

# **Social Impact Assessment Report**

**October: 2022**

**Project ID: P154990**

**Sub-Project: Improvement & Up-gradation of Parimpora to  
Soibugh (District Budgam), Kashmir (Package-3)**

**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 pre-project 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 Influence Area**

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 has adverse impact on 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 GoJ&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 "Improvement and Upgradation of Parimpora-Soibugh Road" in district Budgam of Kashmir. The proposed subproject has a total length of 7.94 km and traverses through number of settlements of Parimpora, Aman Shah, Soibugh etc.

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 which were conducted successfully with the people of Aman Shah (Parimpora side) and Soibugh villages on 29.06.2019.

The revenue record obtained from revenue department revealed that existing road does not pass through private land. The existing road passes through major inhabitations i.e., village Hanjak and village Hajibagh (District Budgam). It is clear from the revenue record that land under the road falls under khasra numbers 186, 181, 241. Total land under these khasra numbers is 3.109 acre (khasra 186: 1.835 acre, Khasra 181: 1.136 acre, Khasra 241: 0.137 acre).

Project Manager (Transport, Kashmir division), JK ERA, vide letter no ERA/PMT/20/1123 dated 07.09.2020 has issued an encumbrance free certificate which confirms that upgradation and strengthening of the road for a length of 7.94 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 5 meters. Approved DPR and the site visits envisaged that for the proposed sub-project no land acquisition either private or government is required. PMU, JTFRP published a notice in the two local newspapers namely "The Daily Tameel Irshad" and "Kashmir Images" on 15.09.2021 informing general people and those who are likely to be benefitted/affected in particular, about the upgradation of this road sub-project within the existing right of way under World Bank funding. It also called for any objection from the local people regarding use of RoW, along with supporting documentary evidence within 07 days of publication of the notice in the newspaper. The office of Director safeguards did not receive any objection or claim from anyone even after the lapse of 05 months of the publication of notice in two local newspapers.

PIU stated that since public notice was given in the two daily newspapers and even after 05 months no objection or any complain of using Shamilatdeh land from any quarter is received. Therefore, it can be said that community has no objection if the road on the Shamilatdeh land is being reconstructed/strengthened.

Therefore, on the basis of the process followed, 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. Introduction and Background

## 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 low-lying 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 Objective<sup>1</sup>**

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

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<sup>1</sup>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. One of the identified roads undertaken in component 2 for the Improvement and Upgradation is of Parimpora to Soibugh Road in Budgam district of Kashmir province. The proposed subproject has a total length of 7.94 km and traverses through number of settlements of Parimpora, Aman Shah, Soibugh etc.

### **1.5 Sub-Project Description**

The Parimpora-Soibugh Road starts from village Aban Shah at NH 1A and ends in Soibugh village. The existing length of the road is 7.3 km. The topography of the road is plain. The road passes through various Village Bemina, Hajibagh, Pethmakhama, Gotapora. There are many built-up areas along the road. It is a part of MDR having moderate intensity of commercial vehicles. Existing Pavement consists of GSB, WBM (GR-II & GR III), OGPC. Existing Pavement consists of GSB, WBM (GR-II & GR III), OGPC. Existing BT surface is in poor condition. Average existing carriageway width is 2.75 m to 2.85 m which is also lesser than a single lane road (3 m) now its proposed to be upgraded to intermediate level.

### **1.6 Benefits of the Sub-Project**

The reconstruction of the proposed road will be a great help to the farmers to transport agricultural products, children would be able to travel faster and safer to go to school, as well as the local people when accessing to 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.

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. All people consulted during public meetings were in favour of the project.

### **1.7 Need for Social Impact Assessment**

Social Impact Assessment (SIA) is a tool for anticipating and mitigating the potentially temporary and permanent adverse impacts of projects. It also helps in enhancing the

positive outcomes of the sub-project. 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.

### **1.8 Need for SIA in Parimpora to Soibughroad 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. Parimpora to Soibugh sub-project road is going to be improved and upgraded on existing alignment and the existing RoW is 5.00 meters(annexure 4). 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.

### **1.9 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.

### **1.10 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 29.06.2019 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 Aman Shah (Parimpora side) and Soibugh villages on 29.06.2019 (annexure 10). 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.

### **1.11 Structure of SIA Report**

To present the findings of the SIA study, the following information's have been presented in following chapters:

#### **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. Monitoring and Evaluation
10. Grievance Redressal Mechanism
11. Institutional Arrangements

## 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 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.

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.

## **2.2 Sub-Project Description**

Project Road starts from 558 km of NH 1 A (Parimpora Bypass); and ends at Soibugh village. The existing road proposed for up gradation passes through different areas such as both side residential, commercial and agricultural. The Parimpora-Soibugh Road starts from village Aban Shah at NH 1A and ends in Soibagh. The existing length of the road is 7.3 km. The topography of the road is plain. The road passes through Mustafabad, Hajibagh and Soibugh. There are many built- up areas along the road. The road is narrow and blind curve at many places. Also, there are marshy lands and agricultural lands along the stretch. The existing road is a single lane configuration. The road will be upgraded as single lane configuration road. Comprising Three Sub-Divisions – Beerwah, Chadoora and Khansahib; Nine Tehsils – Budgam, Beerwah, B.K.Pora, Chadoora, Charisharief, Khag, Khansahib, Magam and Narbal; the district has been divided into seventeen blocks namely Beerwah, Budgam, B.K.Pora, Chadoora, ChrariSharief, Khag, Khansahib, Nagam, Narbal, Pakherpoa, Parnewa, Rathsun, Soibugh, Sukhnag, Surasyar, S.K.Pora and Waterhail which serve as prime units of economic development. Budgam has been further divided into 283 panchayats comprising of 510 revenue villages.

## **2.3 Project Location**

The sub-project is located in the Budgam district of Kashmir division. The sub-project road connects the Village Bemina, Hajibagh, Pethmakhama, Gotapora. The GIS location is annexed as annexure 2. Photographs of different location annexed as annexure 9.

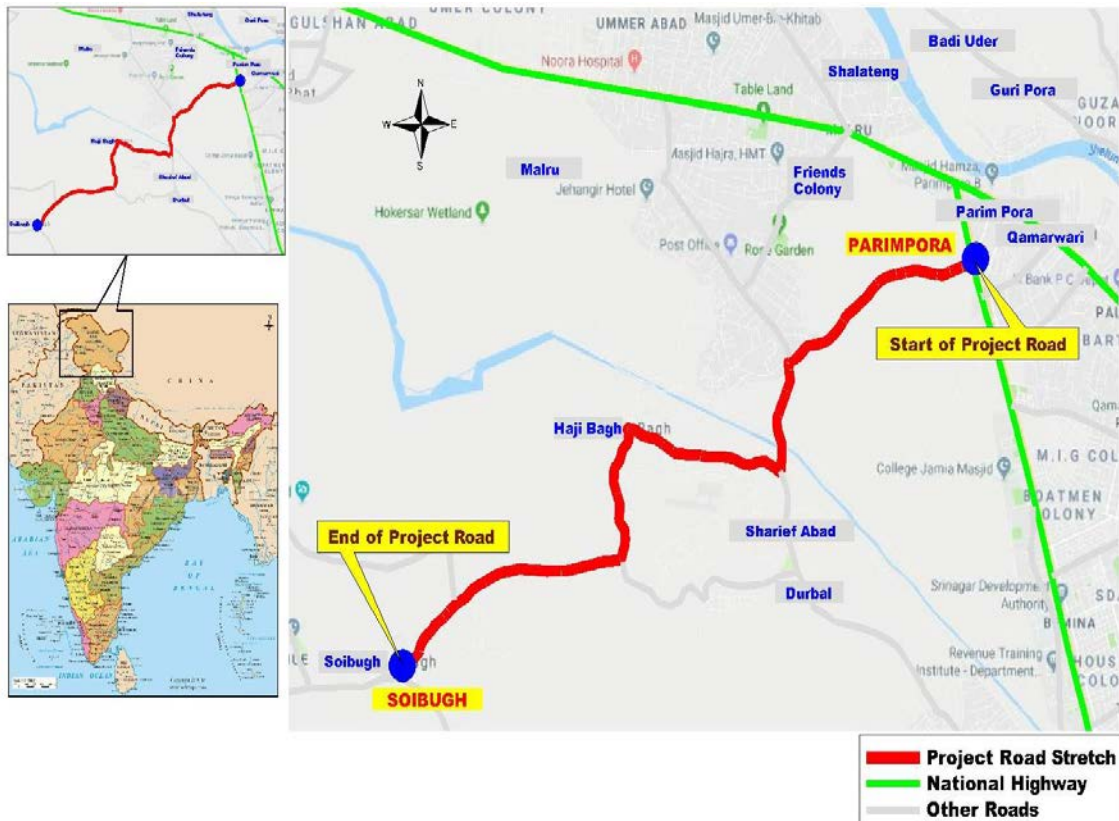


Figure 1: Overview of Proposed Road in Parimpora to Soibugh Road Sub Project

## 2.4 Details of the existing project road

Project Road starts from 558 km of NH 1 A (Parimpora Bypass) and passing through agricultural land from RD 0 to RD 1+300 km on LHS towards the south direction, thereafter traverses through the residential & commercial area which exists upto RD 2+000 Km. The road crosses the Flood Spill Channel of River Jhelum at RD 2+400. An existing 26 m span bridge exists. However, due to the insufficient span of the bridge and about the water flow width of the spill channel another bridge at the same location (20m downstream) is under construction. Project Road takes a right turn just after crossing river Jhelum and passing through residential area upto Km 4.200. At Km 2.550 and km 3.900 two sharp turns exist in a residential area with a very narrow width in comparison with the whole stretch of the project road. From RD 3.800 km to RD 4+100 km, the existing overall width of the project road is too small and it allows a single lane only. From Km 2.700 Km to Km 3.100, Army camp exists on LHS. From RD 4+940 km to RD 5+475 Km, the project road is passing through a low laying area (water logged) and the open area continued upto RD 5+900 km. After RD 5+900 km, characteristic nature on both sides of the road is either residential or commercial; continued till the end of the project roads i.e RD 7+932 Km. From the entire

stretch, project road connects the Village Bemina, Hajibagh, Pethmakhama, Gotapora. There is 1 major junction with NH 1A (NH44) which is properly developed and 2 nos minor junctions need to develop but due to land constraints, it's not feasible. There are 46 nos of a link road that connects with the project road. It is a part of MDR having the moderate intensity of commercial vehicles. Existing Pavement consists of GSB, WBM (GR-II & GR III), OGPC. Existing Pavement consists of GSB, WBM (GR-II & GR III), OGPC. The Existing BT surface is in poor condition. The average existing carriageway width is 2.75 m to 2.85 m which is also lesser than a Single Lane Road (3 m). In that case, concentric widening proposed and width of widening depends up on the traffic study. Besides with provision of few culverts in the open area is required.

#### **2.4.1 The embankment, Carriageway, and Shoulder**

The average width of the existing carriageway varies from 2.75 m to 7.0 m with an average shoulder width of 1.85 m resulting in the average roadway width of 5.0 m to 7.5 m. The details of carriageway, Surface & Shoulder condition, etc are mentioned inannexure III of DPR.

#### **2.4.2 Horizontal and vertical alignment**

Project road runs in Plain & Rolling terrain having several non-standard curves. Existing vertical gradients also moderately steep at certain stretches.

#### **2.4.3 Pavement Condition**

The existing pavement is an entirely flexible type having a different thickness as reflected from pavement investigation are not in fair condition, Longitudinal, Crocodile Cracks, Edge Failure, Ravelling, Potholes are significantly visualized. Broken flexible type pavement exists though out the stretches. Milling is to be done for the top bituminous layer for a thickness of 50 mm and thereafter after a provision of tack coat, BM/DBM & BC of required thickness is to be laid only from Ch 0.000 Km to 7.932 Km (Design Ch 7.927 Km).

#### **2.4.4 Cross Drainage Structures**

There are only 15 nos of Culverts exists out of which 8 nos are SC and 7 nos are of HP culverts. 4 nos of Slab Culverts & 6 nos of HP Culverts need to be demolished and reconstructed. Apart from that, there are two bailey bridges at Ch 2+412 Km of and Ch 5+079 Km length 26.4 m & 12.86 m respectively. Details are given in Table 1.

**Table 1: List of Existing Cross Drainage Structures**

Sl. No.	Existing Structure				
	Chainage (Km)	Type of Structure	Span / Dia (m)	Total Width (m)	Condition
1	0+031	SC	1x2.5	17.4	Good
2	0+926	SC	1x1.60	15.0	Good
3	1+994	SC	1x5.8	6.00	Good
4	2+050	SC	1x2.0	4.30	Poor
5	2+085	SC	1x0.8	5.90	Good
6	2+322	HP	1x0.9	7.20	Poor
7	2+412	Bailey Bridge	26.40 m	4.00	Good
8	2+459	HP	3x0.9	7.20	Poor
9	2+486	HP	3x0.9	7.20	Poor
10	2+803	HP	1x0.6	7.20	Poor
11	3+800	SC	1x1.20	5.50	Poor
12	4+136	HP	1x0.6	7.20	Poor
13	4+908	SC	1x1.5	8.50	Poor
14	5+079	Bailey Bridge	12.86 m	4.00	Good
15	5+425	HP	1x0.9	7.20	Poor
16	5+626	HP	1x0.9	7.20	Poor
17	6+017	SC	1x3.9	4.20	Poor



#### 2.4.5 Drains

There are road side habitations, the market area beside the project road from Ch 2.400 Km to Ch 4.200 Km & Ch 5.900 km to Ch 7.932 Km. Existing Drains are in good condition. Details are shown in table 2.

**Table 2: Details of existing Drain**

Sl. No.	Chainage (km)		Length (km)	Side	Type of Drain
	From	To			
1	1+481	1+766	285	RHS	Open
2	4+044	4+227	183	LHS	Open
3	6+116	6+830	714	LHS	Open
4	7+000	7+287	287	LHS	Open
5	7+300	7+409	109	RHS	Open
6	7+388	7+852	464	LHS	Open
<b>Total Length</b>			<b>2042</b>		

#### 2.4.6 Low lying areas



From Ch 4.940 km to Ch 5.475 Km, the project road is passing through a corridor low lying area (water Logged).Details are shown in Table 3

**Table 3: Details of low lying areas**

Sl. No.	Starting Km	Ending Km	Length (m)	Side
1	4.940	5.475	535	RHS & LHS
<b>Total</b>			<b>535</b>	

#### 2.4.7 Existing Pavement Composition

The said road is a very old road that was initially constructed not based on the traffic intensity. Afterward, several upgradations of works of different specification has 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. The average pavement thickness is 568 mm. Based on the traffic density the thickness of the existing pavement considers for design by IIT PAVE.

#### **From Ch 0.0 Km to 7.932 Km (Design Ch 7.927 Km)**

Total thickness of hard crust 325 mm – 740 mm existing crust comprises of:

GSB consists of compacted Metal Soling materials – 175 mm to 470 mm thick (average 328 mm), partly disintegrated base course with WBM materials - 110 mm to 240 mm thick (average 149 mm) and Bituminous/ Binder course- varying from 40 mm to 160 mm thick (average 92 mm).

