

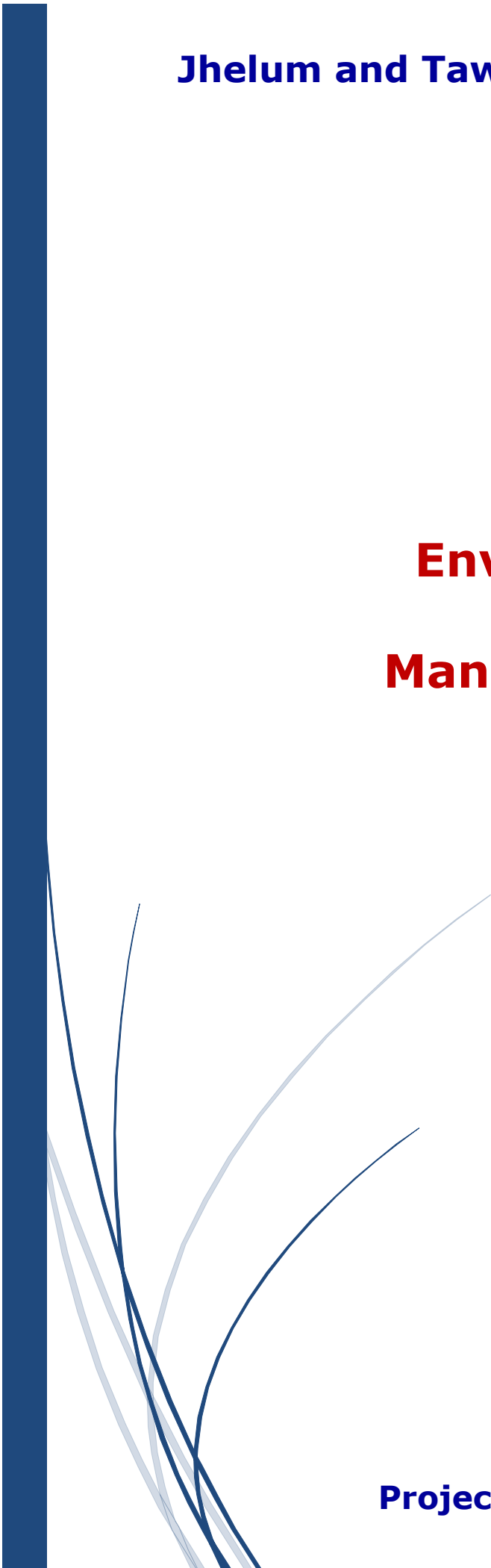
# Jhelum and Tawi Flood Recovery Project

## Environment and Social Management Framework

**Draft Version: April 18, 2015**

**Project Management Unit, J&T FRP**

**Government of Jammu and Kashmir**



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## 1. Introduction

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### 1.1 Background

The state of Jammu and Kashmir (J&K) is the northern-most state of India. The state comprises of three natural divisions, namely, Jammu, Kashmir and Ladakh. For administrative purposes, the state is divided into two main divisions, i.e., Kashmir and Jammu Provinces. The State, with its summer and Winter Capitals at Srinagar and Jammu respectively, consists of 22 districts (10 districts in Kashmir Valley, 10 districts in Jammu Division and 2 districts in Ladakh region). According to Census of India 2011, the state has a population of 12.5 million, registering a population density of 56 persons per sq.km and a sex ratio of 883 females per 1,000 men. The literacy level is 67.16% with men having a literacy rate of 76.75%, while female literacy is 49.12%.

J&K is basically an agrarian state. Agriculture occupies an important place in the economy of the state whereby nearly 70% of the population derives their livelihood directly or indirectly from the sector. In addition, the state is also a tourist and pilgrimage destination. Every year, more than 10 million tourists visit the state, a majority of who are pilgrims visiting the holy shrines of Vaishno Devi, Amarnath, Hazratbal shrine and the Buddhist monasteries of Ladakh which contribute significantly to the state's economy.

The state, 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 parts of the Kashmir Valley fall in Seismic Zone V. The rest of the State falls in the Seismic Zone IV. Floods and flash floods are also frequent in Kashmir. 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 Kashmir valley. Floods also occur occasionally in the Jammu Province.

### 1.2 Disaster September 2014

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

Due to the unprecedented heavy rainfall the catchment areas particularly the low lying areas were flooded for more than two weeks. Some areas in urban Srinagar stayed flooded for 28 days. Water levels were as high as 27 feet in many parts of Srinagar. The areas from the main tributaries of river Jhelum vis-à-vis Brengi



nallah, Vishav nallah, Lider nallah and Sandran nallah started overflowing due to the heavy rainfall causing water levels in Jhelum river to rise. Subsequently, the discharge of the river Suran was 200 thousand cusecs as against an average of 50 thousand cusecs. With the excessive discharge of water, the river Suran affected the basin areas and also took a different course at various locations causing damages to the surrounding villages in the catchment area. Water levels also increased in the rivers of Chenab and Tawi, both of which were flowing above normal levels. Due to the rivers overflowing nearly 20 districts of the State were impacted.

### **1.2.1 Joint Rapid Damage Needs Assessment (JRDNA)**

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 State. In response, a mission of the World Bank visited the state during February 1-6, 2015 in order to produce a rapid multi-sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211,975 million (US\$ 3,550.45), most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

## **1.3 Present Project**

Based on the RDNA results, restoration works underway, and discussions with the GoJ&K, the project will focus on restoring critical infrastructure using international best practice on resilient infrastructure. Given the state's vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features, and will include contingency planning for future disaster events. Therefore, the project aims at both restoring essential services disrupted by the floods and improving the design standard and practices in the state to increase resilience.

### **1.3.1 Project Development Objective**

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

### **1.3.2 Project Beneficiaries**

The primary beneficiaries would be the communities in the State that were affected by loss of public service infrastructure being restored and improved under the project. By strengthening disaster risk management systems and institutions, the project will benefit the entire State.

### **1.3.3 PDO Level Results Indicators**

The achievement of the PDO will be monitored by the following indicators:

- Number of people served by restored and improved public buildings.
- Number of people with access to restored and improved roads and bridges.
- Number of people benefiting from improved flood management.
- Number of people who received support to restoration of livelihoods.
- Results of the urban vulnerability assessment and design standards study being used by the State Disaster Management Authority to issue urban construction guidelines.

## **1.4 Project Components**

The project is comprised of the following seven components:

- (i) Reconstruction and strengthening of critical infrastructure (US\$60 million)
- (ii) Reconstruction of roads and bridges (US\$80 million)
- (iii) Restoration of urban flood management infrastructure (US\$50 million)
- (iv) Strengthening and restoration of livelihoods (US\$15 million)
- (v) Strengthening disaster risk management capacity (US\$25 million)
- (vi) Contingent Emergency Response (US\$0 million)
- (vii) Implementation Support (US\$20 million)

### **1.4.1 Component 1 – Reconstruction and strengthening of critical infrastructure**

The objective of this component is to support the reconstruction/restoration of damaged public buildings, such as hospitals, schools, higher education buildings, fire stations, and selected block and district offices, and other important public buildings. It will include the restoration of partially damaged structures and the reconstruction of fully damaged structures, including equipment and furniture.

The component will finance infrastructure and equipment damaged by the disaster, and improvements to current structures to increase resilience. Assessments will be carried out to determine the extent of structural integrity and retrofitting/reconstruction needs. For hospitals, the reconstruction will be focused on replacement of damaged specialized medical equipment, setting up specialized equipment on higher levels which will entail strengthening the structural integrity of buildings in order to be able to sustain the heavy load. For some hospitals, special diagnostics and pathology sections/extensions will be built since existing structures will be unable to sustain the load of heavy equipment on higher levels. Some older hospitals will also require retrofitting in order to ensure seismic resistance. The component will also finance the repair and reconstruction of damaged higher education, fire station, and other public buildings, including the procurement of equipment/furniture, etc.

#### **1.4.2 Component 2 – Reconstruction of roads and bridges**

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

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

#### **1.4.3 Component 3 – Restoration of urban flood management infrastructure**

The objective of this component is to strengthen and reinforce existing weak and vulnerable flood control infrastructure. Investments will primarily include rehabilitation/renovation of around 56 storm water pumping stations in Srinagar city, and replacement of the power equipment, switch/ panel boards at elevated places, and related investments for improvement and increased resilience.

#### **1.4.4 Component 4 – Restoration and strengthening of livelihoods**

1. *Subcomponent 4.1 - Restoration of physical and productive assets (US\$13 million).* To finance the restoration of the training workshop and display building within the premises of the main handicraft & handloom market in Srinagar and the School of Design, as well as damaged productive assets in livelihood training institutions and affected craftsman families.

*Subcomponent 4.2 -Technical assistance for risk proofing non-farm livelihood (US\$2 million).* To finance: i) vulnerability assessment of non-farm livelihoods and to identify opportunities for increased resilience; and ii) developing options to increase access to finance and insurance for non-farm livelihood

#### **1.4.5 Component 5 – Strengthening disaster risk management capacity**

The objective of this component is to enhance the capabilities of GoJ&K entities in managing disaster risks, enhancing preparedness, and achieving resilient recovery. This component will entail the following:

1. ***Capacity Building of the State Disaster Management Authority (SDMA) and Disaster Response Networks.*** To finance the development of SDMA's institutional set up including its organizational structure, staffing, and resources. It will also fund training programs and regular drills for the emergency operations center staff and Disaster Management Officers at the District and State levels. It will also include setting up Disaster Response Force and upgradation of fire and civil defense services.

2. **Setting up Decision Support System (DSS) and Emergency Operation Centers.** To finance the establishment of a DSS that will integrate and analyze information from multiple sources in an integrated geo-spatial system. The system will be designed to display information and provide access in a user-friendly manner. It will also finance the upgrading of existing Emergency Operation Centers and the establishment of new ones in critical areas.

3. **Hydro-meteorological Resilience Action plan.** To finance the review of existing hydro-meteorological capabilities and preparation of resilience action plan that will focus on extreme weather events; develop resilience solutions/recommendations for sectors impacted by disasters such as agriculture, livelihoods, energy, infrastructure etc.; and focus on urban hot-spot areas in helping develop urban resilience plans. This will also review existing early warning systems (EWS), identify gaps and establish a robust, fail safe EWS in the State including optimum use of strengthened networks and facilities.

4. **River Morphology Study.** This will support the study of the entire morphology of some key rivers impacted by the disaster. The study will also analyze and identify critical protective infrastructure works needed for river bank strengthening.

5. **Urban vulnerability assessment study with specific focus on seismic risk mitigation.** To finance a detailed urban vulnerability analysis and model various risks for effective mitigation planning and disaster response preparedness, with a focus on seismic risk. This will include, *inter alia* assessment of existing compliance and enforcement mechanisms for disaster risk management, consultation workshops for policy makers/decision-makers on techno-legal regimes and amendments to existing by-laws, workshops for engineers/town planners/ municipal corporations on urban risk reduction, preparation of city/ward level DRM plans, including evacuation routes and identification of safe shelters, disaster resources, advocacy workshops on mainstreaming/integrating urban risk reduction in development plans, and awareness for community on safer construction practices and disaster preparedness.

6. **Upgrading design guidelines and material specification for construction in seismic zones.** To carry out an update of current construction design standards and material specifications to align them with national and international best practice given the risk profile of the state.

7. **Disaster Risk Financing and Insurance (DRFI).** To finance an assessment of options to increase the financial resilience of the State, which is essential to increase a state's financial response capacity to secure cost-effective access to adequate funding for emergency response, reconstruction, and recovery. This involves ensuring that funds can be allocated and disbursed effectively following disasters. This includes, *inter alia*, targeted public sector insurance coverage to protect critical assets, including public infrastructure, and promoting responsible property and agricultural insurance.

**1.4.6 Component 6 – Contingent Emergency Response**

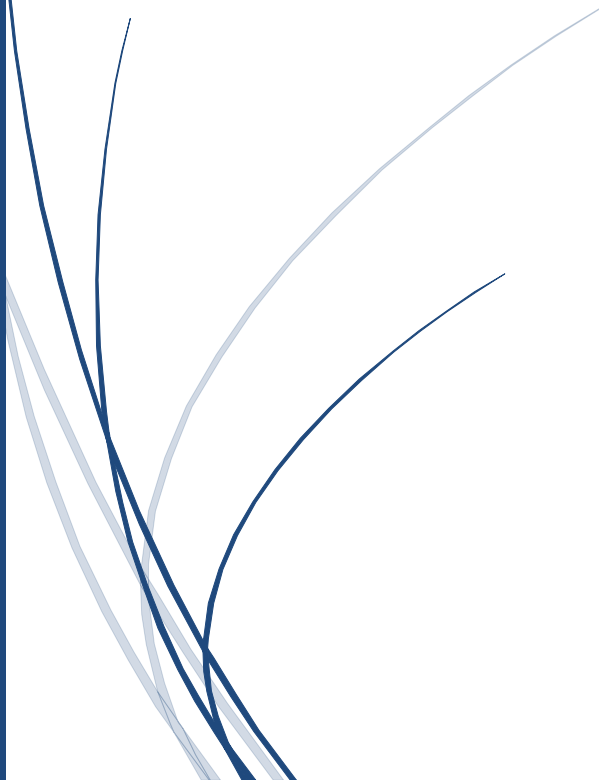
Following an adverse natural event that causes a major natural disaster, the GoJ&K may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the GoJ&K to request the Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of the emergency.

**1.4.7 Component 7 – Implementation Support**

This component would finance incremental operating costs of the Project, including the operation of the Project Management Unit (PMU) and Project Implementation Units (PIUs). In addition, the component will include consultancies required for the preparation and supervision of specific activities, trainings, exposure visits and knowledge exchange programs, etc.

## **Part A**

# **Environment Management Framework**



## 2. Environmental Baseline

### 2.1 Geographic Details

The state of Jammu and Kashmir is the northern-most state of India. It comprises of three natural divisions, namely, Jammu, Kashmir and Ladakh. The entire State lies between 32.17° and 36.58 ° North latitude and East to West, the State lies between 73.26 ° and 80.30 ° longitude, covering an area of 101,387 km<sup>2</sup> (area administered by India). The State has contiguous international boundaries with Pakistan, Afghanistan, Russian, China and Tibet. The states of Punjab and Himachal Pradesh lie south and south-west of the State. The Himalayas divide the Kashmir valley from Ladakh while the Pir Panjal range, which encloses the valley from the west and the south, separates it from the Great Plains of northern India. Along the northeastern flank of the Valley runs the main range of the Himalayas. The valley has an average height of 1,850 meters (6,070 ft) above sea-level but the surrounding Pir Panjal range has an average elevation of 5,000 meters (16,000 ft). The Jhelum River is the only major Himalayan river which flows through the Kashmir valley. The Indus, Tawi, Ravi and Chenab are the major rivers flowing through the state. Jammu and Kashmir is home to several Himalayan glaciers. With an average altitude of 5,753 metres (18,875 ft) above sea-level, the Siachen Glacier is 70 km (43 mi) long making it the longest Himalayan glacier.

### 2.2 Administrative Profile

The State is divided into three divisions, i.e., Kashmir, Jammu and Ladakh Provinces for administrative purposes. The state has special autonomy under Article 370 of the Constitution of India. The State with its summer and winter capitals at Srinagar and Jammu respectively consists of 22 districts; 10 districts in Kashmir Valley (Kathua, Jammu, Samba, Udhampur, Reasi, Rajouri, Poonch, Doda, Ramban, Kishtwar), 10 districts in Jammu Division (Anantnag, Kulgam, Pulwama, Shopian, Budgam, Srinagar, Ganderbal, Bandipora, Baramulla, Kupwara) and 2 districts in Ladakh region (Kargil and Leh).

### 2.3 Environmental Profile

#### 2.3.1 Land Use

Land use statistics is available for 2,416,000 hectares. Over the past few years land use statistics has not undergone any significant change with 31% of the land being used for agriculture, 27% area under forests and 10% of land being used for non-agricultural purpose.

**Table 1: Total Area and its Classification (Area in 1000 hectares)**

Classification	2011-12	Percentage
Total Area according to Village Papers	2416	100%
Area Under Forest	658	27%

Classification	2011-12	Percentage
Land put to non-agricultural uses	245	10%
Barren & Uncultivable Land	312	13%
Marshy & water logged Land	Neg	0%
Land under still water	5	0%
Social Forestry	10	0%
Permanent pastures & other grazing lands	123	5%
Land under Miscellaneous tree crops	61	3%
Cultivable Waste land	135	6%
Fallow land other fallows than current	13	1%
Current Fallows	108	4%
Net Area Sown	746	31%

### 2.3.2 Water Regime

Jammu and Kashmir is drained by rivers Jhelum, Indus, Tawi, Ravi and Chenab. The State is home to several Himalayan glaciers, Siachin being the longest with an average altitude of 5,753 m above sea-level and length 70 km. The Kashmir valley is having numerous lakes and wetlands at different altitudes which are divided into two categories. These fresh water lakes play an important role in the socio-economic set up of the valley. These constitute high altitude lakes (Gangabal, Vishan Sar, Kishan Sar, Sheesh Nag, Nilnag, Kauser Nag, etc.) and valley lakes (Wul

The occurrence of ground water in the State is primarily confined to five alluvial regions namely (i) Piedmont deposits of outer plain of Jammu, (ii) Dune belt in the outer Himalayas, (iii) Isolated valley fill deposits in lesser Himalayas, (iv) Fluvio-lacustrine deposits in Kashmir valley and (v) Moraines and Fluvio-glacial deposits of Ladakh. Ground water potential in the Dune belt is limited and yield of wells, 80 to 130 m deep is 3-6 m<sup>3</sup>/hr. In isolated valley fills, the yield from confined aquifer is about 3 m<sup>3</sup>/hr from well of 65 m depth. Dug wells in Kashmir valley have limited yield whereas deep tube wells yield between 17-216 m<sup>3</sup>/hr. Ground water occur as perched water table and gives rise to spring or unconfined conditions in Moraines and fluvio-glacial deposits. In these areas, yield of tube well varies from 36-54 m<sup>3</sup>/hr. The ground water in hard rock of Jammu region is confined to weathered residuum, where the tube wells go dry during summer seasons. The quality of ground water is generally potable. Status of ground water in the State is as given below:



**Table 2: Status of Ground Water**

<b>Dynamic Ground Water Resources (2011)</b>	
Annual Replenishable Ground water Resource	4.25 BCM
Net Annual Ground Water Availability	3.83 BCM
Annual Ground Water Draft	0.81 BCM
Stage of Ground Water Development	21 %
<b>Ground Water Development &amp; Management</b>	
Over Exploited, Critical and Semi-critical	NIL

**Ground Water Quality:** The quality of ground water in the State is provided in the table below:

**Table 3: Ground Water Quality Problems**

<b>Contaminants</b>	<b>Districts affected (in part)</b>
Fluoride (>1.5 mg/l)	Rajaori, Udhampur
Iron (>1.0 mg/l)	Baramulla, Budgam, Kathua, Kupwara, Pulwama, Srinagar
Nitrate (>45 mg/l)	Jammu, Kathua, Anantnag, Kupwara
Heavy metals: Lead (above 0.01 mg/l) Cadmium (above 0.003 mg/l)	<b>Lead:</b> Jammu (Gangyal), Bari Brahma, Kathua <b>Cadmium:</b> Kathua

### 2.3.3 Climate and Rainfall

The climate of the State varies greatly due to its rugged topography. The average temperatures in Jammu Valley vary between 5oC to 40oC across the year, receiving upto 1400 mm of average annual rainfall. North of Jammu Valley, the temperatures fall in Kashmir Valley and Ladakh province with average temperatures varying from -2oC to -30oC and -40oC to 20oC respectively. The rainfall reduces as well with Kashmir Valley receiving average annual rainfall of upto 950 mm and Ladakh upto only 100 mm.

### 2.3.4 Soil Types

There are five types of soil found across the State.

- Alluvial soils are found in Kathua and Jammu Valley. The soil is loamy with little clay content and contains small quantity of lime with high magnesium content.
- There are three parallel belts widely apart from Forest and Hill soils, which are generally mixed with pebbles; (a) from Poonch to Kathua in Jammu province, (b) north-west of Jhelum valley in Kashmir province and (c) from south eastern part of Ladakh range.
- Brown soil under deciduous forests are found in southern part of Udhampur and Doda district. Color of the soil is dark-brown and varies from dry loams to silt loams with gravels in a small percentage.
- Podzolised soil occur over a long stretch in middle Ladakh range.
- Sub-mountain soils are mainly found in Poonch, Udhampur and Anadnag. In the valley this soil is cultivated intensively and rice is the main crop.

### 2.3.5 Agriculture

The state of J&K is basically an agrarian state. Nearly 70% of the population in the state derives its livelihood directly or indirectly from agricultural sector. The state of J&K is predominantly rain fed with about 40% of the area in Jammu division and 60% in Kashmir Division having assured means of irrigation through canal irrigation which is a crucial input for development of agriculture in the state. Rice, Maize and Wheat are the major crops in the state. The following table provides the cropping pattern, which has not changed significantly over time.

**Table 4: Cropping Pattern in the State (area in hectares)**

S.No.	Crop	2008-09	2009-10	2010-11	2011-12
<b>Food Crops</b>					
1)	Rice	257.63	259.89	261.35	262.17
2)	Jowar	-	-	0.06	-
3)	Bajra	17.89	17.4	16.59	18.93
4)	Maize	315.81	311.02	308.22	314.03
5)	Wheat	278.72	288.94	290.72	296.17
6)	Barley	13.47	14.23	13.31	7.28
7)	Milletts	4.14	4.01	4.49	5.77
8)	Pulses	30	30.3	28.91	27.44

S.No.	Crop	2008-09	2009-10	2010-11	2011-12
9)	Sugarcane	0.02	-	0.02	0.02
10)	Condiments & Spices	2.69	2.34	2.39	2.43
11)	Fruits & Vegetables	87.42	89.32	87.19	94.3
12)	Other Food Crops	6.24	6	5.12	9.96
<b>Total Food Crops</b>		<b>1014.03</b>	<b>1023.45</b>	<b>1018.36</b>	<b>1037.5</b>
13)	Oilseeds	65.24	65.26	64.56	64.53
14)	Fibres	0.1	0.17	0.19	0.11
	Non-Food Crops				
15)	Dyes & tanning Material	2.67	2.69	2.72	2.73
16)	Drugs narcotics & plantation crops	0.05	0.13	0.13	0.2
17)	Fodder Crops	34.22	52.44	21.76	21.86
19)	Other non-food crops	0.6	0.43	32.09	27.19
<b>Total non-food crops</b>		<b>122.76</b>	<b>121.12</b>	<b>121.47</b>	<b>123.62</b>
<b>Total Area Sown</b>		<b>1136.73</b>	<b>1144.57</b>	<b>1139.81</b>	<b>1161.11</b>
<b>Area Sown more than once</b>		<b>398.11</b>	<b>409.26</b>	<b>408.17</b>	<b>415.03</b>
<b>Net Area Sown</b>		<b>738.62</b>	<b>735.32</b>	<b>731.63</b>	<b>746.08</b>

### 2.3.6 Industries

The State is agriculture based and is on the path of industrialization, despite its topographical limitations. The main industrial activities, mostly small scale, include horticulture, floriculture, handloom and handicraft, tourism, mineral based industries, gem and jewelry, sericulture, insecticides and pesticides. Main industrial activity is concentrated in Jammu and Kathua districts of Jammu province since the Jammu is the only rail head. The rail road is planned to be extended upto Srinagar-Baramullah under the State's Industrial Policy (2004-15)

to attract investments and promote small scale industries. The policy provides incentives in the form of subsidies for all sorts of industries, especially for small-scale industries to make them capable of competing in the present market. The policy also lays emphasis on promoting industries based on local raw materials and skills. The State has set up two industrial growth centers - one in Samba, Jammu and other in Lassipora, Pulwama under the centrally sponsored schemes.

### 2.3.7 Forests

The forests of Jammu and Kashmir are not only indispensable repositories of important plant species that give food, fuel, fodder and shelter, but are also vital for maintaining the ecosystems in and around the state. A total of 10,656 km of roads, trails, bridle paths are under Forest Department, of which 70 km are surfaced. As per the statistics provided by the Forest Department, revenue of more than INR 440 million was generated by the Forestry Sector during the year 2011.

The state is endowed with a rich array of forest types from tropical to alpine. The forest area in the state constitutes roughly about 20% of the state's geographic area covering about 20,230 sq. km. Of this, 8128 sq. km (about 51%) is located in Kashmir Valley and the remaining 12,066 sq. km is located in Jammu region. Ladakh region, which is primarily a high altitude cold desert has 0.06% of the total forest area in the state. The forests are classified as 4140 sq.km of Very Dense Forest, 8760 sq.km of Moderately Dense Forest and 9639 sq. km of Open Forest. The state has are six types of forests, namely Sub-Tropical Dry Deciduous (Shiwaliks), Sub-Tropical Pine (upper Shiwalik), Himalayan Moist Temperate (Chenab Valley), Himalayan Dry Temperate (Kashmir Valley), Alpine and Forests in cold arid zone (Leh and Kargil). Some of important forest produce includes Anardana, Rasount, Resin (oleo), Deodar Oil, Timber, Firewood, Fodder, Turpentine Oil, Chillion Oil, Bamboo Dry and Walnut.

**Table 4: Forest Cover, 2011**

Forest Cover	Districts
Less than 10 square km	Kargil
10 to 100 square km	Leh
100 to 500 square km	Srinagar, Budgam
500 to 1000 square km	Pulwama, Jammu, Kathua, Poonch
More than 1000 square km	Anantnag, Baramulla, Kupwara, Udhampur, Doda, Rajouri

### 2.3.8 Biodiversity

**Conservation Areas:** There are five national parks in Jammu and Kashmir, namely Dachigam National Park, Salim Ali National Park, Kazinag National Park, Kishtwar High Altitude National Park and Hemis National Park. Apart from the

National Parks, the designated Protected Areas in the State include 16 wildlife sanctuaries, 25 conservation reserves and 14 wetland reserves. Additionally, there are 4 Ramsar sites in the state; i.e., Surinsar-Mansar lake, Hokensar, Wular lake and Tsomoriri. The 5 national parks and 16 wildlife sanctuaries, covering an area of 1.48 million hectares, constitutes 6.67% of the geographical area in the state.

**Flora:** The biodiversity of Jammu and Kashmir happens to be in the list of 26 hotspots in India with a high endemic character. The whole Himalayan belt is one hotspot mega-center having eight critical areas, which includes two regions from the state, namely Kashmir and Ladakh. The state has fairly rich diversity of plant life and people depend on this for their daily needs of food, medicine, fuel, fiber and other needs. The varied plant life also contributes to food and habitat needs of wild and domesticated animals in the state.

The flora of Himalayan Kashmir comprises about 3054 species. About 880 species are found in Ladakh and 506 species found in Jammu. This area is a store house of medicinal and aromatic plants (more than 55 species) which are used in pharmaceutical and perfume industries. Several medicinal plants grow wild and some have been taken up for cultivation.

**Fauna:** The faunal diversity of the state is diverse due to its unique location and climatic condition. About 16% (571 species) of Indian mammals are present in the state including birds, reptiles, amphibians and butterflies. Carnivores represent 32% of the total mammalian fauna of the state. Out of a total of 19 species of ungulates, 13 have been listed as globally threatened. The avian diversity of state varies seasonally and available data suggest the existence of as many as 358 species of birds. Also, the available data suggests that 44 species of fishes are found in the state. The rare mammals of the region include the Kashmir stag or Hangul, Musk Deer, Tibetan Antelope or Chiru, Tibetan Gazele, Serow, Markhor, Wild Yak, Tibetan Wild Ass, Snow Leopard and the Brown Bear.

**Table 5: Wildlife Areas (National Parks, Wildlife Sanctuaries & Reserved Areas), 2011**

Forest Cover	Districts
Nil	Kupwara, Rajouri, Poonch
0 to 100 square km	Badgam, Udhampur, Kathua
100 to 500 square km	Srinagar (note that most forests in Srinagar district are wildlife areas), Pulwama, Baramulla, Kargil, Jammu, Doda
More than 500 sq. km	Anantnag, Leh (note that most wildlife areas high altitude areas without any forest cover)

### **2.3.9 Cultural Heritage**

Jammu and Kashmir is rich in diverse Architectural, Natural, Material and Intangible Cultural Heritage. The Directorate of Archives, Archaeology and Museums, the Archaeological Survey of India, numerous civil society organizations play an important role in the preservation, restoration of this heritage. The Department of Archives, Archaeology and Museums looks after 2 museums, 48 state protected museums and 3 Archive Repositories. Five sites in the three divisions of Jammu, Kashmir and Ladakh have been submitted for listing as UNESCO World Heritage Sites. Additionally 850 buildings, of which about 80% are residential have been listed as heritage buildings by INTACH Srinagar chapter. The Jammu and Kashmir Heritage Conservation and Preservation Act, 2010 and other central acts covers conservation and preservation of heritage both tangible and intangible, including buildings, structures, monuments, precincts, etc. to be preserved. It also gives special norms for heritage buildings.

### 3. Environmental Laws and Regulations

#### 3.1 Introduction

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

#### 3.2 Operational Policies and Directive of the World Bank

The relevant and applicable safeguards policies of the World Bank are also reviewed. The potential impacts of proposed activities cannot be envisaged based on information available. To mitigate any potential impacts, assessment procedures and mitigation measures have been put into place through the ESMF so that any likely negative impacts are minimized. However, the applicability of this safeguard policy will be ascertained after screening of sub-projects. The below table describes the relevant safeguard policies of the World Bank and discusses their applicability to the project.

**Table 7: Operational Policy and Directives of World Bank**

Policy	Key Features	Applicability to the Project
<p><b>OP/BP 4.01 Environmental Assessment</b></p>	<p>Potential environmental consequences of projects identified early in project cycle.</p> <p>EAs and mitigation plans required for projects with significant environmental impacts or involuntary resettlement.</p> <p>EAs should include analysis of alternative designs and sites, or consideration of “no option”.</p> <p>Requires public participation and information disclosure before Board approval</p>	<p><b>Applicable</b></p> <p>Specific interventions envisaged under the project such as those for strengthening of critical infrastructure and road transportation, flood control and restoration of livelihoods may have some potential adverse environmental impacts in the project area. Such impacts will depend upon the location, nature and magnitude of interventions. Identification of sub-projects and their environmental screening will help identify possible environmental impacts.</p> <p>OP 4.01 has been triggered to ensure that such investments are planned and designed to be</p>

Policy	Key Features	Applicability to the Project
		<p>sound and sustainable by integrating environmental dimensions into the overall decision making process.</p> <p>Identification of any potential impacts and their mitigation/enhancement measures is proposed.</p>
<p><b>OP/BP 4.04 Natural Habitats</b></p>	<p>Prohibits financing of projects involving "significant conversion of natural habitats unless there are no feasible alternatives".</p> <p>Requires environmental cost benefit analysis</p> <p>Requires EA with mitigation measures</p>	<p><b>Applicable</b></p> <p>The proposed activities such as reconstruction of roads and bridges, and flood management infrastructure might have impacts on natural habitats, flora and fauna and the local natural ecosystem.</p> <p>Activities such as strengthening of existing embankments, channel improvements, dredging and other activities might have potential impacts on surrounding natural habitats.</p>
<p><b>OP/BP 4.36 Forestry</b></p>	<p>Prohibits financing for commercial logging operations or acquisition of equipment for use in tropical forests.</p>	<p><b>Applicable</b></p> <p>The proposed activities such as strengthening road transportation and restoration of livelihoods might have impacts on forests in the project area.</p> <p>Activities envisaged under the project include, but not limited to, minor realignment of roads and change of bridge locations might result in impact on adjoining forest areas.</p> <p>No commercial logging will be supported under the project.</p>



<b>Policy</b>	<b>Key Features</b>	<b>Applicability to the Project</b>
<p><b>OP/BP 4.09 Pest Management</b></p>	<p>Supports environmentally sound pest management including integrated pest management, but does not prohibit the use of highly hazardous pesticides.</p> <p>Pest management is the responsibility of the borrower in the context of Project's EA</p>	<p><b>Not Applicable</b></p> <p>The project is not financing any activities related to agriculture or horticulture or procurement of any pesticides.</p>
<p><b>OP/BP 4.11 Physical Cultural Resources</b></p>	<p>Purpose is to assist in the preservation of cultural properties such as sites having archeological, paleontological, historical, religious and unique cultural values.</p> <p>Generally seeks to assist in their preservation and avoid their elimination.</p> <p>Discourages financing of projects that will damage cultural property.</p>	<p><b>Applicable</b></p> <p>A few project interventions may be located close to sites, structures, natural/man-made features that have historical, archeological, religious or other cultural significance.</p> <p>Through screening EA/SA process, the project's potential impacts on physical cultural resources will be determines and management measures, as required, will be integrated into the sub-project cycle. The ESMF also provides procedures to deal with chance finds during the implementation of sub-projects.</p>
<p><b>OP/BP 4.37 Safety of Dams</b></p>	<p>Applicable when a project involves construction of large dam (15m or higher) or when a project is dependent upon an existing dam.</p> <p>Requires review by independent experts throughout the project cycle.</p> <p>Requires preparation of EA and detailed plans for</p>	<p><b>Not Applicable</b></p> <p>The project will not finance any dam or dam-like structures, or any detailed deign for any such structure. The project is also not dependent on any dam.</p>

Policy	Key Features	Applicability to the Project
	construction and operation and periodic inspection the Bank.	

Other World Bank Policy important to Environmental Concerns is the BP 17.50. This policy deals with Disclosure of Operational Information. The Bank’s Policy on Disclosure of Information, has been incorporated in the Project Implementation Plan.

