



# Appraisal Environmental and Social Review Summary

## Appraisal Stage

### **(ESRS Appraisal Stage)**

Date Prepared/Updated: 01/09/2020 | Report No: ESRSA00396



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
India	SOUTH ASIA	P163328	
Project Name	Himachal Pradesh State Roads Transformation Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	12/12/2019	3/19/2020
Borrower(s)	Implementing Agency(ies)		
Government of Himachal Pradesh	Himachal Pradesh Road & Other Infrastructure Development Corporation		

Proposed Development Objective(s)

The proposed PDO is to enhance the efficiency of the transportation and road safety institutions and improve selected roads in Himachal Pradesh.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>112.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The project focuses on: (i) strengthening and commercializing road transport Institutions and building resilience to ensure effective use of public resources, provide efficient vehicle administration services, and mainstream resilience in the Himalayan mountains roads; (ii) improving selected roads connecting small holding farmers and local traders to SME/wholesale market clusters; and developing logistics systems and strategy stimulating horticultural and overall economic growth in Himachal Pradesh, and (iii) enhancing Road Safety enforcement by strengthening patrol and emergency response capabilities.



## D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social] Environment. The project is located in Himachal Pradesh, hilly mountainous state, in northern India. The state has four agro-climatic zones: Shiwalik Hills (relatively lower altitude but steep slopes), Mid-Hills, High Hills, and (high altitude) Cold Dry zones. About 90 percent of the population of the state (6.8 million as per the 2011 census) is concentrated in the mid-hills and the Shiwaliks zones, which also encompass majority of the forests, natural habitats, and economic infrastructure. Most of the project roads, in several tranches, are expected to be in these two zones. The project will finance the upgrading 47.5 of km of MDRs, including: Baddi Sai Ramshahar road (34km) and Dadhol Ladrou road (13.5km) Raghunathpura-Mandi-Harpura-Bharari (2.7km). Upgrading of the Mandi Rewalsar Kalkhar road (28km) will be supported by the GoHP as parallel financing. These four corridors are located in three districts of Solan, Bilaspur, and Mandi. The 3 districts have 8 protected areas (national parks, wildlife sanctuaries, conservation reserves), 4 archaeological and historical sites and monuments (of national and state importance) of the total notified 34 protected areas and 40 archaeological sites. The protected areas are also home to wide varieties of flora and fauna found in the state. The districts of Mandi has two major lakes/reservoirs are important for maintaining water budget for the state. None of the four priority roads will pass through the above-mentioned protected areas and archeological sites. The six corridors totaling to 158 km of maintenance roads are spread across five districts (Sirmour, Shimla, Mandi, Una and Bilaspur). However, in view of state's salient features that include hilly terrain; numerous water channels, rivulets, and rivers; high forest cover; dependence of people and communities on timber and non-timber forest products and the significant endowment of the biological resources including several protected areas have to be considered for selection and careful planning of road to be financed under maintenance component.

The total population of Himachal Pradesh is 6.8 million, comprising 50.72% males and 49.28% females (Census 2011); nearly 90% live in rural areas. Agriculture is the main occupation and average holding size is about 1.00 ha; distribution of land holdings indicates that 87.95% are small and marginal farmers. Most rural families access off farm incomes to supplement the shortfall from agriculture as the viability of holdings is becoming more critical. SCs and STs constitute nearly 30% of the population. Scheduled tribe constitutes 5.71% of the population; three major tribal areas being Chamba, Kinnaur and Lahaul-Spiti districts. Project locations identified thus far do not have any roads in the three tribal districts of the state. In terms of workforce participation, females constitute 44.82% of the total workforce; also, number of women who had control over use of land resources was more, because men stayed away from the villages for their livelihoods. Vulnerable groups – Scheduled Castes and Scheduled Tribes were identified in the two of the upgradation project corridors. Built up areas in many of these identified corridors, routine usage of migrant labor in construction activities, construction stage issues and impacts etc. are some relevant aspects that were considered as part of Environmental and Social Impact Assessment (ESIA).

