement, land acquisition, and livelihood loss either temporary or permanent. The Project Implementation Unit is headed by the Project Manager (Transport) in JK ERA. Overall civil work shall be carried out under his supervision and guidance. Director Safeguards with the support of the Social Development Specialist in PMU, JK ERA will ensure compliance with the WB policies and other provisions applicable to the project. For this sub-project, Only Social management Plan needs to be implemented during the execution of the sub-project.

12. Annexures

Annexure1: Environment and Social Screening Data Sheets

Part A: General information

1. Name of the sub- project	Construction of rigid pavement of I.G road from Peerbagh Bridge to Humhama Chowk in District Srinagar
2. Type of proposed activi	ty (tick the applicable option and provide details)
• Road	$ \sqrt{ }$
• 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 propose	d sub-project
Name of the Region	Kashmir (J&K State)
Name of the District	Srinagar
Name of the Block	Amira Kadal Srinagar/ Budgam
• Name of the Settlement	Peerbagh, Cooperative Colony, Jelanabad, Noorani Colony, Nadru, Humhama etc.
• Latitude	34°1'47.60"N (Start of the Project Peerbagh- CH 0+000), 34°1'16.52"N (End of the Project- CH 1+500)

• Longitude	74°46'47.31"E (Start of the Project at Peerbagh- CH 0+000), 74°46'13.07"E (End of the Project at Humhama Chowk-CH 1+500),			
4a. Proposed Nature of Work (tick the applicable options)				
Minor Repairs	-			
Major Repairs/Rehabilitation	-			
Upgrading/Major ImprovementExpansion of the	$\sqrt{ ext{(Rigid Pavement)}}$			
facility • New Construction				
Any Other	_			
4b. Size of the sub- project (approx. area in sq. mt/hac or length in mtr./km, as relevant)	1.5 KM			
5. Land Requirement (in h	ac./sq.mt.)			
Total Requirement	Nil			
Private Land	Nil			
Govt. Land	Nil			
Forest Land	Nil			
6. Implementing Agency D	etails (sub-project level)			
Name of the Department/ Agency	PIU-ERA (Kashmir)			
Name of the contact person	Sheikh Javaid			
• Designation	Project Manager (PM)			
Contact Number	+91-9419006640			
• E-mail Id	Sheikhjavaid2001@yahoo.co.in			
7. Screening Exercise Deta	nils			
Date on which it was carried out	12 th July, 2019			

Name of the Person	Vikash Sharma/ Yaadullah
• Contact Number	+9419125803/7006703611
• E-mail Id	jkerasocial@gmail.com yaadshah@gmail.com

Part B (1): Environment Screening

Question	Yes	No	Details
1. Is the sub-project located in w environmentally sensitive are		art wit	hin 1 km of the following
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	-
l. Wetland		No	
m. Natural Lakes		No	
n. Rivers/Streams		No	
Question	Yes	No	Details
o. Swamps/Mudflats		No	-

p.	Zoological Park		No	-
q.	Botanical Garden		No	
2.	Is the sub-project located in was sensitive features?	hole or p	art wit	hin 500 mts. 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 sentimental value)		No	
d.	Religious Places (regionally or locally important)		No	-
e.	Reservoirs/Dams		No	-
f.	Canals	Yes		Doodhganga floodspill channel is located within the 500 mts. of the proposed project and crossing existing road bridge at CH 0+715 KM
g.	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?	1.5 mtr	r. Above	e n.s.l
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?
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Part B (2): Result/Outcome of Environmental Screening Exercise

1.	Environment Impact Assessment Required	No
2.	Environment Clearance Required	No
3.	Forest land Clearance/Diversion Required	No
4.	Tree Cutting Permission Required	No
5.	ASI (Centre/State) Permission Required	No
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 ac	equisition of land?	
Yes		No	
	Private Land (s	q mts/hac.)	Nil
Give the following details:	Govt. Land (sq 1	mts/hac.)	Nil
	Forest Land (sq	ı mts/hac.)	Nil
2. Does the proposed sexisting structures?	ıb-project activity	result in demolitio	n/removal of
Yes		No	
If so, give the following de	tails:		

Number of publistructures/build		Nil	
 Number of resources (such drinking water/ 	common property as religious/cultural/wells/etc.)	Nil	
Number of private or pu	ate structures (located blic land)	Nil	
3. Does the propos	ed project activity res	ult in loss of crops/tre	ees?
Yes		No	V
4. Does the prop employment?	osed Project activity	y result in loss of	direct livelihood/
Yes		No	
	ed activity result in los/local population are		st/pastures on which
Yes		No	$\sqrt{}$
If yes, give the details to be lost (in acres/ha	s of the extent of area c).	-	
6. Does the propose	ed Project activity affe	ect scheduled tribe/ca	ste communities?
Yes		No	√