### 3.3 Environmental Policy and Regulatory Framework of GoI and the State

This deals with various policies, acts, rules and regulations promulgated by the central and state governments related to environment and relevant to present project. Scope of relevant environment regulations and implications for the ESMF are furnished in the table below:

**Table8: Environmental Regulation**

S.No.	Relevant Act	Scope of the Act	Implication for the EMF
1	The Environment (Protection) Act No.29 of 1986	<ul style="list-style-type: none"> <li>▪ Under this Act, the central government is empowered to take measures necessary to protect and improve the quality of the environment by setting standards for emissions and discharges; regulating the location of industries; management of hazardous wastes, and protection of public health and welfare.</li> <li>▪ This encompasses all legislations providing for the protection of environment in the country.</li> <li>▪ It includes the power to direct the closure, prohibition or regulation of any industry, operation or process by the government</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Relevant</b> to sub-projects to be taken up, viz., buildings, roads, bridges, etc. activities</li> <li>▪ Preservation of air and water quality</li> <li>▪ Control dust pollution due to quarrying, which might harm the vegetation</li> </ul>

S.No.	Relevant Act	Scope of the Act	Implication for the EMF
2	Water and Air (Prevention and Control of Pollution) Act, 1974 & 1981 (Central Act 6 of 1974) as amended in 1988	<ul style="list-style-type: none"> <li>▪ This Act prohibits the discharge of pollutants into water bodies beyond a given standard and lays down penalties for noncompliance.</li> <li>▪ Water act includes the maintenance or restoring the wholesomeness of the water</li> <li>▪ Air act restricts the operation of any industrial plant in an air pollution control area without a valid consent</li> </ul>	<ul style="list-style-type: none"> <li>▪ Generally not relevant to project activities.</li> <li>▪ <b>Relevant only for</b> hot mix/ batching plants/ stone crushers which might be established for executing sub-projects.</li> </ul>
3	Forest (Conservation) Act No. 69 of 1980 and amended in 1988	<ul style="list-style-type: none"> <li>▪ This Act restricts the powers of the state in respect of de-reservation of forests and use of forestland for non-forest purposes.</li> <li>▪ All diversions of forestlands to any non-forest purpose, even if the area is privately owned, require approval of the central government</li> <li>▪ Leases of forest land to any organization or individual require approval of the central government</li> <li>▪ Proposals for diversion of forest land for construction of dwelling houses are not to be entertained</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Generally not relevant</b> to project activities</li> <li>▪ Permission is to be obtained from the Forest Department when forest land is required for the project activities.</li> </ul>
4	National Forest Policy, 1988	<ul style="list-style-type: none"> <li>▪ Protect and enhance the yields of non-timber forest products in order to generate employment and</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Generally not relevant</b> to project activities.</li> </ul>

S.No.	Relevant Act	Scope of the Act	Implication for the EMF
		income for forest and village communities	<ul style="list-style-type: none"> <li>▪ Relevant if employment generation for resettlement and rehabilitation are taken up in villages near forests.</li> </ul>
5	Joint Forest Management , 1993	<ul style="list-style-type: none"> <li>▪ Induces people participation in forest management sharing mechanism to distribute the benefits of interventions carried out on common resources property, government lands, wastelands, etc.</li> <li>▪ Benefits are categorized into two – ecological benefits and economic benefits</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Not relevant</b> to project activities.</li> <li>▪ Relevant if employment generation for resettlement and rehabilitation are taken up in villages near forests.</li> </ul>
6	The Wildlife (Protection) Act 1972, Amendment 1991	<ul style="list-style-type: none"> <li>▪ This Act provides for protection to listed species of Flora and Fauna in the declared network of ecologically important protected areas such as wild life sanctuaries and national parks.</li> <li>▪ The wildlife protection act has allowed the government to establish a number of national Parks and Sanctuaries, over the past 25 years, to protect and conserve the flora and fauna of the state</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Not relevant</b> to project activities.</li> <li>▪ Preservation of bio diversity</li> <li>▪ Ecologically sensitive areas, wild life sanctuaries and national parks should be avoided while selecting sites for project components. If this is not possible, permission should be obtained from the Forest Department and appropriate safeguards must be adopted.</li> </ul>

S.No.	Relevant Act	Scope of the Act	Implication for the EMF
7	EIA Notification of MoEF 2006	<ul style="list-style-type: none"> <li>▪ All projects listed under Schedule-I of the Notification require environmental clearance from the MoEF. The list of project categories under Schedule I of the Environmental Impact assessment Notification is available on the MoEF Website.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Could Be Applicable.</b> If any of the roads are in Hilly Terrain (above 1000 AMSL) and passing through ecologically sensitive areas. However, the EMF is designed to ensure that environmental safety measures are integrated into the project.</li> </ul>
8	The Ancient Monuments, Archaeological sites and Remains Act, 1958	<ul style="list-style-type: none"> <li>▪ The Ancient Monuments and Archaeological sites should be protected from any developmental activity. The area within the radial of 100 m and 300m from the Protected Property are designated as Protected area and Controlled Area respectively. No development activity (including building, mining, excavating, blasting etc.,) is permitted in the Protected Area and developmental activities likely to damage the protected property are not permitted in the Controlled Area without prior permission of the Archaeological Survey of India.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Relevant</b></li> <li>▪ Deals with Cultural safeguards when project activities are on, or at close proximity any monument or their sites</li> </ul>
9	Biological Diversity Act 2002	<ul style="list-style-type: none"> <li>▪ The Biological Diversity Act, which came into force in February 2003, aims to promote conservation,</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Not relevant</b> to project activities, <b>except for</b> new road alignments passing</li> </ul>

S.No.	Relevant Act	Scope of the Act	Implication for the EMF
	Biological Diversity Rules 2004	sustainable use and equitable sharing of benefits of India's biodiversity resources. It provides for establishment of a National Biodiversity Authority at national level, State Biodiversity Boards at state level and Biodiversity Management Committees at the level of Panchayats and Municipalities	through ecologically sensitive areas. <ul style="list-style-type: none"> <li>▪ Provides Ecological integration</li> <li>▪ Increased ecological symbiosis (e.g. Pollination) increases production</li> </ul>
10	Jammu and Kashmir Heritage Conservation and Preservation Act, 2010	<ul style="list-style-type: none"> <li>▪ This act came in force in April 2010, aims to provide for conservation and preservation of heritage, both tangible and intangible (including buildings, structures, monuments, precincts, areas/sites, artifacts, sculptures, paintings, handicrafts, manuscripts, etc. and music, dance, drama, performing arts, poetry, living traditions, traditional knowledge systems, folklores, spiritual traditions) of historic or cultural or religious or aesthetic or architectural or environmental significance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Not relevant</b></li> <li>▪ Under the Act the heritage buildings, precincts, natural features, etc., are identified, listed and graded. Heritage Conservation and Preservation Plans are prepared regarding regulations for conservation, preservation and administration of heritage, listing and grading, rural/urban projects at heritage sites, control of changes/distortion/tampering of heritage and proposal of incentives for the protection and enhancement of heritage sites.</li> </ul>

This policy and regulatory analysis suggests that the proposed sub-projects

to be taken does not fall under any of the project categories listed in Schedule-I of the Environmental Impact Assessment Notification and hence does not require any formal environmental clearance of the Ministry of Environment and Forests, GOI. The project area has not been notified as ecologically sensitive or fragile under the Environment Protection Act, 1986. Though the State is dotted with a number of sites of religious, cultural and historical importance, wildlife sanctuaries and national parks, the proposed reconstruction of sub-projects are expected to have limited impact on these sites. The project will also ensure that the requirements of activities in the influence areas of any protected areas are also followed in the design and implementation of sub-projects.

### 3.4 List of Statutory Clearances and Authorizations Required

It is expected that certain permission, clearances and authorizations need to be obtained from competent authorities during the design, planning and implementation of the sub-projects. This will depend mainly on the area, type, size and scope of the sub-project. This requirement is summarized below:

**Table 8: List of Statutory Clearances and Authorization Requirement**

S.No.	Clearance/ Authorization	Relevant Act	Competent Authority	Responsibility
1	Environment Clearance/NOC (For sub-projects which requires such clearance, ex.: housing and new roads, roads in hilly terrain (above 1000 AMSL) and in ecologically sensitive areas, if their location requires)	EIA Notification, 2006 (including amendments) issued under Environment Protection Act, 1986	State Pollution Control Board; MoEF, Govt. of India	PMU/ Line Department
2	Forest clearance	Forest Conservation Act, 1980	State Forest Department, MoEF, Govt. of India	PMU/ Line Department
3	Tree Cutting Permission	Forest Conservation Act, 1980	State Forest Department, MoEF, Govt. of India	PMU/ Line Department

4	Hot mix plants, Wet Mix Macadam plants, Crushers, Batching Plants	Air (Prevention and Control of Pollution) Act, 1981 and Noise Pollution (Regulation and Control) Rules, 2000	State Pollution Control Board	Concerned Contractor
5	Storage, handling and transport of hazardous materials	Hazardous Waste (Management and Handling) Rules, 1989 and Manufacturing, Storage and Import of Hazardous Chemicals Rules, 1989	State Pollution Control Board	Concerned Contractor
6	Location/ layout of workers camp, equipment and storage yards	Environment Protection Act, 1986 and Manufacturing, Storage and Import of Hazardous Chemicals Rules, 1989	State Pollution Control Board	Concerned Contractor
7	Discharges from Labor Camp	Water (Prevention and Control of Pollution) Act, 1974	State Pollution Control Board	Concerned Contractor
8	Permission for sand mining from river bed	Environment Protection Act, 1986	Mines and Geology Department, GoJK	Concerned Contractor



## 4. Environmental Impacts

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### 4.1 Prediction of Impacts

The Project aims to reconstruct and strengthen critical infrastructure including, public buildings; roads and bridges; flood management infrastructure; restoration of livelihoods and strengthening disaster risk management capacity, leading to overall improvement of quality of life in the habitations of the project area. Hence, from the project development objective, it can be seen that this project and the sub-projects would yield positive and beneficial impacts on the target population. However, any and all development interventions will also have some negative impacts. Keeping this in view the likely positive and negative impacts are listed below. The significance of these impacts would vary depending on the individual sub-project, its size and location. The size of the sub-projects would normally be small both physically and financially. Due to the likely small size of the sub-projects, adverse impacts, if any, would be minimum, localized and reversible for the following reasons:

- The proposed project includes reconstruction of damaged public buildings, roads and bridges, flood management infrastructure and strengthening of DRM capacity. These activities would result in mitigation measure for floods as flood resilient structures will be constructed and capacity building initiatives to mitigate future risks will be undertaken
- Significantly low social and environmental impacts

#### 4.1.1 Potential Environmental and Social Impacts

The following environmental and social impacts are predicted based on Rapid Damage and Needs Assessment (RDNA). The impacts could occur during the construction phase and/or operation phase. These potential positive impacts are:

- Improved public safety and security
- Reduced sufferings during monsoons and adverse climatic conditions
- Better infrastructure and connectivity
- Improved access to services
- Productive use of time
- Improvements in income patterns
- Health and Environmental improvements
- Improvements in quality of life and human dignity
- Opportunities for social interaction
- Improved community participation and sense of ownership

The potential negative environmental and social impacts for each component are summarized in the table below:

**Table10: Potential Negative Environmental and Social Impacts**

<b>Component/ Impact</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>N</b>	<b>M</b>	<b>O</b>	<b>P</b>	<b>Q</b>	<b>R</b>	<b>S</b>
1. Reconstruction and strengthening of critical infrastructure	M	M	M	L	L	L	L	L	L	N	N	L	L	L	L	L	L	L	L
2. Reconstruction of roads and bridges	M	M	M	L	L	L	L	L	M	N	N	L	L	M	L	L	L	L	L
3. Reconstruction of urban flood management infrastructure	L	M	M	L	L	L	L	L	L	N	N	L	L	L	L	L	L	L	L
4. Strengthening and restoration of livelihoods	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
5. Strengthening of disaster risk management capacity	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
6. Contingency emergency response	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
7. Implementation support	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Code	Impact	Code	Impact	Code	Impact
A	Land acquisition	H	Ground Water Quality	O	Noise
B	Transfer of Government Land under Different Tenures	I	Destruction of Habitat/Flora Fauna	P	Smell
C	Involuntary Resettlement	J	Insect and Pest Menace	Q	Smoke
D	Land Use	K	Increased chemical pesticides/ fertilizers use	R	Disturbance to Other Services
E	Hydrology and drainage Pattern	L	Public Health	S	Air Quality
F	Water logging	M	Safety		
G	Surface Water Quality	N	Bio-diversity		

**Impacts:** S – Significant      M – Moderate      L – Low      N – Nil

The impacts presented above are indicative. The actual impacts will only be known once the sub-projects are identified. If the impacts are significant, then a detailed Environmental/ Social Assessment will be carried out, followed by preparation of EMP, IPP and RAP as per the guidelines given in this ESMF. The potential adverse environmental and social impacts most likely to occur due to project related activities are described in detail below.

## **4.2 Potential Adverse Environmental Impacts**

Impacts resulting due to activities taken up under the present project are listed below by component.

### **4.2.1 Critical Infrastructure**

- Loss of trees due to tree cutting
- Impact on land and soil such as loss of soil productivity and soil erosion
- Impacts due to quarrying of material
- Compaction and contamination of soil due to vehicular movements
- Impact on surface water bodies due to siltation
- Potential changes to local drainage patterns in and beyond the construction zone
- Impacts on surface water quality of rivers and other water bodies
- Impacts on aquatic ecology due to deposition of debris and temporary sedimentation and turbidity
- Impacts due to construction debris/waste
- Health and safety of construction workers and local people/ community
- Impacts due to transportation and storage of construction materials
- Reduction in air quality due to construction activities
- Increase in noise levels during construction

### **4.2.2 Roads and Bridges**

- Loss of trees due to tree cutting
- Impact on land and soil like loss of productive soil and soil erosion
- Changes in land use
- Impacts due to borrow areas and quarries
- Compaction and contamination of soil due to vehicular movements
- Impact on surface water bodies due to siltation
- Impacts on surface water quality of rivers and other water bodies
- Changes in hydrology and drainage
- Impacts due to construction debris/waste
- Health and safety of construction workers and local people/ community
- Obstruction and disruption of traffic
- Impacts due to transportation and storage of construction materials
- Reduction in air quality due to construction activities
- Increase in noise levels during construction
- Loss/ impact on common property resources

### **4.2.3 Urban Flood Management Infrastructure**

- Storage and use of fuel, chemicals and oil for rehabilitation equipment
- Power supply disruptions

- Impacts due to disposal of defunct/damaged equipment both mechanical and electrical
- Impacts due to disposal of dewatered storm water
- Impacts on surface water quality of rivers and other water bodies
- Loss of tree cover
- Land acquisition
- Compaction and contamination of soil due to vehicular movement
- Impacts on aquatic ecology due to deposition of debris and temporary sedimentation and turbidity
- Impacts due to construction debris/waste
- Health and safety of construction workers and local people/ community
- Impacts due to transportation and storage of construction materials
- Reduction in air quality due to construction activities
- Increase in noise levels during construction
- Impacts due to quarrying of material
- Health and safety of construction workers and local people/ community
- Obstruction and disruption of traffic

#### **4.2.4 Livelihoods**

- Labor and working conditions
- Community health and safety
- Resource efficiency and pollution prevention
- Land acquisition
- Conservation of biodiversity and sustainable management of natural resources
- Cultural heritage

#### **4.2.5 Impacts Common to all Components**

**Impacts on topography:** The following temporary impacts are envisaged during implementation of sub-project activities:

- Erosion and sedimentation
- Temporary disruption of natural drainage pattern
- Loss of fertile top soil of the agriculture lands
- Accumulation of excess excavated earth in the area of construction and operation
- Excess earth and debris blockage and change in drainage pattern
- Changes to hydrological regime, increased flooding, siltation hampering stream flows, etc.

**Impacts on Climate:** No changes in climatic conditions or impacts on climate are anticipated due to the sub-projects to be proposed as part of the project.

**Impacts on Surface Water:** The sub-project activities during construction or operations might interfere with the surface water characteristic of the river or its tributaries. Hence, some impacts on surface water are anticipated. The following temporary impacts are identified:

- Pollution of surface water due to desludging/dredging of water logged areas.

- Reduced flow to the downstream users at specific points due to river diversions.
- Surface water pollution due to oil and grease from construction vehicles.
- Degradation of river banks due to excavation and construction activities.

**Impacts on Air Quality:** During the construction phase, suspended particulate matter and dust are major sources of pollution impairing air quality. However, on the road sub-project construction sites the impact on air quality due to the sub-projects is likely to be higher. During construction and sometimes during operation, use of hot mix plants, generators, transportation and lifting machinery will be unavoidable. Emissions from the exhaust of these are likely to cause localized and temporary air quality impacts. Adequate dust suppression measures and protective measures to the work force will significantly reduce impacts. As the sub-projects to be proposed would be small by nature, the impact of air pollution will not be very significant. Since these impacts are temporary, adequate precautions during the construction period will mitigate them. Significant air quality impacts during the operation phase of the sub-projects are not envisaged. The possible impacts are listed below:

- Increased dust levels due to earth work and construction activities
- Air pollution through ventilating shafts of machinery, plant and equipment

**Impacts on Noise Level:** Movement of vehicles transporting construction material and noise generating activities at the construction site, are major sources of noise pollution during construction. Material movement and associated work are the primary noise generating activities on site. These will be distributed over the entire construction period. Construction activities are expected to produce noise levels that can affect the personnel working on site. Activities involving vehicles, plant and equipment in the close proximity of households will have an adverse impact due to noise pollution. These impacts are temporary and limited to the construction phase. Except during regular maintenance activities, no noise generating activities are envisaged during the sub-projects operation phase. Hence, no noise impacts are predicted. However, the some possible impacts are listed.

- Increased Noise Levels during construction
- Noise due to movement of vehicles
- Increased noise levels during operation
- Noise impact due to operation of DG sets

**Impacts on Ecological Resources:** It is not envisaged that the sub-project activities will involve encroachment of sensitive environmental features, widespread cutting of trees or removal of vegetation. The proposed sub-projects are not expected to be in an eco-sensitive zone or coastal zone. Hence, there will not be any adverse ecological impacts due to the project. However, the impacts due to cutting of trees is expected, which need to be taken care of in the ESMF.

**Other Impacts:** Other environmental impacts envisaged during implementation of project activities are:

- Visual Impacts including:
- Damage to road surfaces and other utilities.
- Digging of unplanned borrow pits on the road side causing inconvenience to public and leading to accidents
- Storage of materials causing disturbance to public and traffic
- Nuisance due to vectors like mosquitos and flies
- Disease transmission and public health issues
- Spills of solid waste enroute construction sites
- Plying vehicles on unpaved roads
- Stagnation of water inside facilities and on roads
- On site health and safety of workers
- Oil spillages

## **5. Environment Management Framework**

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### **5.1 Introduction**

The JTFRP sub-projects are yet to be identified. Further the implementation of these sub-projects will take place over a period of time and this time lag will lead to changes in the environmental and social assessments. For such reasons preparation and implementation of Environmental Management Framework (EMF) and a Social Management Framework (SMF) are proposed for this project.

### **5.2 Screening**

During the screening, as a first step, the environmental and social impacts are identified through filling in an Environmental and Social Data Sheet (ESDS). This ESDS is same for both EMF and SMF The basic objective of the filling in this data sheet is to collect basic information on environmental and social aspects of the proposed sub-projects. Further the ESMF requires that basic environmental and social data pertaining to the proposed sub-projects be compiled during the field data collection stage. For this purpose, simple ESDS were formulated for Critical Infrastructure (Public Buildings) sub-projects and Roads and Bridges sub-projects and annexed to this ESMF. For the other sub-projects the Critical Infrastructure ESDS may be used. The sub-project Implementing Agency fills up these ESDS with the facilitation support of the PIU duly identifying the environmental and social issues of concern. Supplementary notes on environmental and social concerns will also be added to those ESDS. The sub-project Implementing Agency will do the screening through collection of necessary filed data. These ESDS are attached to the sub-project project proposal/ concept note.

During the screening process, the sub-projects are also categorized. The basic objective of this categorization is to ensure that sub-projects with potentially significant environmental/ social issues are identified at an early stage for detailed environmental/ social assessment. Further evaluation of all the available information on environmental and social aspects as provided in the ESDS and assessment based on the level of expected environmental and social impacts (including any field visits if required), whether the proposed sub-project is qualified for categorization as E1/E2 and S1/ S2 takes place during this phase. As a part of ESMF process the screening and sub-project categorization will be cleared by The World Bank, before taking up EA/SA. This is further detailed in the paragraphs below.

### **5.3 Environmental Categorization**

In order to give an indication of scale and size of environmental and social impacts, the sub-projects are categorized. This categorization is required to carry out the appropriate level of assessments for different types of sub-projects based on the nature, scale and magnitude of their social and environmental impacts. Categorization would help in focussing time and effort in sub-projects that have significant impacts. Based on environmental impacts the sub-projects are categorized into two categories;



- 1) E1, where there are relatively higher chances of creating adverse environmental impacts
- 2) E2, where there are relatively lower chances of creating adverse environmental impacts

It is important to note that the above categories of E1/E2 are not equivalent to World Bank environmental categorization of A/B/C. This project as a whole is a (World Bank) Environmental category B project, and all sub-projects are expected to be a category B sub-projects. Any sub-project which is seen to be equivalent to a (World Bank) Environmental category A project (sub-project) will be excluded from the project (determination by World Bank that a particular sub-project is equivalent to a category A sub-project will be deemed final). In effect, therefore E1/E2 categorization will correspond to "relatively higher impact B category sub-project" and "relatively lower impact B category sub-project".

The E1 category sub-projects require conducting a comprehensive Environmental Assessment (EA) and preparation of an Environment Management Plan (EMP) by Independent Consultants prior to preparation of DPR for appraisal by PMU. This EA and EMP need to be disclosed before the start of procurement for that sub-project. Annexure 15.6 provides the contents of an EIA for sub-projects categorized as E1. Additional guidance on EMP contents is also attached as Annexure 15.7.

The E2 category sub-projects need not conduct an EA, but require an EMP, which is to be prepared by Design Consultants following the guidelines given in this ESMF. This EMP becomes a part of the DPR, which will be appraised by PMU. If, under special circumstances, PMU identifies a need for a limited environmental assessment, then it needs to be conducted.

#### **5.4 Environmental Impacts and Mitigation**

The sub-project categorization as E1 or E2 need to be done on the basis of field visits, primary and secondary data and analysis. After identifying the impacts, the mitigation measures need to be determined. Some generic mitigation measures are included as guidance in this ESMF. These have not been included here to avoid repetition. This guidance table also includes information on whether these mitigation measures have to be undertaken in the planning/ design, construction and operation phases. However, each category of sub-projects needs to incorporate mitigation measures as given below:

##### **5.4.1 E1 Category**

For E1 category sub-projects, a social and environmental consultant, independent of the design consultants, need to be engaged to carry out an Environment Impact Assessment and prepare an Environment Management Plan. In this regard PMU need to prepare a Terms of Reference (ToR) for the environmental consultants for EA of this category of projects. This ESMF needs to be shared with these consultants for following the procedures and using the relevant information in their assessment. This EA and EMP need to be disclosed before the start of procurement for that sub-project.

#### **5.4.2 E2 Category**

For E2 category sub-projects, the design consultants would have to prepare the EMP. PMU need to share this ESMF containing the impacts and mitigation measures with the design consultants for them to use in the preparation of the EMP that needs to be submitted along with the DPR. PMU will ensure that the Terms of Reference for the Design Consultants will include these.

#### **5.4.3 EMP to be Part of Contract Documents**

In case of E1 and E2 sub-projects, PMU need to ensure that the EMP is provided as a part of the contract documents to the contractor facilitating its integration into the main works.

### **5.5 Sub-project Cycle and Environmental and Social Requirements**

The environmental and social required to be fulfilled during the sub-project cycle; i.e., during pre-planning, planning, implementation and Operation and Maintenance (O&M) are listed in the below table and the flow chart.

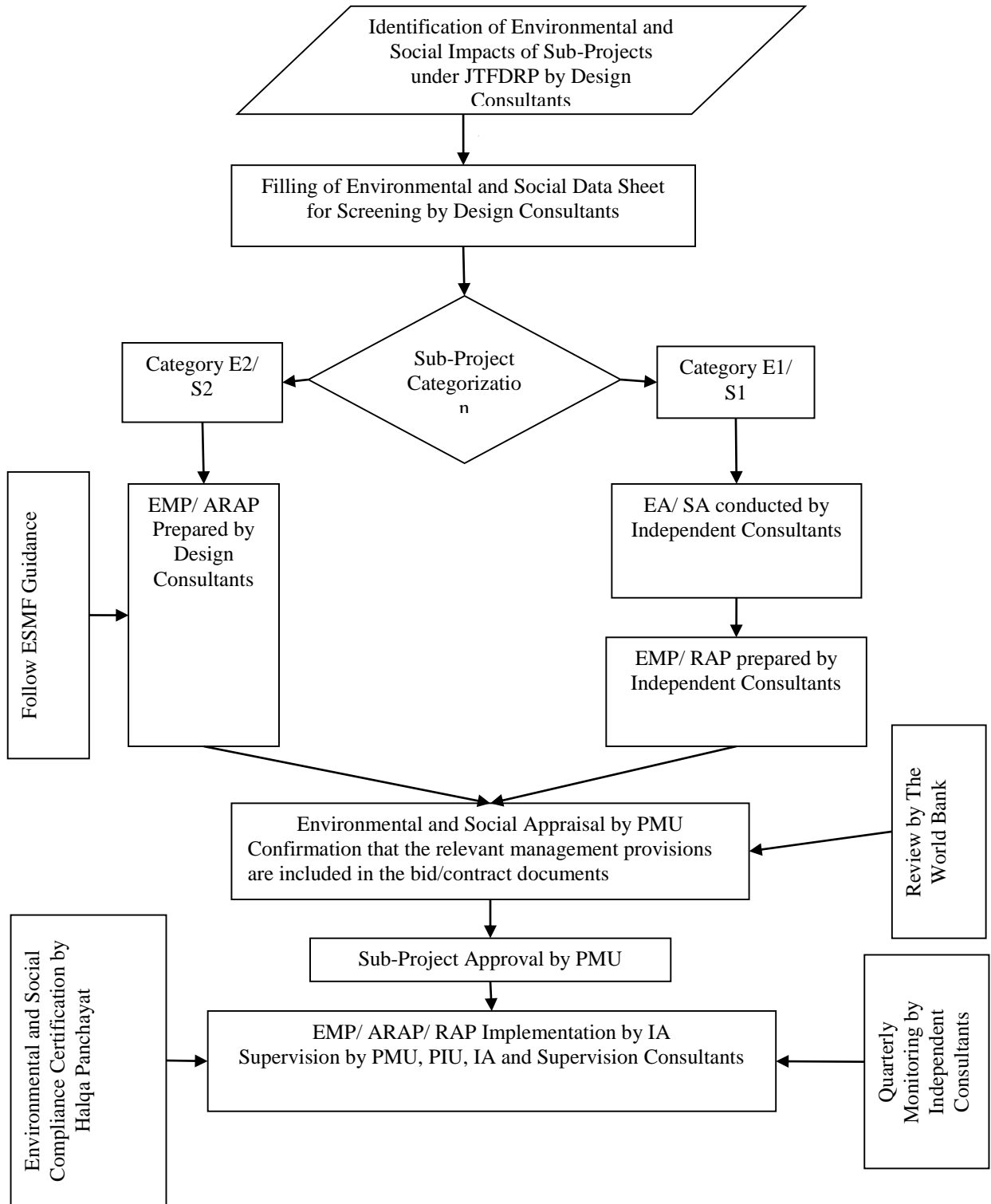


Figure 1: JTFDRP Environmental and Social Management Flow Chart

**Table 11: Environmental and Social Activities and Responsibilities to be fulfilled during the sub-project cycle**

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
Preplanning	<b>Identification</b> Environmental and Social Data Sheet	To collect basic information on environmental and social aspects of the proposed sub-project.	The ESMF requires that basic environmental and social data pertaining to the proposed sub-project be compiled at the field data collection stage. For this purpose, a simple Environmental and Social Data Sheet (ESDS) and a simple Socio-Economic Survey format were formulated for sub-projects. The formats for the ESDS are furnished under annexures. The sub-project Implementing Agency (IA) fills up the ESDS with the facilitation support of the PIUs duly identifying the environmental and issues of concern. Supplementary notes on environmental and social concerns to be added to those data sheets.	Implementing Agencies (IAs)	ESDS prepared and attached with the project proposal / concept note
Planning	<b>Screening and Categorization</b> Environmental and Social classification of the sub-project	To ensure that sub-projects with potentially significant environmental/ social issues are identified at an early stage for detailed environmental/	Evaluate all the available information on environmental and social aspects as provided in the ESDS and assess, based on the level of expected environmental and social impacts (including any field visits if required), whether the proposed sub-project is E1/E2 and S1/ S2.  For E2 and S2, the design consultants will prepare EMP along with the DPR.	PIU, Design Consultants	Sub-project classified as E1/E2 and S1/S2.  As a part of ESMF process the screening and sub-project categorization need to be cleared by The World Bank,

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
		social assessment.			before taking up EA/SA.
Planning	<b>Preparation</b> Environmental and Social Assessment and Management Plans	To conduct Environmental/ Social Assessment and Prepare Management Plans for integration into sub-project DPR	For E1/ S1 category sub-projects for which detailed environmental/ social assessment is required, this EA/SA and preparation of EMP/ RAP/ ARAP will be done by consultants independent of the Design Consultants.	Independent Consultants	EA/ SA done. EMP/ RAP/ ARAP Prepared and disclosed prior to start of procurement for that sub-project.
Planning	<b>Appraisal</b> Environmental and Social appraisal	To ensure that relevant environmental and social issues have been identified and appropriate mitigation measures have been designed to address them.	For E2 and S2 sub-projects, there shall be no separate environmental/ Social appraisal but environmental/ social aspects shall be included in the normal appraisal and evaluation process for the proposed sub-project, based on the ESDS included in the DPR. All these sub-projects need to follow the mitigation measures detailed in the ESMF Guidance. This will be ensured by the PIUs.  For projects requiring a detailed Environmental/ Social Assessment, including evaluation of environmental/ social impacts, risk assessment if needed, and design of mitigation measures, will be done by the PMU Environmental and Social	PMU Environmental Expert Social Expert	Environmental and social appraisal of the project is made and approval of proposed sub-project, with decision to (i) accept scheme as submitted, or (ii) accept scheme with modification suggested in the

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
			Specialists /Managers (Officers with previous social and environment specialization can be appointed as Social and Environment Managers).		environmental/ social appraisal.
Planning	<b>Approval</b> Environmental and Social approval required	To ensure that mitigation measures and their cost are integrated in scheme design and implementation plans	Approval for the sub-project will not be accorded without the appraisal by PMU including review of ESDS/ and approval of SA, EIA, (RAP, TDP, EMP). The World Bank will randomly check quality of ESDS, and will review all RAPs and TDPs wherever prepared.	PMU	Technical Sanction for sub-projects with environmental and social mitigation measures and accordingly its costs are integrated in sub-project design and implementation plans.
Implementation	<b>Implementation</b> Implementation of Environmental and social mitigation measures.	To ensure that the prescribed environmental and social mitigation measures (including construction	The prescribed environmental and social mitigation measures (including construction stage measures) as identified through the environmental and social appraisal process are adequately implemented.  Implementation Completion Report (ICR) for sub-project will need to include an Environmental Compliance Certificate and Social Compliance Certificate given by the Halqa Panchayat indicating	Halqa Panchayat PMU	ICR with environmental and social compliance information.

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
		stage) are implemented.	that the mitigation measures identified in the appraisal (including construction stage) have been implemented.		
O&M	<p><b>Supervision, Monitoring and Evaluation</b></p> <p>Environmental supervision, monitoring and evaluation</p> <p>IEC and capacity building on environmental and social issues.</p>	To ensure that environmental and social aspects are integrated in the O&M phase.	<p>Monitoring of indicators will be conducted as per project monitoring protocol.</p> <p>Supervision will be conducted by the designated environmental officers of the implementing agencies for all the sub-projects</p> <p>All sub-projects will be monitored by PMU.</p> <p>Capacity building and IEC activities are undertaken to enable effective implementation of the ESMF including assessment procedures, supervision, monitoring, etc. as well as for community awareness and sensitization. This will be done by the IA and in turn the IA will be trained by PMU.</p>	PMU External Consultants	<p>PMU will submit quarterly reports to The World Bank on Safeguards Implementation.</p> <p>Quarterly monitoring reports by Independent Consultants.</p> <p>Periodic environmental and social supervision reports.</p> <p>Training and IEC activity reports.</p>

## **5.6 Monitoring and Evaluation**

The ESMF requires detailed supervision, monitoring and evaluation of the impact of the project on the environment and social aspects. In order to carry out this, PMU will have specific arrangements made at state and district level. This includes appointment of an Environmental Specialist and Social Specialist for the project period. Further the PMU will instruct PIUs on how to implement the provisions of this ESMF. At the field level the staff of the implementing agencies have experience of implementing projects concerning their departments and do land acquisition for their project. Implementation of the provisions of ESMF will be new to these staff and hence preparatory orientations and trainings are proposed as a part of this ESMF to build their capacity. In order to achieve the objectives of this ESMF and to ensure the safeguards are implemented in a proper manner, the following provisions are made in this ESMF:

- Environmental Supervision by PMU, PIU and Implementing Agencies
- Exclusive Environmental Specialist and Social Specialist at PMU for overall ESMF implementation coordination and reporting
- Concurrent Environmental and Social Monitoring and Evaluation and Quarterly Environmental and Social Monitoring Reports to the World Bank
- Independent Safeguards Audit (ISA): Half-yearly Environmental and Social Audit, of ESMF implementation by independent consultants.
- Environmental and Social Management Capacity Building of PMU, PIU and Implementing Agencies including Consultants, Contractors and Community Based Organizations and Community Members.

The PMU will be in charge of implementing the ESMF. The Environmental and Social Specialists of PMU will guide and oversee the implementation of the ESMF at field level. This overall guidance will be given by them. Further the PMU will incorporate the provisions of this ESMF as actionable points in the Project Operations Manual or other similar document for the project. These will be non-negotiable and will have to be followed by all PMU and PIUs. The Environmental and Social Specialists will oversee the application of these provisions and guide the process, while at the same time building the capacity of the PMU and PIUs.

At the field level the designated environmental engineers of the implementing agencies/ the supervision consultants will ensure the implementation of the ESMF. The following provisions include the arrangements made for the effective implementation of the ESMF:

### **5.6.1 Safeguards Supervision**

This is basically done by PMU. 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 would submit quarterly progress reports to The World Bank on safeguards implementation.

### **5.6.2 Concurrent Monitoring and Quarterly Reporting**

The concurrent internal environmental social monitoring will be done as part of the regular monitoring by the PIU, Implementing Agencies, and design and supervision consultants. However, PMU, with the help of in-house Environmental and Social Specialists will do the regular environmental and social monitoring of sub-projects for safeguards compliance. The PMU, PIU and the Implementing Agencies will do the

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regular monitoring of ESMF implementation of all sub-projects. This is done under the supervision and coordination of the Environmental and Social Specialists at PMU.

### 5.6.3 Safeguards Monitoring Plan

Apart from the quarterly monitoring reports submitted to The World Bank, once every year, the PMU will prepare a report of the environmental and social situation in the project districts including data and analysis of relevant parameters as given in the plan below. This report also should give a listing of relevant new legislation and regulations that have a bearing on the environmental social performance of the project. PMU will submit this report to The World Bank. The ESMF will be reviewed annually by the Bank on the basis of this document by the PMU and ESMF shall be updated as agreed with the Bank, when so required. Given in the table below are indicators for project investments, for which monitoring need to be taken up by PMU in a regular manner.

**Table 5: Indicative Monitoring Parameters for Project Investments**

Project Components	Indicative Monitoring Parameters	Frequency	Agency
Reconstruction and strengthening of critical infrastructure	<ul style="list-style-type: none"> <li>• Water Availability rate (lpm) in downstream sources</li> <li>• Drinking Water quality – Surface and Groundwater</li> <li>• Soil erosion – Area Affected Sq. m</li> <li>• Sand casting</li> <li>• Sedimentation in water bodies - Turbidity</li> <li>• Soil quality – presence of heavy metals, oil, chemicals, etc.</li> <li>• Changes in Tree cover</li> <li>• Debris deposits on lands – Area/ No. of locations</li> <li>• Sites, buildings, precincts, etc., identified as heritage and cultural resources and impacted directly and indirectly</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly by Independent Consultants</li> <li>• Annually by PMU</li> </ul>	<ul style="list-style-type: none"> <li>• PMU guiding the collection of information on indicators</li> <li>• Independent Quarterly Monitoring Consultants</li> <li>• Implementing Agencies/ Departments for department specific information</li> </ul>
Reconstruction of roads and bridges			
Reconstruction of urban flood management infrastructure			
Strengthening and restoration of livelihoods			
Strengthening of disaster management capacity Contingency emergency response Implementation support			

Project Components	Indicative Monitoring Parameters	Frequency	Agency
	<p><b>Other</b></p> <ul style="list-style-type: none"> <li>• No. of training programs conducted</li> <li>• No. of personnel trained</li> <li>• Achievement of learning objectives</li> <li>• Adherence to contract conditions and standards (housing, sanitation, crèches, use of local labour, equal wages to men and women, avoidance of child labour, etc.)</li> <li>• No. of complaints on inconvenience, nuisance</li> <li>• Adherence to ESMF provisions/ guidelines during sub-project cycle</li> </ul>		

#### 5.6.4 Independent Safeguards Audits

The PMU will appoint Independent Project Implementation Quality Audit Consultants with expertise in social and environmental safeguards to conduct half-yearly Environmental and Social Audit as a part of overall project implementation monitoring each half-year a minimum of 20% of ongoing sub-projects.

#### 5.6.5 Environmental and Social Capacity Building

The PMU will organize regular trainings on Environmental and Social Management for capacity building of PMU, PIU and Implementing Agencies including Consultants, Contractors and Community Based Organizations and Community Members. These details are further elaborated in chapter 6.

### 5.7 Stakeholder Consultation

Due to bad weather, continued landslides in some areas and affected areas being largely inaccessible, the team was unable to undertake independent on-site assessment. In the circumstances the damage and loss assessment carried out by the State government of Jammu and Kashmir has been relied upon. During the JRDNA mission several consultations were held with the line departments, where several details regarding the actual situation in the affected area were gathered. Discussion with implementing agencies of on-going projects also helped to negate the absence of stakeholder consultations. The issues presented in the following section 5.7.1 are the summary of those consultations. Stakeholder Consultation Workshops with the participating departments and other stakeholders will be held regularly during implementation, to gather their feedback on the environmental

issues arising out of implementation of the project, further remedial measures if required; and accordingly the ESMF will be revised as needed<sup>1</sup>.

### **5.7.1 Stakeholder Involvement and Consultation**

PMU would engage Design consultants to assist them in preparing the sub-project DPRs. In the ToR for these consultants, there is an explicit requirement for the consultants to carry out public/ stakeholder consultations. This is a mechanism to ensure the upfront public/ stakeholder inputs in the preparation of the sub-projects.

For Category E1 and S1 sub-projects, PMU would have to engage independent consultants to prepare the SA / RAP and EA / EMP respectively. In the ToR for the preparation of these outputs, public/ stakeholder consultations form an integral part. For such type of sub-projects obtaining consent of the local agencies and necessary clearances from competent authorities is mandatory and should form part of the EA/ SA. These EA/ SA will be reviewed by The World Bank.

During sub-project implementation Halqa Panchayats, NGOs, Community Based Organisations (CBOs) will be involved. Project monitoring reports would be disseminated in the public consultation meetings in the Halqa Panchayats. The stakeholder meetings would discuss the sub-project progress reports and make recommendations for sub-project control and modifications. These recommendations would be made use for future sub-project design. Consultations are required for preparation of all safeguards mitigation documents and these consultations should be an on-going activity over the life of the project. These would be documented in the EA/SA documentation for each sub-project.