**Table 4: Details of Existing Pavement Composition**

Location	Description of Layers	Thickness (mm)				
		Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
RD-0.00/ TP1 (R/S)	Bituminous	90	90	230	270	590
	Base	230				

Location	Description of Layers	Thickness (mm)				
		Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
	Sub Base	270				
RD-500/TP2 (R/S)	Bituminous	150	150	140	60	350
	Base	140				
	Sub Base	60				
	Soiling	330				
RD-1000/TP3 (R/S)	Bituminous	160	160	420	130	710
	Base	420				
	Sub Base	130				
	Soiling	130				
RD-1500/TP4 (L/S)	Bituminous	70	70	250	160	480
	Base	250				
	Sub Base	160				
	Soiling	160				
RD-2000/TP5 (L/S)	Bituminous	60	60	240	230	530
	Base	240				
	Sub Base	230				
	Soiling	230				
RD-2500/TP6 (L/S)	Bituminous	100	100	340	220	660
	Base	340				
	Sub Base	220				
	Soiling	220				
RD-3000/TP7	Bituminous	90	90	370	280	740
	Base	370				

Location	Description of Layers	Thickness (mm)				
		Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
(L/S)	Sub Base	280				
	Soiling	280				
RD-3500/TP8 (L/S)	Bituminous	40	40	265	90	395
	Base	265				
	Sub Base	90				
	Soiling	90				
RD-4000/TP9 (L/S)	Bituminous	40	40	165	120	325
	Base	165				
	Sub Base	120				
	Soiling	120				
RD-4500/TP10 (L/S)	Bituminous	80	80	360	200	640
	Base	360				
	Sub Base	200				
	Soiling	200				
RD-5000/TP11 (L/S)	Bituminous	60	60	330	190	580
	Base	330				
	Sub Base	190				
	Soiling	190				
RD-5500/TP12 (R/S)	Bituminous	60	60	230	220	510
	Base	230				
	Sub Base	220				
	Soiling	220				
RD-	Bituminous	70	70	260	220	550

Location	Description of Layers	Thickness (mm)				
		Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
6000/TP13 (R/S)	Base	260				
	Sub Base	220				
	Soiling	220				
RD-6500/TP14 (L/S)	Bituminous	130	130	190	210	530
	Base	190				
	Sub Base	210				
	Soiling	210				
RD-7000/TP15 (L/S)	Bituminous	130	130	230	230	590
	Base	230				
	Sub Base	230				
	Soiling	230				
RD-7500/TP16 (R/S)	Bituminous	110	110	230	260	600
	Base	230				
	Sub Base	260				
	Soiling	260				
RD-7900/TP17 (L/S)	Bituminous	130	130	190	210	530
	Base	190				
	Sub Base	210				
	Soiling	210				
<b>Average Thickness from Km 0.0 to Km 7.932 (Design Ch 7.927 Km)</b>			<b>92</b>	<b>276</b>	<b>198</b>	
<b>Minimum Thickness from Km 0.0 to Km Km 7.932 (Design Ch 7.927 Km)</b>			<b>40</b>	<b>165</b>	<b>90</b>	<b>325</b>
<b>Maximum Thickness Km 0.0 to Km</b>			<b>160</b>	<b>420</b>	<b>280</b>	<b>740</b>

Location	Description of Layers	Thickness (mm)				
		Individual (mm)	Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
<b>Km7.932 (Design Ch 7.927 Km)</b>						

#### 2.4.8 RoW Details of the Sub-Project Road

Project Manager (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1/23 dated 07.09.2020 issued a non-encumbrance certificate which confirms that the sub-project road does not have any temporary or permanent structure in the whole stretch and will be up graded in the available RoW (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 5.00meters (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 or change in c/w width whichever is earlier. 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 5: Overview of the proposed road**

Sl.No.	Description of item	Details	
1	Road length	Existing – 7.932 Km	Design – 7.927 km
2	Road Configuration	Existing: 2.75 m to 2.85 m	Propose: 5.5 m

Sl.No.	Description of item	Details	
		wide carriageway (varies)	(Intermediate Lane)
3	Terrain	Plain	
4	Land use pattern	Open/Agricultural Stretches Ch 0.000 Km to Ch 2.400 Km Ch 4.200 Km to Ch 5.900 Km	Built Up Stretches Ch 2.400 Km to Ch 4.200 Km Ch 5.900 Km to Ch 7.932 Km
5	Existing Surface of carriageway	• Flexible pavement in a dilapidated condition for the entire length.	
7	Existing Formation width	6.4 m to 6.5 m (varies) , Min 4.6 m (from Ch 3.800 Km to 4.100 Km)	
8	Right of Way (ROW)	5.00 meters	
9	Pavement Condition	Poor	
10	New Flexible Pavement thickness	BC-30 mm; DBM-60 mm; WMM-170 mm; GSB-200 mm	
11	Design CBR	5.2 % (80 percentile at soaked condition)	
12	Junctions	Minor- 02	
13	Traffic	ADT-1232 , CVPD 274, PCU 1494 & MSA 7.03	
14	Cross drainage structures	Culvert- 17 (SC 8, HP 7) , Bridge -2 (out of scope)	
15	Settlements	Abansa, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora	

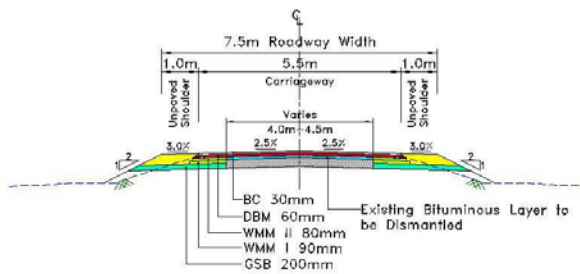
### 2.5.1 Carriageway/ Roadway Width

In general, the proposed cross-section comprises of 5.5 m wide carriageway with either side 0.5 m wide earthen shoulder propose from Ch 0.000 Km to Ch 7.932 Km (Design Ch 7.927 Km). The camber on either side of the carriageway and hard shoulder is 2.5 % & on the earthen shoulder is 3.5% respectively. Information not available regarding existing ROW, concentric widening schedule prepare based on the site inspection and present lane configuration. Widening is required for the whole stretches. Based on the available width, widening at different chainages are mention in table 6.

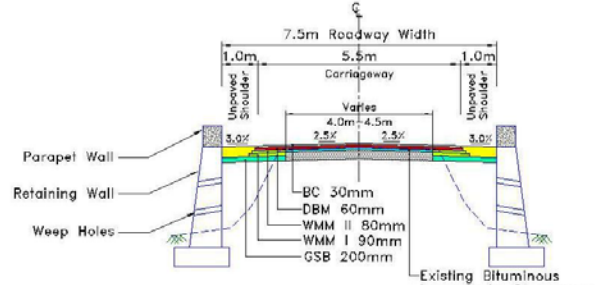
**Table 6: Detail of Typical Cross Section Schedule**

Sl No.	Chainage		Length (m)	Type
	From	To		
1	0+000	0+067	66.5	Junction NH
2	0+067	1+390	1323.5	Type-1
3	1+390	1+770	380	Type-6
4	1+770	2+250	480	Type-1
5	2+250	2+750	500	U/C Bridge
6	2+750	3+400	650	Type-1
6	3+400	4+100	700	Type-2
8	4+100	4+230	130	Type-5
9	4+230	5+000	770	Type-1
10	5+000	5+250	250	Type-3
11	5+250	6+100	850	Type-1
12	6+100	6+830	730	Type-5
13	6+830	7+000	170	Type-4
14	7+000	7+932	932	Type-5

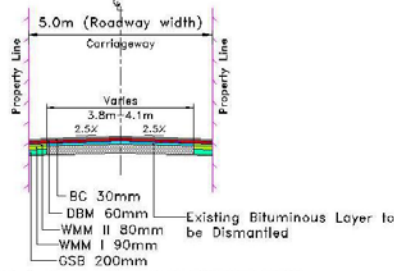
The proposed cross-sections presented below is applicable for Open Area Stretches where Formation Width is 7.5 m, TCS 2, TCS-4, TCS-5 and TCS-6 is applicable for Built up Stretches where Formation Width is 5.0m to 8.3m and TCS -3 is applicable for those stretches where both side retaining wall require due to existence of water body. All TCS having intermediate lane configuration of 5.5 m width except TCS-2 which is mentioned below:



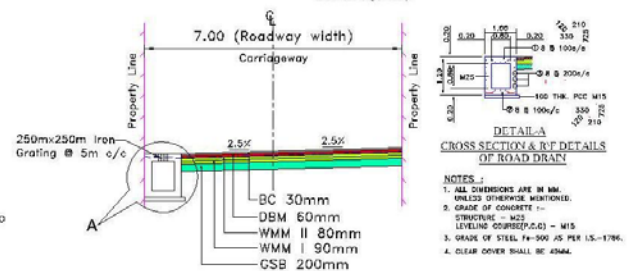
**TYPE - 1 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH ( Main Alignment)**



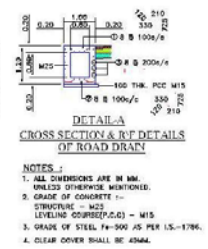
**TYPE - 3 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH WITH BOTH SIDE PROTECTION WALL ( Main Alignment)**



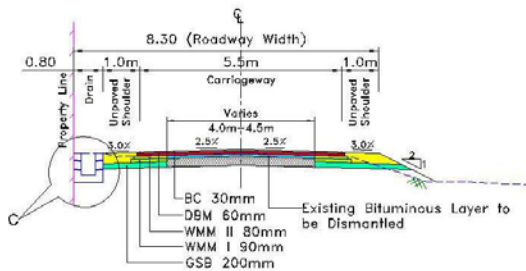
**TYPE - 2 : TYPICAL CROSS SECTION OF RESTRICTED CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH ( Main Alignment)**



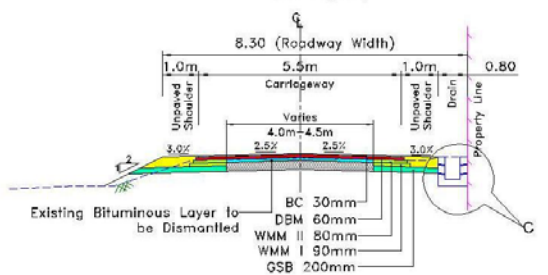
**TYPE - 4 : TYPICAL CROSS SECTION OF RESTRICTED CARRIAGEWAY ( Main Alignment)**



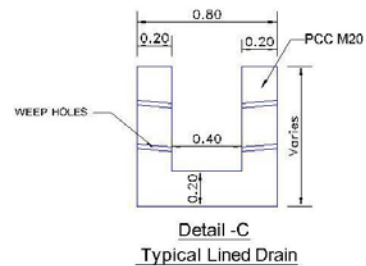
**NOTES :**  
 1. ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE MENTIONED.  
 2. GRADE OF CONCRETE :- STRUCTURE - M25 LEVELING COURSE(P.C.C.) - M15  
 3. GRADE OF STEEL F4-500 AS PER IS-1786.  
 4. CLEAR COVER SHALL BE 50MM.



**TYPE - 5 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH AND LEFT SIDE DRAIN ( Main Alignment)**



**TYPE - 6 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH AND RIGHT SIDE DRAIN ( Main Alignment)**



**Detail -C  
Typical Lined Drain**

- Note:**
1. Typical Cross Sections are finalized based on capacity requirement from traffic data and available property to property widths.
  2. Further, if Proposed Right of Way information is not sufficient to cater Proposed Cross Section requirement, restricted Roadway width has been considered width as per capacity requirement.
  3. Weep hole in drain wall of 100mm dia. at GSB layer shall be provided @ 1m interval.
  4. Drain Cum Footpath/Drain shall be provided as per actual site condition during Construction.
  5. Existing Bituminous layer shall be dismantled and recompacted (minimum WMM 75mm maximum 250mm)/GSB shall be laid over if depending upon the difference of FRL & recompacted level.

## 2.5.2 Horizontal and vertical alignment



Existing alignment is followed for the purpose of widening and strengthening of the existing road and it is found that mostly the required average design speed of 40 kmph is maintained. The existing carriageway will be provided with required grade after making the provision for 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

Existing alignment is followed for the purpose of widening and strengthening of the existing road and it is found that mostly the required average design speed of 40 kmph is maintained. The existing carriageway will be provided with required grade after making the provision for profile corrective course with proper two directional cambers over the existing carriageway surface. Horizontal & Vertical Curve details are mentioned in Table 7.

**Table 7: Details of proposed culverts**

Sl. No.	Existing Structure					Proposed Structure			
	Chainage (Km)	Type of Structure	Span / Dia (m)	Total Width (m)	Condition	Chainage (Km)	Proposal	Type of Structure	Span / Dia (m)
1	0+031	SC	1x2.5	17.4	Good	0+032	Retained		
2	0+926	SC	1x1.60	15	Good	0+926	Retained		
3	1+994	SC	1x5.8x2.0	6	Good	1+994	Retained		
4	2+050	SC	1x2.0x1.75	4.3	Poor	2+050	R&NC	BC	1x2x2
5	2+085	SC	1x0.8x1.3	5.9	Good	2+085	-	-	-
6	2+322	HP	1x0.9	7.2	Poor	2+322	No Need , As New Bridge is U/C		
7	2+412	Bailey Bridge	26.40 m	4	Good	2+410	No Need , As New Bridge is U/C		
8	2+459	HP	3x0.9	7.2	Poor	2+460	No Need , As New Bridge is U/C		

9	2+486	HP	3x0.9	7.2	Poor	2+485	No Need , As New Bridge is U/C		
10	2+803	HP	1x0.6	7.2	Poor	2+805	R&NC	HP	1x1.20
11	3+800	SC	1x1.20	5.5	Poor	3+800	R&NC	Box	1x2x2
12	4+136	HP	1x0.6	7.2	Poor	4+138	R&NC	HP	1x1.20
13						4+440	NC	HP	1x1.20
14	4+908	SC	1x1.5	8.5	Poor	4+910	R&NC	Box	1x2x2
15	5+079	Bailey Bridge	12.86 m	4	Good	5+080	Retained		
16						5+200	NC	Box	1x2x2
17	5+425	HP	1x0.9	7.2	Poor	5+425	R&NC	Box	1x2x2
18	5+626	HP	1x0.9	7.2	Poor	5+625	R&NC	HP	1x1.20
19	6+017	SC	1x3.9x2.7	4.2	Poor	6+017	R&NC	BC	1x4.0x4.0
20	-	-	-	-	-	7+020	NC	HP	1x1.20
21	-	-	-	-	-	7+740	NC	HP	1x1.20

### 2.5.5 Drainage Works

The existing road has proper provision of longitudinal drains. There are road side habitations, market area beside the project road from Ch 2.400 Km to Ch 4.200 Km & Ch 5.900 Km to Ch 7.932 Km (Design Ch 7.927 Km. Due to constraint of ROW, proposal of additional drains not feasible. Proposal for drains in new stretches apart from existing one are given in the details given in Table 8 below:-

**Table 8: Details of Proposed Drain**

SI No.	Chainage		Length (m)	Side	Type of Structure
	From	To			
1	1+390	1+770	380	Right	RCC Cover Drain
2	4+100	4+230	130	Left	RCC Cover Drain
3	6+100	6+830	730	Left	RCC Cover

Sl No.	Chainage		Length (m)	Side	Type of Structure
	From	To			
					Drain
4	7+000	7+932	932	Left	RCC Cover Drain

### 2.5.6 Protective works of the valley/hill slope

Project Road passing through Low Lying area (water logged) from Ch 4.940 km to Ch 5.475 Km, Both side retaining wall require at this particular stretch.