### D. 2. Borrower's Institutional Capacity

Himachal Pradesh Road Infrastructure Development Corporation (HPRIDC) will implement the project and will delegate contract execution responsibilities to the field divisions (PIUs) of the HP State PWD. Both HPRIDC and PWD were responsible for a previous Bank-financed project: the Himachal Pradesh State Road Project (P096019), an Environmental Category A project, completed in FY17. At close, the Himachal Pradesh State Road Project (HPSR Project) was seen to be successful, although at the start of implementation it faced several difficulties, including from



a lack of attention to management of environmental and ecological impacts. Gradually during implementation, HPRIDC and PWD resolved numerous environmental issues, adopted good practices, and created substantial new knowledge, techniques, and demonstrations of bio-engineering models for protection of roads, roadside cut slopes, slides and slips. The HPSR Project also helped HPRIDC in obtaining ISO 9001:2008 Quality Management, and ISO 14001:2004 Environment Management Certifications; training and capacity building on environmental management; complete a preparation of a manual on bio-engineering techniques for road sector development. A unit was created within HPRIDC for managing implementation of Environmental and Social safeguards in HPSR Project, headed by an Executive Engineer and supported by a core team of safeguards officers (at the level of assistance engineers). Additionally, the field divisions of the PWD (PIUs) have also gained some experience and capacity (mainly in bioengineering, but also on ways to adjust designs and alignments to avoid environmental and biodiversity risks), and in implementation of mitigation construction-related pollution risks. This Environment and Social Unit continued for a about a year after closure of the HPSR Project in June 2017.

In the previous project, environmental and social impacts were generally well managed, and a few minor or moderate problems were effectively dealt with. Given past experience of implementation, and resources devoted in building capacity of the HPRIDC and PWD in managing social and environmental risks and impacts it appeared that the implementing agencies had some good capacity to manage the environmental and social risks and impacts in the proposed Project. During preparation it was observed, the current status of the staff and other resources, the capacity created has eroded. For this project, HPRIDC will establish and maintain an E&S organizational structure in HPRIDC with qualified staffs to support management of E&S risks including at least one Environmental Expert and one Social Expert. Specifically, HPRIDC shall be have a PMU supported by: i) Full-time Environmental Specialist and a Social Specialist and also a dedicated labour Welfare Officer to support PMU, preferably from the Department; ii) PM Consulting (PMC) Firm with Environmental, bioengineering and Social team members and iii) Contractor with an Environmental and Health & Safety Manager/Officer

HPPWD is responsible for implementing the black-spot improvement activities in the HP road network. Web-based Road Accident Data Management System (RADMS) under HPSRP I, whose findings were translated into action in three pilot districts and resulted in reduction of crash accidents by 67.5 percent due to the upgradation of the roads to double/intermediate lane roads, improved maintenance, awareness, black spot identification. It should be noted that on road safety, the capacity augmentation will not be limited to the safeguards staff and units only, the proposed Project will enhance the capacity of the entire PWD to reduce road safety risks.

## II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Substantial

#### Environmental Risk Rating

Substantial

The Environmental risk is now revised to Substantial due to: i) change in scope and resultant E&S impacts, as well as consideration of addressing the capacity issue for managing the reduces works with intensive Technical Assistance; ii) During PCN the scope of engagement was considered at a program level which involved the improvement of about 2,000km of roads (650km-upgradation and maintenance-1,350km). By appraisal the scope has been narrowed down which involves upgrading 4 road segments (88 km) and 158 km of maintenance corridors; iii) ESIA's conducted for the



2 roads (47.5 km) confirmed the nature and magnitude of impacts and risks that would be equally applicable to the other two upgradation corridors as these are also located in the same or adjoining areas.

The 4 upgradation corridors identified to be taken up under this project are located in Solan, Bilaspur and Mandi districts, while the 6 corridors totaling to 158 km of maintenance roads are spread across 5 districts (Sirmour, Shimla, Mandi, Una and Bilaspur). The risks and impacts identified in the ESIA of two priority upgradation corridors included: confirmed absence of sensitive sites such as National Parks, Wildlife Sanctuary, reserve forest, critical habitat, wetlands, rives etc. The potential impacts and risks are mainly due to construction activities like water and soil pollution from wastewater, municipal solid wastes; spillage and handling of chemical and hazardous waste materials; disruption to drainage patter due to drying of springs and clogging of streams (30 Nos); erosion due to excavation and disposal of spoils from hill side cutting (939499 c.m); cutting of trees and diversion of forest land (1.5ha) with lesser impact on forest quality; land degradation due to extraction/quarrying (borrow area- 227212 cu.m), aggregate- 535204 MT, sand- 65648 MT) and project induced development; change in aesthetic of landscape; impacts on culturally and socially important common properties, religious properties/sites, sacred groves on or near the project roads; exposure of settlements (29 Nos.) along road to construction related traffic, accident, and occupational health & safety issues; distress of public/community due disruption of utility services (transformer – 12 Nos., water supply line – 18km, electric and telephone poles – 278 Nos.); and likely indirect induced impacts on ecological functions of forests and natural habitats existing along the road.