## **5.8 Disclosure**

### **5.8.1 State Level**

PMU and the implementing agencies shall disclose this entire ESMF at their website. The summary of the ESMF need to be translated into local languages (Urdu and Hindi) and placed on the website. The Resettlement Policy Framework will be disclosed along with the entitlement framework, though this is a part of the SEMF, these documents shall be separately identified and disclosed in the PMU website. These two documents shall also be translated into Hindi and Urdu and made available at the PMU's website.

### **5.8.2 District Level**

PMU will also arrange to disclose the final versions of the ESMF and Resettlement Policy Framework and Entitlement Matrix in all the District Collectors Offices, PIUs, and the local offices of the implementing agencies. These would be in place once the final versions are ready. When this document is updated, then the copies in the different locations would also be updated.

### **5.8.3 Disclosure by The World Bank at the Infoshop**

The World Bank will disclose this ESMF and any future EA/ SA along with EMP/ RAP at the Infoshop for downloading and reference by interested parties.

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<sup>1</sup> Note that revision(s) of the ESMF is subject to agreement of the World Bank.

During the implementation phase, all the sub-project EMP/RAP/TDP shall be disclosed by PMU and the implementing agencies both at the local level and at the state level. These EMP/RAP/TDP s will also be disclosed at the Infoshop of The World Bank.

### **5.9 Grievance Redressal Mechanism**

PMU will have a grievance redressal mechanism which will look into all aspects of sub-projects and their activities apart from R&R related grievances. The SMF can be referred for details on Grievance Redressal Mechanism.

## 6. Institutional and Implementation Arrangements

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### 6.1 Introduction

A Project Steering Committee (SC) will be set up for the overall strategy guidance and monitoring of the project. It will be headed by the Chief Secretary and will comprise all involved line departments, and additionally the departments of Finance, Planning, Environment, and Social Welfare. The SC will formally approve the project investments and help coordinate the activities of various departments, including in obtaining required approvals/clearances for the Project. This shall be done through semi-annual review meetings, where the SC shall:

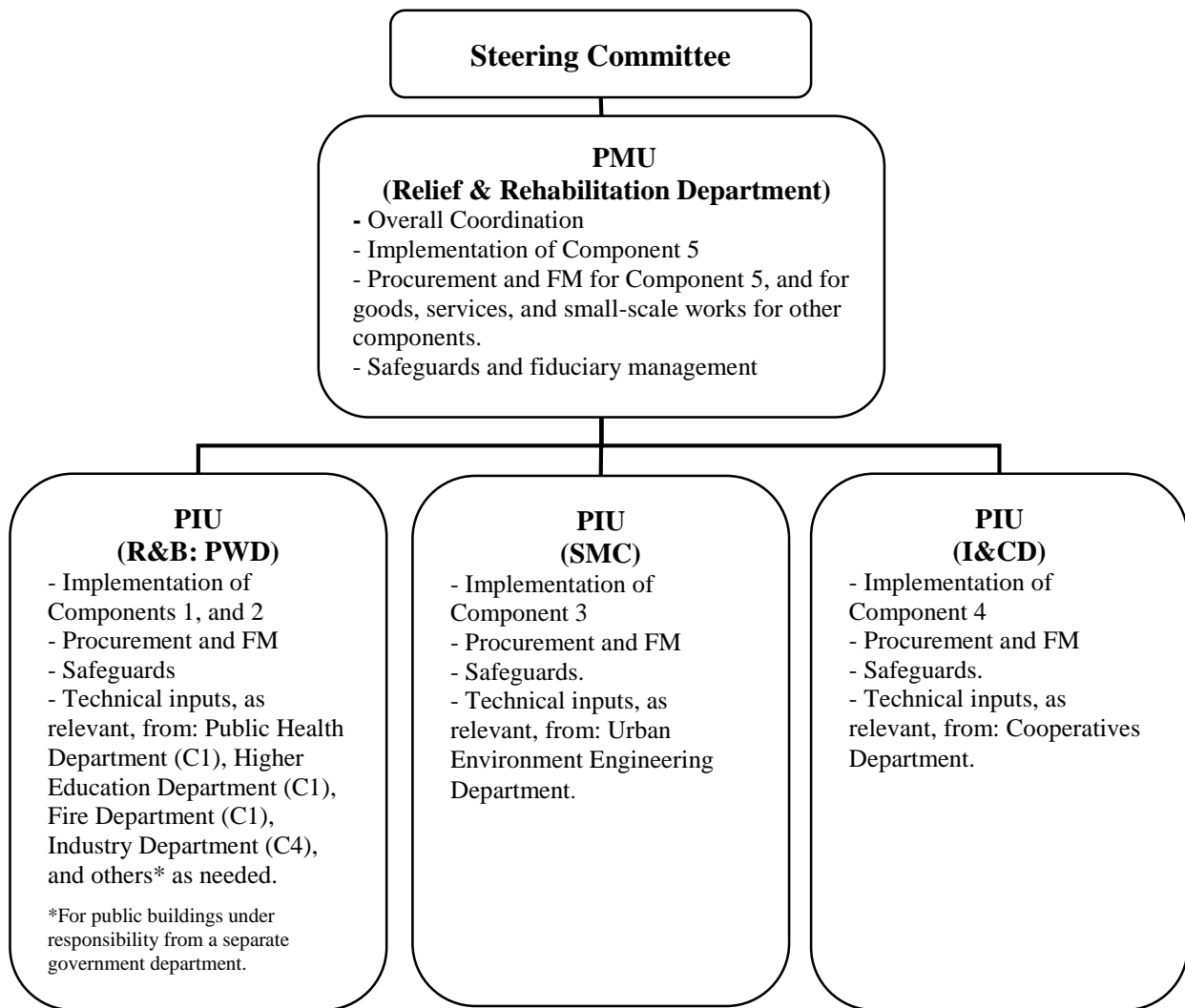
- Review the budgets
- Review progress against the defined milestones
- Review critical findings of the audit and evaluation reports
- Provide such guidance, as it may deem necessary for the Project

A Project Management Unit (PMU), housed within the Relief & Rehabilitation Department (R&RD), will be responsible for overall project management, coordination, and reporting, and for implementation of Component 5. The PMU will also be responsible to carry out procurement of goods, services, and small scale works for other components, with technical inputs from the relevant line departments.

There will be three Project Implementation Units (PIUs) that will be set up at the beginning of the Project. During project implementation, additional PIUs might be set-up depending on the volume of investments and capacity. The three PIUs are:

- (i) Roads and Building Department (R&B), will be responsible for all civil works under Components 1, and 2, and it will receive technical inputs from the Departments of Health, Higher Education, Fire, and others as relevant depending on the nature of the civil works;
- (ii) Srinagar Municipal Corporation (SMC) will be responsible for implementation of Component 3 and it will be assisted by the Urban Environment Engineering Department (UEED) for technical inputs and procurement of goods, works, and services in line with its official responsibilities and capacity; and
- (iii) Industry & Commerce Department (I&CD) will be responsible for implementation of Component 4 with support from other agencies.

The graph below outlines the proposed implementation arrangements:



### 6.1.1 Project Management Unit (PMU)

The PMU will be responsible for:

- a) Overall project management and reporting.
- b) Coordination with PIUs and line departments in approval of designs, assisting the PIUs in preparation of: DPRs, bidding documents, tendering schedules, etc.
- c) Appointment of technical assistance consultants and others safeguards management support to the implementing agencies.
- d) Quality Assurance through third party audits.
- e) Maintaining MIS and Quarterly reporting.
- f) Progress reporting, financial management, monitoring and reporting.
- g) Implementation of Component 5.
- h) Ensuring compliance with agreed implementation procedures and other Bank requirements, etc.
- i) Grievance redress.

### **6.1.2 Project Implementation Units (PIU)**

Specific sub-project activities will be planned and carried out by one or more Implementing Agencies (IA), who will be monitored by The PIUs established for each Project component. The PIUs will be responsible for:

- a) Preparation of Detailed Project Reports including technical designs, surveys and investigations, etc.
- b) Tendering, bid evaluation, contract award, contract management, etc.
- c) Financial Management and safeguards compliance.
- d) Progress and expense reporting to the PMU.
- e) Coordination with line departments for design, implementation, and hand-over arrangements.
- f) Grievance redress.

Line departments will provide technical inputs to the PIUs as relevant, in line with their sectoral responsibility. In line with their capacity and, ad agreed by the PMU and the respective PIU, they will also carry out procurement of goods, works, and services.

**Support and Monitoring of Reconstruction components:** The PMU will put in place a monitoring mechanism that includes photo identification and tracking system for individual beneficiaries. In addition the PMU will also put in place a GIS based reporting and monitoring system for all other reconstruction works in the State. Partnership with NGOs/CBOs and consultations with communities will be integral to the reconstruction work particularly the reconstruction of roads and bridges and restoration of livelihoods.

**Project Management Consultants:** PMU will hire consultants using pre-agreed Terms of References, for:

- Technical Support and Advise
- Financial/Procurement Management and Project Audit
- Developing the GIS based reporting and monitoring system
- Result monitoring and impact evaluation, etc.

### **6.2 Monitoring and Evaluation**

The PMU will have the overall responsibility for project implementation including, but not limited to, reporting, monitoring and evaluation, procurement control, financial management, audit and disbursements, compliance with the environmental and social policy requirements, as well as coordination with the line agencies and the World Bank. The PMU will put in place a monitoring mechanism that includes photo identification and geo-referenced tracking system for works. The PIUs will be responsible for feeding the required information into the system.

Within the PMU, full time Environment Specialist and Social Specialist will be appointed to handle all matters pertaining to environment and social management under the project, including implementing the ESMF and compliance with it. These Environment Specialist and Social Specialist will be available for the entire project life.

The key responsibilities of the Environment and Social Specialists include:

- a) Orientation and training of implementing agency teams and the contractors on environmental and social management
- b) Leading/ providing oversight on the EA/SA process and its outputs
- c) Review of monitoring reports submitted by the implementing agencies on ESMF/EMP/RAP/TDP implementation
- d) Conducting regular visits to project sites to review ESMF compliance during sub-project planning, design and execution
- e) Providing guidance and inputs to the implementing agency teams on environment and social management aspects
- f) Reporting to PMU, Steering Committee and The World Bank as specified in the ESMF
- g) Coordinating with the Quality Audit Consultants

These Specialists will also deal with matters pertaining to integration of ESMF into the sub- project design and contract documents; preparation of Terms of References for studies such as for EA/SA; reporting, documentation, monitoring and evaluation on environment and social aspects and will ensure overall coordination with the Implementing Agencies and PIUs and PMU. The PIU offices at the district and block levels will support preparation of ESDS, and detailed EA/SA if required, and preparation and implementation of RAP/TDP/EMPs wherever required. The Environment and Social Specialists of the PMU will be supported by full time Environment and Social Specialists/ nodal officers positioned in the PIUs. These Specialists will be available for the entire project life.

Further to support the Environment and Social Specialists, an 'Independent Project Implementation Quality Audit' Consultants will have expertise in social and environmental safeguards and monitor compliance with ESMF and implementation of various EMP/ RAP/TDP activities by all the sub-projects as a part of Project Implementation Quality Monitoring.

### **6.3 Training and Capacity Building**

The project staff will need to have awareness, sensitivity, skills and experience regarding the environmental and social aspects of sub-projects planning and implementation. For sustainability and seamless adaption of the environmental and social principles and safeguards by all the implementing partners, awareness creation and capacity building becomes necessary. This capacity building and IEC strategy has been outlined as part of the ESMF program developed for the project. It aims at building environmental and social awareness and management capacity in the project implementation structure as well as in the intended target communities. Capacity building for environmental and social management will be integrated with overall capacity building component of the project.

#### **6.3.1 Capacity Building Objectives**

The objectives of the capacity building initiatives are:



- To build and strengthen the capability of project implementation staff, participating departments, and other partners to integrate sound environmental and social management into sub- project implementation.
- To orient the project implementation staff, participating departments and IAs at district level and communities to the requirements of the project's ESMF.

Systematic capacity building initiatives need to be introduced only after completion of training needs assessment. The training should be of cascade mode. All the trained staff and others will in turn conduct further trainings at district, block and village levels. However, since capacity building goes beyond imparting training, institutionalization of best practices becomes a prerequisite for improved sub-project environmental and social management. The training outcomes like trainees' understanding of the training content, achievement of learning objectives, application of methods, tools and techniques learnt during training, etc. need to be monitored and audited. This will be done by the monitoring consultants.

### **6.3.2 Training Details**

In view of the specialized training and capacity building envisaged under the ESMF of the project, it is necessary to identify nodal training institutes that will work closely with PMU for conceptualizing, designing, conducting and managing training programs on the ESMF. Some such specialized institutions are:

- Selected Expert Staff of Participating Departments
- Selected Expert Staff of Disaster Management Department, Environment and Forest
- Department, Mines and Geology Department, etc.
- Indian Institute of Technology, Roorkee
- Uttarakhand State Pollution Control Board
- Engineering Staff College of India, Hyderabad
- Other Identified Consultants

The details of the proposed training programs are as below:

- Orientation/ Learning Training Programs
- Training on the ESMF and Mitigation Plans
- Training on Environmental and Social Management
- Workshops on ESMF

The likely participants are key officials of the project, PMU staff, PIUs, Participating Departments' staff, IAs and State Level Environmental and Social Specialists, Environment and Social Experts at the PIUs, Resource Persons, Halqat Panchayat Representatives, Community Representatives, NGOs, CBOs, Women Groups, etc. About 20 to 30 trainees would participate in each of the training programs. It is intended that these trained persons will in turn provide onsite training to Participating Departments' Staff, IAs, Resource Persons, HP Representatives, Community Representatives, NGOs, CBOs, Women Groups, etc., onsite at district/ block level.

### 6.3.3 Training Budget

The total estimated cost of training on environmental and social management under the proposed project is presented in the table below:

**Table 13: Training Budget**

S.No.	Training	No. of Programs	Estimated Unit Cost (in Rs.)	Total Cost (in Rs.)
1.	Orientation/ Learning Training Programs	20	1,00,000	20,00,000
2.	Training on the ESMF and Mitigation Plans	10	5,00,000	50,00,000
3.	Training on Environmental and Social Management	5	10,00,000	50,00,000
4.	Workshops (State)	10	2,00,000	20,00,000
5.	Workshops (District)	10	1,00,000	10,00,000
6.	Provision for travel, allowance, other training expenses, etc.			1,50,00,000
7.	Environmental Audits	Included as part of the Third Party Quality Audits for the Project		
	<b>Total</b>	-	-	<b>3,00,00,000</b>

### 6.4 ESMF Budget

The total administrative budget for environmental and social management activities under the UDRP has been worked out as Rs. 9.10 crore. The cost of implementing the proposed mitigation measures is not included in this costing. The cost of mitigating environmental and social impacts need to be included in the respective sub-projects' budgets. The detailed breakup of the administrative budget is presented in the table below.

**Table 6: Administrative budget for ESMF activities**

<b>S No.</b>	<b>Activity</b>	<b>Amount in Rs.</b>
1.	Training and workshops (as estimated)	3,00,00,000
2.	Community Mobilization Staff Costs (lump sum)	2,00,00,000
3.	ESMCs for 4.5 Years @ Rs. 50 Lakhs per year	2,25,00,000
4.	Preparation of specific environment and social related community awareness materials (lumpsum)	1,00,00,000
5.	Sub Total	8,25,00,000
6.	Contingencies @ 10%	82,50,000
7.	Other unforeseen items	2,50,000
	<b>Total</b>	<b>9,10,00,000</b>

## **7. Environment Impact Mitigation Plan - Guidance**

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### **7.1 Introduction**

This guidance includes a generic Environment Mitigation Plan (EMP), listing mitigation measures for the possible impacts caused by the sub-projects. This also includes the project phase, where each of the mitigation measures needs to be considered and also indicates the implementation responsibility. For the Roads and Bridges component, the use of Environmental Codes of Practice (ECoPs) of PMGSY for various stages in the rural roads sub-projects, for management of environmental and social impacts, are recommended as the unit operations of the project are the same and the PMGSY program is being supported by the World Bank. These are annexed to this report. This guidance provides for a Generic Environment Impact Mitigation Plan which can be made use of by both E1 and E2 category sub-projects.

### **7.2 How to use this Guidance**

#### **7.2.1 For E1 sub-projects**

This category of sub-projects requires a full-fledged EA that is to be done by environmental consultants separate from the design consultants. The EA should bring out a sub-project specific EMP. The Generic Environment Impact Mitigation Plan can also be made use of where applicable. The relevant environmental management measures from the sub-project specific EMP must be integrated into the bid/contract documents. This would be confirmed by the PMU to the Bank for such sub-projects and shared for review and concurrence.

#### **7.2.2 For E2 sub-projects**

For this category of sub-projects, the design consultants have to prepare an EMP. The Generic Environment Impact Mitigation Plan should be referred to develop the EMP by the design consultants to prepare a table of mitigation measures for the sub-project EMP. The PIU shall ensure that relevant mitigation measures are implemented as sub-projects go into implementation.

#### **7.2.3 Budget**

The budget for complying with the EMP needs to be worked out for each sub-project by working out the cost of implementing each mitigation measure suggested in the EMP. Where this is not possible, provision of a minimum of 2% of the sub-project cost or actual, needs to be earmarked for complying with the EMP.

**Table 14: Generic Environment Impact Mitigation Plan – Guidance**

<b>S. No.</b>	<b>Issues / Impacts</b>	<b>Mitigation Measures</b>	<b>Project Phase</b>	<b>Responsibility</b>
1	Utility Relocation and common property resources	In case of utilities and common property resources being impacted due to the project, they will be relocated with prior approval of the concerned agencies before construction starts, on any sub-section of the project road. The relocation site identification will be in accordance with the choice of the community.	Pre-construction	Contractor, PIU
2	Relocation of Cultural Property	In case there is an impact on cultural properties, they will be relocated at suitable locations, as desired by the community before construction starts. Local Community meetings, will be held to discuss relocation aspects, siting of structures etc.	Pre-construction	Contractor, PIU
3	Site clearance	Site clearance will be done only in the area required for the sub-project.	Pre-construction	Contractor, PIU
4	Tree Cutting	Trees will generally not be removed unless they are a safety hazard. Removal of trees shall be done only after the permissions / approvals are obtained. Disposal of cut trees is to be done immediately to ensure that the traffic movement is not disrupted.	Pre-construction	Contractor, PIU
5	Debris disposal site identification	Site for temporary storage and disposal of debris refuse to be identified. These disposal sites shall be finalized such that they are not located within any designated forest or other eco-sensitive areas, does not impact natural drainage courses and no endangered / rare flora is impacted by such	Pre-Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		disposal. Pre-designated sites for disposal by PMU could be used with prior permission from PMU.		
6	Joint Field Verification	The Engineer and the Contractor will carry out joint field verification of the EMP. The efficacy of the mitigation measures suggested in the EMP will be checked.	Pre-Construction	Contractor/ PIU, Social and Environmental Managers and Experts
7	Modification of the Contract Documents	If required, the Engineer will modify the EMP and Contract documents (particularly the BOQs).	Pre-construction	PIU, Contractor, Design Consultant, Social and Environmental Managers and Experts
8	Crushers, Hot-mix plants & Batching Plants	Specifications hot mix plants and batching plants (existing or new) will comply with the requirements of the relevant national, state and local pollution control requirements. Hot mix plants and batching plants will be sited sufficiently away from habitation, agricultural operations or industrial establishments. Such plants will be located at least 1000m away from the nearest habitation, preferably in the downwind direction.	Pre-Construction	Contractor, PIU
9	Other Construction Vehicles,	The discharge standards promulgated under the Environment Protection Act, 1986 will be strictly adhered to. All vehicles, equipment and machinery to be procured for construction will conform to the relevant Bureau of Indian	Pre-Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
	Equipment and Machinery	Standard (BIS) norms. Noise limits for construction equipments to be procured such as compactors, rollers, front loaders, concrete mixers, cranes (moveable), vibrators and saws will not exceed 75 dB (A), measured at one metre from the edge of the equipment in free field, as specified in the Environment (Protection) Rules, 1986.		
10	Material sourcing (sand, borrow material and stone material)	<p>Procurement of construction material only from permitted sites and licensed / authorized quarries. Farm land and forest belts shall not be used for material sourcing or borrow sites.</p> <p>Arable land shall not be selected as borrow sites as much as possible. If excavation has to be done in arable land, top soil layer (30 cm) shall be saved and returned after construction work is completed, so as to minimize impacts.</p>	Pre-Construction	Contractor , PIU
11	Quarries	<p>The Contractor will identify materials from existing licensed quarries with the suitable materials for construction.</p> <p>Apart from approval of the quality of the quarry materials, the Engineer's representative will verify the legal status of the quarry operation.</p> <p>The quarry operations will be undertaken within the rules and regulations in force.</p>	Pre-Construction	Contractor
12	Water	The Contractor will be responsible for arranging adequate supply of water for the entire construction period. The contractor shall consult the local people before finalizing the locations. The contractor will preferentially source all water requirements from surface water bodies. The contractor will	Pre-construction	Contractor

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		be allowed to pump only from the surface water bodies. Boring of any tube wells will be prohibited. Any groundwater to be extracted requires permission from PIU/ DPIU and Department of Mines and Geology. The contractor will minimize wastage of water during construction.		
13	Sand	The contractor will identify sand quarries with requisite approvals for the extraction of sand.	Pre-construction	Contractor
14	Labour Requirements	The contractor will use unskilled labour drawn from local communities to avoid any additional stress on the existing facilities (medical services, power, water supply, etc.). Planning of labour camps, if required, needs to be done to ensure adequate water supply, sanitation and drainage etc., in conformity with the Indian Labour Laws.	Mobilization	Contractor
15	Generation of Debris from dismantling of pavement structures	Debris generated due to the dismantling of the existing pavement structure shall be suitably reused in the proposed construction, subject to the suitability of the material and the approval of the Engineer. The contractor shall suitably dispose off unutilized debris material; either through filling up of borrows areas created for the project or at pre-designated dump locations, subject to the approval of the Engineer. Debris generated from pile driving or other construction activities shall be disposed such that it does not flow into the surface water bodies or form mud puddles in the area. Dumping sites shall be identified by the contractor as per regulations in force. The identified locations will be reported to the Engineer.	Construction	Contractor, PIU



<b>S. No.</b>	<b>Issues / Impacts</b>	<b>Mitigation Measures</b>	<b>Project Phase</b>	<b>Responsibility</b>
16	Bituminous wastes disposal	The disposal of residual bituminous wastes will be done by the contractor at secure landfill sites, with the requisite approvals for the same from the concerned government agencies.	Construction	Contractor, PIU
17	Non-bituminous construction wastes disposal	Location of disposal sites will be finalized prior to completion of the earthworks on any particular section of the road. The Engineer shall approve these disposal sites conforming to the following (a) These are not located within designated forest areas. (b) The dumping does not impact natural drainage courses (c) No endangered/rare flora is impacted by such dumping. (d) Settlements are located at least 1.0km away from the site. (e) Not located 1 Km within any mangrove vegetation/ecologically sensitive areas.	Construction	Contractor, PIU
18	Stripping, stocking and preservation of top soil	The topsoil from borrow areas, areas of cutting and areas to be permanently covered will be stripped to a specified depth of 150mm and stored in stockpiles. At least 10% of the temporarily acquired area will be earmarked for storing topsoil. The stockpile will be designed such that the slope does not exceed 1:2 (vertical to horizontal), and the height of the pile is to be restricted to 2m. Stockpiles will not be surcharged or otherwise loaded and multiple handling will be kept to a minimum to ensure that no compaction will occur. The stockpiles will be covered with gunny bags or tarpaulin. It will be ensured by the contractor that the topsoil will not be unnecessarily trafficked either before stripping or when in stockpiles. Such stockpiled topsoil will be returned to cover the disturbed area and cut slopes. The management of topsoil shall be reported regularly to the Engineer.	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
19	Blasting	<p>Except as may be provided in the contract or ordered or authorized by the Engineer, the Contractor will not use explosives. Where the use of explosives is so provided or ordered or authorized, the Contractor will comply with the requirements of the regulations in force besides the law of the land as applicable. The Contractor will at all times take every possible precaution and will comply with appropriate laws and regulations relating to the importation, handling, transportation, storage and use of explosives and will, at all times when engaged in blasting operations, post sufficient warning flagmen, to the full satisfaction of the Engineer. The Contractor will at all times make full liaison with and inform well in advance and obtain such permission as is required from all Government Authorities, public bodies and private parties whomsoever concerned or affected or likely to be concerned or affected by blasting operations. Blasting will be carried out only with permission of the Engineer. All the statutory laws, regulations, rules etc., pertaining to acquisition, transport, storage, handling and use of explosives will be strictly followed. Blasting will be carried out during fixed hours (preferably during mid-day), as permitted by the Engineer. The timing should be made known to all the people within 1000m (200m for pre-splitting) from the blasting site in all directions.</p>	Construction	Contractor, PIU
20	Transporting Construction Materials	<p>All vehicles delivering materials to the site will be covered to avoid spillage of materials. All existing highways and roads used by vehicles of the contractor, or any of his sub -contractor or suppliers of materials or plant and similarly roads which are part of the works will be kept clean and clear of all dust/mud or other extraneous materials dropped by such</p>	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		vehicles. The unloading of materials at construction sites close to settlements will be restricted to daytime only.		
21	Planning Traffic Diversions & Detours	<p>Temporary diversions will be constructed with the approval of the Engineer. Detailed Traffic Control Plans will be prepared and submitted to the Engineer for approval, 5 days prior to commencement of works on any section of road. The traffic control plans shall contain details of temporary diversions, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, safety measures for transport of hazardous material and arrangement of flagmen. Environmental personnel of the Engineer will assess the environmental impacts associated as the loss of vegetation, productive lands and the arrangement for temporary diversion of the land prior to the finalization of diversions and detours. Special consideration will be given to the preparation of the traffic control plan for safety of pedestrians and workers at night.</p> <p>The Contractor will ensure that the diversion/detour is always maintained in running condition, particularly during the monsoon to avoid disruption to traffic flow. He shall inform local community of changes to traffic routes, conditions and pedestrian access arrangements. The temporary traffic detours will be kept free of dust by frequent application of water.</p>	Construction	Contractor, PIU, Social and Environmental Managers and Experts
22	Infrastructure provisions at	The Contractor during the progress of work will provide, erect and maintain necessary (temporary) living accommodation and ancillary facilities for labour to standards and scales approved by the Engineer.	Construction	Contractor, PIU, Social and Environmental

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
	<p>construction camps</p>	<p>There shall be provided within the precincts of every workplace, latrines and urinals in an accessible place, and the accommodation, separately for each for these, as per standards set by the Building and other Construction Workers (regulation of Employment and Conditions of Service) Act, 1996. Except in workplaces provided with water-flushed latrines connected with a water borne sewage system, all latrines shall be provided with dry-earth system (receptacles) which shall be cleaned at least four times daily and at least twice during working hours and kept in a strict sanitary condition. Receptacles shall be tarred inside and outside at least once a year. If women are employed, separate latrines and urinals, screened from those for men (and marked in the vernacular) shall be provided. There shall be adequate supply of water, close to latrines and urinals.</p> <p>All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be designed, built and operated so that no health hazard occurs and no pollution to the air, ground or adjacent watercourses takes place. Compliance with the relevant legislation must be strictly adhered to. Garbage bins must be provided in the camp, shall be regularly emptied and the garbage disposed off in a hygienic manner. Construction camps are to be sited at least 1000m away from the nearest habitation and adequate health care is to be provided for the work force. Unless otherwise arranged for by the local sanitary authority, arrangement for disposal of excreta by putting a layer of night soils at the bottom of a permanent tank prepared for the purpose shall be taken up by the contractor. It should be covered with 15 cm layer of waste or refuse</p>		<p>Managers and Experts</p>

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		and then with a layer of earth for a fortnight (by then it will turn into manure).		
23	Operation of construction equipment and vehicles	<p>All vehicles and equipment used for construction will be fitted with exhaust silencers. During routine servicing operations, the effectiveness of exhaust silencers will be checked and if found to be defective will be replaced. Noise limits for construction equipment used in this project (measured at one metre from the edge of the equipment in free field) such as compactors, rollers, front loaders, concrete mixers, cranes (moveable), vibrators and saws will not exceed 75 dB(A), as specified in the Environment (Protection) Rules, 1986</p> <p>Notwithstanding any other conditions of contract, noise level from any item of plant(s) must comply with the relevant legislation for levels of noise emission. The contractor will ensure that the AAQ concentrations at these construction sites are within the acceptable limits of industrial uses in case of hot mix plants and crushers and residential uses around construction camps. Dust screening vegetation will be planted on the edge of the RoW for crushers. Monitoring of the exhaust gases and noise levels will be carried out by the agency identified for Environmental Monitoring for the project.</p>	Construction	Contractor, PIU
24	Material Handling at Site	All workers employed on mixing asphaltic material, cement, lime mortars, concrete etc., will be provided with protective footwear and protective goggles. Workers, who are engaged in welding works, would be provided with welder's protective eye-shields.	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		<p>Workers, engaged in stone breaking activities will be provided with protective goggles and clothing and will be seated at sufficiently safe intervals.</p> <p>The use of any herbicide or other toxic chemical will be strictly in accordance with the manufacturer's instructions. The Engineer will be given at least 6 working days notice of the proposed use of any herbicide or toxic chemical. A register of all herbicides and other toxic chemicals delivered to the site will be kept and maintained up to date by the Contractor. The register will include the trade name, physical properties and characteristics, chemical ingredients, health and safety hazard information, safe handling and storage procedures, and emergency and first aid procedures for the product.</p> <p>No man below the age of 14 years and no woman will be employed on the work of painting with products containing lead in any form. No paint containing lead or lead products will be used except in the form of paste or readymade paint. Face masks will be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.</p>		
25	Precautionary/Safety Measures During Construction	All relevant provisions of the Factories Act, 1948 and the Building and other Construction Workers (regulation of Employment and Conditions of Service) Act, 1996 will be adhered to. Adequate safety measures for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress.	Construction	Contractor, PIU

<b>S. No.</b>	<b>Issues / Impacts</b>	<b>Mitigation Measures</b>	<b>Project Phase</b>	<b>Responsibility</b>
26	Protection of Religious Structures and Shrines	<p>All necessary and adequate care shall be taken to minimize impact on cultural properties (which includes cultural sites and remains, places of worship including temples, mosques, churches and shrines, etc., graveyards, monuments and any other important structures as identified during design and all properties/sites/remains notified under the Ancient Sites and Remains Act). No work shall spillover to these properties, premises and precincts.</p> <p>Access to such properties from the road shall be maintained clear and clean.</p>	Construction	Contractor, PIU
27	Dust contamination at construction sites and along the roads	<p>Unpaved haul roads near/passing through residential and commercial areas to be watered thrice a day. Trucks carrying construction material to be adequately covered. All earthwork will be protected in a manner acceptable to the Engineer to minimise generation of dust. The contractor will take every precaution to reduce the level of dust along construction sites involving earthworks, by frequent application of water.</p>	Construction	Contractor, PIU
28	Earth work Excavations	<p>Ensure unobstructed natural drainage through proper drainage channels/structures. Dispose surplus excavated earth at identified sites. Ensure minimum hindrance to normal local activities and business. Avoid damage to permanent structures. All excavations will be done in such a manner that the suitable materials available from excavation are satisfactorily utilized as decided upon beforehand. The excavations shall conform to the lines, grades, side slopes and levels shown in the drawings or as directed by the engineer.</p>	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		While planning or executing excavation the contractor shall take all adequate precautions against soil erosion, water pollution etc and take appropriate drainage measures to keep the site free of water, through use of mulches, grasses, slope drains and other devices. The contractor shall take adequate protective measures to see that excavation operations do not affect or damage adjoining structures and water bodies. For safety precautions guidance may be taken from IS:3764.		
29	Earth fill	Embankment and other fill areas, unless other wise permitted by the Engineer, be constructed evenly over their full width and the contractor will control and direct movement of construction vehicles and machinery over them	Construction	Contractor, PIU
30	Slope protection and control of erosion	Embankments and other areas of unsupported fill will not be constructed with steeper side slopes, or to greater widths than those shown in design drawings. While planning or executing excavations the Contractor will take all adequate precautions against soil erosion as per regulations. Turfing on critical road embankment slopes with grass sods, in accordance with the recommended practice for treatment of embankment slopes for erosion control. The work will be taken up as soon as possible provided the season is favorable for the establishment of sods. Other measures of slope stabilization will include mulching, netting and seeding of batters and drains immediately on completion of earthworks. Dry stone pitching for apron and revetment will be provided for bridges and cross drainage structures.	Construction	Contractor, PIU



<b>S. No.</b>	<b>Issues / Impacts</b>	<b>Mitigation Measures</b>	<b>Project Phase</b>	<b>Responsibility</b>
31	Drainage requirements at construction sites	In addition to the design requirements, the contractor will take all desired measures as directed by the Engineer such measures to prevent temporary or permanent flooding of the site or any adjacent area.	Construction	Contractor, PIU
32	Contamination of soil	<p>Vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. Oil interceptors will be provided for vehicle parking, wash down and refueling areas within the construction camps. Fuel storage will be in proper bunded areas. All spills and collected petroleum products will be disposed off in accordance with MoEF and SPCB guidelines.</p> <p>Fuel storage and refilling areas will be located at least 1000m from rivers and irrigation ponds or as directed by the Engineer. In all fuel storage and refueling areas, if located on agricultural land or areas supporting vegetation, the topsoil will be stripped, stockpiled and returned after cessation of such storage and refueling activities.</p>	Construction	Contractor, PIU
33	Compaction of soil	To minimize soil compaction construction vehicle, machinery and equipment will move or be stationed in designated area (RoW or CoI, haul roads as applicable) only. The haul roads for construction materials should be routed to avoid agricultural areas.	Construction	Contractor, PIU
34	Siltting, Contamination of Water bodies	Silt fencing will be provided around stockpiles at the construction sites close to water bodies. The fencing needs to be provided prior to commencement of earthworks and continue till the stabilization of the embankment slopes, on the particular sub-section of the road. Construction materials containing fine particles will be stored in an enclosure such that sediment-laden water	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		does not drain into nearby watercourses. All discharge standards promulgated under Environmental Protection Act, 1986, will be adhered to. All liquid wastes generated from the site will be disposed off as acceptable to the Engineer.		
35	Cutting/Filling of Surface water bodies	Earth works shall be undertaken such that the existing embankments of water bodies are not disturbed. In case of cutting of embankments, the same shall be reconstructed with appropriate slope protection measures and adequate erosion control measures. Filling of surface water bodies will be compensated by digging an equal volume of soil for water storage. Such dug-up soil will be used for spreading as topsoil. Wherever digging is undertaken, the banks will be protected as designed or as approved by the Engineer. The excavation will be carried out in a manner so that the side slopes are no steeper than 1 vertical to 4 horizontal, otherwise slope protection work, as approved by the Engineer will be provided. As far as practicable, and as approved by the Engineer, excavation for replacement of water bodies will be at the closest possible place/location, with respect to the original water body or part thereof consumed by filling.	Construction	Contractor, PIU
36	Sub-Base & Base	The contractor will take all necessary measures/ precautions to ensure that the execution of works and all associated operations are carried out in conformity with statutory and regulatory environmental requirements. The contractor will plan and provide for remedial measures to be implemented in event of occurrence of emergencies such as spillage of oil or bitumen or chemicals. The contractor will provide the Engineer with a statement of measures that he intends to implement in event of such an emergency, which will include a statement of how he intends to adequately train	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		<p>personnel to implement such measures. Adequate safety measures for workers during handling of materials at site will be taken up. The contractor will take every precaution to reduce the level of dust along construction sites by frequent application of water as per regulations. Noise levels from all vehicles and equipment used for construction will conform to standards as specified. Construction activities involving equipment with high noise levels will be restricted to the daytime. Transport of materials for construction will be as specified. The contractor will provide for all safety measures during construction as per regulations in force.</p>		
37	Surfacing	<p>The contractor will take all necessary means to ensure that all surfacing works and all associated operations are carried out in conformity with regulations. All workers employed on mixing asphaltic material etc. will be provided with protective footwear as specified. Noise levels from all vehicles and equipment used for surfacing will conform to standards as specified. Construction activities involving equipment with high noise levels will be restricted to the daytime. Transport of materials for construction will be as specified. The contractor will provide for all safety measures during construction as per regulations in force.</p>	Construction	Contractor, PIU
38	Mitigation Measures for Noise Sensitive Receptors	<p>Noisy construction operations in residential and sensitive areas (hospitals, schools and religious places) should be restricted between 7.30 a.m. to 6.00 p.m. Preventive maintenance of construction equipment and vehicles would be done to meet emission standards and to keep them with low noise. Provision of ear plugs to operators of heavy machinery and workers in near</p>	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		vicinity. During night, material transport should be uniformly distributed to minimize noise impacts.		
39	Road Furniture	Road furniture including footpaths, railings, storm water drains, crash barrier, traffic signs, speed zone signs, pavement markers and any other such items will be provided as per design. The contractor shall provide Recharge pits for Urban drains. The drains will be provided for each kilometer of the road through urban settlements and near the outfall to a natural drain if the road crosses one inside a settlement. As part of this recharge pits could be proposed as an enhancement measure.	Construction	Contractor, PIU
40	Disposal of construction debris	Daily inspection at haul roads and sites for construction debris for safe collection and disposal to land fill sites. Collection and disposal of refuse. Minimize construction debris by balancing cut and fill requirements, if relevant.	Construction	Contractor, PIU
41	Adjoining water bodies	Provide slope protection works of water bodies, if any, abutting the road.	Construction	Contractor, PIU
42	Bridge Works & Culverts	While working across or close to the rivers, avoid obstructing the flow of water. If an obstruction is required, to serve notice on the downstream users of water sufficiently in advance. Construction over and close to the non-perennial streams will be undertaken in the dry session. Construction work expected to disrupt users and impacting community water bodies will be taken up after serving notice on the local community. Dry stone pitching for	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		apron and revetment will be provided for bridges and cross drainage structures, if necessary.		
43	Safety practices during construction	The Contractor is required to comply with all the precautions as required for the safety of the workers as per the International Labour Organization (ILO) Convention No. 62 as far as those are applicable to this contract. The contractor will supply all necessary safety appliances such as safety goggles, helmets, masks, etc., to the workers and staff. The contractor has to comply with all regulation regarding, working platforms, excavations, trenches and safe means of entry and egress.	Construction	Contractor , PIU
44	Social disruptions	Minimise interruptions to utility services through proper planning and scheduling of activities and inter-departmental co-ordination. Construction of temporary road/access and diversion of traffic.	Construction	Contractor , PIU
45	Aesthetic impairment	Aesthetic enhancement through proper housekeeping of construction sites. Disposal of construction wastes at the approved disposal sites. Immediate closure of the trenches after pipe laying/ completion of work. Complete construction activity by removing all temporary structures, restoring the sub-project and surrounding areas as near as possible to the pre-construction condition.	Construction	Contractor, PIU
46	Tree plantation	Trees felled will be replaced as per the compensatory afforestation criteria in accordance with the Forest (Conservation) Act, 1980. Two trees will be planted for every tree lost along the sub-project roads in locations to be identified with support from the PIU.	Construction	Contractor, PMU, Forest Dept.