**Table 9: Details of Protective Works**

Sl. No.	Chainage (km)		Length (m)	Side	Type of Structure
	From	To			
1	5+000	5+250	250*2=500	Both	PCC Retaining Wall
<b>Total Length</b>			<b>500</b>		

### 2.5.7 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

After Task 1 and Task 2, realignment as well as provision of rigid pavements have been ruled out. Hence, under Task 3 of this project road only following pavement design has been studied:

- 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 with regard to traffic, axle load spectrum, pavement condition and strength, subgrade/material properties etc. The design life adopted in the analysis is 15 years for flexible pavement from the date of opening the road to traffic. Pavement design for various cases has been illustrated in the following paragraphs.

### 2.5.8 Rehabilitation of existing pavement

Strengthening design involves prudent engineering judgment and decision-making in analyzing and using the various investigations data for the purpose. It may be mentioned that deflection testing (generally use for strengthening design) is primarily related to traffic-associated fatigue cracking of a pavement. If the pavement is exhibiting deformation / without bitumen top surface / poor condition of the bituminous surface, it will be necessary to sample and test/observe component layers before deciding on an overlay/strengthening.

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

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 case of land constraint, lane configuration has been restricted Up to the availability of space between properties of both sides.
2. In case land availability allows providing required lane configuration to upgrade (widening), rehabilitation and reconstruction considered for these stretches. For the widening portion, mostly concentric widening is considered. After both edge trimming, prepare the original ground for construction of embankment, followed by sub-grade, GSB, WMM, DBM, and BC.
3. 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 an upgrade, the carriageway has been restricted Up to the availability of space between properties of both sides.
4. 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. Re-compacted level shall be compared for design level and WBM/GSB (depending upon the level difference of FRL and level after re-compaction). Existing Base and Subbase layers are generally more than the required thickness than that of new pavement. Widening portion to be constructed from the subgrade as per the design.
5. Axle Load survey conducted to find out VDF. Wherever Axle load survey not done standard VDF value considered based on terrain and traffic as per IRC:37-2018.

However, for link road the same VDF of section-2 axle load survey result has been taken and 20% of section-2 traffic has been considered on link road.

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 between 5.0% & 7.7 %. Based on the Traffic density, whole stretch have one homogeneous section. As per Clause 6.2.2 of IRC 37-2018, 80th percentile value of sub-grade CBR (5.2%) consider for pavement design. Design traffic is 7.03 MSA for 15 years design period. Mostly CL, CI, MH, MI classified soil exists on the stretch from Ch 0.0 Km to Ch 7.932 Km (Design Ch 7.927 Km). The summary of Test Results is presented below.

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 from Ch 0.000 Km to Ch 7.932 Km (Design Ch 7.927 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 :

$$A = P (1 + r)^x = \frac{274 \times (1 + 0.06)^1}{0.06} = 290$$

Where :

**P** = CVPD as per traffic census report. = **274**

**x** = Number of years between the last count and the year of completion of construction. = **1**

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

$$N_{Des} = \frac{365 \times [(1+r)^n - 1]}{r} \times A \times D \times F$$

Where :  $N_{Des}$  = **Cumulative number of standard axles to be catered for during the design period of 'n' years**

$A$  = Initial traffic in the year of completion of construction in terms of the number of Commercial Vehicles Per Day (CVPD). = **290**

$D$  = Lane Distribution Factor (LDF). (For Intermediate-lane carriageway) = **0.75**

$F$  = Vehicle Damage Factor (VDF). = **3.805**

$n$  = Design life in years. = **15**

$r$  = Annual growth rate of commercial vehicles (6%) in decimal. = **0.06**

Therefore :

$$N_{Des} = \frac{365 \times [(1 + 0.06)^{15} - 1]}{0.06} \times 290 \times 0.75 \times 3.805$$

= **7030959** **ESA**

= **7.03** **MSA**

## 2. Calculation of design CBR

The CBR value varies between 5.0 % & 7.7 %. Mostly ML, CL, CI, MH & MI classified soil exists on the stretch from Ch 0.000 Km to Ch 7.932 Km (Design Ch 7.927 Km). Based on the Traffic density, whole stretch designed as a single homogeneous section. As per Clause 6.2.2 of IRC 37-2018, 80th percentile value of sub-grade CBR (5.2%) consider for whole stretch as design traffic is 7.03 MSA for 15 years design period. Evaluation of Sub-grade CBR for Pavement Design.

**Table 10: Recommended Pavement Layers as per Flexible Pavement Design**

Recommended Pavement Layers as per Flexible Pavement Design Using IIT Pave Software (IRC:37-2018) For Widening, New Construction and Reconstruction					
Layers	Thickness		Design Life Considered	Design Traffic	Design CBR
<b>BC (VG-10)</b>	30 mm	Total Bituminous = 90 mm	15 years	7.03 MSA	5.2%
<b>DBM (VG-10)</b>	60 mm				
<b>Granular Base</b>	170 mm	Total Granular = 370 mm	15 years	7.03 MSA	
<b>Granular Sub-base</b>	200 mm				
Adopted Pavement Layers Over Existing Pavement					
Layers		Thickness			
Proposed Layers	<b>BC (VG-10)</b>	<b>30 mm</b>	<b>Total Bituminous Layer = 90 mm</b>		
	<b>DBM (VG-10)</b>	<b>60 mm</b>			
	<b>Existing Bituminous Course shall be dismantled, re-compacted and profile correction shall be done by WMM upto thickness of 170mm. More than 170mm thickness PCC shall be done by GSB.</b>				

As the Design Traffic is less than 50 MSA, VG-10 shall be used for surface course and also for DBM

### 2.5.9 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: 35-1997 – “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 safety of the traffic on the stretches on approaches of bridges. It is also proposed on the curves for 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 11: World Bank's Operational Policies**

Operational Policy	Key Features	Applicability
<b>Involuntary Resettlement</b> (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 does not have any adverse impact on the private assets or livelihood of anyone.
<b>Indigenous Peoples</b> (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 Schedule tribe population.
<b>Physical Cultural Resources</b> (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 type of 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 sub-project on the basis during pre-construction, construction, and operation phases.

### 3.3 National & Policies of U.T of J&K

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 old act is Land Acquisition Act, 1894 and it is replaced by the new Act RFLARR, 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  This sub-project does not trigger any involuntary resettlement. Therefore, not applicable.
2	State Land Acquisition Act 1990 (1934 AD)	The State Land Acquisition Act 1990 (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  This sub-project does not trigger any involuntary resettlement. Therefore, not applicable.

### 3.4 Other Central and State acts which may be applicable in the Sub-project:

- 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<sup>2</sup>

### 4.1 Physical features

Budgam of Jammu and Kashmir (figure 1), located in the northern part of India between **34°42'- 34°50'N and 74°24'- 74°54'E**, covers an area of 1291 km<sup>2</sup>. About 6% of the state's population resides in Budgam. The area supports a varied topography exhibiting altitudinal extremes of 1550 to 4700 m above mean sea level. From southwest to northeast, the area consists of the lofty PirPanjal, and flat-topped karewas as foothills and plains.

### 4.2 Location and size

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 meters 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 Jhelum 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 everlasting Himalayas. The physiography of Kashmir can be studied with three major physical divisions, plain, plateau and mountains.

District Badgam is situated at 5281 feet above the sea level and bounded in the northwest by district Baramula in the northeast by district Srinagar and in southeast by district Pulwama of Kashmir Province. It is located at 75 degree E and 34 degree N latitude. The geographical area of the district is 1371 Sq. kms. this is 1.35 percent of the total area of the state.

### 4.3 Physiography

**Plain:** - This has formed by deposition of sediment of water over-flowing the river banks during floods. These plains are formed on both sides of river Jhelum but with some variation in their width at different places.

**Plateau:** - This division plays a vital role in the ecology of the region. The cliffs of clay consists mostly the brown sand. These plateaus are separated from one another by deep and narrow valleys. The plateaus have little moisture retaining capacity and are poor in

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<sup>2</sup> Source: [https://censusindia.gov.in/2011census/dchb/0102\\_PART\\_B\\_DCHB\\_BADGAM.pdf](https://censusindia.gov.in/2011census/dchb/0102_PART_B_DCHB_BADGAM.pdf)

organic matter. They differ vastly in surface characteristics, the flat topped plateau and slopping plateau.

**Mountains:-** Majestic Mountains which surround the valley fascinate the visitors immensely and make them often to visit the land beyond the mountains. Being varied in form and color, these mountains look as beautiful as an artist "might picture in dream" and a poet "might extol in the verse". The general topography of the area is both mountainous and plain. While the southern and south-western parts are mostly hilly, the eastern and northern parts are relatively plain. The average height of the mountains is 1,610 meters.

**Drainage:-** The valley of Kashmir is famous for rivers, clear streams, and land of oaks, green turfs, magnificent trees and mighty mountains. This description is particularly true of the territory falling within the jurisdiction of Badgam district. The area of Badgam district occupies the central part of the valley. The flat valley is interwoven with rivers, streams, nallahs, springs and under-ground water resources.

**Nallahs and rivers:** -Romshi Nallah is a left flank feeder of the Jhelum which draws its water from the snowy peak of Kharmarg near Nallah Pir Pass. After traversing a course of fifty-one kilometers through PakharPur, a village near Charar-E-Sharief the nallah merges with the Jhelum near Wadipur below Awantipora in Pulwama district. Dood Ganga River which rises below the Tatekuti Peak is joined by another stream called Shahi Ganga near village Wathura. Its waters are mostly diverted towards the west into marshy land and the remaining water merges with Jhelum at Safa Kadal in Srinagar. Sukhnag swell with torrential water which drains the slopes of Pir Panjal range between the Nurpur and the China Marg passes. A large amount of the discharge of the stream merges into the marshals of Rakh Aral, Harigam Hill and Sultan PurichRakh.

**Underground water resources:-** There is plenty of ground water in the district especially in Karewas and alluvial strata. The ground water exists in confined as well as unconfined conditions. The depth of water level varies from the land surface level. Ground water has a little content of dissolved minerals. Other chemical properties are up to the norms for drinking water fixed by Bureau of Indian Standards. The water is, however, contaminated by the presence of Hydrogen Sulphide (H<sub>2</sub>S) 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 Badgam, 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 Badgam. The department of Irrigation and Flood Control has procured several rigs for development of ground water resources on scientific methods.

#### 4.4 Climate

The Orography i.e. high mountain terrains marked with series of high ridges and narrow deep valleys, in the Kashmir valley has a pronounced effect on climate which varies with aspect and elevation. These mountains not only protect the valley from the blasting cold of the north but also from the scorching heat of the south.

**Temperature:** Temperature at a high altitude is intense due to rarefied and transparent atmosphere, soil and rocks absorb radiation and heat up, rapidly resulting in high temperature in open than in the shade. Mountain slopes turned away from the sun are considerably cooler as compared to those exposed to the sun. Variations in temperature from place to place are, therefore, considerable depending upon elevation and exposure to the sun. January is the coldest month. Thereafter temperature rises rapidly till June, which is the warmest month. The mean maximum temperature touches 310 Celsius while at higher stations the temperature is lower by 30 Celsius. In winter the mean maximum temperature at Srinagar is higher by 30 Celsius than that at higher stations. December to February is the coldest part of the year, when the minimum temperature on the mean is below the freezing point. Frost is common during December to February.

**Humidity:** The humidity is high in the morning throughout the year. It is 90 percent during December to February, which is said to be maximum. The lowest humidity is 40-45 percent recorded during May-June.

**Atmospheric Pressure (clouds):** Maximum atmospheric pressure in the Badgam is witnessed from December to April when, for the most part, sky remains overcast. Very little clouds are observed between July and October but moisture carried upwards by the ascending currents result in the cloud formation in the afternoon. During night, katabatic winds carry moisture downwards and clouds tend to disappear at high elevations, offering a clear view of the mountain peaks in the early morning. The annual range of station level pressure is of the order of 1.25 millibars.

**Winds:** During winter, surface winds are generally light and variable but with the approach of spring, the surface winds strengthen and take up westerly to south westerly direction, with mean wind speed of 6 kms. per hour. During summer, the surface winds have an easterly component but mean wind speed reduces to 3.6 kms. per hour to 4 kms per hour. In autumn, surface winds have northwesterly direction and are light.

The terrain gives rise to various types of local winds. Katabatic flow in the valleys is strong. They gain intensity while blowing over the snowfields and glaciers. Winds blowing through the mountain gaps emerge as strong currents.

#### 4.5 Soils

Kashmir valley the heaven on the earth is known for its paddy, saffron, orchards and stately trees are grown on soils. The study of soils as found in the valley assumes a great significance. According to recent soil surveys conducted a wide spread tendency towards acidity has been detected. Green manuring, legume plant cultivation and liming of soils have been advised as the measures to enrich these soils by soil scientists. The soil on the flanks of the river Jhelum is most fertile as it gets periodically renewed and enriched with fresh deposition of silt by recurrent floods. The soils on highlands and Karewas are different at different places and their fertility depends upon the site, nature of soil and altitude of the places. According to the intensive study of the soils conducted in the valley, the bottoms are covered with alluvial soils rich in organic matter and nitrogen content

#### 4.6 Flora and Fauna

Flora refers to a biotic community comprising of trees, Shrubs or any other woody vegetation. The forest of the district has a wide range of woods and flowers, Deodar, Kail, Pine, Fir, Elm, Blue Fir are found in abundance. Chinar, Poplar, Willow, Walnuts and variety of other trees are grown in the area. The forests of the district are also rich in minerals and forest products. There is wide range of medicinal herbs in the area. These dense forests also provide a good habitat and conducive environment for birds and wild animals. Among the birds are Ravens, Crows, and vulture, Woodpecker, Swallows, Bulbul, Flycatcher, Doves, Pigeon, Wild Ducks, Sparrow and Wild Cock.

There are wild animals like Leopard, Cheetah, Jackal, Wolves, Fox, Markhor, Musk Deer and Monkeys etc found in the forests. Their population is, however, decreasing owing to the overinteraction of man with nature and encroachment in the forest and natural areas. The rich water resources in the shape of lakes, springs and streams enable various species of fish to grow in abundance. The charming side valleys of varied scenery and meadows covered with lovely wild flowers of all colours attracts different kinds of migratory birds during different seasons of the year and thus enriches its bird life.

#### 4.7 Population

The total population of the district as per census 2011 is 753745 persons. It consists of 398041 males and 355704 females.

#### 4.8 Sex Ratio

According to 2011 census, Budgam district had a sex ratio of 883 females for every 1000 males

#### 4.9 Literacy

Average literacy rate of Badgam in 2011 were 56.08 compared to 42.20 of 2001. If things are looked out at gender wise, male and female literacy were 66.30 and 44.85 respectively. For 2001 census, same figures stood at 53.13 and 30.29 in Badgam District. Total literate in Badgam District were 335,649 of which male and female were 207,741 and 127,908 respectively. In 2001, Badgam District had 0 in its district.

#### 4.10 Cropping Patterns

Agriculture is the main source of livelihood in Badgam as is in the rest of the State. Area wise distribution of various crops as registered during the year, 2008-09 is given.