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

Sl. No.	Result/Outcome	Outcome
1.	Answer to all the questions is 'No' and only forest land is being acquired	No SIA/RAP required
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

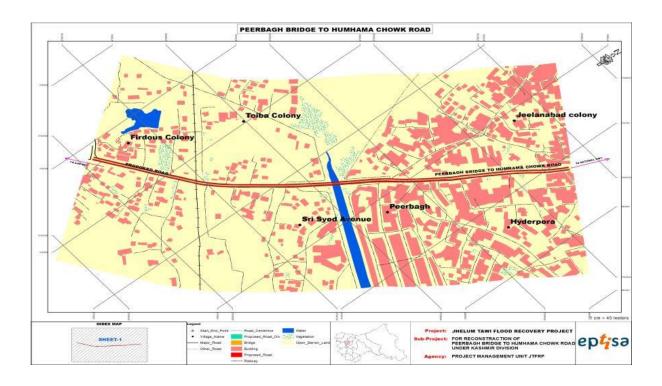
Outcome of Screening

As per the screening exercise, the proposed sub project does not have significant social and environmental issues. The proposed sub-project is only the Improvement & Up-gradation of the existing road and does not involve land acquisition of private or government land. Wherever the

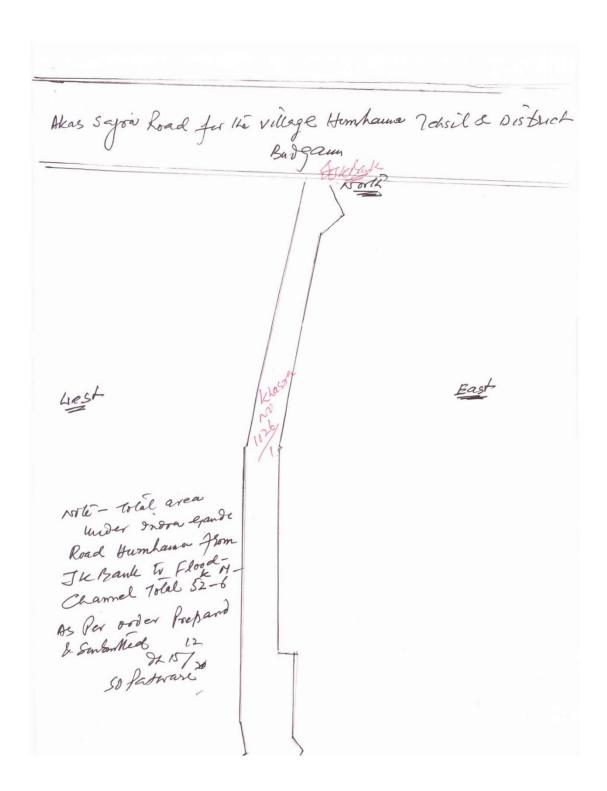
required land width is not available, the construction will be carried out in the available land width. Modification in the design has been completed as a part of the mitigation measures.

Annexure 2: GIS MAPs of the Sub-Project Road

GIS Map of the Proposed Sub-project of "Construction of Rigid Pavement of I.G Road from Peerbagh Bridge to Humhama Chowk in District Srinagar, Kashmir



Annexure 3: Revenue Record (Urdu & English)