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
47	Risk of accidents	In order to guarantee construction safety, efficient lighting and safety signs shall be installed on temporary roads during construction and adequate traffic regulations shall be adopted and implemented for temporary roads.	Construction	Contractor, PIU
48	Traffic and Transportation	Adequate actions to direct and regulate traffic shall be taken in consultation with PIU/ DPIU/ Traffic Police to prevent jamming roads during construction period. While planning alternative routes, care to be taken to minimize congestion and negative impacts at sensitive receptors such as schools and hospitals. Traffic controls and diversions marked with signs, lights and other measures (flags) should be provided. Prior to creating diversions and detours the citizens should be consulted well in advance through citizen's meetings. It should be an informed decision taken through public participation. Diversion works to be dismantled to restore the area to original condition after completion of construction.	Construction	Contractor, PIU, Traffic Police
49	Cultural relics / Chance finds	<p>If fossils, coins, articles of value or antiquity, structures, and their remains of geologic or archaeological interest are found, local government shall be immediately informed of such discovery and excavation shall be stopped until identification of cultural relics by the authorized institution and clearance is given for proceeding with work. All the above discovered on site shall be the property of the Government, and shall be dealt with as per provisions of the relevant legislation.</p> <p>The contractor shall take reasonable precaution to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint</p>	Construction	Contractor, PIU

S. No.	Issues / Impacts	Mitigation Measures	Project Phase	Responsibility
		<p>the Engineer of such discovery and carry out the Engineer's instructions for dealing with the same, awaiting which all work shall be stopped.</p> <p>The Engineer shall seek direction from the Archaeological Society of India (ASI) before instructing the Contractor to recommence work on the site.</p>		
50	Monitoring Environmental Conditions	The contractor will undertake seasonal monitoring of air, water, noise and soil quality through an approved monitoring agency. The parameters to be monitored, frequency and duration of monitoring as well as the locations to be monitored will be as per the Monitoring Plan prepared.	Construction	Contractor, SPCB, Social and Environmental Managers and Experts
51	Clearing of Construction of Camps & Restoration	Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the Engineer. Residual topsoil will be distributed on adjoining/proximate barren/rocky areas as identified by the Engineer in a layer of thickness of 75mm - 150mm.	De-mobilization	Contractor, PIU
52	Monitoring Operational Performance	The PIU will monitor the operational performance of the various mitigation measures carried out as a part of sub-project. The indicators selected for monitoring include the survival rate of trees, water bodies, status of rehabilitation of borrow areas and utility of double glazing for noise sensitive receptors.	Operation	PIU, Social and Environmental Managers and Experts

<b>S. No.</b>	<b>Issues / Impacts</b>	<b>Mitigation Measures</b>	<b>Project Phase</b>	<b>Responsibility</b>
53	Orientation of implementing agency and contractors	The PIU shall organize orientation sessions during all stages of the project. The orientation session shall involve all staff of PIU and field level implementation staff of Contractor.	Pre-Construction & Construction	Social and Environmental Managers and Experts, PIU
54	Handling of flora/fauna found in project sites	The Contractor shall train the workers to handle any accidental finds of important species of flora and/or fauna and on the procedures to be followed to intimate the Forest Department, and PIU	Pre-Construction & Construction	Contractor, PIU, PMU, Forest Department
55	Handling of Natural Habitats and Biodiversity Issues	The PMU and PIUs will ensure that sub-project planning, preparation, implementation and operation and maintenance will follow the ECoPs (19, 19A and other relevant) given under PMGSY.	Pre-Construction & Construction	Contractor, PIU, PMU, Forest Department



## **Part B**

# **Social Management Framework**



## 8. Social Context

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### 8.1 History

There are various versions of historical backgrounds available for the State of Jammu & Kashmir in general and for the valley of Kashmir in particular. Kashmir has a composite culture emerging from a rich history of various philosophical systems including Hinduism (non-dual Kashmir Shaivism), Buddhism, and Sufi Islam.

### 8.2 Administrative Divisions

Kashmir comprises three natural divisions, namely, Jammu, Kashmir and Ladakh. For administrative purposes, the state is divided into two main divisions, i.e., Kashmir and Jammu Provinces. A Divisional Commissioner heads the administration of each division. The two districts of Ladakh region, namely, Leh and Kargil are part of the Kashmir Division for purposes of administration. At present, the Kashmir region comprises the districts of Srinagar, Budgam, Pulwama, Anantnag, Kupwara, Baramulla, Leh and Kargil and the Jammu region comprises the districts of Jammu, Kathua, Poonch, Rajouri, Udhampur and Doda. A Deputy Commissioner who is also District Development Commissioner, heads each district. In the Ladakh region in 1995, the 'Autonomous Hill Development Council' was established as part of decentralized administration. Annex 1 provides an overview of Jammu and Kashmir in terms of population, literacy rate, number of villages, tehsils, blocks and panchayats and villages electrified and provided with drinking water facilities. There is striking variation as far as the distribution of population among various districts is concerned. The literacy rate also varies from 40.80 per cent in Kupwara to 77.30 per cent in Jammu district. Administratively, the districts are divided into blocks for development purposes and into tehsils for revenue purposes. The state consists of 59 tehsils and 119 blocks spread over 14 districts.

### 8.3 Three Main Regions

Jammu and Kashmir is a multi-lingual, multi-religious and multi-racial state and each group has its own distinct and peculiar cultural ethos, further deepened by geographical divisions created by formidable mountain ranges. Thus, the state comprises three main regions, namely, Jammu, Kashmir and Ladakh. A brief description of these three regions provides the necessary understanding about each of them.

#### 8.3.1 Jammu Region

This region comprises the plains, hills and mountains south and west of the mighty Pir Panjal range that separates Kashmir Valley from the plains of the subcontinent. Today, the Jammu region comprises the districts of Kathua, Jammu, Udhampur, Doda, Rajouri and Poonch.

Kathua town is situated on the Jammu - Pathankot National Highway at a distance of about 87 km. east of Jammu and about 25 km. west of Pathankot. The district shares its boundary with Punjab in the south, Himachal Pradesh in the east and Udhampur in the north. The geographical area of the district is 2,651 sq. km. with four tehsils namely, Basholi, Bilawar, Kathua and

Hiranagar. The literacy rate is 65.29 per cent. The majority of the population of Kathua district is dependent on agriculture. About 80 per cent of agricultural land in the district is non-irrigated.

A large section of the population depends on wage labour and government employment.

Jammu district is extended along the whole length of the international border with Pakistan. It shares its border with Rajouri, Udhampur and Kathua district in the north in the east and in the southeast respectively. The geographical area of the district is 3097 sq. km. with 5 tehsils, namely, Jammu, Samba, Akhnoor, R.S. Pura and Bishnah. The literacy rate stands at 77.3 per cent, which is not only highest among all the districts in the state but higher than the national average. The rural population depends mainly on agriculture. Except for the Kandi area, the land is irrigated and fertile.

Udhampur is the third largest district of Jammu and Kashmir and is situated at an altitude of 2,134 feet above sea level. It is located at a distance of 66 km. from Jammu on the Jammu-Srinagar National Highway. Rajouri bounds the district in the west, Jammu in the southwest, Doda in the east and Kathua in the southeast. It also shares its boundary with Anantnag in the north. The geographical area of the district is 4,550 sq. km. with 5 tehsils, namely, Udhampur, Chenani, Ramnagar, Reasi and Mahore. Literacy rate is 54.16 per cent. The principal occupation of the people is agriculture. There are few industries in the district.

Doda is the largest district in the Jammu region. Doda town, after which the district is named, is situated at an altitude of 5,000 feet above sea level. The Khilani village of the district is situated on the National Highway at about 45 km. from Batot linking the Kashmir valley with Jammu and other parts of the country. The district shares borders with Anantnag district of Kashmir Valley and the Chamba district of Himachal Pradesh. The entire area is hilly. The area of the district is 11,691 sq. km. The district comprises six tehsils, namely, Doda, Kishtwar, Bhaderwah, Gandoh, Ramban and Banihal. The literacy rate is 46.92 per cent. The people in general are poor due to inadequate production of food grains in the district. The majority of the population depends on ration supply through government shops (PDS). The widespread unemployment has further increased after the government banned leasing of forest to the contractors.

Rajouri district was carved out of Poonch district in 1968. It shares a long border from Sunderbani to Bhimbergali with Pakistan occupied Kashmir (PoK) in the west. It is bounded by Udhampur district in the east and by Jammu in the southeast. The northern part of the district consists of hilly terrain. The geographical area of the district is 2,630 sq. km. It comprises of six tehsils, namely, Thanamandi, Rajouri, Budhal, Kalakote Sunderbani and Nowshera. The literacy rate is 57.65 percent. About 80 per cent of the population of the district depends on agriculture. There is no industry in the district. Rearing livestock is the main source of income. The economic condition of the people is generally unsatisfactory.

Poonch town, the headquarters of the district by the same name, is situated at a distance of 246 km. northwest of Jammu. The town is at a height of 3,287 feet above sea level. It is surrounded by the Line of Control (LoC) on three sides and is separated from Kashmir Valley by the mighty Pir Panjal range in the north. The geographical area of the district is 1,674 sq. km., comprising three tehsils, viz., Mendhar, Surankote, and Haveli (Poonch). The literacy rate is 51.07 per cent. The people of Poonch district are mainly dependent on agriculture and government jobs. There are no industrial units in the district. The terrain is hilly with little fertile land and therefore there is great dependency on government jobs.

### **8.3.2 Kashmir Region**

The Kashmir region or valley, is a significant part of the state. The valley is an ancient lake basin 140 km. long and 32 km. wide. The average elevation of the valley is 5,300 feet above sea level. The tall mountains that surround the valley rising up to 16,000 feet ensure that the weather here is pleasant for most of the year. Its rich alluvial soil well drained by rivers and streams, yields rice, saffron, vegetables and a variety of fruit. It comprises six districts, namely, Anantnag, Baramulla, Budgam, Kupwara, Pulwama and Srinagar.

Anantnag is the southern most district of the valley. It shares its border with district Pulwama in the west and from south to east it is attached to Rajouri, Udhampur and Doda districts respectively. It borders Kargil in the north. The district is crisscrossed by a network of perennial rivers, streams and waterfalls. The geographical area of the district is 3,984 sq. km. with five tehsils, namely, Pahalgam, Anantnag, Doru, Kulgam and Bijbehara. The literacy rate is 44.10%. Agriculture and livestock rearing are the main sources of livelihood. The district is also well known for traditional handicraft like Gabbas and wooden craft. The district, enriched with perennial streams with clean water has developed commercial fishing activities with a scattering of trout farms. Sericulture industry has earned a good name among all the small household industries in the district.

Baramulla district completely surrounds the district Kupwara and shares the border with PoK at two places in the west as well as in the northeast. The average height of the district is 5187 feet above sea level. It also shares its border with Srinagar, Budgam and Poonch districts in the south and with Kargil in the east. The district has a flat topography, salubrious climate and scenic beauty. The geographical area of the district is 4,588 sq. km. with six tehsils, namely, Bandipur, Sonawari, Sopore, Baramulla, Gulmarg and Uri. The literacy rate is 44.57 per cent. Bulk of the district's population depends on agriculture for their livelihood. Sopore tehsil is very famous for its apples. Rearing of livestock is one of the important occupations in the district. It has been the first district to generate and provide electricity to large parts of the state from Mohara Power House.

Budgam district was carved out from Srinagar on 1 July, 1979. It is centrally located in the Kashmir valley. It is bounded by Srinagar in the northeast, south and west by Poonch and in the north and northwest by Baramulla. Although the district has several high mountains, its average height is just 5,281 feet above sea level. The geographical area of the district is

1,371 sq. km. with three tehsils, namely, Chadura, Budgam and Beerwah. The literacy rate is 40.94 per cent.

Kupwara district is situated at an altitude of 5,300 feet above sea level and is the northern-most district of the Kashmir valley. It shares a long border with PoK in its north and western side and is totally enclosed by the Baramulla district on the other side. This district is endowed with rich dense forests. The river 'Kishan Ganga' originating from the Himalayas flows through the outer areas of the district from east to west. Some well-known passes located in the district are Gabhra Pass, Sadham Pass and Nastuchan Pass. The geographical area of the district is 2,379 sq. km. with three tehsils, namely, Handwara, Karnah and Kupwara. The literacy rate is 40.80 per cent, the lowest in the state. Although the district is considered deficient in natural irrigation, about 90 per cent of the population depends in one way or other on agriculture for their livelihood. Walnuts are the major horticultural produce in the district. Rearing of livestock is also an important occupation of the people.

Pulwama district came into existence in July 1979. It is situated in the southeastern part of the valley. It shares its borders with Srinagar and Budgam in the northwest and is bounded by the Anantnag district in the south and east. The geographical area of the district is 1,398 sq. km. with three tehsils, namely, Shopian, Pulwama and Tral. The literacy rate is 47.76 per cent. Agriculture is the main source of livelihood in the district. About 0.73 lakhs hectares of land is available for cultivation. Mushroom cultivation and horticulture are of great importance to the economy. Livestock rearing is also an important occupation.

Srinagar district is located to the southeast of Baramulla. It shares its border with Baramulla, Budgam, Pulwama, Anantnag and Kargil districts from the west to east. The valley is surrounded by the Hurmukh mountain (16,903 feet) in the east, Tosh Maidan (4,000 feet) in the north and Snony Kazi Nag (12,125 feet) in the northwest and also the Mahadev Mountain. The valley is a land of lakes, clear streams, green meadows and magnificent trees. The river Jhelum dissects the district diagonally from the southeast to the northwest. Srinagar is the state's summer capital. The geographical area of the district is 2,228 sq. km. with two tehsils, namely, Srinagar and Ganderbal. The literacy rate is 59.18 per cent. The district is predominantly urban in character. According to the 2001 Census, 79.54 per cent of the total population was urban. It has developed all the characteristics of a tourist paradise, with tremendous growth in the development of handicraft and cottage industries, hotels, houseboats, guest houses and tourist transport. The handicrafts of the district have become famous worldwide. Livestock rearing is another important occupation in the district, engaging about 5.25 per cent of the work force. Animal husbandry and sheep breeding have received special attention. Rice and maize are the main crops of the district.

### **8.3.3 Ladakh Region**

Ladakh constitutes the eastern-most part of the state of Jammu and Kashmir. It comprises two districts, namely, Leh and Kargil. This is one of the most breathtakingly beautiful parts of the state and its surreal landscape

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has often been termed as 'moonscape'. Ladakh covers about 117,000 sq. km. and includes the Karakoram Range and the upper Indus River valley. Ladakh is one of the highest places on earth with the average altitude being above 12,000 feet. Situated on the leeward side of the mountain, it hardly gets any rain. People live a very traditional life, herding sheep and yak, and growing barley near the riverbeds in summer.

Leh district is the northern as well as the eastern most part of Jammu and Kashmir. It is linked with the Kashmir valley by the Zojila pass (10,098 feet) and forms part of the outer Himalayas. It is one of the highest regions of the earth (altitude 8,800 feet to 18,000 feet approximately) with mountains running along parallel ranges. The climate is very cold and in winter, temperatures dip to minus 40 degrees centigrade. The district is bounded by the international border or LoC with China in the north and east, and with PoK in the north. The geographical area of the district is 45,110 sq. km. with Leh as the district headquarters. The district has two assembly constituencies, namely Nubra and Leh and five blocks namely, Leh, Khaisi, Nubra, Nyoma and Durbuk. The literacy rate is 62.24 percent. Agriculture and animal husbandry are the main sources of livelihood. Cultivation is possible only during summer; barley, vegetables and fruits like apple and apricot are the main crops. Forestry is also one source of income and Leh abounds in medicinal herbs. This district is the source of origin of pashmina goat which produces fibre used for high quality fabric pashmina wool. The district is also rich in water resources like ponds, streams and rivers, which can be utilised for fisheries.

Kargil town is located at a distance of 204 km from Srinagar almost midway on the Srinagar - Leh National Highway. Most of the villages of the district are located at an average height of 10,000 feet above sea level. It shares the Line of Control (LoC) with PoK in the north and borders with Leh in the east and the Kashmir valley in the west. The geographical area of the district is 14,036 sq. km. The district has two tehsils as well as two assembly constituencies, namely, Kargil and Zanskar. The climate is very cold and in winter, the highway is blocked for more than six months, from December to June every year. The snowfall around the Zojila pass and Drass region is very heavy. The literacy rate is 58.21 per cent. Agriculture is the main occupation and about 91 per cent of the population is engaged in it. Wheat and millet are the major crops. The Baltal-Kargil road, linking Kargil with Srinagar, is the lifeline of the district. Construction of the 230- kms Kargil-Padam and Bodh Khushboochaktan roads is in progress. Tourism is being promoted as an industry after Ladakh was opened to foreign tourists in 1974. Horticulture and forestry are being given special attention.

## **8.4 Socio-Economic and Demographic Profile**

### **8.4.1 Population**

As per Census 2011, the total population of the J&K State is 1.25 Crore comprising of 53% males and 47% females. Out of total population, 72.79% and 27.21% reside in rural and urban areas, respectively. The decadal growth declined from 29.43% (1991-2001) to 23.71% (2001-11), which resulted in addition of 24 lakh souls to the overall population of the State thus resulting in less addition to the overall population

of the State since 1961. The Average Annual Exponential Growth Rate (AAEGR) of the State declined from 2.61% per annum (during 1991-2001) to 2.15% per annum (during 2001-2011). The density of the State is 124 per sq km, which is lower than the national average i.e. 382 per sq km. The population of the J&K State accounts for 1.04% of the total country's population as per census 2011 as against 0.99% as per census 2001. In terms of population, the J&K State stands at 19<sup>th</sup> rank among all the States/ UTs of the country. The population in State across districts varies considerably. The population in Ladakh province is less than 3 lakhs whereas the districts of Baramullah, Anantnag, Srinagar and Jammu each have population of more than 10 lakhs, together accounting for nearly 40% of the State's population. The population density also varies considerable across the districts. The districts of Srinagar, Bandipora, Shopian, Jammu, Bugaon and Pulwama have the highest density of 1,056, 967, 852, 653, 550 and 525 respectively. The districts of Ladakh province, Leh and Kargil have the lowest density of 3 and 10 respectively.

**Table 7: Demographic Indicators**

(a)	Total Population	1,25,48,926
(b)	Male Population	66,65,561
(c)	Female Population	58,83,365
(d)	Sex Ratio (Females per 1000 males)	883
(e)	Sex Ratio in rural areas	899
(f)	Sex Ratio in urban areas	840
(g)	Density (Person per sq. km)	124
(h)	Percentage of Literacy	68.74%

**Table 8: District Wise Population of J&K as per 2011 Census**

S.No	District	Persons	Male	Female	Rural	Urban	Density
1)	Srinagar	1,250,173	665,789	584,384	15,928	1,234,245	1,056
2)	Ganderbal	297,003	158,900	138,103	250,203	46,800	284
3)	Budgam	755,331	400,583	354,748	666,620	88,711	550
4)	Anantnag	1,069,749	552,203	517,546	791,237	278,512	366
5)	Kulgam	423,181	216,873	206,308	343,739	79,442	396
6)	Pulwama	570,060	297,988	272,072	491,370	78,690	525
7)	Shopian	265,960	136,302	129,658	251,010	14,950	852

S.No	District	Persons	Male	Female	Rural	Urban	Density
8)	Baramulla	1,015,503	542,171	473,332	40,948	174,555	242
9)	Bandipora	385,099	201,531	183,568	320,070	65,029	967
10)	Kupwara	875,564	475,126	400,438	776,322	99,242	368
11)	Leh (Ladakh)	147,104	92,907	54,197	83,901	63,203	3
12)	Kargil	143,388	80,791	62,597	130,635	12,753	10
13)	Jammu	1,526,406	815,727	710,679	768,577	757,829	653
14)	Samba	318,611	168,948	149,663	264,990	53,621	350
15)	Kathua	615,711	327,953	287,758	527,176	88,535	246
16)	Poonch	476,820	252,240	224,580	438,176	38,644	284
17)	Rajouri	619,266	332,424	286,842	575,332	43,934	235
18)	Udhampur	555,357	298,094	257,263	445,850	109,507	224
19)	Reasi	314,714	166,392	148,322	288,010	26,704	185
20)	Doda	409,576	213,091	196,485	377,003	32,573	137
21)	Kishtwar	231,037	120,496	110,541	216,196	14,841	29
22)	Ramban	283,313	149,032	134,281	271,527	11,786	210
<b>TOTAL</b>		<b>12,548,926</b>	<b>6,665,561</b>	<b>5,883,365</b>	<b>9,134,820</b>	<b>3,414,106</b>	<b>124</b>

#### 8.4.2 Sex Ratio

The child sex ratio (0 to 6 years) has shown a sharp decline from 941 in 2001 to 859 as per census 2011. The overall sex ratio has also declined from 892 in 2001 to 883 as per census 2011. The major efforts are being done like organizing seminars, camps, awaking the people about the consequences of imbalance in the population, strict enforcement of PC&PNDT Act in the State etc., with the sole objective to boost the sex ratio of the State in the coming years.

#### 8.4.3 Life Expectancy at Birth

As per census 2011, the Life Expectancy of males and females at national level stands at 63.95 and 67.08 years, respectively. As far as, the J&K State is concerned, the life expectancy of males & females stands at 66.5 and 69.3 years, respectively; which is more than the national average. Further, the Ministry of Health and Family Welfare, Government of India, for the period 2011-15, has launched various health related activities with the main objective of increasing the life expectancy at birth to 67.3 years for male and 69.6 years for female. The average life span has increased over



the years in the country as well as in the State which reveals decrease in death rate and improvement in the quality of health services.

#### **8.4.4 Crude Birth Rate (CBR)**

As per the estimation made by the Registrar General of India, on the basis of Sample Registration System (SRS- 2011), the crude birth rate of the J&K State is 17.8 which is well below the national average of 21.8. While the crude birth rate dipped by 0.3 points at all India level during 2011 compared to 2010, it recorded decrease of 0.5 points in the State during the reference period. However, when we compare these figures with the neighbouring states like Himachal Pradesh and Punjab whose crude birth rate is 16.5 and 16.2, respectively, our State still requires improvements in its health care system.

#### **8.4.5 Crude Death Rate (CDR)**

The crude death rate (CDR) of the J&K State is 5.5 which is quite low as compared to national average of 7.1, as per census 2011. While studying the pattern of CDR from 2006-2011, it reveals that the performance of the state is in line with the national level scenario which has dipped by 0.4 points during the period. The CDR of J&K State is far better than states like Himachal Pradesh (6.7), Punjab (6.8) and Haryana (6.5).

#### **8.4.6 Total Fertility Rate (TFR)**

The total fertility rate has come down below the replacement level for the first time in the State to 2.0 in 2010 as compared to 2.3 in 2006, which is quite low when compared with the national average which stands at 2.5. The main thrust behind it, is the focused attention of the state government on issues like un-met needs for contraceptives, reduction in the child mortality rate, greater involvement of male in family planning measures, decrease in early marriages etc.

#### **8.4.7 Maternal Mortality Ratio (MMR)**

Maternal Mortality Ratio (MMR) refers to the number of women aged 15-49 years dying due to maternal causes per 1,00,000 live births. The Registrar General of India in its publication "Maternal Mortality in India 2007-2009" published in June 2011 has put Maternal Mortality Ratio (all India level) at 212 as compared to 254 during 2004-2006. Under the category of "Other States", the said publication depicts the Maternal Mortality Ratio of Gujarat at 148, Haryana at 153, Maharashtra at 104, Punjab at 172, West Bengal at 145 and others at 160. The MMR of the J&K State is well below the All India level and the results corroborate with another similar study conducted by the Directorate of Economics & Statistics.

#### **8.4.8 Infant Mortality Rate (IMR)**

As per SRS 2011, the State's Infant Mortality Rate was registered at 41 as against the national level figure of 44. The Infant Mortality Rate (IMR) of the State is showing a consistent downward trend and is indicative of execution of host of child health related program and activities undertaken by the department especially under NRHM since 2006. No doubt, the Infant Mortality Rate of the State has declined over the years; it still requires stringent measures to be adopted in order to achieve the goal of Infant Mortality Rate less than 30 in coming years.

#### **8.4.9 Neo-natal Mortality Rate (NMR)**

Neo-natal survival is a very sensitive indicator of population growth and socio-economic development. At national level, the neo-natal mortality rate was 37 per 1000 live births during 2006 which came down to 33 in 2010. The Neo-natal Mortality Rate of the State remained stagnant at 39 during 2006 to 2008 and further declined to 35 in 2010. Efforts are being made to reduce it further by laying stress on facility/home based new-born care. However, at national level, Neo-natal Mortality Rate constitutes 69.3% of the total infant deaths while as for the State the figure is as high as 82.1% which is suggestive of the requirement for a more focused effort to target the Neo-natal Mortality.

#### **8.4.10 Literacy**

During the decade 2001-2011, literacy rate increased from 55.50% to 68.74% in the State as against 64.84% to 74.04% at the national level. As per 2011 census the male literacy is 78.26% and female literacy rate is 58.01%. Despite number of limiting factors, the state has been able to make a remarkable progress in the field of education as is evident from the above figures. Although, the outcomes of investment on education are no doubt quite visible, yet the State is committed to achieve universalization of education. A number of steps in this direction have been taken like easy access of schooling by way of opening/up gradation of schools, development of infrastructure, provision of education manpower, establishment of seasonal camps at various Behaks, nutritional support to the children upto elementary level, free text books, scholarships etc.

#### **8.4.11 Housing**

Census 2001 has revealed that 55% households live in permanent houses, 32.15% in semi-permanent houses and 12.85% in temporary houses. The relative position in India was 51.80%, 30.04% and 18.16% respectively. Categorizing the households living in owned, rented and other categories, it works out to 93%, 5% and 2% for J&K and 87%, 11% and 2% respectively at all India level. These figures also depict that housing facilities are better in our State compared to the position at all India level.

#### **8.4.12 Basic Services**

Potable drinking water, system for disposal of excreta, good sanitation and personal hygiene to reduce prevalence of morbidity are equally important like food for sustenance. Census 2001 has recorded that safe drinking water facility has not been available to 45% of the rural households in J&K as compared to only 27% rural households in India. 47% Households in J&K have no latrine facility. 80% of the total population has electricity in Jammu and Kashmir as compared to only 44% in India. The various schemes initiated by the Govt. to provide basic amenities to its population in J&K State are going in the right perspective.

#### **8.4.13 Livelihoods**

Jammu and Kashmir is basically an agrarian state. Agriculture occupies an important place in the economy of the state whereby nearly 70% of the population derives their livelihood directly or indirectly from the sector. In addition, the state is also a tourist and pilgrimage destination. Every year, more than 10 million tourists visit the state, a majority of who are pilgrims visiting the holy shrines of Vaishno Devi, Amarnath,

Hazratbal shrine and the Buddhist monasteries of Ladakh which contribute significantly to the state's economy.

Handicraft activities occupy an important position in the economic structure of J&K State. Being environment friendly, these activities are best suited to the state as they are more labour intensive and less capital intensive in nature, therefore having scope for employment generation at a large scale. The Kashmir handicraft products have earned worldwide fame for their attractive designs, functional utility and high quality craftsmanship. In absence of other manufacturing industries in the state, handicrafts remained a key economic activity from time immemorial. The artistic imagination and craftsmanship of the Artisans reflected through a wide range of products, has delighted the connoisseurs world over for centuries. Crafts like Shawls, Crewel, Namdha, Chain Stitch, Wood Carving, Paper Mache, Costume Jewelry, Kani Shawls and the Carpets hold a significant share in the overall production and export of the State. Silken carpets in particular constitute a specialty having no parallel in quality and design at national level and, therefore, occupy an important position in the international market. The handicraft sector of the state has great contribution towards foreign exchange earnings to the state and country in particular.

As on 31.03.2013 there were 2730 handicrafts societies registered with a membership of 15987. The department provides Managerial subsidy on tapering basis @100% first year, 66%, 2<sup>nd</sup> year; and 33%, 3<sup>rd</sup> year to the pass out trainees which is paid for formation of cooperative societies. During the year 2013-14, 58 societies have been formed with a membership of 580 by the end of Oct., 2013.

There are 2040 handloom units in the State which provide employment to 2875 persons. These units are producing Loies, Puttos, Tweed, Blankets, Raffal, Pashmina and Dusoti Khad. The Department has 523 registered Handloom Industrial Co-operative Societies in the State with a membership of 15275 weavers. There are approximately 38,000 Handlooms in the State. During 2012-13, 10.88 million meters of handloom fabrics valuing Rs 246.97 Crore were produced in the cooperative sector. The production and value of handloom fabrics for the current financial year viz 2013-14 (ending 10/2013) is of the order of 4.97 million meters and Rs 112.79 Crore respectively. Loan facility is also being provided to these cooperative societies for purchase of sewing machines.

The Department runs 100 training centers to impart training in various trades which include readymade garments, handloom weaving, Pashmina spinning and weaving, and Kani shawl weaving.

Jammu and Kashmir Khadi and Village Industries Board, established in the year 1962, is playing a vital role in generating employment for rural poor, unemployed youth and down-trodden artisans of the state by providing financial and technical assistance for setting of micro and small industrial production units under various schemes which come under the purview of All India Khadi and Village Industries Commission, Government of India.

## 9. Legal and Regulatory Context

### 9.1 Introduction

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

### 9.2 Operational Policies and Directive of the World Bank

The relevant and applicable safeguards policies of the World Bank are also reviewed. The potential impacts of proposed activities cannot be envisaged based on information available. To mitigate any potential impacts, assessment procedures and mitigation measures have been put into place through the ESMF so that any likely negative impacts are minimized. However, the applicability of this safeguard policy will be ascertained after screening of sub-projects. The below table describes the relevant safeguard policies of the World Bank and discusses their applicability to the project.

**Table 9: Operational Policy and Directives of World Bank**

Policy	Key Features	Applicability to the Project
<p><b>OP/BP 4.12 Involuntary Resettlement</b></p>	<p>The policy covers not only physical relocation but any loss of land or other assets resulting in relocation or loss of shelter; loss of assets or access to assets; loss of income sources or means of livelihoods, whether or not the affected people must move to another location.</p> <p>Intended to avoid or minimize involuntary resettlement; improve former living standards, income earning capacity and production levels of affected population.</p> <p>Requires identification of “those who have formal legal rights to the concerned land (including customary and traditional rights recognized under the laws of the country); and public participation in resettlement planning as part of SA.</p>	<p><b>Applicable.</b></p> <p>Some project interventions are likely to trigger issues such as those related to land acquisition, loss of assets and impact on livelihood sources. Identification of any potential impacts and mitigation measures to address likely impacts is proposed. Transfer of Government land under different tenure systems could trigger adverse impacts such as loss of access to natural resources – firewood, fodder, water etc and loss of sources of income/ livelihood/ shelter/ homestead.</p>

Policy	Key Features	Applicability to the Project
<p><b>OP/BP 4.10 Indigenous Peoples</b></p>	<p>Purpose is to ensure indigenous peoples benefit from Bank financed development and to avoid or mitigate adverse effects on indigenous peoples.</p> <p>Applies to projects that might adversely affect indigenous peoples or when they are targeted beneficiaries.</p> <p>Requires participation of indigenous peoples in creation of "indigenous peoples development plans".</p>	<p><b>Applicable.</b></p> <p>, Some of the flood affected districts such as Rajouri where reconstruction are likely to be undertaken have tribal groups living therein. Therefore, the Policy is Triggered and an IPPF has been included in this SMF. Based on social screening, In case if any ST population is affected by a specific sub-project, Tribal Development Plan will be prepared and implemented in line with IPPF. STs, if present among the PAPs, will be given certain special privileges; they are considered as vulnerable and they will be given preference in selection for any individual benefits under the project.</p>

Other World Bank Policy important to Environmental Concerns is the BP 17.50. This policy deals with Disclosure of Operational Information. The Bank's Policy on Disclosure of Information, has been incorporated in the Project Implementation Plan.

### 9.3 Social Policy and Regulatory Framework of GoI and the State

This deals with various policies, acts, rules and regulations promulgated by the central and state governments related to environment and relevant to present project.

#### 9.3.1 State Land Acquisition Act 1990 (1934 AD)

The Land Acquisition Act (LAA) 1894, as amended in 1984 which was in force in rest of India till 2013 is not applicable to the State of Jammu and Kashmir. The recently promulgated "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 has not been ratified by the state and is not applicable to the State of Jammu and Kashmir. The State Land Acquisition Act 1990 (1934 AD) is in force in 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. The general process for land acquisition under LA Act is:

- i. As per the rules of the State Land Acquisition Act 1990 (1934 AD) land for public purpose could be acquired through two processes:
  - a. Private Negotiations
  - b. Compulsory Land Acquisition under the provisions of the Land Acquisition Act 1990.
- ii. Steps that are to be followed under Jammu and Kashmir State Land Acquisition Act. 1990 (1934 AD) are as follows:

**Placing of Intent by Intending Department.** The department entrusted with execution and supervision of the work shall prepare information as to the situation and general character of the land acquired, after the information has been compiled, the same is sent to Collector concerned with a request to acquire the land.

**Preparation of the Revenue Documents (Shajra & Khasra):** A Shajra or Village Map is a detailed map of the village that is used for legal and administrative purposes with regard to land ownership in Jammu and Kashmir. Shajra maps out the village lands into land parcels and gives each parcel a unique number. A Khasra is an index register to the map, listing, by number, all the fields and their area, measurement, ownership, cultivators employed, what crops, what sort of soil, what trees, etc. are on the land. Once the collector receives the indent from the concerned department; the Revenue Documents, i.e., Shajra & Khasra are prepared to know the ownership status and quantum of land to be acquired.

**Issuance of Land Acquisition Notification:** Once the revenue documents are prepared, the collector issues notification under section 4(i) that the land is required for the public purposes and inviting of objections from the land owners within fifteen days of issuance of notification.

**Conducting of the Private Negotiations:** After the lapse of fifteen days, concerned Deputy Commissioner is requested by the Collector to call a meeting of the Private Negotiation Committee of which concerned District Collector is the Chairman. Other members are:

1. Collector (Land Acquisition) to whom intent is placed
2. Engineer from Intending Department
3. Collector (Land Acquisition) of the concerned district
4. District Superintending Engineer
5. Concerned Tehsildar
6. Concerned Naib Tehsildar
7. Land owners

Before initiating the negotiations, the committee ascertains the maximum price which is offered for land owners if acquired by private negotiations. The District Collector takes following things into consideration:

- i. Directs Tehsildar to communicate the rates.
- ii. Refers to the Master rates approved by the Divisional Commissioner concerned.

- iii. Refers to the rate at which the land has been earlier acquired in the nearby area.
- iv. Utility and Location of the Land.