**Table 12: Area Under Crops Unit (Area In Hectares) 2008-09**

Name of the Crop	Area (in Hectares)
Paddy	22798
Wheat	263
Maize	9889
Grim	0
Other Millets	0
Pulses	1757
Total food Grains	34707
Fruit	4695
Vegetables	3047
Oil Seeds	6320
Fodder	2380
Other Food crops	678
Total area under non- food crops	188
Total area sown	52015

Source: - District Statistical Handbook (2008-09)



#### 4.11 Horticulture

Horticulture has assumed great importance in the State and makes a handsome contribution to the State domestic product. A major portion of land available viz. 31052 hectares in 2008-09 was under fruit cultivation. 45869 fruit plants were available in the said year, out of which 17301 plants have been distributed to fruit growers from different nurseries. A cooperative is an old moment functional in the State. The programme has made good progress in the district; as in the State, and had brought within its fold activities like agricultural credit, sale service marketing, transport handloom, handicrafts units etc

#### 4.12 Irrigation

Major portion of cultivable land has irrigation facilities. There is a network of canals and kohals which provide desirable facilities during the cropping season. The source of irrigation for the crops are in the shape of canals, springs wells, tube wells, tanks and others.

#### 4.13 Animal Husbandry

Livestock rearing is an important occupation of the village folks in general and migratory population in particular. The district accounts for 4.22 lakh livestock heads as per 2007 Live Stock Census. Milk production has reached the level of 148.93(000M Tones) during 2008-09. Every effort is made to give proper health coverage and breeding facilities so as to improve the health and quality of the animals.

#### 4.14 Socio-Economic Profile of Sub-Project villages

The socio-economic profile of the village falling under the proposed sub-project is given below:

**VillageSoiBug-** Soi Bug is a large village located in Budgam Tehsil of Badgam district, Jammu and Kashmir with total 1471 families residing. The Soi Bug village has population of 9873 of which 5066 are males while 4807 are females as per Population Census 2011.

In Soi Bug village population of children with age 0-6 is 1539 which makes up 15.59 % of total population of village. Average Sex Ratio of Soi Bug village is 949 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Soi Bug as per census is 815, lower than Jammu and Kashmir average of 862.

Soi Bug village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Soi Bug village was 49.14 % compared to 67.16 % of Jammu and Kashmir. In Soi Bug Male literacy stands at 56.69 % while female literacy rate was 41.40 %.

In Soi Bug village out of total population, 2377 were engaged in work activities. 63.82 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 36.18 % were involved in Marginal activity providing livelihood for less than 6 months. Of 2377 workers engaged in Main Work, 431 were cultivators (owner or co-owner) while 322 were Agricultural labourer.

**Village Pethmakhama**-Peth Mekehama is a large village located in Beerwah Tehsil of Badgam district, Jammu and Kashmir with total 621 families residing. The Peth Mekehama village has population of 4646 of which 2372 are males while 2274 are females as per Population Census 2011.

In Peth Mekehama village population of children with age 0-6 is 995 which makes up 21.42 % of total population of village. Average Sex Ratio of Peth Mekehama village is 959 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Peth Mekehama as per census is 910, higher than Jammu and Kashmir average of 862.

Peth Mekehama village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Peth Mekehama village was 57.66 % compared to 67.16 % of Jammu and Kashmir. In Peth Mekehama Male literacy stands at 65.64 % while female literacy rate was 49.44 %.

In Peth Mekehama village out of total population, 1125 were engaged in work activities. 54.84 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 45.16 % were involved in Marginal activity providing livelihood for less than 6 months. Of 1125 workers engaged in Main Work, 99 were cultivators (owner or co-owner) while 114 were Agricultural labourer.

**Village Gotapora**-GotaPora is a large village located in Budgam Tehsil of Badgam district, Jammu and Kashmir with total 388 families residing. The GotaPora village has population of 2875 of which 1509 are males while 1366 are females as per Population Census 2011.

In GotaPora village population of children with age 0-6 is 521 which makes up 18.12 % of total population of village. Average Sex Ratio of GotaPora village is 905 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the GotaPora as per census is 754, lower than Jammu and Kashmir average of 862.

GotaPora village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of GotaPora village was 59.22 % compared to 67.16 % of Jammu and Kashmir. In GotaPora Male literacy stands at 65.92 % while female literacy rate was 52.10 %.

The total geographical area of village is 164.7 hectares. GotaPora has a total population of 2,875 peoples. There are about 388 houses in GotaPora village. Badgam is nearest town to GotaPora which is approximately 10km away.

In GotaPora village out of total population, 674 were engaged in work activities. 57.72 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 42.28 % were involved in Marginal activity providing livelihood for less than 6 months. Of 674 workers engaged in Main Work, 216 were cultivators (owner or co-owner) while 12 were Agricultural labourer.

## 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

From Ch 4.940 km to Ch 5.475 Km, project road is passing through a low laying area (water logged) and open area continued upto Ch 5.900 km. After Ch 5.900 km, characteristic nature on both side of the road is either residential or commercial; continued till the end of the project roads i.e., Km 7.932 Km.project road connects the Village Bemina, Hajibagh, Pethmakhama, Gotapora. Due to the low laying area at certain locations, it become difficult for farmers and other fruit growers to move themselves and their produce to their houses and markets. Without the proposed sub-project, people will continue to suffer, therefore, this sub-project is indispensable.

#### 5.1.2 ‘With’ Project Scenario

District is famous for fruits such as apple, apricot, plum almond etc. proposed sub-project will facilitate the movement of fruit growers to the markets and thereby will save their time also. Restoration of roads will also serve as supply/rescue lines in the event of a disaster. Since the existing road stretch is in poor condition, therefore its upgradation and improvement will provide people access to avail basic services such as schools, hospitals, district headquarters throughout year. The sub-project will not require any private land acquisition and is not impacting any other private asset. This has been confirmed through discussion with engineers from PIU and PMU, JTFRP (Kashmir division) and certified by them as well (annexure 4).

The sub-project will not require any private land acquisition and will not impact any other private asset. This has been confirmed by PIU (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 concerned with involving, informing, and consulting the public in planning, management implementation, and other decision-making activities. It tries to ensure that due consideration is given to public values, concerns, and preferences when decisions are made. It encompasses the public actively sharing in the decisions that government and other agencies make in their search for solutions to issues of public interest.

One of the key objectives 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 effect minimize the potential unexpected opposition of the proposed project and potential adverse effects to the environment. It is also very beneficial in incorporating the views of the public into the design process for the adoption of the best workable models and systems.

### 6.1 Identification of Stakeholder

Identification of stakeholder ensure social sustainability of the projects. This was the first step 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 are the main stakeholders along with PIU and PMU. Project related information has been shared with all the concerned stakeholders on 29.06.2019 (annexure 8).

### 6.2 Objective of Stakeholder's Consultation

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 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 revenue record along with other project related information were shared with them in order to instil faith and confidence among them about the proposed 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. Sharing of project design and revenue record with the locals.
4. Understanding their needs and requirement.
5. Collection of Baseline information.

### **6.4 Details of Public Consultation in the sub-project road**

The public consultation was conducted by following the World Bank's ESMF prepared for JTFRP. The purpose and objective of this consultation are the involvement of residents/ stakeholders and to make them aware of the proposed activity of the subproject. Public consultations had been organised in the nearby villages to disseminate the project concept and plan among the stakeholders. Consultations were conducted successfully with the people of Parimpora-Aban Shah, Soibugh villages on 28.06.2019 (annexure 10).

Major outcome during consultation was that people are aware that no private land or structure is being acquired for the sub-project.

### **6.5 Information's Shared**

The following information was shared with the people:

- About project and its source of assistance, its implementation/execution, etc.
- Information on perceived benefits from the proposed sub-project including travel time, fuel costs, noise, and air pollution.
- Information of perceived losses from the proposed sub-project during execution stage in terms of inconvenience to 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 places like temples, Mosques 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 labour with the project during the construction stage of the project.

## 6.6 Feedback received

During the consultation process about 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 are aware of the upcoming work. The major problems faced by people are related to the dilapidated condition of the existing road. In the time of emergency, like accidents, fast commutation is very difficult and sometimes impossible during 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 and the people are aware of this fact.

## 7. Analysis of Social Impacts

### 7.1 Impact on Land

The revenue record obtained from revenue department revealed that existing road does not pass through private land and therefore no requirement of land acquisition (annexure 3). The existing road passes through two major habitations, these are, village Hanjak and Hajibagh (District Budgam) beside small villages such as Abansa, Sarifabad, Bemina, Pethmakhama, and Gotapora. It is clear from the revenue record that the land over which the existing road was constructed falls under khasra numbers 186 (state) 181 (shamlatdeh) and 241 (state). Total land under these khasra numbers is 3.109 acre (Khasra number 186: 1.835 acre, Khasra number 181: 1.136 acre and Khasra number 241: 0.137 acre).

The total length of the sub-project road for reconstruction is 7.927 kms. Project Manager (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1123 dated 07.09.2020 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 5.00 meters (annexure 5, Sl. no. 4).

PMU, JTFRP published a notice in the two local newspapers namely "The Daily Tameel Irshad" and "Kashmir Images" on 15.09.2021 informing general people and those who are likely to be benefitted/affected in particular, about the upgradation of this road sub-project within the existing right of way under World Bank funding. It also called for any objection from the local people regarding use of RoW, along with supporting documentary evidence within 07 days of publication of the notice in the newspaper. The office of Director safeguards did not receive any objection or claim from anyone even after the lapse of 05 month of the publication of notice in two local newspapers (annexure 6).

PIU JK ERA, Kashmir stated that since the public notice was given in the two daily newspapers and even after 05 months no objection or any complain of using Shamilatdeh land from any quarter is received. Therefore, it can be said that community has no objection if the road on the Shamilatdeh land is being reconstructed/strengthened (annexure 7).

Therefore, on the basis of the process followed, it can be said the proposed sub-project neither require any land acquisition nor adversely impact livelihood of anyone. 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 Impact on Structures**

The proposed alignment is devoid of any structure i.e., residential, commercial, and religious or any CPR. Same has been verified and confirmed by PIU as well as PMU. Project Manager (Transport, Kashmir division) JK, ERA has issued an encumbrance-free certificate which confirms that the whole stretch does not have any temporary or permanent structure (annexure 4). Strip plan of the road annexed as annexure 8 also confirms that there is no structure inside the alignment of the proposed road.

## **7.3 Impact 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 adverse impact on livelihood 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. Up-gradation and reconstruction of the road will be executed 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 Parimpora to Soibugh 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 proposed sub-project will be implemented in the available RoW which is encumbrance free and devoid of any private and government structure or any CPR. Project Manager, (Transport, Kashmir division),JK, ERA vide letter no ERA/PMT/20/1123 dated 07.09.2020 has confirmed the same (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 5.0meters (annexure 5).

### 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 the 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.

**Table 13: Social impacts & Mitigatory Measures**

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
<b>Planning/Pre-construction Phase</b>					
<b>1</b>	<b>Pre-construction phase</b>	<ul style="list-style-type: none"> <li>• Sharing of design with the community.</li> <li>• Utilization of private land temporarily if required.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation with local community and stakeholder engagement.</li> <li>• Written consent from the community or owner of the</li> </ul>	Contractor	PIU

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
		<ul style="list-style-type: none"> <li>• Provision of alternative access to the community for commuting wherever required.</li> <li>• Restoration and relocation of Common Property Resources if any.</li> </ul>	<ul style="list-style-type: none"> <li>land required for stocking construction material temporarily.</li> <li>• Involving locals wherever any issue arises.</li> </ul>		
<b>Construction Phase</b>					
2	<b>Influx of labor</b>	<ul style="list-style-type: none"> <li>• Construction Camp Locations Selection, Design, and Lay-out.</li> <li>• Conflict with the community due to social and cultural differences with the host community.</li> <li>• The potential impact of spreading infectious diseases from labor to the local or vice versa.</li> <li>• Possibility of Sexual abuse and assault in the labor camps or otherwise.</li> <li>• Drug abuse, gambling, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimize labor influx as much as possible by engaging the local labour force.</li> <li>• Ensure labor camps for the labor (Away from religious places and localities to the extent possible).</li> <li>• Awareness of the health and sanitation for the labor.</li> <li>• Ensure the least contact between the host community and the labor.</li> <li>• Awareness of sexual assault &amp; drug abuse.</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring
		<ul style="list-style-type: none"> <li>• Facilities for the Labour in camp and on the worksite</li> </ul>	<ul style="list-style-type: none"> <li>• Providing accommodation facilities to the migrant laborers with proper ventilations.</li> <li>• Provision for safe drinking water and appropriate cooking arrangement at labor camps;</li> <li>• Provision of Separate toilet and bathing facilities for men and women</li> <li>• 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.</li> <li>• 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.</li> <li>• Provision of prayer rooms as</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			<p>per the religious beliefs of the workers.</p> <ul style="list-style-type: none"> <li>• Safe storage facilities for the gas cylinder, petroleum, and other chemicals, used by laborers.</li> <li>• Proper solid waste collection and disposal system at the camp site.</li> <li>• The camp should have proper security arrangements, like a Security fence.</li> <li>• Preparing a code of conduct for the migrant workers.</li> <li>• Conducting awareness programme about sexually transmitted diseases among the migrant workers, laborers and for the community around project site;</li> <li>• Awareness program on COVID-19.</li> <li>• Provision of hand sanitizer, masks in the labor camps.</li> <li>• Provision a separate accommodation for COVID-19 infected labors or persons engaged by the contractor.</li> <li>• Provision of crèche on site for children.</li> <li>• 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.</li> <li>• Labour Registration.</li> <li>• Awareness program for labor rights</li> <li>• No employment of child labor.</li> </ul>		
		<ul style="list-style-type: none"> <li>• Registration of Complaints received from labor.</li> </ul>	<ul style="list-style-type: none"> <li>• Arrangement to register and redress the grievance of workers.</li> <li>• Grievance Redressal System for the project to address such issues including sexual harassment at the workplace</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
		<ul style="list-style-type: none"> <li>Equality of opportunity to work.</li> <li>Equal Pay for equal work</li> <li>Preference to the Women Laborers</li> </ul>	<ul style="list-style-type: none"> <li>To be ensured throughout the project cycle.</li> <li>Maintenance of payment registers by the contractor.</li> </ul>	Contractor,	PIU/ PMU Monthly Monitoring
3	<b>Community Health and Safety</b>	<ul style="list-style-type: none"> <li>Injury &amp; sickness due to construction work and movement of heavy vehicles, contamination, or other natural or human-made hazards.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of access to the community, shops, religious places during the construction phase.</li> <li>Better marking and signage.</li> <li>Provision of alternative transportation routes for vehicles and ambulances wherever required.</li> <li>Undertaking regular surveillance at the site to check on Hygiene conditions for disease control.</li> <li>Treating mass awareness on HIV and STDs and COVID-19.</li> <li>Ensure the least contact between the labor and the local population.</li> <li>Sharing grievance redressal system with the community and displaying contact numbers at the site to register any grievances due to the project.</li> <li>contamination of water bodies due to stocking of construction material etc.</li> <li>Safeguarding pedestrians' safety including women, children.</li> <li>During construction of side, drains provide temporary/safe access to shops, kids, hospital/clinic, religious places, etc.</li> <li>Community Consultation</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring
4	<b>Occupational health and safety</b>	<ul style="list-style-type: none"> <li>Injury and sickness of labor</li> </ul>	<ul style="list-style-type: none"> <li>Provide training on health and safety to all the workers.</li> <li>Provide PPE to workers as per work requirements.</li> <li>Regular checking of body temperature and other symptoms among the laborers for COVID-19 and maintaining a register.</li> <li>Awareness program on COVID-19.</li> <li>Provision of hand sanitizer,</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			<p>masks in the labor camps and on the sites.</p> <ul style="list-style-type: none"> <li>• Displaying of COVID-19 help line numbers on-site as well as in labor camps.</li> <li>• Provide separate toilets for male and female labor at the construction site</li> <li>• Provide safe drinking water at the construction site.</li> <li>• Providing a separate resting area at the site for breaks during the work period</li> <li>• Provide adequate lighting in the construction area and along the roads.</li> <li>• Conduct an initial health screening of the laborers working at the construction site, especially those who are coming from outside the project area.</li> <li>• Provide first aid facility at the construction site</li> <li>• Provide HIV awareness programming, including STI (Sexually Transmitted Infections) and HIV information, education, and communication for all workers on regular basis.</li> </ul>		
5	<b>Gender-Based Violence</b>	<ul style="list-style-type: none"> <li>• Sexual Exploitation and Abuse (SEA)</li> <li>• Workplace Sexual Harassment</li> <li>• Human Trafficking</li> <li>• Non-SEA</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness program for the Contractors, Local Communities, and laborers on national laws.</li> <li>• Introducing a worker's code of conduct.</li> <li>• Displaying of various legal provisions on-site, in labor camps, and at prominent locations in the project area.</li> <li>• Ensure that complaints of GBV are registered and maintained confidentially in a register.</li> <li>• Strict code of conduct for workers with no tolerance for physical or verbal abuse of women or children.</li> <li>• Ensure that complaints of GBV are registered and confidentially maintained in a register</li> </ul>	Contractor	PIU/ PMU Monthly Monitoring



Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
<b>Post Construction Phase</b>					
6	<b>Rehabilitation of site used for camp, storage etc.</b>	<ul style="list-style-type: none"> <li>• Handing over temporarily used private/ community land to the landholders/ community by the contractor without restoration work and payment of dues/ lease amount.</li> <li>• Non-removal of debris and other construction material from the site.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation with the private party or Community and restoration of their land.</li> <li>• Removing of non-utilized construction material from the site.</li> <li>• Payment of lease amount/rent, if any due, to the private party or community for utilization of their resources.</li> </ul>	Contractor	PIU/PMU Within one Month

## 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 10<sup>th</sup> 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 gender-based 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 Labour influx and Labour 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 COVID19 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 put in place required measures.
- **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, non-toxic materials;
- Food preparation tables are equipped with a smooth, durable, easily cleanable, non-corrosive 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 be 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;



- Labours 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, COVID 19, AIDS, etc. shall be provided to workers.

## **9. Monitoring and Evaluation**

The Project requires detailed supervision, monitoring, and evaluation of the impact on the 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 is critical to measure 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 Internal Monitoring**

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 ESMF at page no.

49. 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 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.

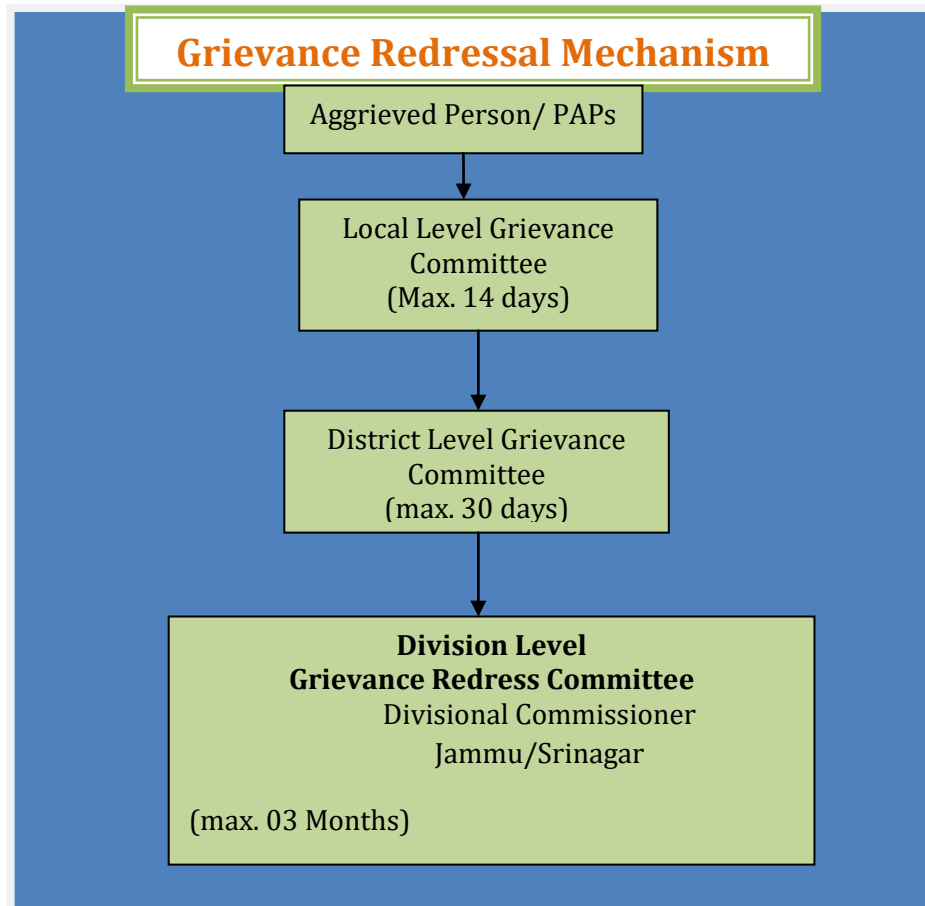


Figure 2: Structure of GRM

## 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 enrout 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 (Wherever required) 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

<b>1. Name of the sub-project</b>		Improvement & Up-gradation of Parimpora to Soibugh Road in District Budgam	
<b>2. Type of proposed activity (tick the applicable option and provide details)</b>			
• Road	<input checked="" type="checkbox"/>		
• Bridge	<input type="checkbox"/>	-	
• Fire Station	<input type="checkbox"/>	-	
• Hospital/Health Facility	<input type="checkbox"/>	-	
• Educational Institute	<input type="checkbox"/>	-	
• Building for Livelihoods	<input type="checkbox"/>	-	
• Flood Infrastructure Related	<input type="checkbox"/>		
• Other Public Building	<input type="checkbox"/>	-.	
• Any Other (Please Specify)	<input type="checkbox"/>	-	
<b>3. Location of the proposed sub-project</b>			
• Name of the Region	Kashmir (J&K State)		
• Name of the District	Budgam		
• Name of the Block	<i>Soibugh</i>		
• Name of the Settlement	Parimpora, Abanshah, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora, Soibugh		
• Latitude	34° 06'03"N (At Parimpora-RD 0+000), 34° 04'33"N (At Soibugh-RD 7+940),		
• Longitude	74°45'23"E (At Parimpora-RD 0+000), 74°42'18"E (At Soibugh-RD 7+940),		

4a. Proposed Nature of Work (tick the applicable options)	
• Minor Repairs	-
• Major Repairs/Rehabilitation	-
• Upgrading/Major Improvement	√
• Expansion of the facility	-
• New Construction	-
• Any Other	-
<b>4b. Size of the sub-project</b> (approx. area in sq. mt/hac or length in mtr./km, as relevant)	7.94 Km
5. Land Requirement (in hac./sq.mt.)	
• Total Requirement	Nil (No land required, PIU certified that work will be done in the available RoW)
• Private Land	Nil
• Govt. Land	Nil
• Forest Land	Nil
6. Implementing Agency Details (sub-project level)	
• Name of the Department/ Agency	PIU-ERA (Kashmir)
• Name of the contact person	Mr. Abdul Wahid
• Designation	Project Manager
• Contact Number	+91-7006152713
• E-mail Id	projectmanager049@gmail.com
7. Screening Exercise Details	
• Date on which it was carried out	29 <sup>th</sup> June 2019
• Name of the Person	Vikash Sharma/ Yaadullah Shah
• Contact Number	+9419125803/9622672672

• E-mail Id	<a href="mailto:jkerasocial@gmail.com/yaadshah@gmail.com">jkerasocial@gmail.com/yaadshah@gmail.com</a>
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## Part B (1): Environment Screening

Question	Yes	No	Details
<b>1. Is the sub-project located in whole or part within 1 km of the following environmentally sensitive areas?</b>			
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	Yes		Existing road is located within the 1 km of the wetland. This road traversing through Hokersar Wetland) from RD 5+000 to 6+100 having geo-coordinates 34° 04'52"N and 74°43'27"E.
m. Natural Lakes		No	
n. Rivers/Streams		No	
<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>
o. Swamps/Mudflats		No	-
p. Zoological Park		No	-
q. Botanical Garden		No	
<b>2. Is the sub-project located in whole or part within 500 mts. of any of the following sensitive features?</b>			
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		Jhelum Flood spill Channel and is within the 500 mts. of proposed road
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?	As per 2014 HFL		
4. Is any scheduled/protected tree like Chinar, Mulberry or Deodar likely to be affected/cut due to the project?		No	
5. Is the sub-project located in a landslide/heavy erosion prone area or affected by such a problem?		No	
6. Is sub-project located in an area that faces water paucity or water quality issues?		No	

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

1.	Environment Impact Assessment Required	Yes
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 Hot mix Plants, Wet Mix Plants, Stone Crushers, PUC's and other fitness certificates of equipment etc.

### Part C (1): Social Screening

1. Does the sub-project activity require acquisition of land?

Yes		No	√ (no additional land is required. Work will be executed within available RoW)
Give the following details:	Private Land (sqmts/hac.)		Nil
	Govt. Land (sqmts/hac.)		Nil
	Forest Land (sqmts/hac.)		Nil
<b>2. Does the proposed sub-project activity result in demolition/removal of existing structures?</b>			
Yes		No	√
If so, give the following details:			
• Number of public structures/buildings		Nil	
• Number of common property resources (such as religious/cultural/drinking water/wells/etc.)		Nil	
• Number of private structures (located on private or public land)		Nil	
<b>3. Does the proposed project activity result in loss of crops/trees?</b>			
Yes		No	√
<b>4. Does the proposed Project activity result in loss of direct livelihood/employment?</b>			
Yes		No	√
<b>5. Does the proposed activity result in loss of community forest/pastures on which nearby residents/local population are dependent?</b>			
Yes		No	√
If yes, give the details of the extent of area to be lost (in acres/hac).		-	
<b>6. Does the proposed Project activity affect scheduled tribe/caste communities?</b>			
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

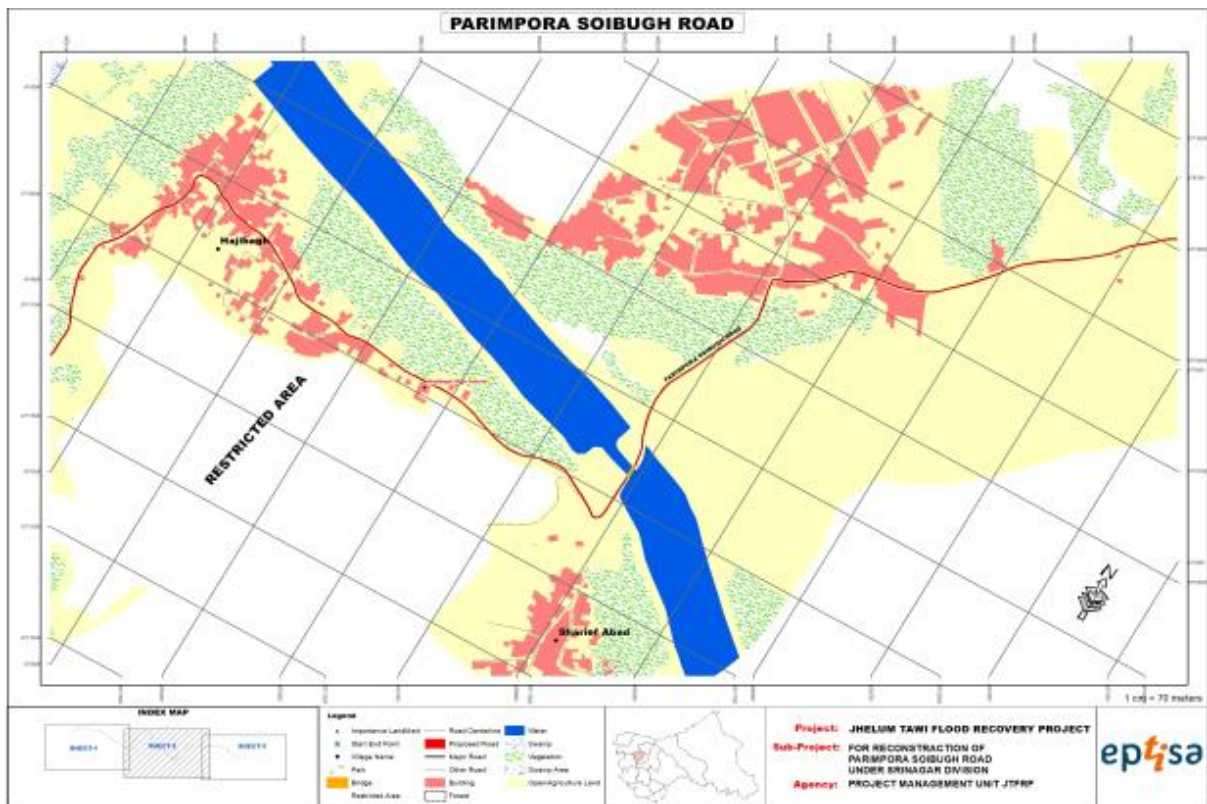
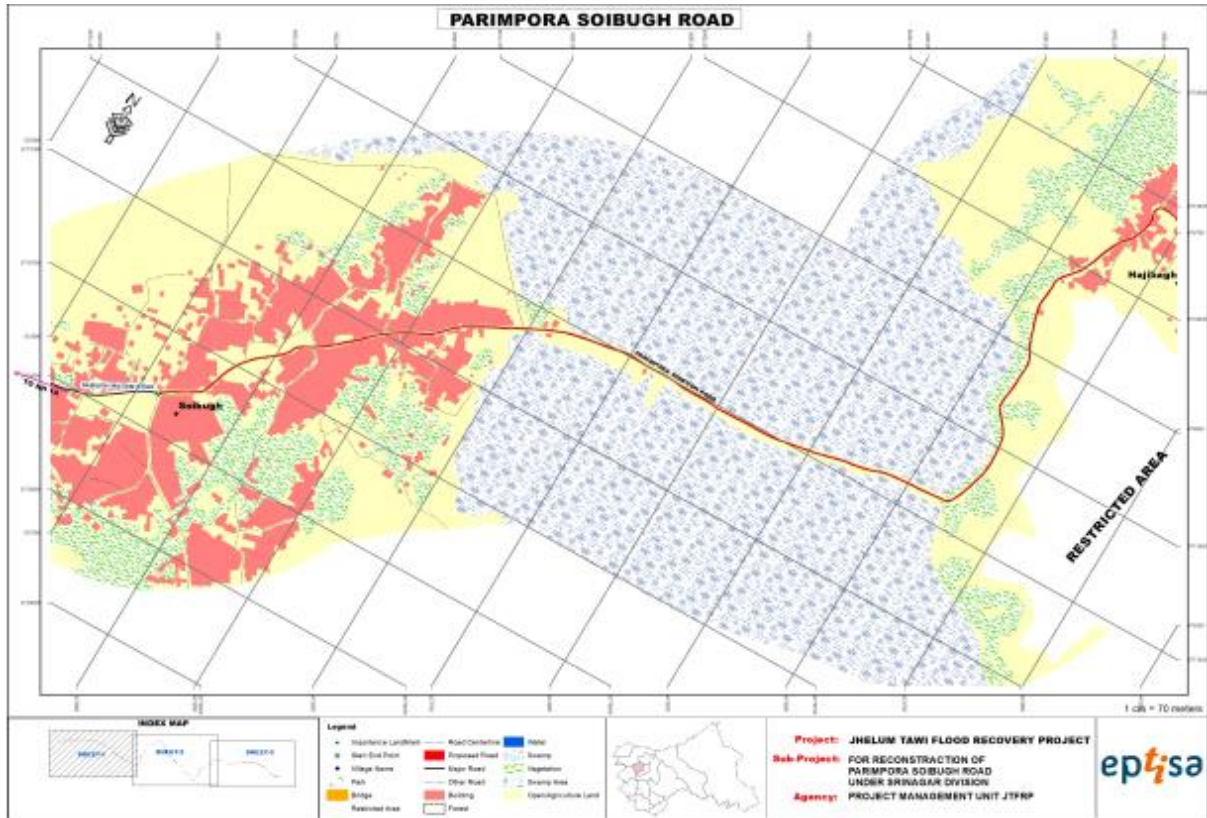
#### Outcome of Screening:

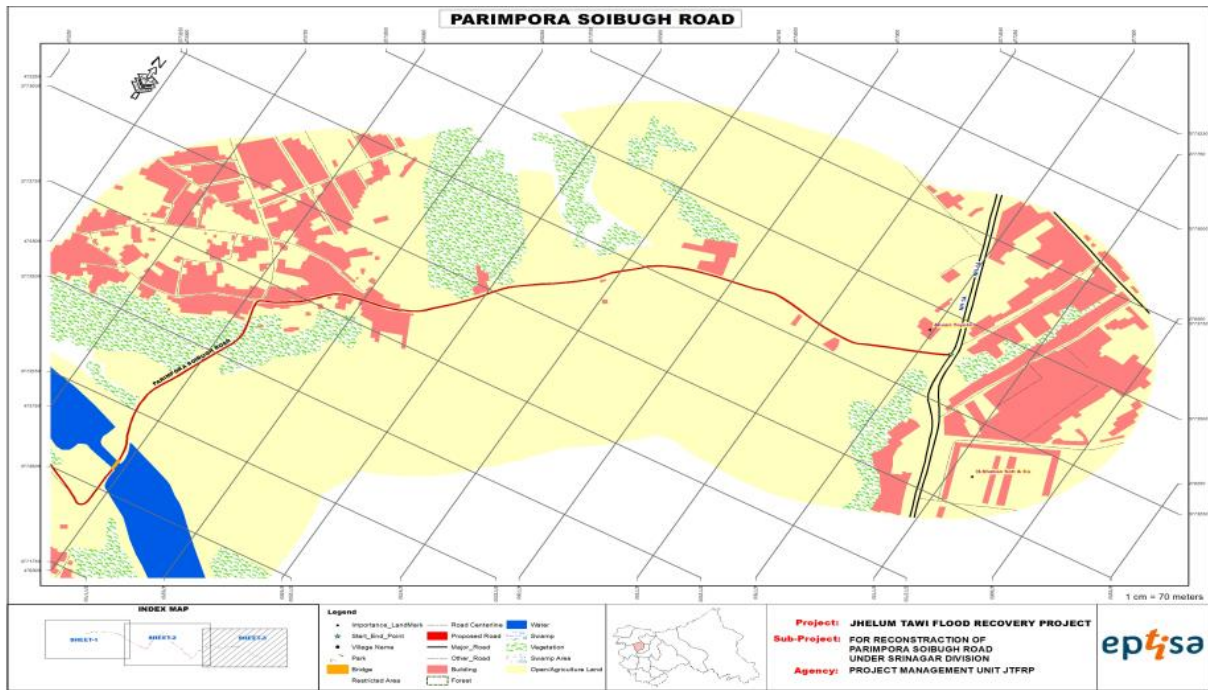
As per the screening exercise, the proposed sub project does not have significant environmental and social issues. The proposed sub-project is only the Improvement & Up-gradation of the existing road and does not involve land acquisition of private or government land. Wherever the required land width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

However, in order to assess the temporary impacts, existence of squatters and encroachers on the site SIA may be required for the proposed subproject. SIA study will also assist as tool for preparation of Social Management Plan for the sub-project.



## Annexure 2: GIS Map of the Proposed Sub-project





**Annexure 3: Revenue Record (Urdu and English)**

Extract of Jamabandi village Haji Bagh Taluk & Dist. Budgam

Khasra no.	Khasra no.	Name of Sole or Part.	Name of Owner	Name of Tenant	Serial No. of Khasra no.	Area in Lagan	Patta Kind Use	Total Revenue	Mutation		Remarks
									No	Kind	
42	176	-	Shamat Dek	Road	181	9-2	Road				
46	184	-	State	Road	241	1-2	Road				
Note - Extract prepared as per orders & submitted Seal & Signature Patawar Sd/Gudawan											

Extract - Khasra Girdawari village - Hanjak Tehsil & Distt - Budgam

Khasra No-	Name of tract -	Name of Tenant	Area		Kind of Land		Rabi -	Changes etc.
			Kanul	Marla	Kanul	Kanul		
186	Stale -	Road	14	14	Road	Road	/	

NOTE - As Per order Prepared and Submitted -

dt 29/20  
 Seal & sig -  
 Patwari  
 SDE Girdawari

Extract of Jamabandi village Hanjak <sup>2009-10</sup> Tehsil Budgam Dist Budgam

Khasra no.	Khasra no.	Name of or Patti.	name of owner	name of Tenant	Source of Khasra no.	Area	Lagan -	Patta - Kharab	Total Revenue	Mutation		Remarks
										M	Kind	
99	330	-	State	Road	186	K 01	14-14	-	-	-	-	-

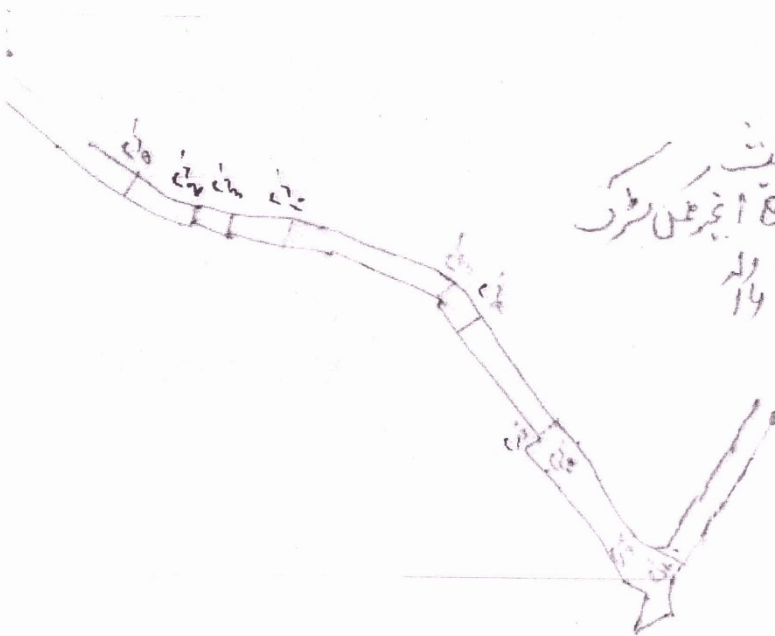
note: - Extract Submitted as Per orders  
 Dt 24/9/20  
 Seal & signature -  
 Patwari  
 Sol - Lurdawan

5

کس شوه یار غیر فرہ ۱۸۶۱ واقعہ موضع بانجک تحصیل و ضلع بندہ ۳۶

شمال  
کھاس

Akas Sajra Furkhasa no 186  
Village Hanjak Tehsil  
Distt Bandra



غرضہ نہایت  
۱۸۶۱ غیر منظر  
۱۴-۱۴

Khasra no  
186  
Area 14-14

کس شوه یار غیر فرہ ۱۸۶۱ واقعہ موضع بانجک تحصیل و ضلع بندہ ۳۶

24  
20

Note -  
Sajra Prepared as  
Per order & Submission  
of Sd. Patwari









نقل مثل جمعندی روان مرتبه سال سه بابت موضع حاجی باغ تحصیل و ضلع کرمنا

نمبر کتب	نمبر کتب	نام مالک معاوض	نام کثرت کار معاوض	وسایل آبیاری و سایر وسایل	رقبعت مربع	آنگاه جو زمین را در آنجا	همه اینها در حدیث باغچه	مطابق بقرآن الی...	انتقالات نمبر قسم
۱۸۱	۱۸۲	شماره ۱۸۱	شماره ۱۸۲	۱۸۱	۱۸۲	۱۸۱	۱۸۲	۱۸۱	-
۱۸۳	۱۸۴	شماره ۱۸۳	شماره ۱۸۴	۱۸۳	۱۸۴	۱۸۳	۱۸۴	۱۸۳	-

مردم به زمین عرب است ماه ۱۲۰۰ فرار مع فی بداد او بر زمین  
 BEB. MUSSA ALIYANI  
 Bazar-yari  
 Tehs.  
 Dist.



6

نقل خسرہ گرداوری بابت موضع حاجی باغ تحصیل ضلع ٹیٹا

۱	۲	۳	۴	۵	۶
نمبر	نام مالک معد حوال	نام کاشت کار معد حوال	رقبہ کنال مرلہ	رقبہ مربعہ	رقبہ مربعہ
۱۸۱	شمارات دو عدد سردیر چیرور	شماره عام ۱	۲ ۹	۹	۹
۲۲۶	۳ کار ۲	معلوم سرکار	۶ ۱	۶	۶

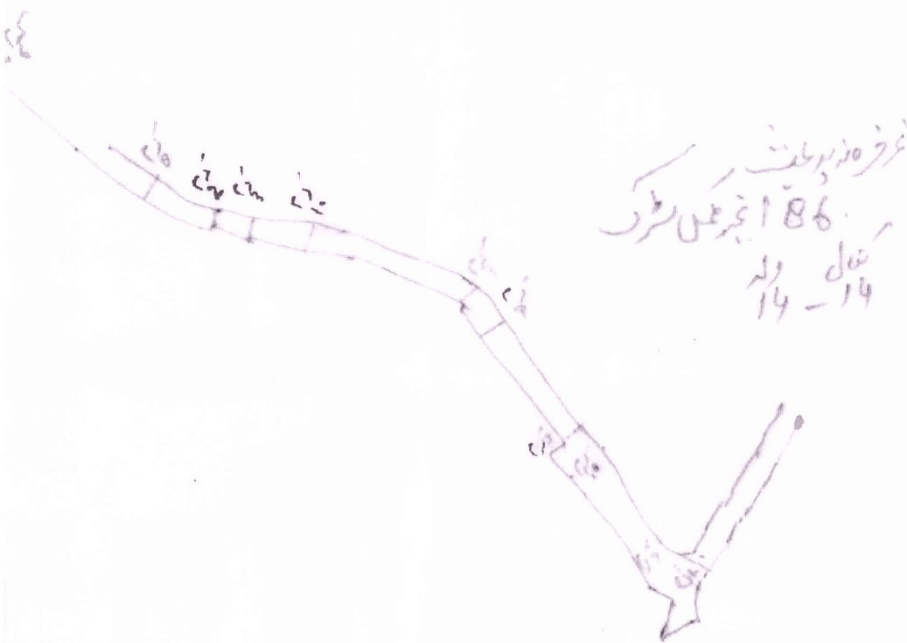
33  
 Gh. HURSA ANI  
 Patwari  
 Teh. Bah  
 D.S.T. Bah

Handwritten signature and text, possibly including the name "Gover" or similar.

5

عکس شوره پل نمبر ۱۸۶ واقعہ موضع بانجک تحصیل و ضلع بندہ ۲۰۰۰

شمال



کوتہ نقل فیاض قراچم زمین لاہور کراچی اور ایسا کیا کوئی اور  
 24 59  
 20  
 8 27  
 17

9

نقل خسره گرداوارى بابت موضع يانينك تحصيل و ضلع عام

۱	۲	۳	۴	۵	۶
نمبر	نام مالک معه حوال	نام کاشت کار معه حوال	رقبه کتال مرله	رقبه کتال مرله	رقبه کتال مرله
186	سکرار	شارع عام	14	14	14

نوٹ:- نقل و قبضہ و ادراک و تصرف و مالکیت کو مالک

24/09/20

Handwritten signature and notes in Urdu, including a date stamp and a signature.

۲

## **Annexure 4:RoW Encumbrance Free Certificate**

## Annexure 5: RoW confirmation letter issued 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 Nowgam to Sumbal Bridge	Baramulla Bandipora	Single Lane	ROW 5.5 Mtr

Yours faithfully,

*V. W. J. R.*  
**PM(T)**  
*J. M. A.*

*Rajiv...*  
**CHIEF ENGINEER PW (R&B)**  
Deptt. Kashmir.

No: ERA/DK/92/1088  
Dt: 18-06-2019



## Annexure 6: Newspaper Notification by PMU (JTFRP)

**THE DAILY TAMEEL IRSHAD**

**2021 16**

**Government of Jammu & Kashmir  
J&K Economic Reconstruction Agency (ERA)  
Project Management Unit (JTFRP)  
(World Bank Funded)**

**Public Notice**

**Subject: Up-gradation of Roads in Kashmir Division of UT of Jammu & Kashmir under JTFRP**

This is for the information of public in general and those likely to be benefitted/affected in particular that the following road sub-projects have been taken up for up-gradation within the existing width-of-road/right-of-way under the World Bank funded Jhelum & Tawi Flood Recovery Project by Jammu and Kashmir Economic Reconstruction Agency in Kashmir Division of the UT of J&K.

S. No.	Name of the sub-project	District	Length of the road	Major settlements along the road
1	Hamaray Sultanpora from Nowgam to Sumbul Bridge.	Baramullah	12.690 kms	Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam.
2	Shadipura Khanpeth Sumbal road.	Baramullah / Bandipora	6.00 kms	Shadipora, Rakh Shilyat, Jirgam, Najin, Pachihaspora, Gund Khalil, Turgam, Khanpeit
3	Hajin Ajas Road Via Saidnara Road.	Bandipora	7.186 kms	Koshum Bagh, Rakhi Hajan, Sadurkote, Sadhunhara, Gund Prang Ajas
4	Parimpora-Soibugh Road.	Srinagar /Budgam	7.927 kms	Abansa, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora
5	Sangam Khudwani Road.	Anantnag	4.750 kms	Sangam, Hassain Pora Tavela, Arwani, Wanpoh, Qaimoh
6	Bijbehara waghama Road via katriteng.	Anantnag	Main: 7.340 kms Link 1.050 kms	Bijbehara, Hayar, Waghama, Hassain Pora Tavela

Objections if any, as far as Right of Way is concerned, duly supported by authentic documentary evidence, shall be received in the office of the undersigned either through email or by post on the address given below within 07 days from the date of publication of this notice in the newspaper..