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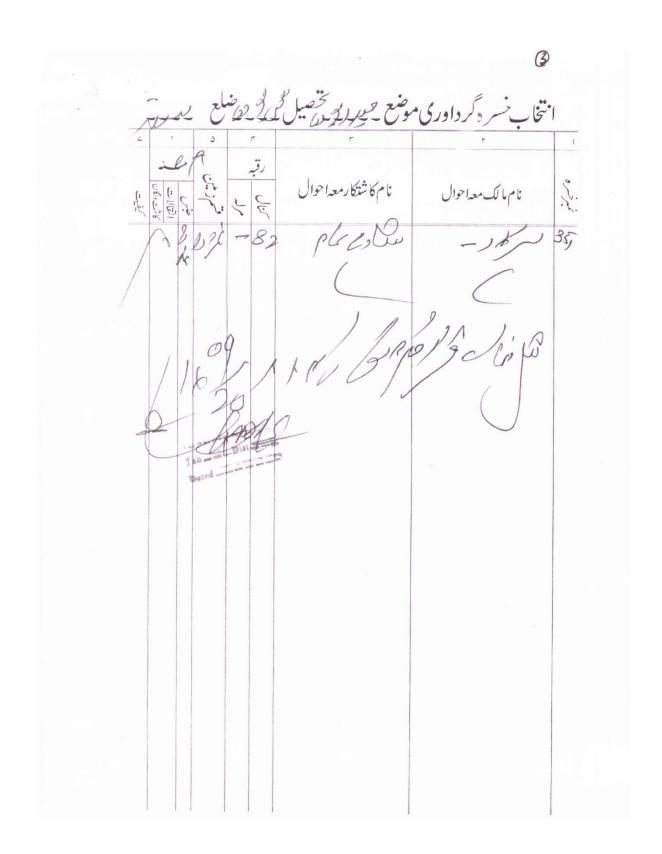
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Annexure 4: Encumbrance Free RoW Certificate



Government of Jammu and Kashmir Economic Reconstruction Agency 2nd floor Commercial Complex, Rambagh, Srinaga E-mail:-projectmanager049@gmail.com 0194-2443922



No. ERA/PMT/20/1/20

Date: 17/4/20

Undertaking for encumbrance free existing RoW

Sub-project Road: Construction of Rigid Pavement of I.G road from Peerbagh
Bridge to Humhama Chowk in District of Srinagar, Kashmir

The Chief Engineer R&B Department Kashmir vide his letter No. CE/RBK/HD/7165 dated 14.06.2019 has certified the RoW of the road namely Peerbagh Bridge to Humhama Chowk "Minimum 21.00 meter".

It is hereby certified that the up-gradation and strengthening of this road for a length of 1.491 Km under JTFRP is restricted to this existing and available RoW. It is also certified that there are no residential, commercial, religious structures or any CPR in the existing RoW.

Hence, the RoW is encumbrance free.

Project Manager (Transport) /
Project Manager (JKPCC Works)
J&K ERA/JTFRP

Annexure 5: RoW certificate from PWD (R&B) Kashmir

Government of Jammu & Kashmir OFFICE OF THE CHIEF ENGINEER PW (R&B) DEPARTMENT KASHMIR.

The Director / Nodal Office, J&K Economic Construction Agency (ERA) Jammu Tawi Flood Restoration Programme (JTFRP) Kashmir.

No: -CE/RBK/HD/

7165

Dated: - 14-06 2019.

Subject: -

Preperation of DPR's for 12 Road Projects to be taken up by ERA/JTFRP in Kashmir Division under World Bank Funding Assistance

(PMU-JTFRP) Reg: Providing of Latest ROW.

Reference: Your office letter No: ERA/DAK/92/118-132 dated: 22.04.2019.

Sir,

As desired, vide your office communication referred to above for the captioned subject, in this context the requisite information has been sought from concerned Executive Engineer's for ROW of the following roads shown the status against each for favour of information and further necessary action at your end please.

However, the further verification can be obtained from Revenue department.

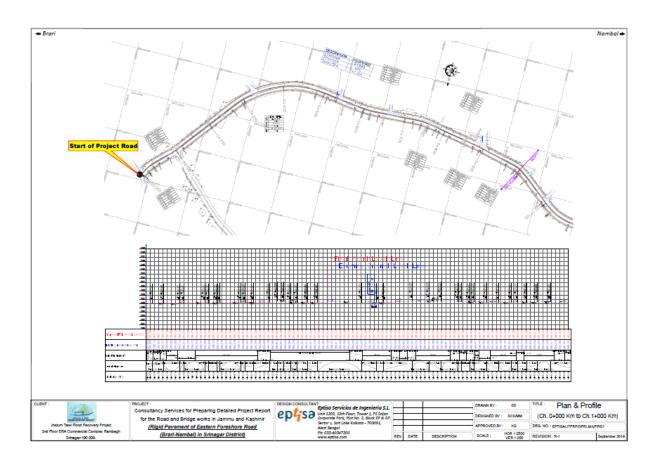
S.No	Name of Road	District	Status	ROW
01	Strengthening / Upgradation of Sangam Khudwani road	Anantnag	Single Lane	Min-22'-6"
02	Upgradation of Pampore Pulwama Road	Pulwama .	Intermediate	ROW 50'-0"
03	Kadabal Lasjan Rambagh including allied links	Srinagar	Single Lane at Places intermediate	ROW 26'-0"
04	Upgradation of Parimpora Soibugh .	Budgam	Single Lane/ at Places intermediate	ROW 5.00 Mtr
05	Hajin Ajas via Saidnara	Bandipora	Single Lane	ROW 5.5 Mtr
06	Construction of Rigid Pavement of IG Road Peerbagh Bridge to Humhama Chowk	Srinagar	Double Lane	ROW 21 Mtr
07	Upgradation of Kawahar Bala Payeen	Baramulla	Single Lane	ROW 4.5 to 5 Mtr
08	Construction of Rigid Pavement to Eastern Foreshore Road (Bari Nambal)	Srinagar	Double Lane	ROW 21 Mtr
09	Shadipora Khanpeth Sumbal Road	Bandipora	Single Lane	ROW 5.5 Mtr
10	Bijbehara to Karihama National Highway via Kitriteng	Anantnag	Single Lane	ROW Min 21'-6"
11	Construction of Rigid Pavement of IG Road Rambagh to Civil Sectt Srinagar	Srinagar	Double Lane	ROW 21 Mtr with Bottle necks
12	Upgradation of Hamray Sultanpora	Baramulla.	Single Lane	ROW 5.5 Mtr
	Nowgam to Sumbal Bridge	Bandipora		