After taking in to consideration all the above information, appreciated rates are offered and negotiated with the land owners. The valuation of structures is done by PW (R&B) Department, for Fruit Trees from Horticulture Department and non fruit trees from Forest or Social Forestry Department.

**Compulsory Acquisition:** Wherein the private negotiations with the title holders fail, the Deputy Commissioner shall communicate the result of the negotiation to Intending Department who may initiate proceeding for compulsory acquisition of land under the provisions of the Act.

### **9.3.2 National Resettlement and Rehabilitation Policy, 2007**

Prior to this policy evolution, there was no uniform approach adopted by states towards the project affected population, as there were no safeguard policy to deal with resettlement and rehabilitation of displaced persons in the country. In the absence of such policies, ad-hoc administrative instructions, in conformity with the land acquisition act were in practice. This policy was developed and promulgated by the GoI during October 2007. This policy takes into consideration the safeguard policies of international development bodies like the World Bank, Asian Development Bank etc. The salient features of this policy are given below:

- Makes SIA mandatory for all projects involving displacement of four hundred or more families en-masse in plain areas, or two hundred or more families en-masse in tribal or hilly areas etc.
- Public hearing co-ordination with EIA done in the project affected area shall also cover issues related to SIA.
- Consultations with affected people and disclosure of relevant information to them at various stages of resettlement planning.
- Assistance to affected people without legal rights; affected people categorized as landless agricultural workers, forest dwellers, tenants and artisans who are critically dependent on the acquired assets for their subsistence/ livelihoods.
- Preparation of resettlement plans that are disclosed to the affected people in draft form, and reviewed and approved by competent authorities.
- Collection of socio-economic base line information of the project affected households.
- Vulnerable project affected people will get extra cash/kind assistance.
- The Grievance Redressal Cell shall have representatives of women, Schedule Castes, Schedule Tribes residing in the affected zone. The Cell shall have the power to consider and dispose of all complaints relating to resettlement and rehabilitation against the decision of the Administrator/R&R Committee at Project level.
- Constitution of a monitoring cell under the project.

- Each project affected family comprising of rural artisan/small trader and self employed person shall get one-time financial assistance for construction of working shed/shop for livelihood support.

### **9.3.3 The Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act 2013**

Land Acquisition (LA) Act of 1984 commonly used for acquisition of land for any public purpose has been annulled with the enactment of the RTLARRA 2013. It appears that the rules of the new Act have just been framed and might undergo changes in days to come. The Government will not adopt the LARRA, 2013 for obtaining any lands for the Project, and has instead decided to obtain private land required through purchase (large parcels) or voluntary donations (small parcels) or under the State LA Act 1990. The RTLARRA is mentioned here to provide a perspective on the changing legal context with regard to land acquisition in the country.

The new Act emphasizes elaborate social assessment and resettlement planning even prior to issuance of the preliminary notification and proposes to provide a range of R&R benefits along with the compensation package. Some of the highlights are as follows:

- Offers compensations up to 4 times the market value in rural areas and 2 times the market value in urban areas.
- The Act applies retrospectively to cases where land acquisition award has not been made.
- LA in Scheduled Areas will require consent of the local general assembly (Gram Sabhas).
- No displacement or dispossession until full payment of compensation and RR benefits are made and alternative sites for the resettlement and rehabilitation have been prepared.
- Bill requires the consent of no less than 70 per cent and 80 per cent respectively (in both cases) of those whose land is sought to be acquired in case of PPP or private projects.
- To safeguard food security and to prevent arbitrary acquisition, the Bill directs States to impose limits on the area under agricultural cultivation that can be acquired.
- In case land remains unutilised after acquisition, the new Bill empowers states to return the land either to the owner or to the State Land Bank.
- No income tax shall be levied and no stamp duty shall be charged on any amount that accrues to an individual as a result of the provisions of the new law.
- Where acquired land is sold to a third party for a higher price than 40 per cent of the appreciated land value (or profit) will be shared with the original owners.
- In every project those losing land and belonging to the SC or ST will be provided land equivalent to land acquired or two and a one-half acres, whichever is lower (this is higher than in the case of non-SC/ST affected families) -Where the affected families belonging to the SC and the ST are relocated outside of the district then they shall be paid an additional 25% rehabilitation and resettlement benefits to which they are entitled in monetary terms along with a one-time entitlement of 50000 rupees.



### **Minimum R&R Entitlements under this Act**

The following are the minimum R&R entitlements under this Act:

1. Subsistence allowance at Rs. 3000 per month per family for 12 months;
2. The affected families shall be entitled to: (a) Where jobs are created through the project, mandatory employment for one member per affected family or (b) Rupees 5 lakhs per family; or (c) Rupees 2000 per month per family as annuity for 20 years, with appropriate index for inflation; The option of availing (a) or (b) or (c) shall be that of the affected family
3. If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50sqmts in plinth area. In either case the equivalent cost of the house may also be provided in lieu of the house as per the preference of the project affected family;
4. One acre of land to each family in the command area, if land is acquired for an irrigation project if possible BUT the same shall be in lieu of Compensation;
5. Rs 50,000 for transportation;
6. A one-time Resettlement Allowance of Rs 50,000;

### **Special Provisions for SCs and STs**

In addition to the R&R package, SC/ST families will be entitled to the following additional benefits:

1. Land to be given to each family in every project even in the case of irrigation projects;
2. One time financial assistance of Rs. 50,000 per family;
3. Families settled outside the district shall be entitled to an additional 25% R&R benefits;
4. Payment of one third of the compensation amount at very outset;
5. Preference in relocation and resettlement in area in same compact block;
6. Free land for community and social gatherings;
7. In case of displacement, a Development Plan is to be prepared.
8. Continuation of reservation and other Schedule V and Schedule VI area benefits from displaced area to resettlement area.

### **9.3.4 Other Revenue Related Acts**

1. **Jammu and Kashmir Tenancy Act 1923:** An Act to consolidate, amend and declare the law relating to the tenancy of land in the State. First major reform in the field of agrarian history in the State. Act defined the classes, rights, liabilities and interests of tenants. Raised the economic, social and the personal status of the tillers. Act has become redundant after enactment of Jammu and Kashmir Agrarian Reforms Act, 1976.
2. **Jammu and Kashmir Alienation of Land Act, 1938:** An Act to consolidate and enact the law relating of the transfer of agricultural land in the State.

3. **Jammu and Kashmir Land Revenue Act, 1939:** An Act to consolidate, amend and declare the law in force with respect to making and maintenance of Record-of Rights in land, the assessment and collection of land revenue and other matters relating to land and the liabilities incident thereto. Basic Revenue Law to deal with Revenue Administration. Deals with classes and powers of various Revenue Officers, the procedure for appeals, review and revision of the orders passed by Revenue Officers, procedure for issue and service of summons, proclamations and their appearances, preparation of Record-of Rights, Annual Records and revision thereof and trial of suits.
4. **Jammu and Kashmir Evacuee (Administration of Property Act), 1949:** An Act to provide for the administration of Evacuee's property in the State. Vests the powers to administer said property with Custodian General.
5. **Jammu and Kashmir Big Landed Estates Abolition Act, 1950:** An Act to provide for the abolition of big landed estates and their transfer to actual tillers. Optimum unit of land retainable by a landlord was fixed at 182 Kanals.
6. **Jammu and Kashmir Utilization of Lands Act, 1953:** An Act to provide for utilization of lands in the State. Issue directions for bringing abandoned land again under cultivation.
7. **Jammu and Kashmir Kahcharai Act, 1954:** An Act to make better provision for and to consolidate and amend the Law relating to Kahcharai and other matters connected therewith.
8. **Jammu and Kashmir Chowkidari Act, 1956:** An Act to amend, consolidate and declare the Law relating to the appointment and maintenance of Chowkidars in towns and villages.
9. **Jammu and Kashmir Common Lands (Regulation) Act, 1956:** An Act to regulate the rights in common lands. Provide relief to the user of the lands, used for common purposes like roads, streets, lanes, pathways, water channels, drains, wells, tanks or any other source of water supply to the villagers in general. Provision for prohibition of encroachments over such common lands and public places and eviction thereof and in case of encroachments, to restore the rights of the users. Provision for assigning land for extension of "Village Abadi", if existing land is inadequate for habitation of the villagers at any point of time.
10. **Jammu and Kashmir Land Grants Act, 1960:** An Act to provide for grant of lands on lease by the Government. Applies to State and Nazool land only including buildings.
11. **Jammu and Kashmir Grant of Permanent Resident Certificate (Procedure) Act, 1963:** An Act to provide for regulation and Grant of Permanent Resident Certificate.
12. **Jammu and Kashmir Lambardari Act, 1972:** An Act to amend and consolidate the Law relating to payment of remuneration of Lambardars for recovery of public demands.
13. **Jammu and Kashmir Agrarian Reforms Act, 1976:** An Act to provide for transfer of land to tillers thereof subject to certain conditions and for better utilization of land in the State. Transfer of land in ownership rights to tillers. Optimum retainable land/Ceiling on land reduced to 121/2 Standard Acres (100 Standard Kanals) per family and absentee landlordism abolished altogether. Provision for resumption and disposal of surplus land. Prohibition on creation of fresh tenancies.

14. **Jammu and Kashmir State Lands (Vesting of Ownership rights to the Occupants) Act, 2001**: Popularly known as **Roshni Act**. An Act to provide for vesting of ownership rights to occupants of State Land for purposes of generating funds to finance Power Projects in the State. Khariief, 2004 as cut-off date. Agricultural land was given free of cost.

### 9.3.5 Other Applicable Acts

The following acts are applicable for the sub-projects to be taken up under the present project:

- Minimum Wages Act, 1948
- Contract Labour Act, 1970
- The Bonded Labour System (Abolition) Act, 1976
- Child Labour (Prohibition and Regulation) Act 1996 along with Rules, 1988
- Children (Pledging of Labour) 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**: deals with rights relating to life, liberty, equality and dignity of individuals guaranteed by The Constitution, Acts and other Safeguards.
- **The Jammu and Kashmir Natural Calamities Destroyed Areas Improvement Act, 1955**: deals with improvement of towns, villages, or other areas destroyed by natural calamities in the State and dealing with land required for such improvements.
- **The Jammu and Kashmir Right to Information Act 2004**: This act makes provision for securing right to information and for matters connected therewith and incidental thereto, ,i.e., any document or information relating to the affairs of the state or public body.
- **Backward Classes Commission Act, 1997**: State has an Act to provide for the constitution of a State Commission for Backward Classes other than the SCs and STs, and for matters connected therewith are incidental thereto called State Backward Classes Commission. Under the Act the government has constituted a body to be known as the State Commission Backward Classes to exercise the powers and perform the functions as under:-

- **Persons with Disabilities Act, 1998:** An Act to provide equal opportunities, care, protection, maintenance, welfare, training and rehabilitation to the persons with disabilities was enacted by the J&K government called as "J&K Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1998".
- **J&K Reservation Act, 2004:** An Act to provide for reservation in appointments, and admission in professional institutions for the members of Scheduled Castes, Scheduled Tribes and other Socially and Educationally Backward Classes and for matters connected therewith or incidental thereto.

## 10. Social Impacts, and their categorization

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### 10.1 Summary of Activities and Likely Impacts

The Project aims to reconstruct and strengthen critical infrastructure including, public buildings; roads and bridges; flood management infrastructure; restoration of livelihoods and strengthening disaster risk management capacity, leading to overall improvement of quality of life in the habitations of the project area. These activities would result in mitigation measure for floods as flood resilient structures will be constructed and capacity building initiatives to mitigate future risks will be undertaken. The positive impacts likely are:

- Improved public safety and security
- Reduced sufferings during adverse climatic conditions
- Better infrastructure and connectivity
- Improved access to services
- Productive use of time
- Improvements in income patterns
- Health and Environmental improvements
- Improvements in quality of life and human dignity

### 10.2 Alternatives to Minimize Adverse Impacts

Site selection of sub-project play an important role in minimizing the overall adverse impact of the disaster either socially, economically or environmentally. The key activities undertaken as a part of the Project, namely restoration of public buildings will be carried out in situ and within existing premises. In case of roads, works will be carried out mostly within existing alignments with suitable modifications in designs to minimize impact on private lands, buildings, and livelihoods of people living alongside the roads. In case of flood management works, the civil works will be carried out at the existing locations with minimum impacts on lands, assets and incomes of people. The actual designs for the sub-projects have not been prepared yet. The basic principle of exploring project alternatives to avoid and minimize impacts shall be adopted in sub-project selection and design.

### 10.3 Potential Adverse Social Impacts

The proposed works may not have significant social impacts due to the nature, type and size of the works. However, the following social impacts could possibly arise out of the proposed sub-projects:

**Involuntary Resettlement:** The road and urban flood management works may have some involuntary resettlement impacts as follows:

- May require acquisition of private residential or agricultural or commercial land
- Could cause in some cases loss of assets/ infrastructure
- Loss of Common Property Resources/ Community Assets
- Loss of Livelihoods
- Loss of access to houses/ businesses

- **Temporary Impacts:** Inconvenience and Nuisance to Public
  - Due to accumulation of excavated earth
  - Disturbance to traffic and resulting congestion
  - Disruption of utilities such as water, electricity, telephone, cable, etc.
- Social Issues
  - Social disruption in the area of construction
  - Social unrest issues on construction sites
  - Regional labour issues
  - Child labour
  - Unequal wages to men and women
- Safety Hazards
  - To the households in the neighborhood during construction
  - Due to impact of vehicles on land outside RoW
  - Due to risk of accidents
- Health Hazards
  - Due to stagnation of water leading to mosquito breeding and public health problems
  - Due to spread of AIDS at construction sites
  - Due to surface water pollution
  - Due to groundwater pollution

Implementing an appropriate mitigation measures as per EMF discussed in the first part of this document and as per the Resettlement Policy Framework provided in the next section will help to mitigate the above impacts.

Presently the sub-projects are yet to be fully identified, for the reason that the project is in the process of taking a final shape. As this situation was envisaged beforehand, GoJK went ahead with the preparation of ESMF for JTFRP. This ESMF has a system for Environmental and Social categorization of sub-projects and Environmental and Social Mitigation measures. As the sub-projects are yet to be identified and are yet to be prepared, no sub-project specific mitigation measures could be identified. As the sub-projects are continued to be identified and the identified ones are under preparation, check lists have been provide for screening the sub-projects and categorize them for further action.

#### **10.4 Guidelines for Social Screening**

In order to categorize social impacts, a social screening exercise shall be carried out for all sub-projects. During the screening, as a first step, social impacts are identified through filling in a social screening format. The environmental and social data pertaining to the proposed sub-projects be compiled during the field data collection stage. For this purpose, simple Environment and Social Data Sheets (ESDS) were formulated for Critical Infrastructure (Public Buildings) sub-projects and Roads and Bridges sub-projects and annexed to this ESMF. For the other sub-projects the Critical

Infrastructure ESDS may be used. The sub-project Implementing Agency fills up these ESDS with the facilitation support of the PIU duly identifying the environmental and social issues of concern. Supplementary notes on environmental and social concerns will also be added to those ESDS. The sub-project Implementing Agency will do the screening through collection of necessary filed data. These ESDS are attached to the sub-project project proposal/ concept note.

During the screening process, the sub-projects will be categorized. The basic objective of this categorization is to ensure that sub-projects with potentially significant environmental/ social issues are identified at an early stage for detailed environmental/ social assessment. Further evaluation of all the available information on environmental and social aspects as provided in the ESDS and assessment based on the level of expected environmental and social impacts (including any field visits if required), whether the proposed sub-project is qualified for categorization as E1/E2 and S1/ S2 takes place during this phase. As a part of ESMF process the screening and sub-project categorization will be cleared by The World Bank, before taking up EA/SA. This is further detailed in the paragraphs below.

### **10.5 Social Categorization**

In order to give an indication of scale and size of environmental and social impacts, the sub-projects are categorized. This categorization is required to carry out the appropriate level of assessments for different types of sub-projects based on the nature, scale and magnitude of their social and environmental impacts. Categorization would help in focussing time and effort in sub-projects that have significant impacts. Based on social impacts the sub-projects are categorized into two categories;

- 1) S1, where there are more than 200 Project Affected People,
- 2) S2, where there are less than 200 PAPs
- 3) S3, where any number of Indigenous (tribal) People are affected

The S1 category sub-projects require conducting a comprehensive Social Assessment (SA) and preparation of a Resettlement Action Plan (RAP), as per format attached in Annexures, by Independent Consultants prior to preparation of Detailed Project Report (DPR) for appraisal by PMU. This SA and RAP need to be disclosed before the start of procurement for that sub-project. It may be noted that if more than 200 persons are affected by the sub-project in a sub-project, then an RAP need to be prepared.

The S2 category sub-projects need not conduct SA but need to prepare an Abbreviated Resettlement Action Plan (ARAP), as per format attached in Annexures, and need to include the Social Management Plan (SMP) which is to be prepared by Design Consultants following the guidelines given in this ESMF. This SMP becomes a part of the DPR, which will be appraised by PMU. If, under special circumstances, PMU identifies a need for a limited social assessment, then it needs to be conducted.

In case of S3, an Indigenous People Development Plan (IPDP) shall be prepared based on screening results indicating impact on tribal people.

## **10.6 Social Impacts and Mitigation**

As mentioned earlier, all the sub-projects under the JTFRP aim at improving safety and security of the target population from floods and improving their living standards. Many of the sub-projects under JTFRP are mere reconstruction of damaged infrastructure. These investments would improve the performance of the existing infrastructure. The financial and physical size of the sub-projects would be comparatively small. This makes the significance of the social impacts, if any, to be low. However at this stage, it is not possible to identify as to how many and who will be affected by which sub-project. The individual sub-projects proposals will mention the number and categories of the population likely to be affected. Hence, a Resettlement Policy Framework is prepared for the following reasons:

- Most sub-projects are mere reconstruction of existing damaged infrastructure
- The sub-projects are yet to be finalized/ proposed
- Likely inclusion of new sub-projects
- Time lag between sub-project identification and implementation

The proposed Resettlement Policy Framework would address these impacts. PMU will screen all the sub-projects prior to approval to ensure their consistency with the Resettlement Policy Framework provided as guidance.

### **10.6.1 S1 Category**

As per the categorization of the projects, for S1 category sub-projects, if the number of affected persons exceeds 200, then PMU would ask the concerned department to conduct a comprehensive Social Assessment and prepare a Resettlement Action Plan (RAP), as per format attached in Annexures before project appraisal. Like in case of Environmental Impact Assessment, this Social Assessment too will be done by a consultant independent of the design consultants and this SA and RAP need to be disclosed before the start of procurement for that sub-project.

### **10.6.2 S2 Category**

For these category sub-projects, PMU will ensure that an Abbreviated Resettlement Action Plan (ARAP) is prepared as per format attached in Annexures and the project proposals prepared by design consultants would include measures to mitigate adverse impacts as per the Resettlement Policy Framework. PMU will ensure that the ToR for the Design Consultants will include these.

### **10.6.3 S3 Category**

Where the Social Screening results show that the specific sub-project may impact tribal people, the PIU shall prepare and implement an Indigenous People's/Tribal Development Plan (IPDP/TDP) as per procedure established in Chapter 13 dealing with the Indigenous People's Planning Framework.



### 10.7 Sub-project Cycle and Social Safeguard Requirements

The environmental and social required to be fulfilled during the sub-project cycle; i.e., during pre-planning, planning, implementation and Operation and Maintenance (O&M) are listed in the below table and the flow chart.

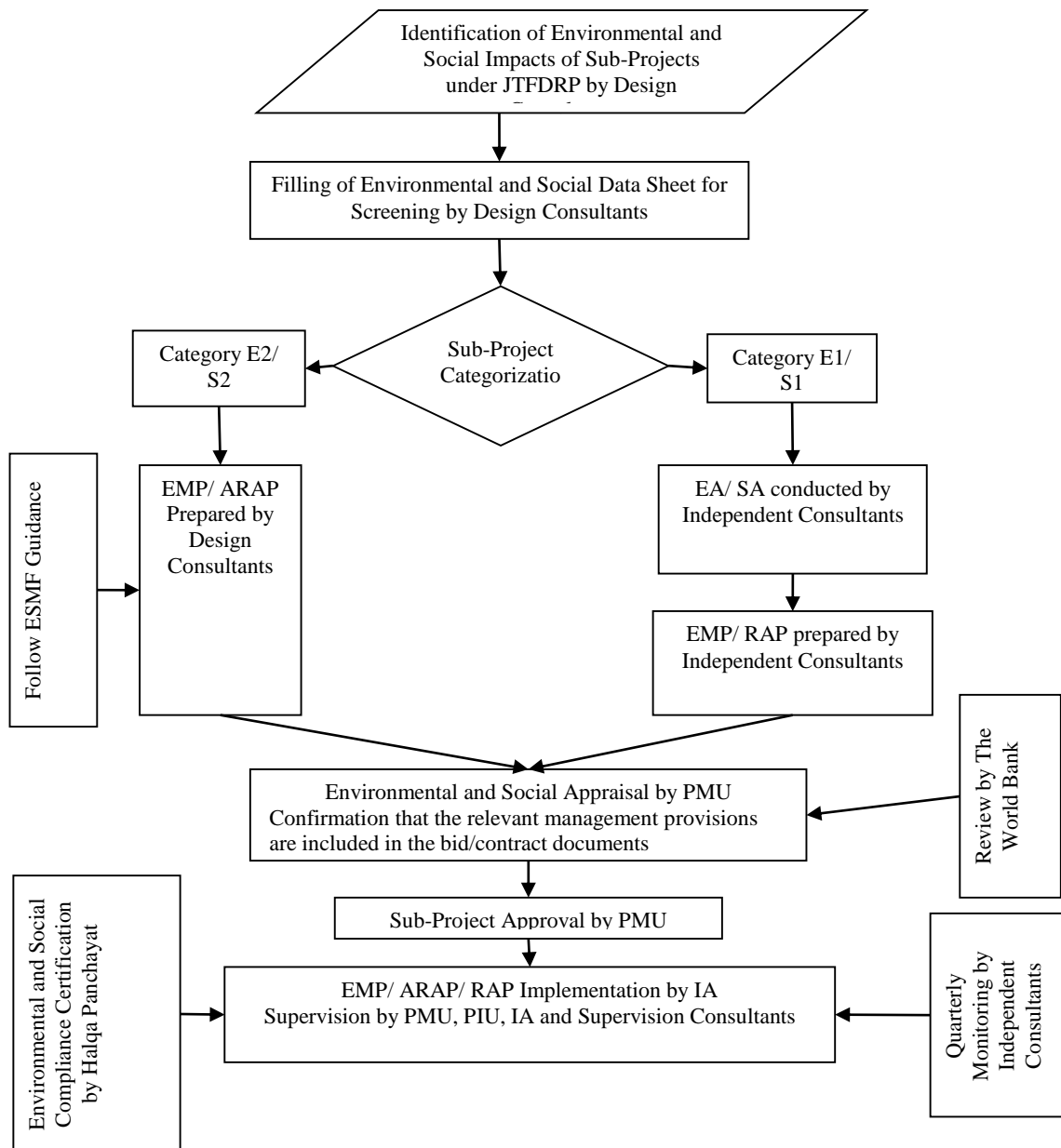


Figure 2: JTFRP Environmental and Social Management Flow Chart

## 11. Resettlement Policy Framework

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### 11.1 Introduction

This Resettlement Policy Framework for JTFRP is drawn in accordance with the World Bank's Safeguard Policy on Involuntary resettlement (OP 4.12). The framework comprises of the following sections:

- Land Requirement
- Usual Practice
- Options for JTFRP
- Categories of PAPs
- Legal Framework (described in detail in Chapter 3)
- Entitlement Matrix
- Grievance Redressal
- Consultation

The framework has been developed based on the following policies/ legislations:

- State Land Acquisition Act 1990 (1934 AD)
- The Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act 2013

This framework will act as guide for mitigating the social impacts that would be triggered by the sub-projects under JTFRP.

#### 11.1.1 Objective of RPF

The objective of this RPF is to set out guidelines for: (i) assessing nature and extent of social impacts through initial social screening and detail impact survey, if impact categorization so requires, (ii) preparing short or detailed resettlement action plans (RAP) as required to mitigate impacts assessed, (iii) establishing implementation arrangements to effectively implement the RAPs for specific sub-projects.

The RPF emphasizes providing better standard of living to the project affected persons or at least restore their standard of living to that of before project. If the affected persons belong to Below Poverty Line (BPL) category before the project, then this RPF aims to bring them Above Poverty Line (APL). The principles guiding the RPF are:

- Avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs.
- Assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them.
- Encourage community participation in planning and implementing resettlement.
- Provide assistance to affected people regardless of the legality of land tenure.

The following guidelines will be followed during implementation:

- Compensation and Rehabilitation assistance will be paid before displacement.

- Compensation will be at replacement cost.
- No civil works will be initiated unless compensation for land and assets and rehabilitation assistance is provided to all eligible PAPs.
- Livelihood assistance will be given in form of Income Generation Assets (IGA) to be chosen by the PAPs.
- IA will provide information to the PAPs on alternative income generation activities suitable for the area and help them in making choices.
- The PIU established in the IA and PMU will monitor the provision of the IGA.
- The IA will monitor the performance of the IGA and report to PMU.

## 11.2 Land Requirement

JTFRP proposes various types of sub-projects to be taken up. These sub-projects will require land depending on their type and size, even as most works are visualized to be taken up within the existing alignments. The land requirement would vary across sub-projects and locations. The type and size of the sub-projects dictate the land requirement. The extent of land required would vary across the sub-projects and can't be estimated at this stage.

## 11.3 Types of Land Ownership

**Titleholder:** A person who holds all legal rights to the land.

**Protected Tenant:** A tenant who is protected by law against eviction

**Occupant:** A person who is in actual physical possession of any State land personally or through an authorized agent.

**Authorized Occupant:** A person who is in actual physical possession of the State land, personally or through an authorized agent, by virtue of an existing valid lease or grant made by the competent authority.

**Authorized Overstayed Occupant:** A person who is in actual physical possession of State land, personally or through an authorized agent, but whose lease or grant has expired and respect of whom no notice for eviction or assumption of lease has been issued by the competent authority.

**Available State Land:** Means any State land, which is not in possession of any person or which has been encroached upon by any person.

## 11.4 Usual Practice

GoJK is implementing similar projects on a regular basis, which require land, of which the ownership could be either public or private. Accessing public land is easier, but arrangements will have to be made for securing privately owned land. When additional lands are required, GoJK, as a first step, would try and secure public lands where feasible and available. If private lands are required, then GoJK would obtain land through: (i) voluntary donation, (ii) direct purchase, or (iii) acquisition through private negotiations under the State LA Act 1990.

### 11.5 Voluntary Donation for Rural Roads

Wherever there is requirement of additional land for rural roads built under PMGSY scheme, the GoJK has procured these lands through voluntary donations. As there is good demand for reasonable rural roads, many times the Halqa Panchayat (HP) and the villages have come forward to donate any additional land. As the demand outstrips supply, cases of hindrance to rural roads construction for want of additional land were not heard. In the case of Rural Roads under the present project, it is rather simple for the GoJK, as the requirements are not only minimal but also that:

- almost all roads proposed will be existing roads (sometimes in badly damaged and not motor-able) and the project intervention will be restricted to improving/strengthening the existing road which would mean land requirement will be nil or limited;
- most of these rural roads do have sufficient RoW; and
- in case, it becomes inevitable, the local communities will secure lands either through voluntary donations subject to fulfillment of certain conditions or outright purchase or acquisition using State LA Act.

With the immediate necessity of reconstructing these badly damaged roads and several benefits to accrue due to these roads, the villagers might be willing to donate small parcels of land if necessary. There may not be much of a problem in procuring/ acquiring the additional land required for rural roads, as these roads are a dire necessity.

### 11.6 Direct Purchase

GoJK has experience of direct purchase of private lands for public purposes. Hence, this method can be adopted, on a willing seller and willing buyer basis, to avoid delays.

### 11.7 Options for JKFRP

However, keeping in mind any eventuality, the following options are proposed for procuring/ acquiring private lands:

- Voluntary Land Donation
- Land Acquisition through Private Negotiations under the State LA Act 1990

#### 11.7.1 Voluntary Land Donation

JTFRP will completely avoid or at least minimize land acquisition. Whenever very small parcels of additional land is required, JTFRP will interact with the land owners and facilitate voluntary donation of land required for taking up sub-projects under the project. This use of voluntary donation option will be limited to small strips of land for rural roads and small plots of land for buildings. Under no circumstances, the titleholder/ encroacher will be subjected to any pressure, directly or indirectly, to part with the land. These actions are expected to minimize adverse impacts on the local population and help in project benefits reaching all sections of community.

JTFRP will ensure that the process of voluntary donation of land will be meticulously documented at all levels to avoid confusions, misunderstandings, litigations, etc. at a later stage. A format for this purpose is enclosed in the Annexures. This process will be taken up mainly at three levels as described below:

<b>Table 10: Process of voluntary donation of land</b>			
<b>Level</b>	<b>Process</b>	<b>Output</b>	<b>Responsibility</b>
HP/ Village Level	Based on the revenue survey, lands will be identified and the list of titleholders/ encroachers will be prepared. This will be done by HP with the help of IA and HP Secretary. HP motivates the title holders and encroachers for voluntary land donation required for the project. The PIU will help in this process and will document the willingness to donate land by the titleholders and encroachers in the presence of the Sarpanch and HP Secretary in the form of a Willingness Letter.  The list of such persons will be displayed at the Halqa Panchyat Office.	Willingness Letters	Sarpanch, HP, PIU, HP Secretary, and affected persons (Titleholder/ Encroachers)
Block Level	BDO or concerned Revenue Official surveys the land and demarcates the extent of area required. The survey will identify if the land is public, private or encroachment. Based on the survey, maps are prepared. The entire process will be carried out along with HP, PIU, and HP Secretary. The maps will be signed by Sarpanch, HP Secretary, and concerned Revenue Officer.	Survey map signed by relevant persons indicating the extent of land required.	BDO, Surveyor, Sarpanch, HP Secretary, PIU
District Level	Formalize relinquishment of land rights where concerned local people voluntarily donate their private land for the project for public purpose.	Effect Changes in Land Revenue Records	District Collector, BDO

Original copies of all documentation of voluntary donation of land will be kept with the Block Development Officer with copies at HP. Complete documentation along with a copy of the final document will be sent to PMU for records and for inspection at a later date. In order to make this process transparent, the following rules are prescribed:

- The Titleholder/ Encroacher should not belong to the vulnerable sections/ BPL category.

- Voluntary donation shall not apply in cases where any structures are affected, irrespective of title status
- Identification of vulnerable PAPs: The vulnerability shall be assessed by the project based on the census of the affected persons. The following categories of PAFs/ PAPs shall not be asked to donate land:
  - BPL households (with a valid proof), as per the State poverty line for rural areas;
  - BPL households without a proof of the same and belonging to the following social categories (i) Women headed households with women as sole earner (ii) Scheduled Caste/Scheduled Tribe and (iii) Handicapped person, and is subject to any of the following impacts;
    - Loses land holding,
    - Loses shelter and
    - Loses source of livelihood.
- The Titleholder/ Encroacher should be holding more than the minimum prescribed land, i.e., 1 hectare of wet land and 2 hectares of dry land after donation.
- The impacts must be minor. The voluntary donation should not be more than 10 percent of the area of that particular holding of the Titleholder/ Encroacher in that category of land (dry, wet or commercial/ residential). This should not require any physical relocation of the Titleholder/ Encroacher. The land donated should not be more than 1 acre in case of dry land, 0.5 acre in case of wet land and 0.25 acre in case of commercial/ residential.
- The land must be jointly identified by the HP, and PIU and PMU Representative or other implementing agencies or project authorities. However the project technical authorities should ensure that the land is appropriate for sub-project purposes and that the sub-project will not invite any adverse social, health, environmental, safety, etc. related impacts by procuring this land.
- The land in question must be free of squatters, encroachers, or other claims or encumbrances.
- Verification of the voluntary nature of land donations must be obtained from each of the persons donating land. This should be in the form of notarized witnessed statements.
- The land title must be vested in the HP and appropriate guarantees of public access to services must be given by the private titleholder.
- The Titleholder/ Encroacher donating land should be provided access on priority basis, subject to eligibility, to the Government housing/ poverty reduction/ livelihoods/ etc. programs operating in the area.
- The Titleholder/ Encroacher donating land should made to understand that they will have equal access to the infrastructure built on the donated land like any other community member and that they cannot claim for any priority treatment.
- Grievance Redressal Mechanism must be available.

### 11.7.2 Land Acquisition through Private Negotiations under J&K LA Act 1990

The general process for land acquisition under LA Act is:

- i. As per the rules of the State Land Acquisition Act 1990 (1934 AD) land for public purpose could be acquired through two processes:
  - a. **Private Negotiations**
  - b. Compulsory Land Acquisition under the provisions of the Land Acquisition Act 1990.
- ii. Steps that are to be followed under Jammu and Kashmir State Land Acquisition Act. 1990 (1934 AD) are as follows:

**Placing of Intent by Intending Department.** The department entrusted with execution and supervision of the work shall prepare information as to the situation and general character of the land acquired, after the information has been compiled, the same is sent to Collector concerned with a request to acquire the land.

**Preparation of the Revenue Documents (Shajra & Khasra):** A Shajra or Village Map is a detailed map of the village that is used for legal and administrative purposes with regard to land ownership in Jammu and Kashmir. Shajra maps out the village lands into land parcels and gives each parcel a unique number. A Khasra is an index register to the map, listing, by number, all the fields and their area, measurement, ownership, cultivators employed, what crops, what sort of soil, what trees, etc. are on the land. Once the collector receives the indent from the concerned department; the Revenue Documents, i.e., Shajra & Khasra are prepared to know the ownership status and quantum of land to be acquired.

**Issuance of Land Acquisition Notification:** Once the revenue documents are prepared, the collector issues notification under section 4(i) that the land is required for the public purposes and inviting of objections from the land owners within fifteen days of issuance of notification.

**Conducting of the Private Negotiations:** After the lapse of fifteen days, concerned Deputy Commissioner is requested by the Collector to call a meeting of the Private Negotiation Committee of which concerned District Collector is the Chairman. Other members are:

1. Collector (Land Acquisition) to whom intent is placed
2. Engineer from Intending Department
3. Collector (Land Acquisition) of the concerned district
4. District Superintending Engineer
5. Concerned Tehsildar
6. Concerned Naib Tehsildar
7. Land owners

Before initiating the negotiations, the committee ascertains the maximum price which is offered for land owners if acquired by private negotiations. The District Collector takes following things into consideration:

- i. Directs Tehsildar to communicate the rates.

- ii. Refers to the Master rates approved by the Divisional Commissioner concerned.
- iii. Refers to the rate at which the land has been earlier acquired in the nearby area.
- iv. Utility and Location of the Land.

After taking in to consideration all the above information, appreciated rates are offered and negotiated with the land owners. The valuation of structures is done by PW (R&B) Department, for Fruit Trees from Horticulture Department and non fruit trees from Forest or Social Forestry Department.

**Compulsory Acquisition:** Wherein the private negotiations with the title holders fail, the Deputy Commissioner shall communicate the result of the negotiation to Intending Department who may initiate proceeding for compulsory acquisition of land under the provisions of the Act. **This method shall not be adopted in case of JTFRP.**

### **11.7.3** Consent Award

The system of consent award requires an additional solatium to be paid to the consenting titleholders, whereas only nominal solatium is paid for titleholders under compulsory land acquisition. The additional solatium is to be determined by PMU.

### **11.7.4** Compensation for Structures and other Assets

**Structures:** The compensation for structures includes market price of the assets to build/ procure a replacement asset, or to repair, if affected partially. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account. Compensation for trees, crops and other assets will be based on the replacement value using existing prices prepared by relevant agencies, taking into account their productivity and/or local market prices. An addition of 30% is made to the replacement value.

**Common Property Resources:** Grazing lands, places of worship, places of heritage value, burial grounds, water points, community wells, bore wells for drinking water, roads, path ways, community meeting places, wood lots, etc. are categorized under this heading. These resources will be restored to an acceptable level at an appropriate place as agreed with the community. Community will be fully involved in their replacement.

## **11.8 Categories of Project Affected People**

GoJK has implemented several projects similar to the sub-projects proposed under several externally aided projects in the past. From this experience, it is established that lands acquired will normally be rural agricultural lands. Residential and commercial lands may not be required to be acquired. In any case, project need not acquire any structures. Taking these into account, and given that a generic framework is being developed, following broad categories of Project Affected Persons (PAPs) are identified:

1. Titleholders
  - a. Agricultural



- b. Residential
  - c. Commercial
  - d. Lease holders (residential, commercial, agricultural)
2. Encroachers/ Squatters with no valid title
    - a. Agricultural
    - b. Residential
    - c. Commercial

#### **11.8.1 Cut-Off Date**

For preparing a list of PAPs, a Socio-economic survey of the affected families done during the planning phase of a sub-project. The list will be appended to the sub-project DPR. This date on which the socio-economic survey is conducted will serve as the cut-off date. No additions to this list will be made unless authorized with concrete proof by Project Director, PMU.