**Sd/-Director Safeguards, J&K ERA**  
2nd Floor, ERA Complex Rambagh Srinagar,  
J&K, Pin 190009;  
Email: directorsjkera@gmail.com

DIPK NO: NB-3514-21

**News**  
**Kashmir Images**

Srinagar, Thursday September 16, 2021

**Government of Jammu & Kashmir  
J&K Economic Reconstruction Agency (ERA)  
Project Management Unit (JTFRP)  
(World Bank Funded)**

2nd Floor ERA Complex, Rambagh, Srinagar  
7th Floor JKPC Building, Panama Chowk, Rail Head Complex, Jammu

**PUBLIC NOTICE**

**Subject: Up-gradation of Roads in Kashmir Division of UT of Jammu & Kashmir under JTFRP**

This is for the information of public in general and those likely to be benefitted/affected in particular that the following road sub-projects have been taken up for up-gradation within the existing width-of-road/right-of-way under the World Bank funded Jhelum & Tawi Flood Recovery Project by Jammu and Kashmir Economic Reconstruction Agency in Kashmir Division of the UT of J&K.

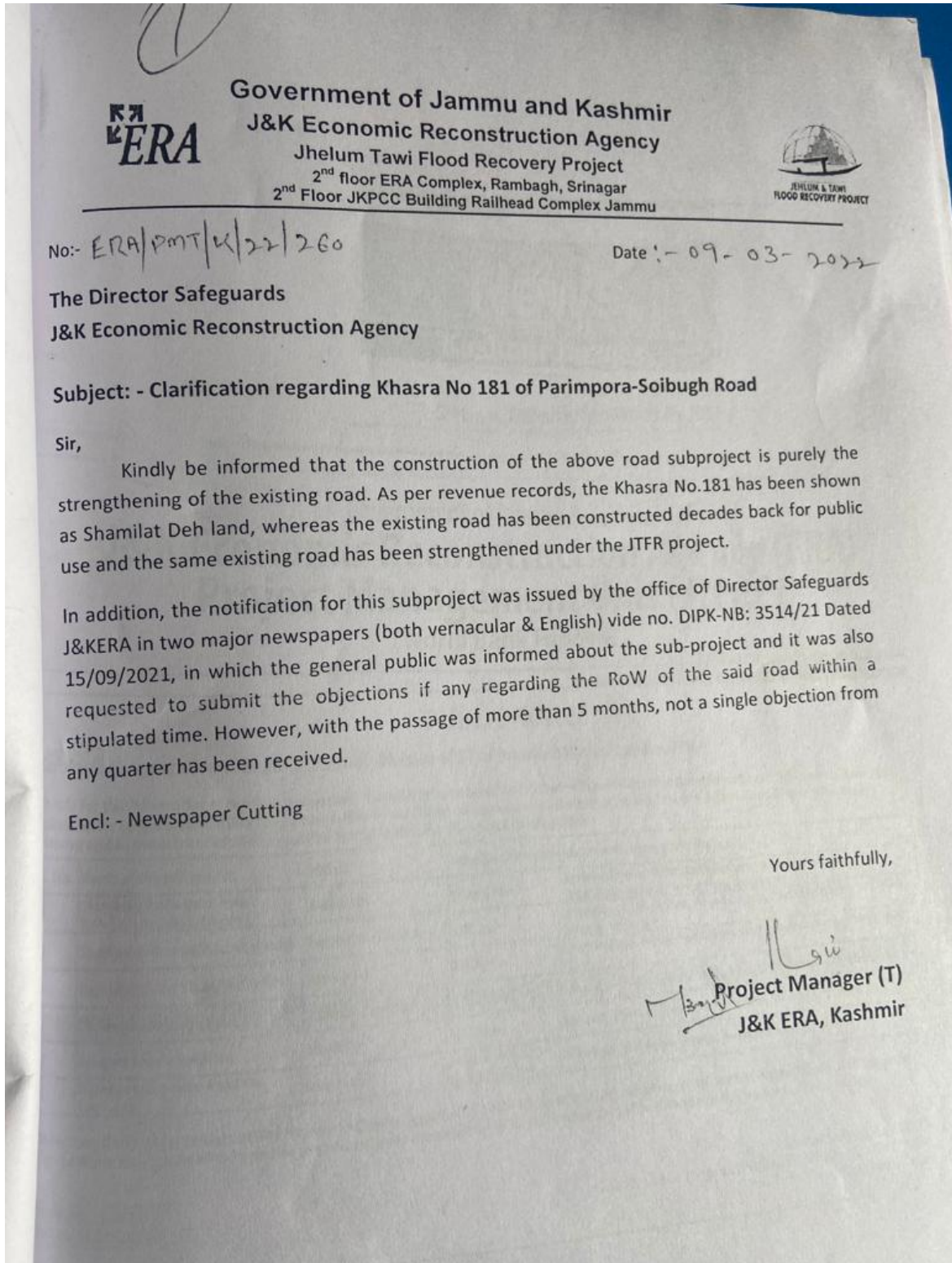
S. No.	Name of the sub-project	District	Length of the road	Major settlements along the road
1	Hamaray Sultanpora from Nowgam to Sumbul Bridge.	Baramulla	12.690 kms	Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam.
2	Shadipura Khanpeth Sumbal road.	Baramulla /Bandipora	6.00 kms	Shadipora, Rakh Shilyat, Turgam, Najin, Pachihaspora, Gund Khalil, Turgam, Khanpeit
3	Hajin Ajas Road Via Saidnara Road.	Bandipora	7.186 kms	Koshum Bagh, Rakhi Hajan, Sadurkote, Sadhunhara, Gund Prang Ajas
4	Parimpora-Soibugh Road.	Srinagar /Budgam	7.927 kms	Abansa, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora
5	Sangam Khudwani Road.	Anantnag	4.750 kms	Sangam, Hassain Pora Tavela, Arwani, Wanpoh, Qaimoh
6	Bijbehara waghama Road via katriteng.	Anantnag	Main: 7.340 kms Link 1.050 kms	Bijbehara, Hayar, Waghama, Hassain Pora Tavela

Objections if any, as far as Right of Way is concerned, duly supported by authentic documentary evidence, shall be received in the office of the undersigned either through email or by post on the address given below within 07 days from the date of publication of this notice in the newspaper.

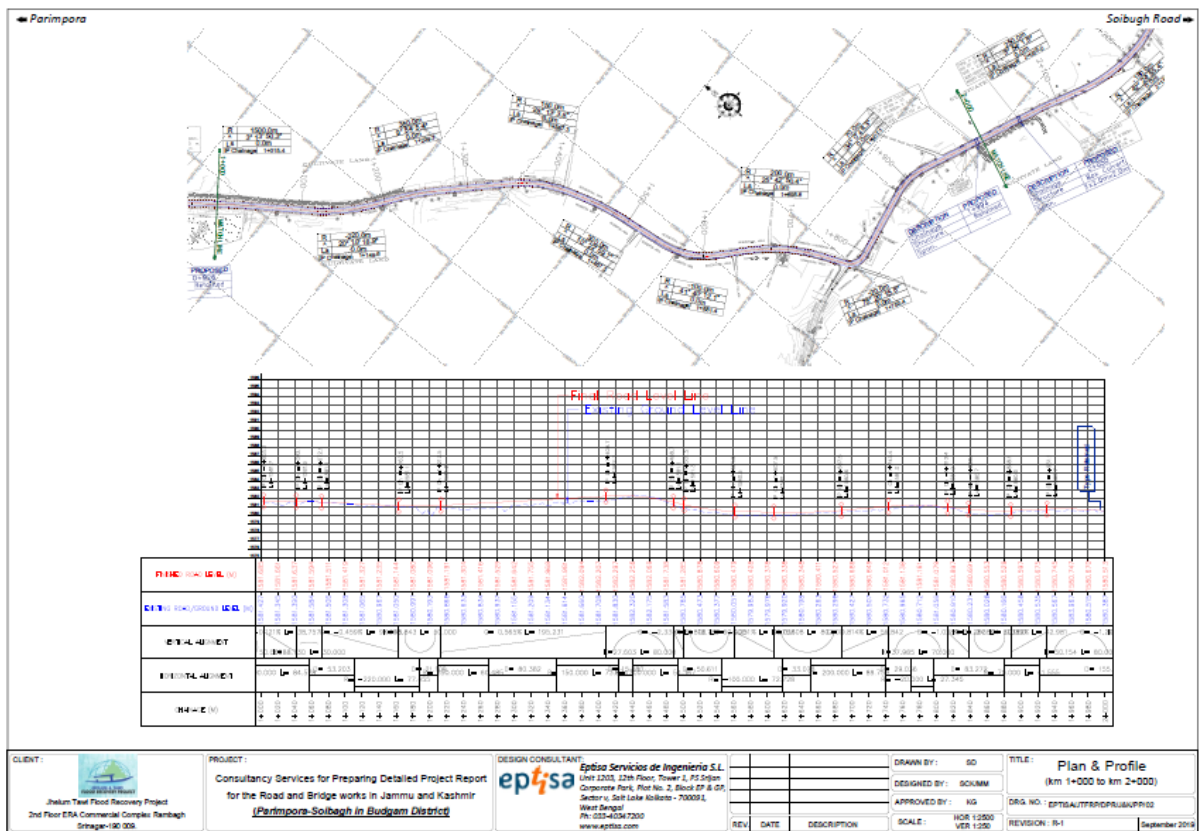
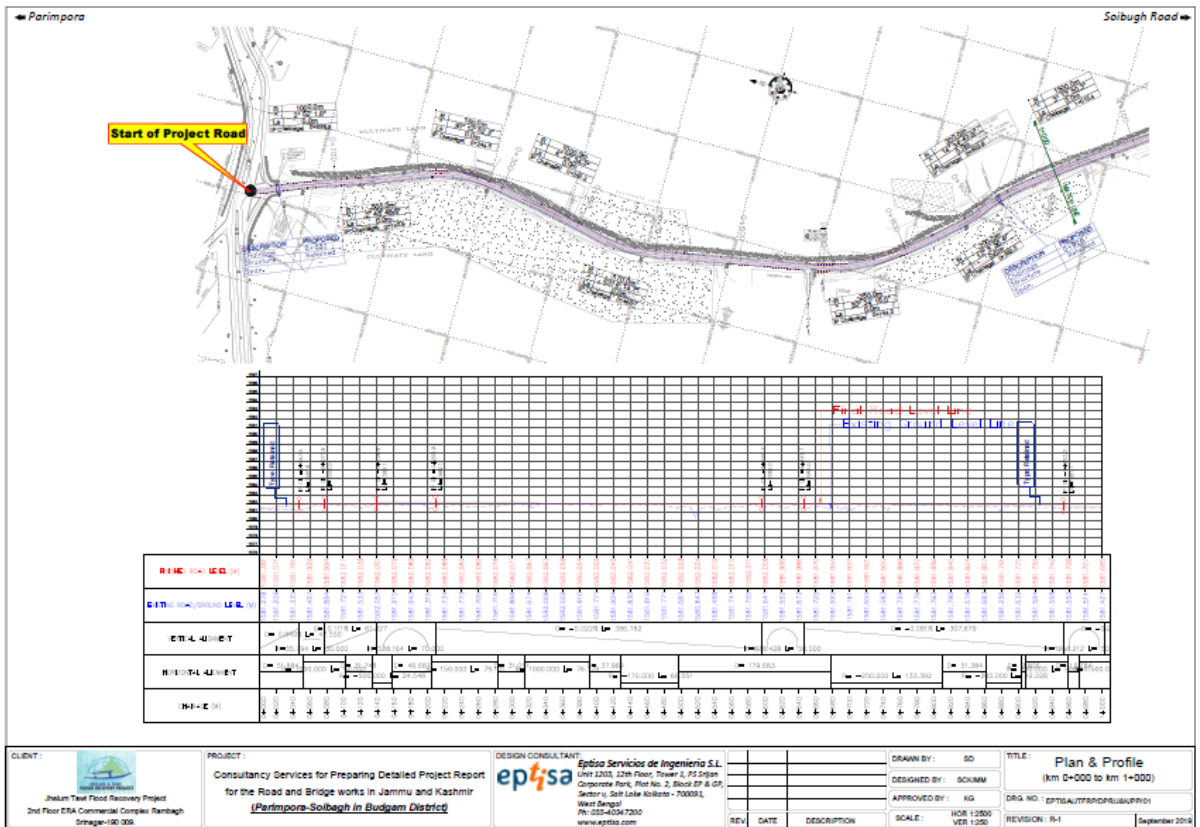
DIPK-NB-3514/21  
DATED: 15/09/2021