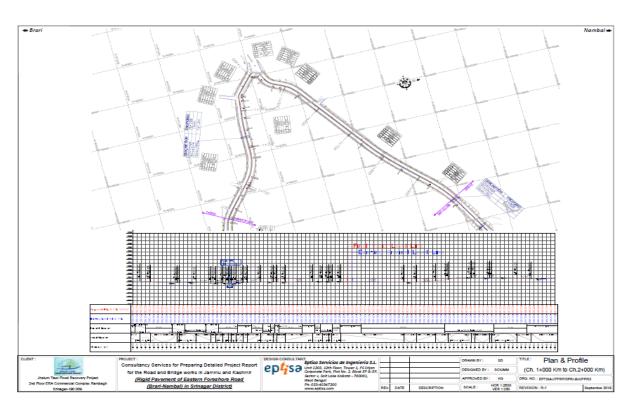
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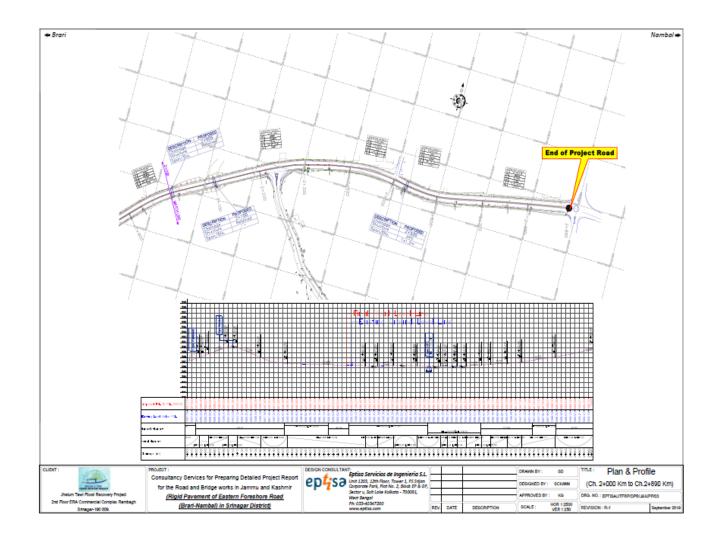
Yours faithfully,

CHIEF ENGINEER FW (R&B)

Annexure 6: Plan & Profile







Annexure 7: Photograph of the Roads

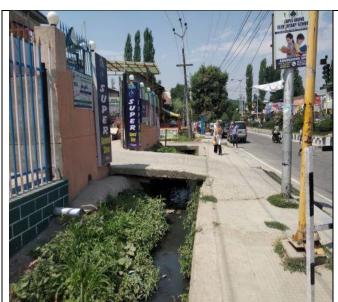
GIS Map of the Proposed Sub-project of "Construction of Rigid Pavement of I.G Road from Peerbagh Bridge to Humhama Chowk in District Srinagar, Kashmir



Social Impact Assessment Report



Social Impact Assessment Report





Annexure 8: Public Consultation (12.07.2019.)

List of consulted participants and their signatures during consultation with the residents of Peerbagh and Humhama areas of proposed project road in District Srinagar

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Photographs of the Public Consultation

Public Consultation/ Meeting Photographs of Peerbagh and Humhama area for the proposed road