#### **11.8.2 Identification of PAPs**

JTFRP proposed community participation through participation of Halqa Panchayats, to shoulder some responsibilities such as identification of PAPs, mobilizing community for voluntary land donations, implementing RAPs (if any), grievance redressal. The following process will be adopted to identify PAPs:

- HP identifies the affected area at the village level along with IA duly involving Halqa Panchayat members, HP Secretary, in identifying affected area.
- Once the land required is identified, it is classified as either government land or encroached land and/or private land based on ownership status
- HP with the Implementing Agency announces a cut-off date as the Base line Socio-Economic survey date for identification of affected people.
- HP identifies the encroachers and titleholders as per the ownership status with the help of community members.
- Based on this information arrive at the number of PAPs

A detailed census based socio-economic survey will be conducted and extensive consultations will be held with the project affected families, i.e. the land losers. Each target community will be identified and differentiated on the basis of their source and level of income. The survey will focus on land and various productive assets including wages. This information will be used to determine the nature and extent of livelihood support/assistance (over and above the provision made for compensation) required to restore adequate income levels. All these measures will be taken only after consulting the affected families and wider community. This approach will help the project in achieving its objective of ensuring that no affected household becomes poorer with the intervention.

### **11.8.3 Valuation of Structures and Assets**

PMU or the concerned Department shall deploy its expert in civil engineering/ geology/ agriculture/ horticulture as required or alternatively hire the services of government approved valuer for valuation of structures and other immovable assets. The objective of this exercise is to establish the extent of loss and estimation of replacement cost. The major tasks are as follows:

1. Measurement of affected structure/ immovable assets
2. Establishing construction typology
3. Establishing extent of loss
4. Estimation of replacement cost

Measurement provides required information for valuation. For valuation the latest Schedules of Rates (SR) applicable to assets being valued need to be used. This SR provides the consolidated unit rates for permanent, semi permanent and temporary construction. Details as to how such consolidated unit rates have been arrived at is also explained in the SR. Using the analysis as guide, the expert/ valuer can arrive at the compensation value of a structure/ asset. Various SRs also provides rates for hand pumps, dug-wells, tube wells etc including installation charges. Extent of loss would be determined primarily in terms of the portion of the structure affected. While calculating replacement cost the following principles need to be kept in mind:

- If a structure/ asset is affected 25% or more, then consider the whole structure as affected.
- Do not depreciate the cost of the structure/ asset for its age.
- Refer to the Schedule 1 of the RFCT-LARR, 2013 for guidance
- Allow the PAPs to salvage and carry, for free, any materials for their use. Do include the cost of salvaged material in the replacement cost.

### **11.8.4 Entitlement Matrix**

This Entitlement Matrix is developed giving various entitlements for all categories of PAPs, and has been aligned with RFCT-LARR Act 2013. This Matrix can be used as a guide for designing Resettlement Action Plans for sub-projects. All the families will be entitled to two broad categories of assistance; 1) compensation for land loss; and 2) livelihood (rehabilitation) assistance for starting some income generation activity, which may include the purchase of lands, as decided by the PAF. The livelihood assistance in the matrix are rather indicative (as they are average figures), whereas, the actual assistance will relate to, at the minimum restoring, if not enhancing the pre-land loss income levels. It may also be noted that livelihood assistance figures have been worked out such as to yield an annual income of Rs 36,000 per family, an income level corresponding to the initial ladder of the Above Poverty Line. The amounts given in the Entitlement matrix are for the financial year 2014-15. After this year these amounts will be indexed with the consumer price index and shall be periodically updated to compensate for inflation. Details related to the entitlements are presented in the matrix below.

**Table 11: Entitlement Matrix**

Type of Loss	Identification of Affected Households	Entitlement	Entitlement Details
<b>A. LOSS OF LAND</b>			
1. Loss of agricultural Land	PAPs with legal titles/ rights, recognizable legal rights, usufruct and traditional titles/rights for affected land	Land-for-land or compensation in cash at replacement value	<p>(i) In case of partial impact on land with the remaining land economically viable for unimpaired continued use, compensation in cash at replacement cost agreed through private negotiations u/s J&amp;K LA Act, 1990 will be given (A divisional level committee shall be established under the project. This committee will be responsible for making independent valuation of land based on existing market value. The committee will be empowered to undertake direct negotiation settlement with the APs.).</p> <p>(ii) In case of loss of entire land holding, the PAPs will be entitled to:</p> <p>(a) replacement land of equivalent productive potential if available to EA and acceptable to the PAPs;</p> <p>OR</p> <p>(b) where suitable land is not available or the location is not acceptable to the PAPs, compensation in cash for the entire land holding agreed through private negotiations u/s J&amp;K LA Act, 1990, or at value determined as per First Schedule of RFCT-LARR, 2013</p> <p>(iii). In case of entire loss of productive land, Rupees five lakhs (500,000) or annuity</p> <p>(iv) Transition allowance for 12 months @ Rs. 3000 per month</p> <p>(v) Compensation for loss of standing crops, trees, if any;.</p> <p>(iv) In case of replacement land, the cost of registration, stamps, etc. will be borne by the project.</p>
	Sharecroppers and leaseholders	Compensation in cash	<p>(i) Sharecroppers will receive compensation for their share of the loss of crops.</p> <p>(ii) Leaseholders will receive compensation equivalent to the remaining part of the lease amount.</p> <p>(iii) Additionally, affected sharecroppers and leaseholders will receive cash assistance equivalent to 12 months of income assistance @ 3000 per month</p>

2. Loss of residential or commercial land	PAPs with legal rights/titles, recognizable rights, or traditional rights to the affected land	Land-for-land or compensation at replacement cost	<p>For entire loss of residential, commercial, industrial, or institutional land, or where only a part of the land is affected but the remaining land is rendered too small according to the local zoning laws:</p> <p>(i) Where available and feasible, PAPs will be provided replacement land of similar attributes to that is lost or compensation in cash at replacement cost agreed through private negotiations u/s J&amp;K LA Act 1990 or with reference to the Second Schedule of the RFCT-LARR 2013 for guidance.</p> <p>(ii) In case of replacement land, the cost of registration, stamps, etc. will be borne by the project.</p> <p>(iii) Rupees five lakhs (500,000) or annuity</p> <p>(iv) Transition allowance for 12 months @ Rs. 3000 per month</p>
			<p>For loss of residential, commercial, industrial, or institutional land with remaining land sufficient in accordance with the zoning law and for remaining affected structure, PAPs will be entitled to compensation in cash at replacement cost.</p>
	Tenants and leaseholders	Compensation at replacement cost	<p>(i) For entire loss of land, the leaseholders will get an equivalent area of leased land or reimbursement for unexpired lease period.</p> <p>(ii) In case of partial loss of land, leaseholders will get reimbursement for unexpired lease period for the portion of land lost. In case of replacement land, the cost of registration, stamps, etc. will be borne by the project.</p> <p>(iii) Tenants will receive rental allowance equivalent to 3 months rental value. Compensation will be given for any improvements done by tenants and leaseholders.</p>
<b>B. LOSS OF STRUCTURES</b>			
3. Loss of structures	Owners of affected structures	Compensation in cash at replacement Cost	<p>(i) For partial loss of structure and the remaining structure viable for continued use, PAPs will be entitled to compensation for the affected part of the structures calculated as per the latest prevailing Basic Schedule of Rates (BSR) without depreciation or deductions for salvaged material agreed through private negotiations u/s J&amp;K LA Act 1990 or with reference to the Second Schedule of the RFCT-LARR 2013 for guidance.; and</p>

			(ii) repair allowance for improvement of the remaining structure where applicable at 10% of compensation will be calculated for the affected part of structure.
			<p>For entire loss of structures or where there is only partial impact, but the remaining structure is rendered unviable for continued use:</p> <p>(i) PAPs will be entitled to compensation for the entire structure calculated as per the latest prevailing Basic Schedule of Rates (BSR) without depreciation or deductions for salvaged material agreed through private negotiations u/s J&amp;K LA Act 1990 or with reference to the Second Schedule of the RFCT-LARR 2013 for guidance.;</p> <p>(ii) they retain the right to salvage material from demolished structure; and</p> <p>(iii) for displaced families, provision of house as per IAY norms in rural areas and as per RAY norms in urban areas or cash equivalent thereof as decided by the government with a minimum of Rs 50,000 in rural and Rs. 100,000 in urban areas</p> <p>(iv) Rs 50,000 as transport allowance.</p> <p>(v) Onetime subsistence allowance of Rs.36000/-</p> <p>(vi) Rs 25,000 for the loss of cattle shed, or petty shops</p> <p>(vii) One time resettlement assistance of Rs 50,000/-</p> <p>(viii) Rs. 25000 to who is a rural artisan, small trader or self-employed person,</p> <p>(viii) One time grant of Rs. 500,000 towards employment.</p>
	Tenants and leaseholders of affected structures	Rental assistance	<p>a) Tenants would only be given rental assistance on a case-to-case basis in the form of grant for a period of 3 months.</p> <p>b) Additional structures erected by tenants will also be compensated and deducted from owner's compensation amount.</p> <p>c) Any advance deposited by the tenants or leaseholders will be deducted from owners' total compensation package.</p>
4. Impact on marketplace, shops, businesses, and	Titleholder (owner operator) and non-titleholder (tenant operator) losing shops/	Relocation assistance	<p>Affected enterprise whose commercial structure can no longer be used for commercial purpose as a result of project impact will be provided with the following options:</p> <p>a) All operators will be provided cash compensation as decided by the DLC on case- to-case basis, depending upon their income, size, and location of the shop agreed through</p>

commercial enterprises	commercial enterprise		<p>private negotiations u/s J&amp;K LA Act 1990 or with reference to the Second Schedule of the RFCT-LARR 2013 for guidance,</p> <p>or project-assisted relocation option where available will be based on</p> <p>i) owner operator: will be given a shop in lieu of compensation, with same ownership status. No additional compensation will be paid to him/her.</p> <p>ii) tenant operator: will be provided shop on rent. For first 3 months, no rent will be charged, and after 3 months, tenants will have to pay the agreed rent. If a tenant wishes to own the same, he/she has to pay the cost of the shop. Those opting for this option will not be paid cash compensation for their structure loss.</p> <p>iii) A lump sum transfer grant at the rate of Rs. 50,000.</p> <p>iv) The right to salvage material from demolished structure</p> <p>(v) Onetime subsistence allowance of Rs.36000/-</p> <p>(vi) Rs 25,000 for the loss of cattle shed, or petty shops</p> <p>(vii) One time resettlement assistance of Rs 50,000/-</p> <p>(viii) Rs. 25000 to who is a rural artisan, small trader or self-employed person,</p> <p>(viii) One time grant of Rs. 500,000 towards employment.</p>
<b>C: LOSS OF CROPS AND TREES</b>			
5. Loss of crops and trees	Owner/operators/tenants affected	Compensation at "market value"	<p>a) Advance notice to PAPs to harvest their crops</p> <p>b) In case of standing crops, cash compensation for loss of agricultural crops at current market value of mature crops based on average production</p> <p>c) Compensation for loss of timber trees at current market value of wood/timber or firewood, depending on the kind of tree, to be computed by concerned department</p> <p>d) In case of fruit trees, compensation at average fruit production to be computed by concerned department</p>
<b>D: LOSS OF LIVELIHOOD SOURCE</b>			
6. Loss of primary source of income	Titleholders losing income through business	Transitional assistance	PAPs losing their business establishment due to displacement will be assisted in the form of a grant for the days of closure up to a maximum of 3 months of their income from affected business.

	Titleholders losing income from loss of agricultural land	Assistance for income restoration	PAPs will be entitled to income restoration assistance, vocational training, and skill upgrading options as per PAPs' choice, equivalent to a maximum of Rs. 50,000 per affected household. Specific income restoration measures will be decided in consultation with the people based on their needs and priorities.
	Non-titleholders, namely squatters and encroachers, losing primary source of income	Assistance for income restoration	PAPs losing their business establishment due to displacement will be assisted in the form of a grant equivalent to 3 months of their income from affected business. PAPs will be entitled to income restoration assistance, vocational training, and skill upgrading options as per PAPs' choice equivalent to a maximum of Rs. 50,000 per affected household. Specific income restoration measures will be decided in consultation with the people based on their needs and priorities.
	Wage-earning employees affected in terms of loss of employment	Transitional assistance	Employees affected in terms of loss of employment due to displacement of commercial structure will be given lump sum transitional assistance equivalent to Rs. 3,000/month for 3 months.
<b>E: LOSSES OF NON-TITLEHOLDERS</b>			
7. Encroachers	Households	No compensation for land	a) Encroachers will be given 1 month notice to remove their assets that will be affected. b) Right to salvage material from demolished structure c) Compensation for affected structures at replacement
8. Squatters and informal settlers	Households	No compensation for land, but compensation for structure at replacement cost and other assistance	a) Squatters will be given 1 month notice in which to remove their assets that will be affected. b) Compensation for loss of structure at replacement value or a house as per IAY specifications in rural areas and RAY specifications in urban areas or cash equivalent thereof as declared by the state government not less than Rs 50000 in rural areas and 100,000 in urban areas. c) A lump sum shifting allowance of Rs. 10,000 for temporary, Rs. 30000 for semi-permanent, and Rs.50,000 for permanent structures d) Right to salvage material from demolished structure (e) Subsistence allowance of Rs. 36,000 (other than kiosks) (f) Rs 25,000 for rural artisans, small traders, self employed person

			(g) Rs 5000 only as grant for kiosks which can be relocated without damage
<b>F: TEMPORARY IMPACTS</b>			
9. Temporary impacts on land and other assets during construction	Owner/operator of affected assets	Cash compensation for affected assets and for loss of income potential	<p>a) Compensation for affected standing crops and trees as per the market rates b) In case of impacts on land:</p> <ul style="list-style-type: none"> <li>-Restoration of land to its previous or better quality</li> <li>-Contractor to negotiate a rental rate with the owner for temporary possession of land.</li> <li>-Compensation for crop losses for the duration of temporary occupation, plus 1 more year necessary for the soil to be adequately restored to its original productive potential</li> <li>-Project and contractor to ensure that persons other than the owner affected as a result of the temporary acquisition are compensated for the temporary period</li> </ul> <p>c) Compensation in cash for the loss of income due to temporary loss of access for the duration of the impact</p> <p>d) In case of any impact on the properties (structure) during construction, the contractor will restore the impacted structure to its previous condition before handing over to the owners.</p> <p>e) Any temporary acquisition of land for the project will be done in accordance with the prevalent local laws.</p>
<b>G: LOSS OF COMMON PROPERTY RESOURCES</b>			
10. Loss of common property resources	Affected community/institution responsible	Cash compensation/reconstruction	Cash compensation at replacement value or reconstruction of the community structure in consultation with the community/institution
<b>H: REHABILITATION MEASURES</b>			
11. Additional assistance to vulnerable groups	Households categorized as vulnerable (The groups of people considered socially	Lump sum assistance	Additional lump sum assistance of Rs. 50,000 per household to vulnerable groups such as female-headed households, households with disabled family members, households below poverty line, scheduled tribe and scheduled caste households, etc.



	<p>vulnerable comprise (i) those who are below the poverty line (BPL); (ii) those who belong to scheduled castes (SC) and and scheduled tribes (ST); (iii) female-headed households (FHH); (iv) elderly; and (v) disabled persons.)</p>		
<b>I: UNIDENTIFIED IMPACTS</b>			
<p>12. Any unanticipated adverse impacts due to project intervention</p>			<p>Any unanticipated consequence of the project will be documented and mitigated based on the spirit of the principles agreed upon in this policy framework.</p>

## **11.9 Grievance Redressal**

This section deals with the Grievance Redressal Mechanism, the Grievance Redressal Cell and the legal options available to the PAPs.

### **11.9.1 R&R Committee (RRC)**

In order to address grievances related to land acquisition and resettlement and rehabilitation implementation, two bodies are to be established; R&R Committee at the state level and Grievance Redressal Committee at the district level. The former will be established under the chairmanship of Principal Secretary, Relief and Rehabilitation, to monitor and review the progress of implementation of resettlement, in his capacity as Chairman. Project Director, PMU will be convener of this committee. The composition of the committee will be with the following members:-

1. Heads of participating departments
2. A senior representative, one each from BC&EBC Welfare and SC&ST Welfare
3. A senior representative of the Revenue Department
4. A senior representative of Disaster Management Department
5. A representative of the PRIs
6. A prominent academicians (Social Scientist)
7. A prominent woman development professional
8. A representative of a prominent voluntary organization
9. A representative of PAPs who can articulate well

This committee should meet every quarter to review the progress made in the implementation of the RAPs and to solve any grievances of the PAPs. This committee will also provide policy related direction to the Grievance Redressal Cell and the participating departments with regard to Land Acquisition and Resettlement and Rehabilitation.

### **11.9.2 Grievance Redressal Committee (GRC)**

The Grievance Redressal Committee will be established at each project district under the chairmanship of District Collector for redressal of grievances of the PAPs. PIU in-charge shall be the convener of these committees. At the district level, the IA will provide support to these committees. District level head of all participating departments will be members along with a PAPs representative and a prominent Social Worker of the district.

Macro level issues, at the village level, beyond the purview of the 'District' shall be addressed by the HP and the project staff. It is proposed that the PAPs first registers the grievances with the IA. After receipt of grievance, the IA should take them to the committee to take up the matter during the next immediate meeting and initiate measures for redressal. No grievance can be kept pending for more than a month which means the committee has to meet every month. Implementation of the redressal rests with the PMU. In case the aggrieved party is not satisfied with the proposed redressal measures, it can take approach the state level committee. If the aggrieved party is not satisfied with the decision of state level committee, it can approach the court of law.

**Table 12: Grievance Redressal Mechanism**

Level	Agency	Time period for redressal of grievances	Issues likely to emerge	Responsibility
<b>Village</b>	Halqa Panchayat	Maximum of one week	<ul style="list-style-type: none"> <li>▪ Encroachment</li> <li>▪ Land acquisition</li> <li>▪ Livelihood Assistance</li> <li>▪ Compensation</li> <li>▪ Inclusion of households</li> </ul>	HP, Project Staff
<b>District</b>	Grievance Redressal Committee	Maximum of one month		District Collector as Chairperson and DPIU in-charge as Convener
<b>State</b>	R&R Committee	Maximum of three months		Principal Secretary, Planning as Chairman, Project Director, PMU as Convener

### 11.9.3 Legal Options to PAPs

The PAPs will have two kinds of options for addressing their grievance s relating to the Land Appropriation. One is the grievance redressed mechanism incorporate in this framework as above. The other is the general legal environment consisting of court of law to address their grievance. These options will be disclosed to the PAPs during the public consultation process.

**Table 13: Environmental and Social Activities and Responsibilities to be fulfilled during the sub-project cycle**

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
Preplanning	<b>Identification</b> Environmental and Social Data Sheet	To collect basic information on environmental and social aspects of the proposed sub-project.	The ESMF requires that basic environmental and social data pertaining to the proposed sub-project be compiled at the field data collection stage. For this purpose, a simple Environmental and Social Data Sheet (ESDS) and a simple Socio-Economic Survey format were formulated for sub-projects. The formats for the ESDS are furnished under annexures. The sub-project Implementing Agency (IA) fills up the ESDS with the facilitation support of the PIUs duly identifying the environmental and issues of concern. Supplementary notes on environmental and social concerns to be added to those data sheets.	Implementing Agencies (IAs)	ESDS prepared and attached with the project proposal / concept note
Planning	<b>Screening and Categorization</b> Environmental and Social classification of the sub-project	To ensure that sub-projects with potentially significant environmental / social issues are identified at an early stage for detailed environmental / social assessment.	Evaluate all the available information on environmental and social aspects as provided in the ESDS and assess, based on the level of expected environmental and social impacts (including any field visits if required), whether the proposed sub-project is E1/E2 and S1/ S2.  For E2 and S2, the design consultants will prepare EMP along with the DPR.	PIU, Design Consultants	Sub-project classified as E1/E2 and S1/S2.  As a part of ESMF process the screening and sub-project categorization need to be cleared by The World Bank, before

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
					taking up EA/SA.
Planning	<b>Preparation</b> Environmental and Social Assessment and Management Plans	To conduct Environmental / Social Assessment and Prepare Management Plans for integration into sub-project DPR	For E1/ S1 category sub-projects for which detailed environmental/ social assessment is required, this EA/SA and preparation of EMP/ RAP/ ARAP will be done by consultants independent of the Design Consultants.	Independent Consultants	EA/ SA done. EMP/ RAP/ ARAP Prepared and disclosed prior to start of procurement for that sub-project.
Planning	<b>Appraisal</b> Environmental and Social appraisal	To ensure that relevant environmental and social issues have been identified and appropriate mitigation measures have been designed to address them.	For E2 and S2 sub-projects, there shall be no separate environmental/ Social appraisal but environmental/ social aspects shall be included in the normal appraisal and evaluation process for the proposed sub-project, based on the ESDS included in the DPR. All these sub-projects need to follow the mitigation measures detailed in the ESMF Guidance. This will be ensured by the PIUs.  For projects requiring a detailed Environmental/ Social Assessment, including evaluation of environmental/ social impacts, risk assessment if needed, and design of mitigation measures, will be done by the PMU Environmental and Social Managers.	PMU Environmental Expert Social Expert	Environmental and social appraisal of the project is made and approval of proposed sub-project, with decision to (i) accept scheme as submitted, or (ii) accept scheme with modification suggested in the environmental/ social appraisal.

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
Planning	<b>Approval</b> Environmental and Social approval required	To ensure that mitigation measures and their cost are integrated in scheme design and implementation plans	Approval for the sub-project will not be accorded without the appraisal by PMU and the review of EMP/RAP/TDP by The World Bank	PMU	Technical Sanction for sub-projects with environmental and social mitigation measures and accordingly its costs are integrated in sub-project design and implementation plans.
Implementation	<b>Implementation</b> Implementation of Environmental and social mitigation measures.	To ensure that the prescribed environmental and social mitigation measures (including construction stage) are implemented.	The prescribed environmental and social mitigation measures (including construction stage measures) as identified through the environmental and social appraisal process are adequately implemented. Implementation Completion Report (ICR) for sub-project will need to include an Environmental Compliance Certificate and Social Compliance Certificate given by the Halqa Panchayat indicating that the mitigation measures identified in the appraisal (including construction stage) have been implemented.	Halqa Panchayat PMU	ICR with environmental and social compliance information.

Phase	ESMF Activity	Objectives	Process	Responsibility	Result
O&M	<p><b>Supervision, Monitoring and Evaluation</b></p> <p>Environmental supervision, monitoring and evaluation</p> <p>IEC and capacity building on environmental and social issues.</p>	<p>To ensure that environmental and social aspects are integrated in the O&amp;M phase.</p>	<p>Monitoring of indicators will be conducted as per project monitoring protocol.</p> <p>Supervision will be conducted by the designated environmental officers of the implementing agencies for all the sub-projects</p> <p>All sub-projects will be monitored by PMU.</p> <p>Capacity building and IEC activities are undertaken to enable effective implementation of the ESMF including assessment procedures, supervision, monitoring, etc. as well as for community awareness and sensitization. This will be done by the IA and in turn the IA will be trained by PMU.</p>	<p>PMU</p> <p>External Consultants</p>	<p>PMU will submit quarterly reports to The World Bank on Safeguards Implementation. Quarterly monitoring reports by Independent Consultants. Periodic environmental and social supervision reports. Training and IEC activity reports.</p>

## **11.10 Monitoring and Evaluation**

The ESMF requires detailed supervision, monitoring and evaluation of the impact of the project on the environment and social aspects. In order to carry out this, PMU will have specific arrangements made at state and district level. This includes appointment of an Environmental Specialist and Social Specialist for the project period. Further the PMU will instruct PIUs on how to implement the provisions of this ESMF. At the field level the staff of the implementing agencies have experience of implementing projects concerning their departments and do land acquisition for their project. Implementation of the provisions of ESMF will be new to these staff and hence preparatory orientations and trainings are proposed as a part of this ESMF to build their capacity. In order to achieve the objectives of this ESMF and to ensure the safeguards are implemented in a proper manner, the following provisions are made in this ESMF:

- Environmental Supervision by PMU, PIU and Implementing Agencies
- Exclusive Environmental Specialist and Social Specialist at PMU for overall ESMF implementation coordination and reporting
- Concurrent Environmental and Social Monitoring and Evaluation and Quarterly Environmental and Social Monitoring Reports to the World Bank
- Independent Safeguards Audit (ISA): Half-yearly Environmental and Social Audit, of ESMF implementation by independent project quality audit consultants.
- Environmental and Social Management Capacity Building of PMU, PIU and Implementing Agencies including Consultants, Contractors and Community Based Organizations and Community Members.

The PMU will be in charge of implementing the ESMF. The Environmental and Social Specialists of PMU will guide and oversee the implementation of the ESMF at field level. This overall guidance will be given by them. Further the PMU will incorporate the provisions of this ESMF as actionable points in the Project Operations Manual or other similar document for the project. These will be non-negotiable and will have to be followed by all PMU and PIUs. The Environmental and Social Specialists will oversee the application of these provisions and guide the process, while at the same time building the capacity of the PMU and PIUs.

At the field level the designated environmental engineers of the implementing agencies/ the supervision consultants will ensure the implementation of the ESMF. The following provisions include the arrangements made for the effective implementation of the ESMF:

### **11.10.1 Safeguards Supervision**

This is basically done by PMU. 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 would submit quarterly progress reports to The World Bank on safeguards implementation.

### **11.10.2 Concurrent Monitoring and Quarterly Reporting**

The concurrent internal environmental social monitoring will be done as part of the regular monitoring by the PIU, Implementing Agencies, and design and supervision consultants. However, PMU, with the help of in-house Environmental and Social Specialists will do the regular environmental and social monitoring of sub-projects for safeguards compliance.



The PMU, PIU and the Implementing Agencies will do the regular monitoring of ESMF implementation of all sub-projects. This is done under the supervision and coordination of the Environmental and Social Specialists at PMU.

**11.10.3 Safeguards Monitoring Plan**

Apart from the quarterly monitoring reports submitted to The World Bank, once every year, the PMU will prepare a report of the environmental and social situation in the project districts including data and analysis of relevant parameters as given in the plan below. This report also should give a listing of relevant new legislation and regulations that have a bearing on the environmental social performance of the project. PMU will submit this report to The World Bank. The ESMF will be suitably revised annually on the basis of this document by the PMU. Given in the table below are indicators for project investments, for which monitoring need to be taken up by PMU in a regular manner.

**Table 22: Indicators for project investments**

<b>Project Components</b>	<b>Monitoring Indicators</b>	<b>Frequency</b>	<b>Agency</b>
Reconstruction and strengthening of critical infrastructure	<ul style="list-style-type: none"> <li>Disbursement of entitlements (replacement cost, allowances, income generation grant, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly by Independent Consultants</li> </ul>	<ul style="list-style-type: none"> <li>PMU guiding the collection of information on indicators</li> <li>Independent Quarterly Monitoring Consultants</li> <li>Implementing Agencies / Departments for department</li> </ul>
Reconstruction of roads and bridges	<ul style="list-style-type: none"> <li>Time taken for payment of entitlements</li> </ul>	<ul style="list-style-type: none"> <li>Annually by PMU</li> </ul>	
Reconstruction of urban flood management infrastructure	<ul style="list-style-type: none"> <li>Time taken for land acquisition</li> <li>Number of grievances registered and resolved</li> <li>Number of court cases</li> </ul>		
Strengthening and restoration of livelihoods	<ul style="list-style-type: none"> <li>Women participation</li> <li>Income patterns</li> <li>Land holding status</li> </ul>		
Strengthening of disaster management capacity	<ul style="list-style-type: none"> <li>Changes in occupations</li> <li>Housing status (area, floor, walls, roof, etc.)</li> <li>Ownership of household assets</li> </ul>		
Contingency emergency response Implementation support	<ul style="list-style-type: none"> <li>Length of rural roads</li> <li>Journey time</li> </ul>		

Project Components	Monitoring Indicators	Frequency	Agency
	<p><b>Other</b></p> <ul style="list-style-type: none"> <li>• No. of training programs conducted</li> <li>• No. of personnel trained</li> <li>• Trainees’ understanding of the training content</li> <li>• Achievement of learning objectives</li> <li>• Adherence to contract conditions and standards (housing, sanitation, crèches, use of local labour, equal wages to men and women, avoidance of child labour, etc.)</li> <li>• No. of complaints on inconvenience, nuisance</li> <li>• No. of sub-projects completed without time and cost overruns</li> <li>• Adherence to ESMF provisions/guidelines during sub-project cycle</li> </ul>		ent specific information

**11.10.4 Independent Safeguards Audits**

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

**11.10.5 Environmental and Social Capacity Building**

The PMU will organize regular trainings on Environmental and Social Management for capacity building of PMU, PIU and Implementing Agencies including Consultants, Contractors and Community Based Organizations and Community Members. These details are further elaborated in chapter 6.

**11.11 Stakeholder Consultation**

Due to bad weather, continued landslides in some areas and affected areas being largely inaccessible, the team was unable to undertake independent on-site assessment. In the circumstances the damage and loss assessment carried out by the State government of Jammu and Kashmir has been relied upon. During the JRDNA mission several consultations were held with the line departments, where several details regarding the actual situation

in the affected area were gathered. Discussion with implementing agencies of on-going projects also helped to negate the absence of stakeholder consultations. The issues presented in these sections are the summary of those consultations. A Stakeholder Consultation Workshop with the participating departments and other stakeholders will be held to gather their feedback on the ESMF and accordingly the ESMF will be revised.

### **11.11.1 Stakeholder Involvement and Consultation**

PMU would engage Design consultants to assist them in preparing the sub-project DPRs. In the ToR for these consultants, there is an explicit requirement for the consultants to carry out public/ stakeholder consultations. This is a mechanism to ensure the upfront public/ stakeholder inputs in the preparation of the sub-projects.

For Category E1 and S1 sub-projects, PMU would have to engage independent consultants to prepare the SA / RAP and EA / EMP respectively. In the ToR for the preparation of these outputs, public/ stakeholder consultations form an integral part. For such type of sub-projects obtaining consent of the local agencies and necessary clearances from competent authorities is mandatory and should form part of the EA/ SA. These EA/ SA will be reviewed by The World Bank.

During sub-project implementation Halqa Panchayats, NGOs, Community Based Organisations (CBOs) will be involved. Project monitoring reports would be disseminated in the public consultation meetings in the Halqa Panchayats. The stakeholder meetings would discuss the sub-project progress reports and make recommendations for sub-project control and modifications. These recommendations would be made use for future sub-project design. Consultations are required for preparation of all safeguards mitigation documents and these consultations should be an on-going activity over the life of the project. These would be documented in the EA/SA documentation for each sub-project.

### **11.12 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.

#### **11.12.1 State Level**

PMU and the implementing agencies shall disclose this entire ESMF at their website. The summary of the ESMF need to be translated into local languages (Urdu and Hindi) and placed on the website. ESMF including the Resettlement Policy Framework will be disclosed along with the entitlements matrix in the PMU website. The Entitlements Matrix and GRM brochures shall be disseminated. The ESMF shall also be translated into Hindi and Urdu and made available at the PMU's website.

#### **11.12.2 District Level**

PMU will also arrange to disclose the final versions of the ESMF including the Resettlement Policy Framework and Entitlement Matrix in all the District Collectors Offices, PIUs, and the local offices of the implementing agencies. These would be in place once the final versions

are ready. When this document is updated, then the copies in the different locations would also be updated.

#### **11.12.3** Disclosure by the World Bank at the Infoshop

The World Bank will disclose this ESMF and any future EA/ SA along with EMP/ RAP/ ARAP/ IPDP(TDP) at the Infoshop for reference by interested parties.

During the implementation phase, all the sub-project RAPs/ TDPs shall be disclosed by PMU and the implementing agencies both at the local level and at the state level. These SAs/ RAPs/ TDPs will also be disclosed at the Infoshop of The World Bank.

#### **11.13 Means of Disclosure**

This RPF will be kept at the District Library, District Collector's Office and Block Development Office for interested persons to read and copy. This RPF will be made available at the project web site as well. A summary of each RAP/ TDP prepared under the project, will be displayed at the Halqa Panchayat Offices of the concerned villages. This summary will include the details such as names of titleholders and/or encroachers, voluntary donations made, detail of acquisition, land rate, rehabilitation assistance, etc. This summary will be displayed at the Block Development Offices and at the District Collectors offices too. Apart from this, all the RAPs/ TDPs will be placed on the project web site.

## 12. Indigenous People’s Development Framework (IPDF)

### 12.1 Introduction

Since the Project is contemplating interventions in **areas such as Rajouri** where there are tribals, it becomes imperative to prepare an Indigenous people development plan. No adverse Impacts of the subprojects have been identified on the IP households in any of the proposed subprojects. The key benefits envisaged out of the Project mainly comprise of a sustained improvements in basic service provision within the flood affected areas. Indirect benefits will be available in the form of improved living conditions, a healthier living environment and the prospect of improved income and health status of the population plus an improved economic climate with employment opportunities. This **Indigenous Peoples Development Framework (IPDF) has been prepared compliant with relevant country legislations and the World Bank Policy on Indigenous People (OP 4.10)** to guide selection and preparation of additional subprojects under the Project where impacts on tribal people are identified to ensure better distribution of the Project benefits and promote development of the indigenous peoples in the Project areas.

### 12.2 SC and ST Population in J&K

The J&K state has about 12% ST population and 7.4% SC population as per 2011 census. The district wise SC and ST populatin of the project area is given below:

**Table 14: ST and ST Population**

S. No	District	Total Population	ST Population	%age of Total Population	SC Population	%age of Total Population
1	Jammu	15,26,406.00	69,193.00	4.53	3,77,991.00	24.76
2	Samba	3,18,611.00	17,573.00	5.52	91,835.00	28.82
3	Kathua	6,15,711.00	53,307.00	8.66	1,41,224.00	22.94
4	Udhampur	5,55,357.00	56,309.00	10.14	1,38,569.00	24.95
5	Reasi	3,14,714.00	88,365.00	28.08	37,757.00	12.00
6	Doda	4,09,576.00	39,216.00	9.57	53,408.00	13.04
7	Kishtawar	2,31,037.00	38,149.00	16.51	14,307.00	6.19
8	Ramban	2,83,313.00	39,772.00	14.04	13,920.00	4.91
9	Rajouri	6,19,266.00	2,32,815.00	37.60	48,157.00	7.78
10	Poonch	4,76,820.00	1,76,101.00	36.93	556.00	0.12
11	Srinagar	12,50,173.00	8,935.00	0.71	1,068.00	0.09
12	Ganderbal	2,97,003.00	61,070.00	20.56	117.00	0.04
13	Badgam	7,55,331.00	23,912.00	3.17	368.00	0.05
14	Anantnag	10,69,749.00	1,16,006.00	10.84	1,826.00	0.17
15	Kulgam	4,23,181.00	26,525.00	6.27	21.00	0.00

16	Pulwama	5,70,060.00	22,607.00	3.97	402.00	0.07
17	Shopian	2,65,960.00	21,820.00	8.20	43.00	0.02
18	Baramulla	10,15,503.00	37,705.00	3.71	1,476.00	0.15
19	Bandipora	3,85,099.00	75,374.00	19.57	392.00	0.10
20	Kupwara	8,75,564.00	70,352.00	8.04	1,048.00	0.12
21	Leh	1,47,104.00	95,857.00	65.16	488.00	0.33
22	Kargil	1,43,388.00	1,22,336.00	85.32	18.00	0.01
Total		1,25,48,926.00	14,93,299.00	11.90	9,24,991.00	7.37

### 12.3 Role of Social Welfare Department in SC and ST Development

The Social Welfare Department plays an important role in addressing the problems of the weaker and vulnerable sections of the Society, like old aged persons, women in distress, children in distress, Physically Challenged People, Scheduled Castes, Scheduled Tribes, Backward Classes and other socially & economically weaker sections. The department is also in the fore- front to empower women and for the overall development of the children, especially between the age group of 0-6 years through ICDS. Social Welfare Department administers Central and State Sponsored welfare schemes in the areas of Women and Child Development, Social Justice and Empowerment, Social Security, Tribal Development, Minority Development, Rehabilitation of Militancy Victims and Educational upliftment of SC, ST, PSP and OBC students. It provides direct benefits to the target groups, through various schemes like, scholarship & Hostel facilities, reimbursement of examination fee, old aged pension, widow pension etc.

#### 12.3.1 Vision

To develop a society which offers conducive and stimulating atmosphere for the growth and development, in a safe and protective environment; ensuring dignified life to all the vulnerable groups such as children, women, elderly people, PwDs (Persons with Disabilities), members of SC, ST and OBCs.