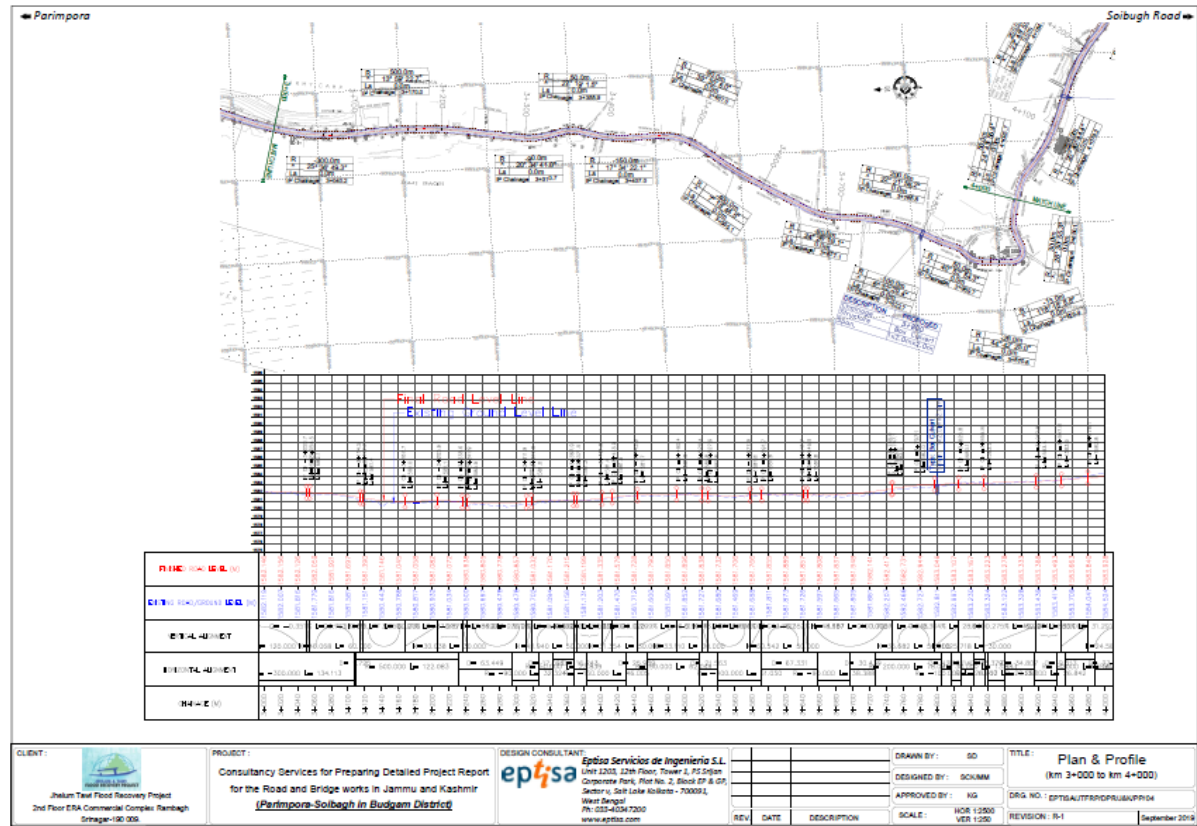
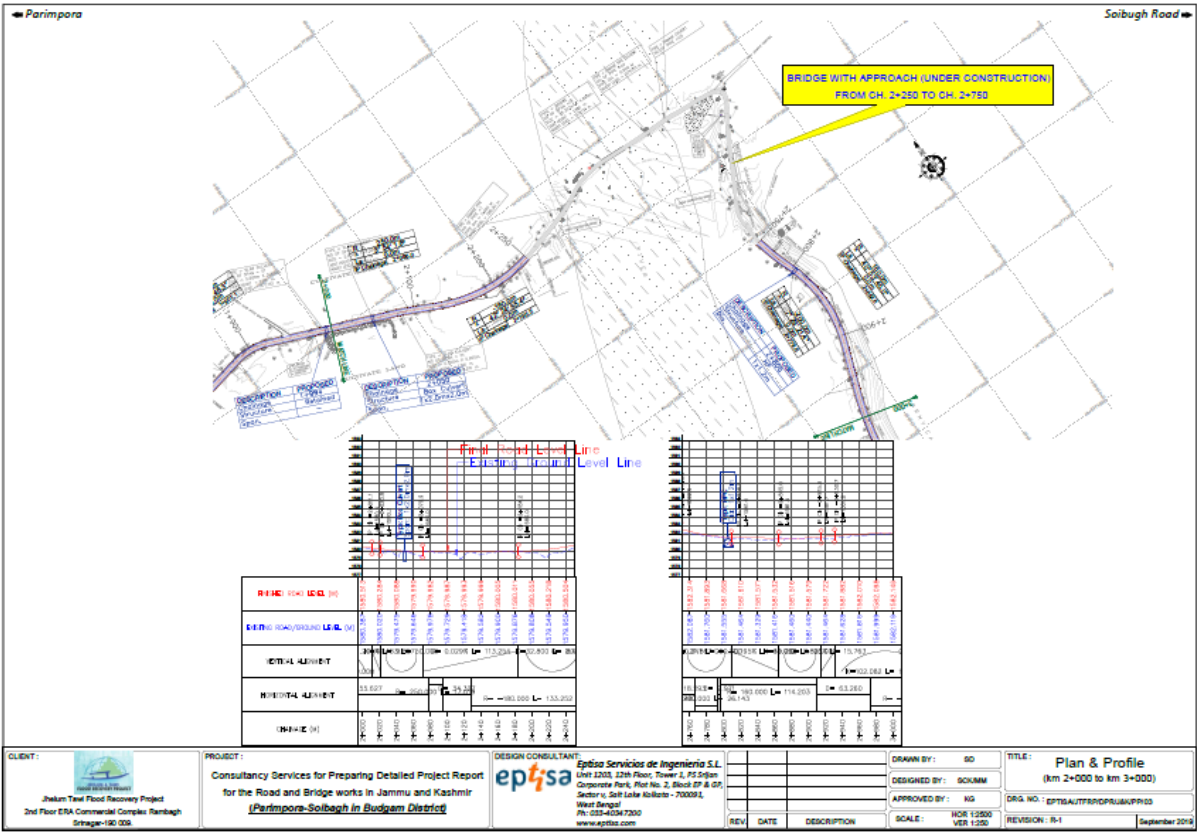
Sd/-  
Director Safeguards, J&K ERA  
2nd Floor, ERA Complex Rambagh Srinagar, J&K, Pin 190009;  
Email: directorsjkera@gmail.com

**Annexure 7: Clarification issued by PIU for using Khasra number 181 land  
(Shamilatdeh land)**

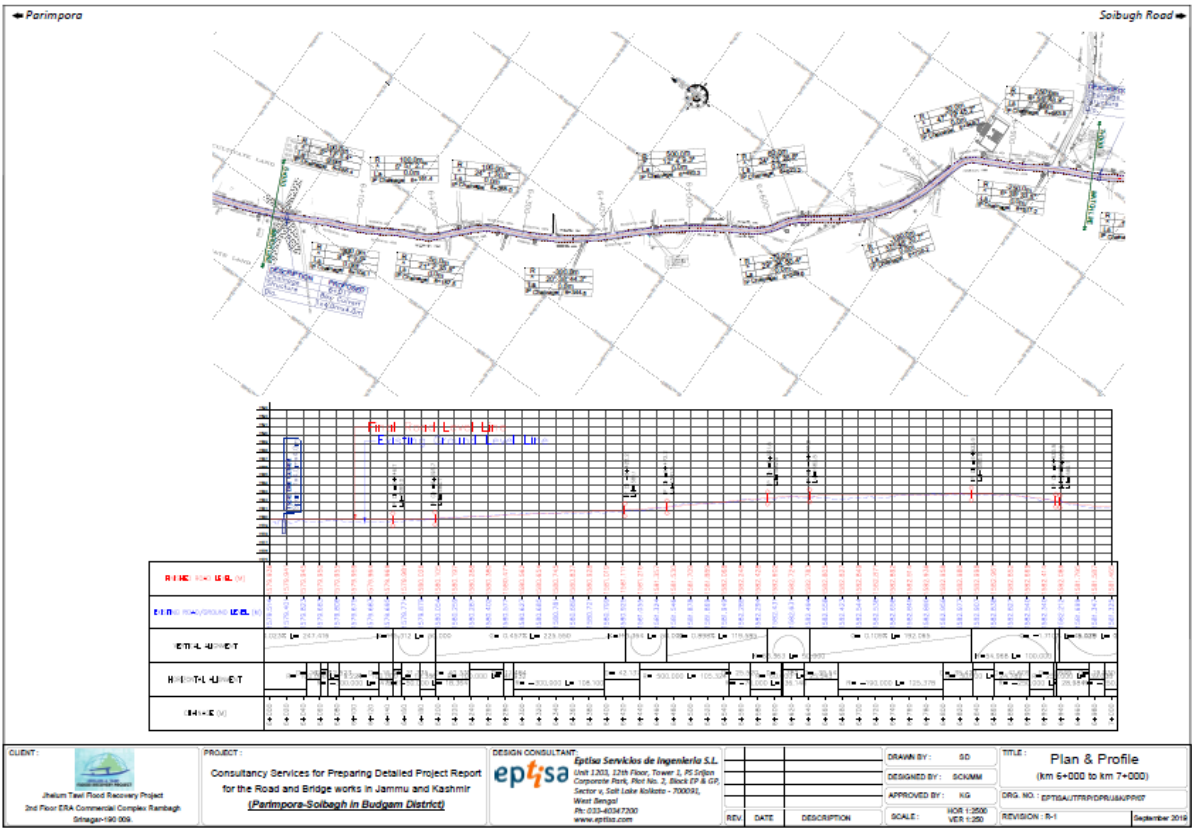


## Annexure 8: Plan & Profile

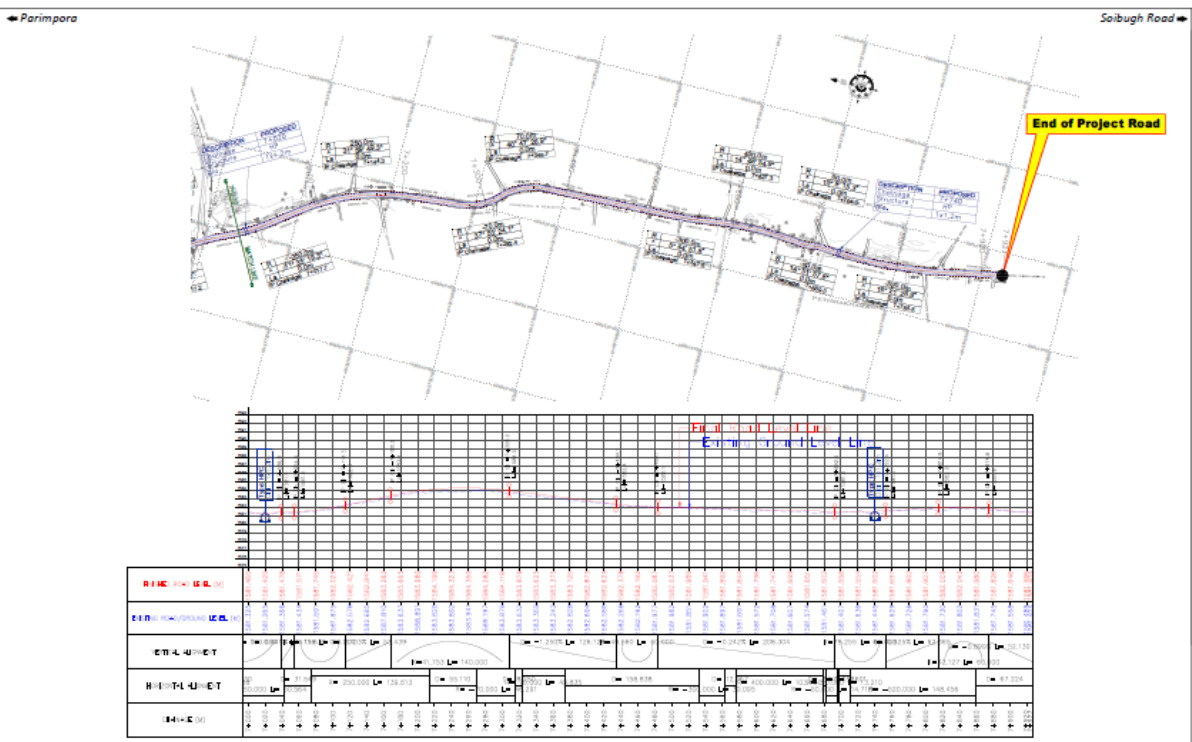








<b>CLIENT:</b>  Jhelum Tawi Flood Recovery Project 2nd Floor ERA Commercial Complex Rambagh Srinagar-190 006	<b>PROJECT:</b> Consultancy Services for Preparing Detailed Project Report for the Road and Bridge works in Jammu and Kashmir <b>(Parimpore-Soibugh in Budgam District)</b>	<b>DESIGN CONSULTANT:</b>  <b>Epfitia Servicios de Ingenieria S.L.</b> Unit 1203, 12th Floor, Tower 2, PS Srinagar Corporate Park, Plot No. 2, Block EP & GP, Sector 4, Salt Lake Kolkata - 700091, West Bengal Ph: 033-40347300 www.epfisa.com	DRAWN BY: SD DESIGNED BY: SKMM APPROVED BY: KG	<b>TITLE:</b> Plan & Profile (km 6+000 to km 7+000)
			SCALE: HOR 1:2000 VER 1:200	DRG. NO.: EPTSA/ITTR/DR/RA/PR/07 REVISION: R-1 September 2016



<b>CLIENT:</b>  Jhelum Tawi Flood Recovery Project 2nd Floor ERA Commercial Complex Rambagh Srinagar-190 006	<b>PROJECT:</b> Consultancy Services for Preparing Detailed Project Report for the Road and Bridge works in Jammu and Kashmir <b>(Parimpore-Soibugh in Budgam District)</b>	<b>DESIGN CONSULTANT:</b>  <b>Epfitia Servicios de Ingenieria S.L.</b> Unit 1203, 12th Floor, Tower 2, PS Srinagar Corporate Park, Plot No. 2, Block EP & GP, Sector 4, Salt Lake Kolkata - 700091, West Bengal Ph: 033-40347300 www.epfisa.com	DRAWN BY: SD DESIGNED BY: SKMM APPROVED BY: KG	<b>TITLE:</b> Plan & Profile (km 7+000 to km 7+927)
			SCALE: HOR 1:2000 VER 1:200	DRG. NO.: EPTSA/ITTR/DR/RA/PR/08 REVISION: R-1 September 2016

## Annexure 9: Photographs of the Road



## Annexure 10: Public Consultation (29.06.2019)

List of consulted participants and their signatures during consultation with the residents of Parimpora, Aman Shah and Soibugh areas of proposed project in Budgam District

IMPROVEMENT/UPGRADATION OF PARIMPORA - SOIBUGH ROAD  
 SUB-PROJECT NAME: ~~Construction~~  
 LOCATION OF MEETING/CONSULTATION: AMAN SHAH, SOIBUGH, DIST: BUDGAM.  
 DATE AND TIME: 29/06/2019 Public Consultation Conducted by: Akhbar R. Bhat, Engr. Expert

S. No	Name	Age/ Sex	Occupation	Address	Signature
1	Karim Ak. Mid.	21/M	Shopkeeper	Aman Shah.	Karim
2	Muhammad Ashraf	38/M	Business	Aman Shah,	
3	Gulzar Ahmad	42/M	Shopkeeper	Aman Shah.	
4	Zaffar Ahmad	40/M	Driver	Aman Shah	Zaffar 9622738814
5	Shaukat Hussain Khondary	48/M	Labourer	Aman Shah	
6	Lateef A. Reethi	28/M	Shopkeeper	Aman Shah.	Lateef
7	Dawood Ahmed	20/M	Shopkeeper	Aman Shah.	Dawood
8	Dawood Ahmed	21/M	Student	Aman Shah.	Dawood
9	Dawood A. (20/1)	49/M	Drug Dealer	Aman Shah.	
10	Sayed Ajan	59/M	Chemist	Soibugh.	
11	Muhammad Karim	52/M	Business	Soibugh.	
12	Shah Jaid Magbool	29/M	Business	Soibugh.	
13	Sayed Magbool	62/M	Business	Soibugh.	
14	Abdul Lateef	30/M	Business	Soibugh.	
15	Ab. Rashid Bhat	52/M	Business	Soibugh.	
16	Ahmad Ahmad	36/M	Employee	Karimpur, Budg.	



DATE AND TIME: 2:30 PM / 29-06-2018 Public Consultation Conducted by: Akhilesh - Bhat

S. No	Name	Age/ Sex	Occupation	Address	Signature
1	Bajir Ahmed	46/M	Medicine	Soibugh	[Signature]
2	Ab. Rupal Miz	40/M	Librarian	Soibugh	[Signature]
3	Syed Zahid	45/M	Chemist	Soibugh	[Signature]
4	Tauqir Ahmed	30/M	Chemist	Soibugh	[Signature]
5	Muzaffar Ahmed	40/M	Chemist	Soibugh	[Signature]
6	Riyaz Ah Bhat	36/M	Govt. Employee	Soibugh	[Signature]
7	Muhammad Kamal Malik	62/M	Social Activist	Soibugh	[Signature] 8803060056
8	Shokat Khalid	34/M	Govt (Health) Employee	Soibugh	[Signature]
9	Muhammad Zibair	28/M	Govt. Employee	Soibugh	[Signature]
10	Ahmed Mazhar	30/M	Govt. Technician	Soibugh	[Signature]
11	Rasool Ah. Baqi	50/M	Govt. Employee	Soibugh	[Signature]
12	Muzaffar Ah. Bhat	38/M	Doctor	Soibugh	[Signature]
13	Touqir Q. Akh	45/M	BUSINESS	SOIBUGH	[Signature]
14	Sh. Muhammad Sheikh	40/M	Govt. Employee	Soibugh	[Signature]
15	Masir Ahmed Sheikh	46/M	laborer	Soibugh	[Signature]
16	Ab. Waqar	57/M	Business	Soibugh	[Signature]

**Photographs of Public Consultation/ Meeting Photographs Taken at Parimpora, Aban Shah and Soibugh in district Budgam**