#### 12.3.2 Mission

- i. Ensuring development, care and protection for children and facilitating access to learning, nutrition and health facilities.
- ii. Promoting social and economic empowerment of women through various policies and programs, providing social security and institutional support to the women in distress.
- iii. Providing equitable environment for development, growth and education of under privileged classes.
- iv. Providing equal opportunities for development, financial assistance and ensuring compatible infrastructure for the PwDs (persons with Disabilities).
- v. Provide social security and financial assistance to elderly people.

### **12.3.3 Objectives**

- i. Laying the foundation for development of children below 6Yrs with a focus on supplementary nutrition and pre-school, non-formal education and to enhance the awareness and capability of mothers for nutritional and health needs of the child;
- ii. Empowering adolescent girls (11-18 years) through nutrition, health care and life skills education, empowering marginalized women.
- iii. Providing financial assistance and residential facilities to women in distress.
- iv. Providing scholarship for educational upliftment of SCs, STs, OBCs and PSPs children of persons engaged in unclean occupation, PwDs (persons with Disabilities), student from minority communities and students from pahari speaking people community.
- v. Ensuring mobility of PwDs (persons with Disabilities) so that they can live with dignity and honour and providing financial assistance & educational support to them.
- vi. Providing social security to elderly people.
- vii. Providing residential facility for students of under privileged classes in the form of hostels and for orphans in the form of Bal-Ashrams/Nari-Neketans.
- viii. Encouraging NGOs/voluntary organization to work for the welfare of children, women, elderly and PwDs (persons with Disabilities).
- ix. Imparting vocational training to women to enhance their skills for earning dignified livelihood.
- x. Providing prosthetic aid to disabled persons with meager income.

### **12.3.4 Acts and Rules**

The Acts & Rules under the Social Welfare Department are listed below:-

Acts:

1. Backward Classes Commission Act, 1997;
2. Persons with Disabilities Act, 1998;
3. Reservation Act, 2004;
4. State Commission for Women Act, 1999;
5. Protection of Women from Domestic Violence Act, 2010;
6. Jammu and Kashmir Juvenile Justice (Care and Protection of Children Act, 2013.

Rules:

1. J&K State Reservation Rules; 2005;
2. Protection of Women from Domestic Violence Rules, 2011;
3. J&K Juvenile Justice Rules, 2014;
4. J&K State Juvenile Justice (Care & Protection of Children) Rules, 2014.

## 12.4 Tribals/ Indigenous People

The terms 'indigenous peoples', indigenous ethnic minorities', tribal groups,' and 'scheduled tribes' describe social groups with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged in the development process. By definition, IP refers to peoples living in an area within a nation-state, prior to the formation of a nation-state, but who do not identify with the dominant nation. This group has social, cultural, economic, and political traditions and institutions distinct from the mainstream or dominant society and culture. Essentially, indigenous people have a social and cultural identity distinct from the mainstream society that makes them vulnerable to being overlooked in development processes.

### 12.4.1 IPDF Objectives

The Indigenous People's Development Framework seeks to ensure that indigenous people and tribal communities are informed, consulted and mobilized to participate in the subproject preparation. The Framework is intended to guide selection and preparation of additional subprojects under the Project where impacts on tribal people are identified to ensure better distribution of the Project benefits and promote development of the indigenous peoples in the Project areas. IPPF sets out guidelines for: (i) assessing impacts of sub-projects on the tribal people through social screening and follow up social impact assessment if required, (ii) preparing and implementing Tribal Development Plans (TDPs) as a part of safeguards due diligence to ensure that they are adequately consulted and benefited.

#### Social Screening:

Social screening and categorization will be the key to identifying if any sub-project is likely to impact the indigenous/ tribal people. Sub-projects impacting tribal people will be categorized as S3 and will require fuller assessment and preparation of a TDP.

The significance of impacts on Indigenous Peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected Indigenous Peoples community. The level of detail and comprehensiveness of the Indigenous People's Development Plan/ Tribal Development Plan (TDP and IPDP have been used interchangeably and mean the same) are commensurate with the significance of potential impacts on Indigenous Peoples.

The IPDF aims to protect ethnic minorities from the adverse impacts of development, and to ensure that ethnic minorities benefit from development projects and programs. The need for a full TDP will depend on the nature and magnitude of the Project impacts and sensitivity of IP issues. The need for the TDP will be established on the basis of the following criteria, to determine if project impacts are 'significant':

- i. adverse impacts on customary rights of use and access to land & natural resources;
- ii. negative impacts on socio-economic status and cultural identity;
- iii. impacts on health, education, livelihood and social security status; and
- iv. any other impacts that may alter or undermine indigenous knowledge and customary institutions.



The TDP will ensure that project affected IPs are, as well off with the project as without it after the implementation of the plan. This plan will also aim to identify measures towards satisfying the needs and developmental aspirations of IPs.

If, the impacts on IP's are insignificant and due to resettlement related activities then specific actions in favour of the indigenous people will need to be integrated in the Resettlement Plan for the subprojects or a community/ Indigenous People Development Plan. This would ensure appropriate mitigations and benefits for the indigenous people.

Based on both India's legal, constitutional and developmental strategies and The World Bank Policy on indigenous people, the objectives of an IPDP will be as follows:

- i. Ensure that tribal/ ST people affected by any sub-project will benefit from the sub-project;
- ii. Ensure tribal inclusion in the entire process of planning, implementation and monitoring of the sub-project;
- iii. Ensure that the benefits of the sub-projects are available to STs/ SCs more than or at least at par with other affected groups; this may require giving preference to tribal people as vulnerable groups over others on certain benefits under the subprojects; and
- iv. Provide a base for the tribal groups in the area to receive adequate development focus and attention.

### **12.5 Preparation of TDP**

Based on the screening using Environmental and Social Data Sheet (ESDS), showing that the sub-project may impact indiegenous/tribal people, a field-based Social Assessment (SA) will be conducted either as part of the feasibility study or as a stand-alone activity. The SA will, in a gender-sensitive manner, in consultation with Indigenous Peoples communities, identify the project-affected Indigenous Peoples and the potential impacts of the proposed project on them. The SA will provide a baseline socioeconomic profile of the indigenous groups in the project area and project impact zone; assess their access to and opportunities to avail themselves of basic social and economic services; assess the short- and long-term, direct and indirect, and positive and negative impacts of the project on each group's social, cultural, and economic status; assess and validate which indigenous groups will trigger the Indigenous Peoples policy principles; and assess the subsequent approaches and resource requirements for addressing the various concerns and issues of projects that affect them. The level of detail and comprehensiveness of the SIA will be proportional to the complexity of the proposed project and commensurate with the nature and scale of the proposed project's potential effects on Indigenous Peoples, whether positive or negative In order to prepare an IPP the following steps will be undertaken:

- i. Based on the social assessment, establish baseline data on the tribal people (subsistence, employment, community networks) affected by the project (use the criteria in the section above to determine project impacts);
- ii. Review policy guidelines both at national and state level regarding STs;
- iii. If the impacts are considered significant as defined above, prepare an IPDP

- iv. Submit IPDP to the World Bank for review and approval.

As enumerated above, the main features of the TDP will thus comprise of a preliminary screening process, followed by a social impact assessment to determine the degree and nature of impact of each subproject, and an action plan will be developed if warranted.

### **12.5.1 Screening**

A project's Indigenous Peoples category is determined by the category of its most sensitive component in terms of impacts on Indigenous Peoples. Such sub-projects will be categorized as S3. The significance of impacts of a sub-project on Indigenous Peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected Indigenous Peoples community. The level of detail and comprehensiveness of the TDP are commensurate with the significance of potential impacts on Indigenous Peoples. The Project Management Unit (PMU) and Design Consultants are responsible for sub-project preparation and implementation will visit all tribal settlements near the sub-project areas or in likelihood of being affected and influenced by the subproject components. Public meetings will be arranged in selected tribal communities by the PMU and implementing agencies to provide them information about the subproject and take their views on the subproject.

During this visit, the social specialist of the PMU will undertake a screening of the tribal communities with the help of the community leaders and local authorities. The screening will cover the following aspects:

- i. Name(s) of tribal community group(s) in the area;
- ii. Total number of tribal community groups in the area;
- iii. Percentage of tribal community population to that of total area/locality population;
- iv. Number and percentage of tribal community households along the zone of influence of the proposed subproject.
- v. Socio-economic, demographic, cultural and other details of each affected tribal community household

If the results of the screening bring forth the presence of tribal community households affected in the zone of influence of the proposed subproject, a social assessment will be planned for those areas.

### **12.5.2 Social Assessment**

The PMU will undertake a social assessment with the help of a consultant. The SA will gather relevant information on demographic data; social, cultural and economic situation; and social, cultural and economic impacts – positive and negative on the tribal communities in the subproject area.

Information will be gathered from separate focus group meetings within the tribal community, including tribal leaders; group of tribal men and women, especially those

who live in the zone of influence of the proposed subproject under the Project. Discussions will focus on the positive and negative impacts of the subproject as well as recommendations on the design of the subproject. The PMU and will be responsible for analyzing the SA and based on it developing an action plan with the tribal community leaders. If the SA indicates that the potential impact of the proposed Project will be significantly adverse threatening the cultural practices and their source of livelihood, the PMU will consider other design options to minimize such adverse impacts and will prepare an Indigenous Peoples/Tribal Development Plan (TDP/IPDP).

## **12.6 Tribal Development Plan**

TDP will consist of a number of activities and will include mitigation measures of potentially negative impacts by means of modification of subproject design and development assistance. Where there is land acquisition in tribal communities, the Project will ensure that their rights will not be violated and that they will be compensated for the use of any part of their land in a manner that is culturally acceptable to them. The compensation will be in keeping with Entitlement Matrix as provided in the Resettlement Policy Framework of the Project. The IPDP will include:

1. Baseline data
2. Land tenure information
3. Impacts and Losses
4. Identification of mitigation measures
5. Institutional arrangement
6. Community participation
7. Entitlements by Household
8. Monitoring and evaluation
9. Implementation schedule
10. Budget

The PMU will send this TDP to The World Bank for review and comments and concurrence.

### **12.6.1 Free, Prior, Informed Consultation for recording Broad Community Support**

Meaningful consultations would help with all IPs including women throughout the project cycle to seek their informed participation at all stages. Consequently all relevant information relevant to the project would be disseminated among them through regular information disclosure workshops, pamphlets in local language etc. The tribal groups/IPs will be consulted during the preparation of the IPDP. They will be informed of the mitigation measures proposed and their views will be taken into account in finalizing the plan. The Plan will be translated into the tribal language and made available to the affected people before implementation. The disclosure will be in a manner accessible to PAPs where there are differing levels of literacy skills. TDP/IPDPs will include dates, locations and attendees for all consultations held; and that all TDP/IPDPs will include a summary of the results of those consultation, evidence on the level of community support for the project, as well as any concerns or potential risks or conflicts.

The tribal institutions and organizations in the affected area will also be involved in implementing the TDP and in resolving any disputes that may arise.

#### **12.6.2 Institutional Arrangements and Budget**

The Implementing Agency will be implementing the TDP for the sub-project under the supervision of the PMU. However, PMU will have the primary responsibility for the preparation of the TDP. The responsibility of financing, implementation and monitoring of the TDP will rest with the PMU. A local NGO with the relevant experience may be hired to assist the PMU in planning and implementing the TDP.

#### **12.6.3 Monitoring and Evaluation**

The monitoring and evaluation arrangements described under the SMF will apply to the implementation of TDPs as well. The indicators for monitoring planning and implementation of TDP/IPDPs will include the following:

1. That all sub-projects have been screened for presence of IPs, and prepared relevant and practical SAs and IPDPs.
2. The sub-projects were planned in a manner that respected the dignity, human rights, economies and cultures of Indigenous Peoples.
3. The sub-projects ensured that adverse effects were avoided, or if not feasible to avoid, these adequately minimized, mitigated or compensated.
4. The sub-projects affecting tribal people ensured that indigenous peoples shared in culturally appropriate social and economic benefits.

#### **12.6.4 Disclosure**

All TDPs will be disclosed as given in the ESMF.

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## 13. Gender Equality and Social Inclusion (GESI) Guidelines

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### 13.1 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 inception of Five Year Plans but the shift in approach from welfare to development toward women took place in a focused manner in the 6<sup>th</sup> and 7<sup>th</sup> Five Year Plans. The 8<sup>th</sup> Five Year Plan promised to ensure that benefits of development do not by-pass women. The 9<sup>th</sup> Five Year Plan changed the strategy for women from development to empowerment and emphasis on preparation of separate Women Component Plan (WCP) by identifying specific Schemes/Projects having direct bearing on welfare and development of Women. The 10<sup>th</sup> Five Year Plan further strengthened the implementation of 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 11<sup>th</sup> Plan had taken numerous steps forward. However, the targets set out could be only partially achieved. In the 12<sup>th</sup> 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.

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 has population of 1.25 Crore souls over the figure of 1.01 Crore in 2001 census. Total population of Jammu and Kashmir as per 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 sex ratio of 892. Sex ratio (females per thousand of males) is an important indicator of the social conditions particularly with respect to women's status in any society. Low sex ratio shows indulgence of artificial interventions, distorting the biological trend and natural balance in terms of number of females per thousand males. An important concern in the present status of Jammu and Kashmir's demographic transition relates to 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 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 2001 Census to 68% in the 2011 Census. While female literacy has increased from 42.22% in

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 a number of 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 women folk are breaking the barriers/shackles to get equal share in the basic human rights. With higher growth rate than male literacy, the goal is expected to be achieved in near future. Some of the ongoing initiatives, which are likely to spill over to 12<sup>th</sup> Five Year Plan are as under:

- ✓ Sarva Shiksha Abhiyan (SSA), a flagship program, is being implemented in the State for improvement in gross enrolment ratio apart from Universal Elementary Education (UEE) and Universal retention.
- ✓ National Program for Education of Girls at Elementary Level (NPEGEL) aimed to enhance education of girls by providing need based incentives like stationery, books, uniforms etc to the girl student. 287 Girls Middle Schools have been developed under NPEGEL in the State.
- ✓ Kishori Shakti Yojna (KSY) aims at addressing the needs of self development, nutrition and health status, literacy, numerical skills and vocational skills of adolescent girls in the age group of 11-18 years.
- ✓ To reduce gender disparities in education, and to promote women empowerment, 9 womenIs and 12 Women Wings in the exisI ITIs have been established under Prime Ministers Reconstruction Program (PMRP). 5 adIonal ITIs have been approved during 2007-08.
- ✓ Pre-matric scholarship is provided by the State Government to girl students to enhance their level of literacy and to reduce burden on the parents for sustained education.
- ✓ 12 Nari Niketans are functioning in the State having total capacity of 400 inmates to provide free boarding, lodging and healthcare to the destitutes.

## **13.2 Legal Provision Related to Women in J&K**

### **13.2.1 J&K Protection of Women from Domestic Violence Act, 2010**

The State has enacted an act to provide for more effective protection of the rights of women guaranteed under the constitution, who are victims of violence of any kind occurring within the family and for matters connected therewith or incidental thereto called as "J&K Protection of Women from Domestic Violence Act, 2010". The Act provides for appointment of a protection officer in each district by a notification as far as possible be women and possess such qualification and experience as may be prescribed to assists the magistrate in discharge of his functions under this act. The protection shall be under the control and supervision of the magistrate. The protection officer shall report to the magistrate regarding occurrence of domestic violence/incident.

### **13.2.2 Jammu and Kashmir Juvenile Justice (Care and Protection of Children) Act, 2013**

The State has enacted an act to consolidate and amend the law relating to Juveniles in conflict with law and children in need of care and protection by providing for proper care protection and treatment by catering to their development needs and for the adjudication and disposition of matters in the best interest of the children and for their

ultimate rehabilitation and for matters connected therewith or incidental thereto called Jammu and Kashmir Juvenile Justice (Care and Protection of Children) Act, 2013. The act provides for constitution of Juvenile Justice Boards and Child Welfare Committees, establishment of observation homes, special homes, shelter homes and children homes in the state.

The Juvenile Justice board shall consist of judicial magistrate of 1st class and two social workers, forming a bench and every such bench shall have the powers conferred by the code of criminal procedure Samvat 1989 on a judicial magistrate of the 1st class and the magistrate of the board shall be designated the principal magistrate. The child welfare committee shall consist of a chairperson and four other members of whom at least one shall be a women and another an expert on matters concerning children. The committee shall have the final authority to dispose of cases for care, protection, treatment, development and rehabilitation of the children as well as to provide their basic needs and protection of human rights.

### **13.2.3 State Commission for Women Act, 1999**

The state has enacted an act to constitute a state commission for women and to provide for matters connected therewith or incidental thereto called as "State Commission for Women Act, 1999". The act provides for constitution of a body to be known as State Commission for women consisting of a whole time chairperson and two part-time members nominated by the government from amongst eminent women of the state committed to the cause of women. The commission shall investigate and examine all matters relating to the safeguards provided for women under the constitution and other laws, present to the government annual report, to review the existing provisions of the constitution of the J&K and other laws affecting women and recommending amendments thereto.

### **13.2.4 Implementation of the National Mission for Empowerment of Women in Jammu & Kashmir**

Women constitute almost half of the population and are significant contributors to our growing economy. Yet, they suffer from a number of disparities reflected in various social and economic development indicators, such as health nutrition, literacy, education attainment, skill levels, occupational status etc. in addition there are number of gender specific barriers which prevent women from getting their rightful share of public goods and services. With a view to create an environment in which the women realize their full potential, they would need to be given equal access to healthcare, quality education, career, vocational, employment, occupational health and safety social security etc. Besides, the existing laws would need to be amended for progressive elimination of all forms of violence and discrimination against them.

In Jammu and Kashmir, the implementing agency in the name and style of Jammu and Kashmir Women Empowerment Society was established and registered under the Societies Registration Action, VI of 1998, dated 6th March 2013. The bye laws of the Society were formulated and certified under Section 17 of Jammu and Kashmir Society Registration Act-1998.

### **13.2.5 Setting up of State Resource Centre for Women**

Pursuit to this, State Mission Authority headed by the Hon'ble Chief Minister has been constituted vide Government Order No. 1185-GAD of 2012 dated 22.10.2012 read with Government Order No. 315-GAD of 2013 dated 22.02.2013, for implementation of the Mission in the State. The State Mission Authority is responsible for setting the goals and monitoring progress of Mission activities within the State. State Resource Centre for Women (SRCW) provides requisite technical support to the SMA and act as the link between the National Structures and grassroots level. The State Mission Authority with support from the State Resource Centre for Women would utilize the existing state level implementation and monitoring structures under relevant programs. In order to implement the Mission in the State, the National Mission for Empowerment of Women was rolled out in the State vide Government Order No. 97-SW of 2013 dated 28.03.2013.

### **13.3 New Initiatives**

State has started disbursement of oldage pension under NSAP in six pilot districts namely Leh, Kargil, Ganderbal, Srinagar, Rajouri and Jammu through direct benefit transfer (DBT) mode wherein pension amount is credited to their individual accounts. The scheme is being extended to other districts as well covering 1.5 lacs beneficiaries through Aadhar linked Bank Account from next financial year. A detailed survey to capture account numbers, Aadhar Card Number and IFSC Code is underway in the state. Similarly Pre and Post-Matric Scholarship under various State/ Centre sponsored shall also be disbursed by Aadhar linked Bank Account from next financial year. Accordingly, the requisite modalities are being worked out.

#### **13.3.1 Beti Bachao Beti Padhao**

The Government has announced "Beti Bachao Beti Padhao" (BBBP) scheme to address the issue of decline in sex ratio through a mass campaign across the country and focused interventions and Multi-sectoral Action in five gender critical districts. This is a joint initiative of Ministry of Women and Child Development, Ministry of Health and Medical Education and Ministry of Human Resource Development, GOI.

GOAL: Celebrate the Girls Child and enable her education.

OBJECTIVE: Prevent gender biased sex selective elimination ensure survival and protection of girl child.

- Five pilot districts namely Pulwama, Budgam, Anantnag, Kathua and Jammu have been selected under BBBP.
- The Action Plan have been sought from the concerned DDCs .

##### **13.3.1.1 Monitorable Targets:**

- Improve the SRB (Sex Ration and Birth) by 10 points in a year.
- Reduce gender differentials in under five Child Mortality Rate from 8 points to 4 points in 2017.
- Improve the nutrition status of girls –by reducing number of underweight and anaemic girls under 5 years of age.
- Ensure universalization of ICDS.



- Increase girls enrolment in secondary education from 76% in 2013-14 to 77% by 2017.
- Provide girls toilets in every school by 2017.
- Promote protective environment for girl children through implementation of Protection of Children from sexual offences (POCSO) Act, 2012.
- Train elected representatives/gross-root functionaries as community chairperson to mobilise communities to improve CSR and promote girls education. Addressing trafficking, missing children, sexual abuse, tackling juvenile crime and strengthening Child Protection System are priority areas for action.
- Juvenile Justice Act, 2013.
- Integrated Child Protection Scheme.
- POCSO Act, 2012.

#### **13.3.1.2 Strategies**

- Implement a sustained social mobilization and communication campaign to create equal value for the girl child and promote her education.
- Place the issue of CSR/SRB in public disclosure, improvement of which would be a indication for good governance.
- Mobilise and train Panchyati Raj Institution/ULB, grass-root workers as catalysts for social change.
- Ensure service delivery structures/schemes, programmes are sufficiently responsive to issue of gender and children rights.
- Enable inter-sectoral and inter-institutional convergence at District/ Block/ Grass-root level.

#### **13.3.1.3 Components**

- Mass communication campaign on Beti Bachao Beti Padhao:
- The campaign will be aimed at ensuring girls are born, nurtured and educated without discrimination to become empowered citizen with equal right.
- Multi-sectoral intervention in gender critical Districts Low on CSR.
- Multi-sectoral action have been drawn in consultation with MOHFW and MoHRD. State to adopt flexible frame work for Multi-sectoral Action through the State Task Force for devolving, implementing and monitoring State/District Action Plans of the State/District Specific monitorable targets. Actions to be undertaken

#### **13.3.1.4 District Level**

- Constitution of District Task Force (DTF) headed by Deputy Commissioner with representative of line departments, Health & Family Welfare, Education, Panchayati Raj and police.
- Develop District Action Plan involving ICDS functionaries.

- Provide guidance for implementation of Multi-sectoral action.
- Undertake monthly review meeting.
- Nominate Nodal Officer from each District for formulate, implementation and monitoring of District Action Plan.
- Designate a coordinating officer among the line departments to facilitate the process.
- Review the implementation of PC and PNNT.

#### **13.3.1.5 Block Level**

- Constitution of Block Task Force (BTF) headed by Block Development Officer with representative of line departments, Health & Family Welfare, Education, Panchayati Raj and police.
- Develop Block Action Plan involving ICDS functionaries.
- Provide guidance for implementation of Multi-sectoral action.
- Undertake monthly review meeting.
- Designate a coordinating officer among the line departments to facilitate the process.

#### **13.3.1.6 Time Line**

- Constitution of District Task Force within one month of approval of the scheme.
- Ensure first meeting of DTF/ BTF within a week's time of its constitutions.
- Finalize timeline and monitorable targets for District Plan with 15 days and submit it to Government of India DWCD through State Government.
- District Action Plan will be rolled out as soon as tools are transferred to the district.

#### **13.3.1.7 Implementation activities**

### **1. A. Orientation and sensitization**

#### Orientation

- Orientation of District Offices/ Zila Parishad, judiciary District Legal Services Authority/Doctors with first orientation of the Roll out of the scheme.
- Orientation of Block offices/ PRI/ Serpanchs frontline workers/ SHGs.
- Orientation of panches/ village health sanitation monitor Committees•

#### Sensitization

- Sensitization of MPs/ MLAs/ Religious leader/ community leaders with first orientation of the Roll out of the scheme;
- Sensitization of teachers on Child Sex Ratio through Sarve Shikha Abhyan with first orientation of the roll out of scheme.

### **B. Effective Implementation of PC and PNNT**

- Identify source of baseline data for measuring the CSR, SRB.

- Selected district will have to measure/ identify baseline data by December 31st, 2014. Against this, the progress of proposed intervention will be measured after two years.
  - Strengthen District PC & PNDT cell by recruiting at-least 05 human resources.
  - Map all available ultra-sonography machine in the district.
  - Ensure District statutory institutional bodies.
  - Analysis birth records.
  - Update information of all ongoing PNDT court cases by District legal consultation.
  - Ensure functioning of anonyms online complete portal.
- C. Enabling environment for value and Education of girl child
- Enabling environment for the birth of girl child through:
    - Registration of pregnancy in the first trimester at AWCs/ Health Centres, ante natal care.
    - Promote effective implementation of Mother & Child Protection Card (MCPC) by AWWs/ASHAs.
    - Using fixed monthly village health and nutrition days.
    - Improve awareness MoWCD program & schemes, ICDS, ICPS, IGMSY, SABLA, Creche, Swadher Greh, Working Women Hostels.
    - Identify community watch groups.
    - Incentivise schools/Panchayat/ULB frontline worker on annual basis.
- D. Enable Education
- Activate school Management Committees (SMCs) to ensure universal enrolment of girls through special drives-over a continuum.
  - Create Balika manches to encourage participation of girls in schools.
  - Construct Kasturba Gandhi Bal Vidyalayas (KGBV) to be completed.
  - Campaign to re-enroll drop-out girls in Secondary school.
  - Institute a district level award to five schools for promoting girls education.
- E. Training and Capacity Building
- Mainstreaming Gender equality related concerns.
  - Integration of the girl child and gender equality related concerns in the training strategy of Administrative, Police, Judicial, medical colleges and other training academies.
  - Strengthen capacities of the existing training institutions of the relevant Departments.

- Inclusion/ Integration of the girl child and gender equality related concerns into the training curricula and modules of relevant flagship programs/ schemes such as ICDS, NRHM/NHM, SSA, NRLM, MGNREGA, TSC and PRIs, ULBs.

#### Capacity Building

- Training of frontline workers such AWW/ASHAs.
- Training of District Appropriate Authorities.
- Build Capacities of training institutions

#### F. Advocacy, Community Mobilisation and Awareness Generation

- Community Mobilization and outreach through Naari KiChaupal, Beti Janmotsav, Mann Ki Baat, etc. Spread the message of Beti Bachao Beti Padhao (BBBP).
- Dedicate a special day every month for celebration of Beti Bachao Beti Padhao.
- National girl child day be celebrated 24th January, 2015.
- International Women's Day on 8th March.
- Pledge for protection, safety, value and education of the girl child.
- Encouraging reversal of son centric rituals and customs.
- Inclusion of local religious leaders.
- Promoting of simple weddings.
- Promoting of equal property rights.
- Prevention of early/child marriage.
- Awards and Incentives.

### 13.4 Special Attention to Women and Other Vulnerable Groups

The vulnerable groups include Scheduled Tribes and Castes, Women Headed Households, Destitutes, Below Poverty Line families, Old Aged, Chronically Ill and Orphans. It is envisaged that in the course of conducting Social Assessment and preparing and implementing Resettlement Action Plans, interests of these vulnerable groups would be adequately addressed and protected.

#### 13.4.1 Information on Vulnerable Groups

Like in other projects, as per available experience, in these sub-projects as well, women are likely to experience differential socio-economic setbacks due to their disadvantaged positioning within socio-economic structures and processes. This is likely to be manifested most in the loss of common property resources as a result of their displacement. In order to mitigate such impacts the IA during verification and socio-economic survey shall collect information on the following:

- Number of women headed households and Tribal households and other vulnerables
- Socio-demographic characteristics of affected women and tribals and other vulnerables

- Health status including number of children per woman
- Women's role in household economy by collecting information on usual activity; occupation; etc
- Time Disposition
- Decision making power among women PAPs

As women are often the worst victims of transition between displacement and resettlement, they have to be integrated in the project as full-fledged participants taking part in all the stages of the project starting from planning through implementation and on to the post-project stages. This is the only way to make sure that the process of resettlement and rehabilitation an exercise in equitable distribution of resources and benefits in a gender sensitive manner.

### **13.4.2 Actions to be taken**

IA has to perform following tasks:

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

#### **13.4.2.1 Participation**

Participation and engagement of women and other vulnerable can be ensured specifically in the following ways:

- 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. Compensation for land and assets lost, being same for all the affected or displaced families, special care needs to be taken by the IAs for women groups, while implementing the process of acquisition and compensation as well.
- Ensure that women are actually taking part in issuance of identify cards, opening accounts in the bank, receiving compensation amounts through cheques in their name, etc. This will further widen the perspective of participation by the women in the project implementation. While registering properties make sure they are registered in both the spouses names.
- Provide separate trainings to women groups for upgrading the skill in the alternative livelihoods and assist throughout till the beneficiaries start up with production and business.
- Initiate women's participation through Self-Help Group formation in each of the villages affected by the project. These groups can then be linked to special development schemes of the Government.
- 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.

All these done in a participatory manner might bring sustainable results in terms of income restoration of women as a vulnerable group.

#### 13.4.2.2 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. The construction works starts after the R&R activities are over and sites are clear of any encroachment and other encumbrances. The construction contractors set up their construction camps on identified locations, where labour force required for the construction activities will be provided with temporary residential accommodation and other necessary infrastructure facilities. The labour force required for the construction activities has to be of a highly skilled nature, as there is a requirement of mechanised work in construction of sub-projects. In addition, there is also a requirement of unskilled labour, where women can certainly contribute.

Apart from this, women as family members of the skilled and semi-skilled labourers, will also stay in the construction camps and will be indirectly involved during the construction phase. The families of labourer will include their children also. The construction contractors are expected to bring along skilled labour where as local labour available will be used for unskilled activities. The labour force, both migratory as well as local will have male as well as female members.

#### 13.4.2.3 Ensuring Facilities in Construction Camps

Foreseeing the involvement of women, both direct and indirect in the construction activities, IA 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:

- (a) **Temporary Housing:** During the construction the families of labourers/workers should be provided with residential accommodation suitable to nuclear families.
- (b) **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. The health centre should have at least a doctor, nurses, General Duty staff, medicines and minimum medical facilities to tackle first-aid requirements or minor accidental cases, linkage with nearest higher order hospital to refer patients of major illnesses or critical cases. The health centre should have MCW (Mother and Child Welfare) units for treating mothers and children in the camp. Apart from this, the health centre should provide with regular vaccinations required for children.
- (c) **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.

The crèche should be provided with at least a trained ICDS (Integrated Child Development Scheme) worker with 'Ayaahs' to look after the children. The ICDS worker, preferably women, may take care of the children in a better way and can manage to provide nutritional food (as prescribed in ICDS and provided free of cost by the government) to them. In cases of emergency, a trained ICDS worker can tackle the health problems of the children much more efficiently and effectively and can organise treatment linking the nearest health centre.

- (d) **Proper Scheduling Of Construction Works:** Owing to the demand of a fast construction work, it is expected that a 24 hours-long work-schedule would be in operation. Women, especially the mothers with infants, should to be exempted from night shifts as far as possible. If unavoidable, crèche facilities in the construction camps must be extended to them in the night shifts too.
- (e) **Education Facilities:** The construction workers are mainly mobile groups of people. They are found to move from one place to another taking along their families with them. Thus, there is a need for educating their children at the place of their work. Wherever feasible, day crèche facilities may be extended with primary educational facilities or some kind of informal education facilities could be created at the construction camp.
- (f) **Control on Child Labour:** Minors, i.e. persons below the age of 14 years, should be restricted from getting involved in the constructional activities. It will be the responsibility of IA and social and environmental experts of PIUs to ensure that no child labourer is engaged in the activities. Exploitation of women is very common in such camps. IA shall keep strong vigilance to ensure cessation of such exploitation.
- (g) **Special Measures For Controlling STD, AIDS:** Solitary adult males usually dominate the labour force of construction camps. They play a significant role in spreading sexually transmitted diseases. In the construction camps as well as in the neighbouring areas, they are found to indulge in high-risk behaviour giving rise to STDs and AIDS.

While it is difficult to stop such activities, it is wiser to make provisions for means of controlling the spread of such diseases. IA shall conduct awareness camps for the target people, both in the construction camp and neighbouring villages as well. IA shall have to tie up SACS for awareness and IEC materials, and supply of condoms at concessional rate (or free) to the male workers may help to a large extent in this respect.

#### 13.4.2.4 Other Actions

- Cases of compensation to vulnerable should be handled with care and concern considering their inhibited nature of interaction.
- All compensations and assistances would be paid in a joint account in the name of both the spouses; except in the case of women headed households and women wage earners.

- IA shall prepare a list of able bodied and willing women PAPs for constructional activities and hand over the same to IAs to be forwarded to contractor.
- At least half (subject to a minimum of one third) of the IA staff and all other involved agencies (including consulting agencies) staff should be woman. When qualified/ skilled women are not available, women with lesser qualifications/ skills may be employed and trained. They may be encouraged and facilitated to obtain the necessary qualifications and/or skills during the employment. The proposed women personnel shall be available to work at site for at least 50% of the duration of the contract. Women may be replaced during the period of contract, only with women persons of equivalent qualifications and experience.
- Same wage rate for men and women must be ensured.
- Scheduled tribe population identified and they should be given first preference in selection for any project benefit, viz., agriculture demonstration plots, shared tube wells, rehabilitation of silted lands, livelihoods, etc.
- The petty contracts arising out of the sub-project should considered entrusting to SHGs on community contract basis.
- While selecting community members for training at least half of them should be women and vulnerable people.



## 14. Institutional Arrangements, Capacity Building and Budget

### 14.1 Introduction

A Project Steering Committee (SC) will be set up for the overall strategy guidance and monitoring of the project. It will be headed by the Chief Secretary and will comprise all involved line departments, and additionally the departments of Finance, Planning, Environment, and Social Welfare. The SC will formally approve the project investments and help coordinate the activities of various departments, including in obtaining required approvals/clearances for the Project. This shall be done through semi-annual review meetings, where the SC shall:

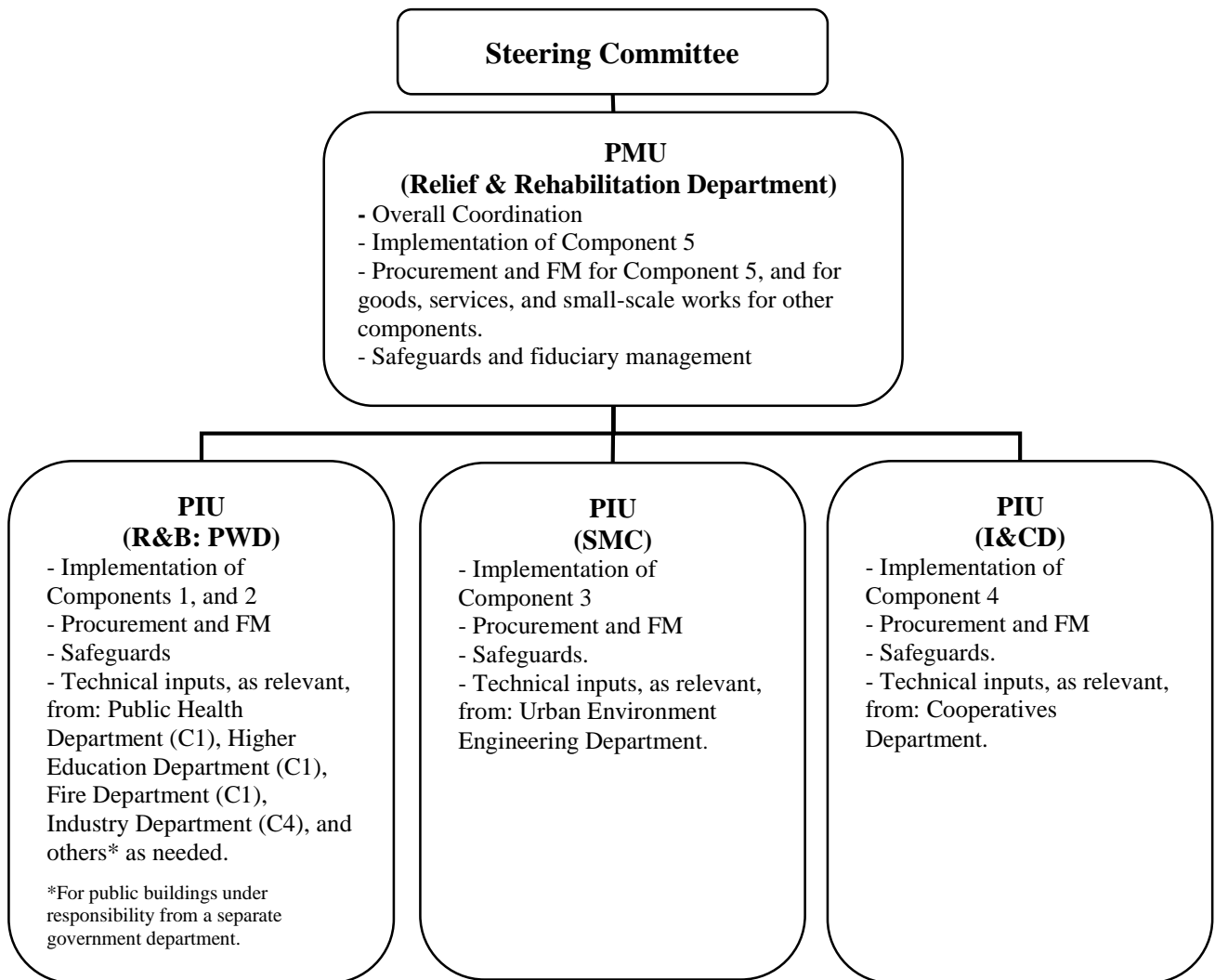
- Review the budgets
- Review progress against the defined milestones
- Review critical findings of the audit and evaluation reports
- Provide such guidance, as it may deem necessary for the Project

A Project Management Unit (PMU), housed within the Relief & Rehabilitation Department (R&RD), will be responsible for overall project management, coordination, and reporting, and for implementation of Component 5. The PMU will also be responsible to carry out procurement of goods, services, and small scale works for other components, with technical inputs from the relevant line departments.

There will be three Project Implementation Units (PIUs) that will be set up at the beginning of the Project. During project implementation, additional PIUs might be set-up depending on the volume of investments and capacity. The three PIUs are:

- (i) Roads and Building Department (R&B), will be responsible for all civil works under Components 1, and 2, and it will receive technical inputs from the Departments of Health, Higher Education, Fire, and others as relevant depending on the nature of the civil works;
- (ii) Srinagar Municipal Corporation (SMC) will be responsible for implementation of Component 3 and it will be assisted by the Urban Environment Engineering Department (UEED) for technical inputs and procurement of goods, works, and services in line with its official responsibilities and capacity; and
- (iii) Industry & Commerce Department (I&CD) will be responsible for implementation of Component 4 with support from other agencies.

The graph below outlines the proposed implementation arrangements:



#### 14.1.1 Project Management Unit (PMU)

The PMU will be responsible for:

- j) Overall project management and reporting.
- k) Coordination with PIUs and line departments in approval of designs, assisting the PIUs in preparation of: DPRs, bidding documents, tendering schedules, etc.
- l) Appointment of technical assistance consultants and others safeguards management support to the implementing agencies.
- m) Quality Assurance through third party audits.
- n) Maintaining MIS and Quarterly reporting.
- o) Progress reporting, financial management, monitoring and reporting.
- p) Implementation of Component 5.
- q) Ensuring compliance with agreed implementation procedures and other Bank

requirements, etc.

r) Grievance redress.

#### **14.1.2 Project Implementation Units (PIU)**

Specific sub-project activities will be planned and carried out by one or more Implementing Agencies (IA), who will be monitored by PIUs established for each Project component. The PIUs will be responsible for:

- Preparation of Detailed Project Reports including technical designs, surveys and investigations, etc.
- Tendering, bid evaluation, contract award, contract management, etc.
- Financial Management and safeguards compliance.
- Progress and expense reporting to the PMU.
- Coordination with line departments for design, implementation, and hand-over arrangements.
- Grievance redress.

Line departments will provide technical inputs to the PIUs as relevant, in line with their sectoral responsibility. In line with their capacity and, as agreed by the PMU and the respective PIU, they will also carry out procurement of goods, works, and services.

**Support and Monitoring of Reconstruction components:** The PMU will put in place a monitoring mechanism that includes photo identification and tracking system for individual beneficiaries. In addition the PMU will also put in place a GIS based reporting and monitoring system for all other reconstruction works in the State. Partnership with NGOs/CBOs and consultations with communities will be integral to the reconstruction work particularly the reconstruction of roads and bridges and restoration of livelihoods.

**Project Management Consultants:** PMU will hire consultants using pre-agreed Terms of References, for:

- Technical Support and Advise
- Financial/Procurement Management and Project Audit
- Developing the GIS based reporting and monitoring system
- Result monitoring and impact evaluation, etc.

#### **14.2 Monitoring and Evaluation**

The PMU will have the overall responsibility for project implementation including, but not limited to, reporting, monitoring and evaluation, procurement control, financial management, audit and disbursements, compliance with the environmental and social policy requirements, as well as coordination with the line agencies and the World Bank. The PMU will put in place a monitoring mechanism that includes photo identification and geo-referenced tracking system for works. The PIUs will be responsible for feeding the required information into the system.

Within the PMU, full time Environment Specialist and Social Specialist will be appointed to handle all matters pertaining to environment and social management under the project,

including implementing the ESMF and compliance with it. These Environment Specialist and Social Specialist will be available for the entire project life.

The key responsibilities of the Environment and Social Specialists include:

- h) Orientation and training of implementing agency teams and the contractors on environmental and social management
- i) Leading/ providing oversight on the EA/SA process and its outputs
- j) Review of monitoring reports submitted by the implementing agencies on ESMF/EMP/RAP implementation
- k) Conducting regular visits to project sites to review ESMF compliance during sub-project planning, design and execution
- l) Providing guidance and inputs to the implementing agency teams on environment and social management aspects
- m) Reporting to PMU, Steering Committee and The World Bank as specified in the ESMF
- n) Coordinating with Project Implementation Quality Audit Consultants

These Specialists will also deal with matters pertaining to integration of ESMF into the sub- project design and contract documents; preparation of Terms of References for studies such as for EA/SA; reporting, documentation, monitoring and evaluation on environment and social aspects and will ensure overall coordination with the Implementing Agencies and PIUs and PMU. The PIUs and their field offices at the district and block level will support the preparation of ESDS, RAP, EMP, TDP and their implementation. The PIUs will identify nodal officers to manage and social and environment safeguards issues during planning and implementation of sub-projects.

Further to support the Environment and Social Specialist, the 'Independent Project Implementation Quality Audit Consultants will have expertise in social safeguards and will review the compliance with RPF, TDP and GESI activities by all the sub-projects. The quality audit consultants will submit half-yearly reports to PMU, which will be an important resource for Bank team's assessment on safeguards management of the project.

The ESMF will be reviewed annually by the Bank on the basis of this document by the PMU and ESMF shall be updated as agreed with the Bank, when so required.

### **14.3 Training and Capacity Building**

The project staff will need to have awareness, sensitivity, skills and experience regarding the environmental and social aspects of sub-projects planning and implementation. For sustainability and seamless adaption of the environmental and social principles and safeguards by all the implementing partners, awareness creation and capacity building becomes necessary. This capacity building and IEC strategy has been outlined as part of the ESMF program developed for the project. It aims at building environmental and social awareness and management capacity in the project implementation structure as well as in the intended target communities. Capacity building for environmental and social management will be integrated with overall capacity building component of the project.

### **14.3.1 Capacity Building Objectives**

The objectives of the capacity building initiatives are:

- To build and strengthen the capability of project implementation staff, participating departments, and other partners to integrate sound environmental and social management into sub- project implementation.
- To orient the project implementation staff, participating departments and IAs at district level and communities to the requirements of the project's ESMF.

Systematic capacity building initiatives need to be introduced only after completion of training needs assessment. The training should be of cascade mode. All the trained staff and others will in turn conduct further trainings at district, block and village levels. However, since capacity building goes beyond imparting training, institutionalization of best practices becomes a prerequisite for improved sub-project environmental and social management. The training outcomes like trainees' understanding of the training content, achievement of learning objectives, application of methods, tools and techniques learnt during training, etc. need to be monitored and audited. This will be done by the monitoring consultants.

### **14.3.2 Training Details**

In view of the specialized training and capacity building envisaged under the ESMF of the project, it is necessary to identify nodal training institutes that will work closely with PMU for conceptualizing, designing, conducting and managing training programs on the ESMF. Some such specialized institutions are:

- Selected Expert Staff of Participating Departments
- Selected Expert Staff of Disaster Management Department, Environment and Forest Department, Mines and Geology Department, etc.
- Indian Institute of Technology, Roorkee
- Uttarakhand State Pollution Control Board
- Engineering Staff College of India, Hyderabad
- Other Identified Consultants

The details of the proposed training programs are as below:

- Orientation/ Learning Training Programs
- Training on the ESMF and Mitigation Plans
- Training on Environmental and Social Management
- Workshops on ESMF

The likely participants are key officials of the project, PMU staff, PIUs, Participating Departments' staff, IAs and State Level Environmental and Social Specialists, Environment and Social Experts at the PIUs, Resource Persons, Halqat Panchayat Representatives, Community Representatives, NGOs, CBOs, Women Groups, etc. About 20 to 30 trainees

would participate in each of the training programs. It is intended that these trained persons will in turn provide onsite training to Participating Departments' Staff, IAs, Resource Persons, HP Representatives, Community Representatives, NGOs, CBOs, Women Groups, etc., onsite at district/ block level.

### 14.3.3 Training Budget

The total estimated cost of training on environmental and social management under the proposed project is presented in the table below:

**Table 15: Training Budget**

S.No.	Training	No. of Programs	Estimated Unit Cost (in Rs.)	Total Cost (in Rs.)
1.	Orientation/ Learning Training Programs	20	1,00,000	20,00,000
2.	Training on the ESMF and Mitigation Plans	10	5,00,000	50,00,000
3.	Training on Environmental and Social Management	5	10,00,000	50,00,000
4.	Workshops (State)	10	2,00,000	20,00,000
5.	Workshops (District)	10	1,00,000	10,00,000
6.	Provision for travel, allowance, other training expenses, etc.			1,50,00,000
	<b>Total</b>			<b>3,00,00,000</b>

### 14.4 ESMF Budget

The total administrative budget for environmental and social management activities under the UDRP has been worked out as Rs. 9.10 crore. The cost of implementing the proposed mitigation measures is not included in this costing. The cost of mitigating environmental and social impacts need to be included in the respective sub-projects' budgets. The detailed breakup of the administrative budget is presented in the table below.

**Table 16: Administrative Budget for ESMF activities**

<b>S No.</b>	<b>Activity</b>	<b>Amount in Rs.</b>
8.	Training and workshops (as estimated)	3,00,00,000
9.	Community Mobilization Staff Costs (lump sum)	2,00,00,000
10.	ESMCs for 4.5 Years @ Rs. 50 Lakhs per year	2,25,00,000
11.	Preparation of specific environment and social related community awareness materials (lumpsum)	1,00,00,000
12.	Sub Total	8,25,00,000
13.	Contingencies @ 10%	82,50,000
14.	Other unforeseen items	2,50,000
	<b>Total</b>	<b>9,10,00,000</b>

## 15. Annexures

### 15.1 Annexure 1: Environmental and Social Screening Data Sheet – Critical Infrastructure/ Flood Management Infrastructure/ Livelihoods

#### A. Environmental Screening

##### Part a: General Information

Location of the sub-project	
• Name of Sub-Project	
• Name of the State	<b>Jammu and Kashmir</b>
• District	
• Block	
• Village	
Implementing Agency Details (sub-project level)	
• Name of the Department/Agency	
• Name of the designated contact person	
• Designation	
• Contact Number	
• E-mail Id	

##### Part b: Environment Screening

Note: The boundary condition below (distance of 1km) has been considered to be a safe distance from environmentally sensitive areas. If the distance is less than 1km, there might be needs of changes in design to minimize or additional specific mitigation that will be required to address the impacts – and the intent of screening is to pick up these cases. Wherever, regulatory requirement (say in specific cases of protected areas) is more than 1km, those will remain in force as per the regulation, and should be considered for the purpose of screening.



Question	Yes	No	Details
<b>1. Is the sub-project located in whole or part within a distance of 1 km from the nearest edge of any of the following environmentally sensitive areas?</b>			
a. Biosphere Reserve			If yes, mention name and distance.
b. National Park			If yes, mention name and distance.
c. Wildlife/Bird Sanctuary			If yes, mention name and distance.
d. Game Reserve			If yes, mention name and distance.
e. Tiger Reserve/Elephant Reserve			If yes, mention name and distance.
f. Wetland			If yes, mention name and distance.
g. Natural Lake			If yes, mention name and distance.
h. Swamps/Mudflats			If yes, mention name and distance.
i. World Heritage Sites			If yes, mention name and distance.
j. Archaeological monuments/sites (under ASI's central/state list)			If yes, mention name and distance.
k. Reservoirs/Dams			If yes, mention name and distance.
<b>2. Is the sub-project located in whole or part within a radius of 500 m<sup>2</sup> from the following features?</b>			

<sup>2</sup> Note: The boundary condition (distance of 500m) has been considered to be a safe distance from non-protected, non-critical but environmentally sensitive areas. If the distance is less than 500m, there might be needs of changes in design to minimize or additional specific mitigation that will be required to address the impacts – and the intent of screening is to pick up these cases. Wherever, in the unlikely cases, local/state regulatory requirement is more than 500m, those will remain in force as per the regulation, and should be considered for the purpose of screening.

a. Reserved/Protected Forest			If yes, mention name and distance
b. Migratory Route of Wild Animals/Birds			If yes, mention name and distance
c. Area with threatened/rare/ endangered fauna (outside protected areas)			If yes, mention name and distance
d. Area with threatened/rare/ endangered flora (outside protected areas)			If yes, mention name and distance
e. Habitat of migratory birds (outside protected areas)			If yes, mention name and distance
f. Historic Places (not listed under ASI – central or state list)			If yes, mention name and distance
g. Regionally Important Religious Places			If yes, mention name and distance
h. Public Water Supply Areas from Rivers/Surface Water Bodies/ Ground Water Sources			If yes, mention name aistance

**2. 3. Information related to sub-project impacts:**

**Will the construction, operation or decommissioning of this sub-project cause changes to or have impacts on the following?**

1. Land Use			If yes, give full details.
2. Water			If yes, give full details.
3. Air			If yes, give full details.

**Will the construction, operation or decommissioning of this sub-project produce, cause or release any of the following?**

4. Solid waste			If yes, give full details.
5. Noise/ vibration/ light/ heat energy/ electromagnetic radiation			If yes, give full details.
6. Accidents			If yes, give full details.

**Other**

7. Are there any areas around the project location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the sub-project?		If yes, give full details.
8. Any other impacts?		If yes, give full details.

**Part c: Transect Walk Map**

While filling in this data sheet, the implementing agency should hold a consultation with the local community through the Halqa Panchayat in order to determine and sort out issues of land availability (including forest land), moderate any adverse social and environmental impacts and elicit necessary community participation in the programme. For this purpose the implementing agency should organise an informal 'Transect Walk' and prepare a map (Not To Scale) of this and attach the same to this data sheet. The following points should be borne in mind while preparing this map.

- The Transect walk shall be undertaken by the Officer filling in this data sheet, accompanied by the Sarpanch of the Halqa Panchayat/ Ward Member and other community members after adequate advance publicity. The local Forest official may also be associated if forest land is involved.
- During the Transect Walk, issues relating to land requirements for the embankment and its impact on landowners, encroachers, squatters, etc. need to be discussed with members of the local community present. Collect all land related revenue records, maps and gazettes for supporting the claims and attach to this report. To this check list attach a typical cross section of the structure at its widest and note the land required.
- Environmental impact on vegetation, land, soil and water etc. shall be identified and noted for resolution.
- During the walk, due opportunity shall be given to interested persons to put forward their points of view.
- At the end of the walk and after recording the issues that arose during the walk, the action taken/ proposed to resolve the issues be noted. This shall be recorded by the Secretary of the Halqa Panchayat and countersigned by the Sarpanch/ Ward Member. A copy of this document shall be attached to the data sheet.
- During or after (as convenient) the Transect Walk, a map (Not To Scale) with the location of buildings, the environmental features around the site, ownership of land need to be prepared. Identify all structures, viz., places of worship, schools, hospitals and other common property resources, forest land, etc. and locate on this Transect Walk Map.
- To this map attach some photographs showing and highlighting the most critical places.

<b>Part d : Result/ Outcome of Environmental Screening Exercise</b>		
1.	No EIA Required	
2.	EIA Required	
3.	Regulatory Clearance Required	If yes, mention type of clearance required.

## **B. Social Screening**

### **Part a: Social Impacts Information**

#### **1. Land Requirement for the sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Government Land	Acres	
Private Land	Acres	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	

#### **2. Agricultural Land affected due to sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Agricultural Land	Number	

#### **3. Dwellings affected due to sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Total Affected	Number	
Title Holders	Number	

Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Dwellings	Number	

**4. Commercial properties affected due to sub-project:**

Details	Unit	Quantity
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Commercial Properties	Number	

**5. Common Property Resources Affected: (Please give each type by number)**

Type	Unit	Quantity
	Number	
	Number	
	Number	
	Number	
	Number	

**6. Are there any tribal people living in the project area or in the near vicinity? If yes, provide the following information.**

- i. Name(s) of tribal community group(s) in the area;
- ii. Total number of tribal community groups in the area;
- iii. Percentage of tribal community population to that of total area/locality population;
- iv. Number and percentage of tribal community households along the zone of influence of the proposed subproject.
- v. Socio-economic, demographic, cultural and other details of each affected tribal community household

<b>S No</b>	<b>Items</b>	<b>Results</b>
1.	Total no of HH affected due to proposed project activity (Single or multiple impacts)	
2.	Total no of vulnerable HH affected due to proposed project activity (Single or multiple impacts)	
3.	Total number of Community Property Resources affected	
4.	Total number of tribal families living in project area/ or are affected by the sub-project	
<b>Part b : Result/Outcome of Social Screening Exercise</b>		
1.	No SA Required	
2.	SA Required	

## 15.2 Annexure 2: Environmental Social Data Sheet – Roads and Bridges

### A. Environmental Screening

#### Part a: General Information

<b>1. Location of the sub-project</b>	
• Name of Sub-Project with length in m	
• Name of the State	<b>Jammu and Kashmir</b>
• District	
• Block	
• Village	
<b>2. Implementing Agency Details (sub-project level)</b>	
• Name of the Department/Agency	
• Name of the designated contact person	
• Designation	
• Contact Number	
• E-mail Id	

#### Part b: Environment Screening

Question	Yes	No	Details
<b>1. Is the sub-project located in whole or part within a band of 1 km from any of the following environmentally sensitive areas?</b>			
i. Biosphere Reserve			If yes, mention name and distance.
m. National Park			If yes, mention name and distance.
n. Wildlife/Bird Sanctuary			If yes, mention name and distance.

o. Game Reserve			If yes, mention name and distance.
p. Tiger Reserve/Elephant Reserve			If yes, mention name and distance.
q. Wetland			If yes, mention name and distance.
r. Natural Lake			If yes, mention name and distance.
s. Swamps/Mudflats			If yes, mention name and distance.
t. World Heritage Sites			If yes, mention name and distance.
u. Archaeological monuments/sites (under ASI's central/state list)			If yes, mention name and distance.
v. Reservoirs/Dams			If yes, mention name and distance.
<b>2. Is the sub-project located in whole or part within a band of 500 m from the following features?</b>			
i. Reserved/Protected Forest			If yes, mention name and distance
j. Migratory Route of Wild Animals/Birds			If yes, mention name and distance
k. Area with threatened/rare/endangered fauna (outside protected areas)			If yes, mention name and distance
l. Area with threatened/rare/endangered flora (outside protected areas)			If yes, mention name and distance
m. Habitat of migratory birds (outside protected areas)			If yes, mention name and distance
n. Historic Places (not listed under ASI – central or state list)			If yes, mention name and distance
o. Regionally Important Religious Places			If yes, mention name and distance



p. Public Water Supply Areas from Rivers/Surface Water Bodies/ Ground Water Sources			If yes, mention name and distance
<b>3. Information related to sub-project impacts:</b>			
<b>Will the construction, operation or decommissioning of this sub-project cause changes to or have impacts on the following?</b>			
1. Land Use			If yes, give full details.
2. Water			If yes, give full details.
3. Air			If yes, give full details.
<b>Will the construction, operation or decommissioning of this sub-project produce, cause or release any of the following?</b>			
4. Solid waste			If yes, give full details.
5. Noise/ vibration/ light/ heat energy/ electromagnetic radiation			If yes, give full details.
6. Accidents			If yes, give full details.
<b>Other</b>			
7. Any other impacts?			If yes, give full details.

**Part c: Transect Walk Map**

While filling in this data sheet, the implementing agency should hold a consultation with the local community through the Halqa Panchayat in order to determine the most suitable alignment, sort out issues of land availability (including forest land), moderate any adverse social and environmental impacts and elicit necessary community participation in the programme. For this purpose the implementing agency should organise an informal 'Transect Walk' and prepare a map (Not To Scale) of this and attach the same to this data sheet. The following points should be borne in mind while preparing this map.

- The Transect walk shall be undertaken by the Officer filling in this data sheet, accompanied by the Sarpanch of the Halqa Panchayat/ Ward Member and other community members after adequate advance publicity. The local Forest official may also be associated if forest land is involved.
- During the Transect Walk, issues relating to land requirements for the road/ bridges and its impact on landowners, encroachers, squatters, etc. need to be discussed with members of the local community present. Collect all land related revenue records, maps and gazettes for supporting the claims and attach to this report. To this check list attach a typical cross section of the structure at its widest and note the land required.

- Environmental impact on vegetation, land, soil and water etc. shall be identified and noted for resolution.
- During the walk, due opportunity shall be given to interested persons to put forward their points of view.
- At the end of the walk and after recording the issues that arose during the walk, the action taken/ proposed to resolve the issues be noted. This shall be recorded by the Secretary of the Halqa Panchayat and countersigned by the Sarpanch/ Ward Member. A copy of this document shall be attached to the data sheet.
- During or after (as convenient) the Transect Walk, a map (Not To Scale) with the road/ bridges alignment, the environmental features along the road/ bridges, ownership of land need to be prepared. Identify all structures, viz., places of worship, schools, hospitals and other common property resources, forest land, etc. and locate on this Transect Walk Map.
- To this map attach some (a minimum of four on right side and four on left side and one each at the beginning and ending) photographs showing and highlighting the most critical places.

<b>Part d : Result/Outcome of Environmental Screening Exercise</b>		
1.	No EIA Required	
2.	EIA Required	
3.	Regulatory Clearance Required	If yes, mention type of clearance required.

## **B. Social Screening**

### **Part a: Social Impacts Information**

#### **1. Land Requirement for the sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Government Land	Acres	
Private Land	Acres	
Title Holders	Number	
Non-Titleholders Encroachers	- Number	
Non-Titleholders - Squatters	Number	

**3. Agricultural Land affected due to sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Agricultural Land	Number	

**4. Dwellings affected due to sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Dwellings	Number	

**5. Commercial properties affected due to sub-project:**

<b>Details</b>	<b>Unit</b>	<b>Quantity</b>
Total Affected	Number	
Title Holders	Number	
Non-Titleholders – Encroachers	Number	
Non-Titleholders – Squatters	Number	
BPL Families losing Commercial Properties	Number	

**6. Common Property Resources Affected: (Please give each type by number)**

<b>Type</b>	<b>Unit</b>	<b>Quantity</b>
	Number	

	Number	
	Number	
	Number	
	Number	

7. Are there any tribal families living in the road/bridge corridor or in the near vicinity? If yes, provide the following information:

- a. Name(s) of tribal community group(s) in the area;
- b. Total number of tribal community groups in the area;
- c. Percentage of tribal community population to that of total area/locality population;
- d. Number and percentage of tribal community households along the zone of influence of the proposed subproject.
- e. Socio-economic, demographic, cultural and other details of each affected tribal community household

S No	Items	Results
7.	Total no of HH affected due to proposed project activity (Single or multiple impacts)	
8.	Total no of vulnerable HH affected due to proposed project activity (Single or multiple impacts)	
9.	Total number of Community Property Resources affected	
10.	Number of tribal families affected	

**Part b: Right of Way Table** (A table giving the availability of government land on both sides of centre line of the road need to be presented at every 100 m interval for the entire road and certified by the concerned Superintending Engineer. ADD rows for subsequent chainages, until end of road / bridge.)

S.No.	Chainage, km	Government Land from Centre line of Road		Proposed Road Base Width		Additional Land Requirement		Remarks
		Left	Right	Left	Right	Left	Right	

1	0.000							
2	0.100							
3	0.200							
4	0.300							

<b>Part c : Result/ Outcome of Social Screening Exercise</b>		
1.	No SA Required	
2.	SA Required	

**15.3 Annexure 3: Format for Voluntary Land Donation**

**Voluntary Donation of Land**

**On a Rs. 10/- Stamp Paper**

1. This deed of voluntary donation is made and executed on ..... day of ..... between Sri/Smt .....S/o W/o..... Age..... Occupation ..... resident of ..... herein after called the "Title holder / Encroacher" on one part. This expression shall mean and include his legal representatives, successors – in-interest, heirs, assignees, nominees etc.

AND

Sri. .... S/o W/o ..... Aged..... Designation..... herein after called the "Recipient" which term denotes to "for and on behalf of Project Management Unit, Jhelum Tawi Flood Recovery Project, Government of Jammu and Kashmir" on the other part and shall mean and include his successors –in-office, nominees and assignees etc.

2. Whereas, the details of the Location of the, land are given below:

<b>Location Details</b>	
Village	
Halqa Panchayat	
Block	
District	
<b>Title Holder/ Encroacher Details</b>	
Name of Title Holder/Encroacher	
Father/ Husband's Name of Title Holder/Encroacher	
Status:	Title Holder/ Encroacher
Age:      occupation:      Residence:	

Gender:	
<b>Schedule -Land Details/Structure</b>	
Land in Question	
Area	
Location	
North Boundary	
East Boundary	
West Boundary	
South Boundary	

**Note:** Detailed Map to the scale is appended.

3. Whereas the Title Holder is presently using/ holds the transferable right of the above mentioned piece of land in the village mentioned above. Whereas the Encroacher does not hold any transferable rights of the above mentioned piece of land in the village mentioned above but has been a long standing encroacher dependant on its usufruct hereditarily.
4. Whereas the Title Holder/Encroacher testifies that the land is free of encumbrances and not subject to other claims/ claimants.
5. Whereas the Title Holder/Encroacher hereby voluntarily surrenders the land/structure without any type of pressure, influence or coercion what so ever directly or indirectly and hereby surrender all his/her subsisting rights in the said land with free will and intention.
6. Whereas the Recipient shall construct and develop infrastructure facilities under the project, Jhelum Tawi Flood Recovery Project, and take all possible precautions to avoid damage to adjacent land/structure/other assets.
7. Whereas both the parties agree that the infrastructure so constructed/developed shall be for the public purpose.

8. Whereas the provisions of this agreement will come into force from the date of signing of this agreement.

Signature of Title Holder/Encroacher		Signature of BDO	
Name of Title Holder/Encroacher		Name of BDO	
Date		Date	
Identified by			
1. Name:	Signature:		
2. Name:	Signature:		
<b>Witnesses</b>			
Signature of Halqa Panchayat President			
Halqa Panchayat President Name			
Signature of HP Secretary			
Name of HP Secretary			
Signature of DPU Representative			
Name of DPU Representative			
Designation of DPU Representative			



## **15.4 Annexure 4: Format for Preparation of Resettlement Action Plan**

### **1. Introduction**

1. Brief Introduction of the sub-project
2. Description of Component(s) that cause land acquisition/alienation and resettlement
3. Overall Estimates of Land Acquisition and R&R

### **2. Measures to Minimise Resettlement**

1. Description of Efforts Made for Minimizing Displacement
2. Description of the Results of these Efforts
3. Description of Mechanisms to Minimize Displacement and Loss of Livelihood/Income during Implementation

### **3. Census and Socio-Economic Surveys**

1. Provide the results of the census and socio-economic surveys
2. Identify all categories of impacts and the extent of impact on each affected

### **4. Consultation and involvement of PAPs**

1. Describe various Stakeholders
2. Summarize process of consultation on the results of socio-economic surveys
3. Describe the need and mechanisms to conduct updates to socio-economic surveys
4. Describe how this process of consultation would be continued through implementation and monitoring
5. Describe the plan for disseminating information to Project Affected Persons

### **5. Entitlement Framework**

1. Provide a definition of PAFs and PAPs together with their categorization based on impacts

2. Describe R&R entitlements for each category of impact
3. Describe method of valuation used for affected land, structures and other assets
4. Using Entitlement Matrix, present a table of all PAFs/PAPs and their losses/ impacts and entitlements

## **6. Relocation (if applicable)**

1. Does the Project need community relocation sites? If yes, have they been inspected and accepted by PAPs?
2. Have the Project Affected Persons agreed to the strategy for housing replacement? Will new housing be constructed/allocated? If PAPs are to construct houses, explain if compensation entitlement for housing is sufficient to help them construct houses.
3. List of proposed sites along with number of affected families to be relocated
4. Describe respective mechanisms for (i) procuring/acquiring/alienating ; (ii) developing and (iii) allotting resettlement sites
5. Provide detailed description of arrangements for development of resettlement sites including provision of social infrastructure
6. Describe the feasibility studies conducted to determine the suitability of the development of sites.

## **7. Income Restoration**

1. Are the compensation entitlements sufficient to restore income streams for each category of impact. If not, what additional economic rehabilitation measures are necessary.
2. Briefly spell out the restoration strategies for each category of impacts, and describe institutional, financial and technical arrangements/aspects involved
3. Describe the process of consultation with PAPs to finalize strategies for income restoration
4. How do strategies for restoration vary with the area/locality of impact
5. If income restoration involves change in livelihoods or other economic activities allow substantial amount of time for capacity building, accessing institutional funds/credits/markets, preparation and implementation. Work out the rate of returns for each of the economic activities opted by the entitled person.
6. How are the risks of impoverishment proposed to be addressed?
7. Explain the main institutional and other risks for effective implementation of plans for restoration of livelihood

8. Describe the process for monitoring the effectiveness of income restoration activities

## **8. Institutional Arrangements**

1. Describe institution(s) responsible for: (a) delivery of each item/activity in the entitlement policy; (b) implementation of resettlement and rehabilitation proHalqas and (c) coordination of all other activities as described in the Rehabilitation Action Plan
2. State how coordination issues will be addressed in cases where resettlement and rehabilitation are spread over a number of institutional/departmental jurisdictions
3. Indicate the agency that will coordinate all implementing agencies – do they have the necessary mandate and the resources
4. Describe the external (non-Project) institutions/departments involved in the process of resettlement and restoration of income such as land development, land allocation, credit, training for capacity building and the mechanisms in place to ensure adequate cooperation and performance of these institutions/departments
5. Describe the results of the institutional capacity assessment and give the institutional development plans including staffing schedule and training requirements
6. Discuss institutional capacity for, and commitment to, resettlement and rehabilitation

## **9. Monitoring and Evaluation**

1. Describe the internal monitoring process
2. Define key monitoring indicators for resettlement, rehabilitation and participation and provide a list of these indicators which would be used for internal monitoring
3. Describe institutional (including financial) arrangement
4. Describe frequency of reporting and contents of reports
5. Describe the process for integrating feedback from internal monitoring into implementation
6. Describe financial arrangements for external monitoring including process for awarding and maintenance of contracts for the entire duration of R&R
7. Describe the methodology for external monitoring
8. Describe frequency of external reporting and its contents

## **10. Redressal of Grievances**

1. Describe the structure and process of grievances mechanisms at various levels including step-by-step process for registering and addressing grievances and provide specific details regarding registering complaints, discussing them with PAPs, response time, communication modes etc.
2. Describe the mechanism for appeal
3. Describe the provision, if any, to enable PAPs to approach civil courts in case these provisions fail.

## **11. Implementation Schedule**

1. List the chronological steps in implementation of R&R Action Plan including identification of agencies responsible for each activity along with a brief explanation of each activity
2. A month-wise implementation schedule (Gantt chart) of activities to be taken as part of R&R Action Plan
3. Description of the linkage between R&R implementation and initiation of civil works for each of the Project component

## **12. Costs and Budgets**

1. Clear statement of financial responsibility and authority
2. List the sources of funds for R&R and describe the flow of funds
3. Indicate if costs of R&R are included in the overall Project costs
4. Identify R&R costs, if any, to be funded by the WB
5. Provide a cost-wise, item-wise budget estimate for the entire R&R costs including administrative expenses, monitoring and evaluation and contingencies
6. Describe the specific mechanisms to adjust cost estimates by *inflation* factor
7. Describe provisions to account for different types of contingencies

## **15.5 Annexure 5: Format for Preparation of Abbreviated Resettlement Action Plan**

### **1. Introduction**

1. Brief Introduction of the sub-project
2. Description of Component(s) that cause land acquisition/alienation and resettlement
3. Overall Estimates of Land Acquisition and R&R

### **2. Census and Socio-Economic Surveys**

1. Provide the results of the census and socio-economic surveys
2. Identify all categories of impacts and the extent of impact on each affected

### **4. Consultation and involvement of PAPs**

1. Describe various Stakeholders
2. Summarize process of consultation on the results of socio-economic surveys
3. Describe the plan for disseminating information to Project Affected Persons

### **5. Entitlement Framework**

1. Describe R&R entitlements for each category of impact
2. Describe method of valuation used for affected land, structures and other assets
3. Using Entitlement Matrix, present a table of all PAFs/PAPs and their losses/ impacts and entitlements

### **6. Income Restoration**

1. Are the compensation entitlements sufficient to restore income streams for each category of impact. If not, what additional economic rehabilitation measures are necessary.
2. Briefly spell out the restoration strategies for each category of impacts, and describe institutional, financial and technical arrangements/aspects involved

3. Describe the process of consultation with PAPs to finalize strategies for income restoration
4. If income restoration involves change in livelihoods or other economic activities allow substantial amount of time for capacity building, accessing institutional funds/credits/markets, preparation and implementation. Work out the rate of returns for each of the economic activities opted by the entitled person.
5. How are the risks of impoverishment proposed to be addressed?

## **7. Institutional Arrangements**

1. Describe institution(s) responsible for: (a) delivery of each item/activity in the entitlement policy; (b) implementation of resettlement and rehabilitation programs and (c) coordination of all other activities as described in the Rehabilitation Action Plan

## **8. Monitoring and Evaluation**

1. Describe the internal monitoring process

## **9. Redressal of Grievances**

1. Describe the structure and process of grievances mechanisms at various levels including step-by-step process for registering and addressing grievances and provide specific details regarding registering complaints, discussing them with PAPs, response time, communication modes etc.
2. Describe the mechanism for appeal
3. Describe the provision, if any, to enable PAPs to approach civil courts in case these provisions fail.

## **10. Implementation Schedule**

1. List the chronological steps in implementation of R&R Action Plan including identification of agencies responsible for each activity along with a brief explanation of each activity

## **11. Costs and Budgets**

1. Clear statement of financial responsibility and authority
2. List the sources of funds for R&R and describe the flow of funds
3. Indicate if costs of R&R are included in the overall Project costs
4. Identify R&R costs, if any, to be funded by the WB
5. Describe the specific mechanisms to adjust cost estimates by *inflation* factor
6. Describe provisions to account for different types of contingencies

## 15.6 Annexure 15.6: Content of an Environmental Assessment Report for a Category E1 Category Project

1. An environmental impact assessment (EA) report for a Category E1 project focuses on the significant environmental issues of a project. The report's scope and level of detail should be commensurate with the project's potential impacts. The report submitted is prepared in English, and the executive summary in English.
2. The EA report should include the following items (not necessarily in the order shown):
  - (a) *Executive summary*. Concisely discusses significant findings and recommended actions.
  - (b) *Policy, legal, and administrative framework*. Discusses the policy, legal, and administrative framework within which the EA is carried out.
  - (c) *Project description*. Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power plants, water supply, housing, and raw material and product storage facilities). Normally includes a map showing the project site and the project's area of influence.
  - (d) *Baseline data*. Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigatory measures. The section indicates the accuracy, reliability, and sources of the data.
  - (e) *Environmental impacts*. Predicts and assesses the project's likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.
  - (f) *Analysis of alternatives*. Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.
  - (g) *Environmental management plan (EMP)*. Covers mitigation measures, monitoring, and institutional strengthening; see outline in Annexure 15.7



(h) *Appendixes*

- (i) List of EA report preparers—individuals and organizations.
  - (ii) References—written materials both published and unpublished, used in study preparation.
  - (iii) Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.
  - (iv) Tables presenting the relevant data referred to or summarized in the main text.
  - (v) List of associated reports (e.g., resettlement plan or indigenous peoples development plan).
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## 15.7 Annexure 15.7: Environmental Management Plan

A project's environmental management plan (EMP) consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures. To prepare a management plan, the project authorities and its EA design team (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements. More specifically, the EMP includes the following components.

### *Mitigation*

The EMP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EMP

- (a) Identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement);
- (b) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- (c) estimates any potential environmental impacts of these measures; and
- (d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

### *Monitoring*

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP. Specifically, the monitoring section of the EMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

*Capacity Development and Training.* To support timely and effective implementation of environmental project components and mitigation measures, the EMP draws on the EA's assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level. If necessary, the EMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of EA recommendations. Specifically, the EMP provides a specific description of institutional arrangements—who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

*Implementation Schedule and Cost Estimates.* For all three aspects (mitigation, monitoring, and capacity development), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the total project cost tables.

*Integration of EMP with Project.* The borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the EMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

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