Also exact nature and extent of impacts is not yet fully known in the balance two upgradation corridors at appraisal stage, so, the project risk categorization will be revisited and revised upon conducting of final ESIA's for these corridors. Bank team will review the risk levels for both these roads based on review of the ESIA's and site visits. If one or both the corridors are classified as High risk, it will be decided at that time whether they will be financed under the project. If yes, the risk classification for the Project as a whole would be raised to High. The project will not support any activities causing any irreversible impact on Wild life protection, critical habitat or sensitive areas. As stated in previous sections, the institutional capacity in HPRIDC shall be addressed by have a PMU supported by: i) Full-time Environmental Specialist and a Social Specialist and also a dedicated labor Welfare Officer to support PMU, preferably from the Department; ii) PM Consulting (PMC) Firm with Environmental, bioengineering and Social team members and iii) Contractor with an Environmental and Health & Safety Manager/Officer. Trainings would be organized as part of the project implementation and budget is reflected in the corridor specific ESMPs that have been prepared for the project

**Social Risk Rating**

Substantial

The Social risk is now revised to Substantial due to: i) As the overall scope of the project has reduced, therefore there are lower adverse social impacts than originally envisaged; ii) while earlier upgradation works envisaged widening of existing corridors, presently the approach taken is to confine road upgradation works within available right of way or by minimizing corridor of impacts; iii) Findings from ESIA conducted for the two priority upgradation corridors indicated the nature and extent of likely risks and impacts were minor or partial impacts on structures of non-titleholders; did not include any private land acquisition; iv) while earlier, FPIC was envisaged in case of land taking in tribal areas but now none of the upgradation or maintenance roads are located in tribal areas and there are only minor impacts on structures of 2 households in these two upgradation corridors.

As nature of upgradation and maintenance works shall be similar in other corridors, the social risks and impacts are anticipated to be similar in nature and magnitude as well, with minor variations, if any, depending on the available right of way and the final design. Also, therefore acquisition of private land, if any, will be very small in quantum. Bank team will review the risk levels for both the remaining two upgradation roads based on review of the ESIA's and site



visits. If one or both the corridors are classified as High risk, it will be decided at that time whether or not they will be financed under the project. If yes, the risk classification for the Project as a whole would be raised to High.

Risks identified include: inadequate coordination between concerned agencies on land acquisition and resettlement, lack of dedicated personnel dealing with social aspects within HPRIDC and PIUs; mismatches between road design drawings and revenue maps, changes of alignments, potential delays in negotiations for direct purchase due to poor state of land revenue records.

Impacts identified in the two priority upgradation corridors included: partial or minor impacts on 158 private structures i.e. residential, commercial and residential-cum- commercial – all of them are non-titleholders who are operating on existing land that belongs to the Implementing Agency - HPRIDC; and partial or minor impacts on 21 common property resources (School, religious spots, bus shelter/bus stand, borewell and Hand pumps). There is also no requirement for acquisition of private land. There are about 13 vulnerable and disadvantaged families who shall be impacted by the project works.

Maintenance roads are located in five districts (Sirmour, Shimla, Mandi, Una and Bilaspur) which not predominant tribal areas, and also nature of maintenance activities do not envisage any taking of additional land or loss of livelihood. On the contrary, the project is expected to have largely positive impacts. Benefits in the form of improved road conditions, safety, and work opportunities in form of local labor for maintenance works shall accrue to the local population.

In order to address the environment and social mitigation plans: ESMP, SEP, RPF, RAP, SEA/SH risk Mitigation Plans (or GBV) are prepared. Labor Management Procedure shall be prepared prior to mobilization of the contractor. The Contractor will prepare the Contractor ESMP (CESMP) including Traffic Management Plan, Labor influx management plan before commencement of the work. HPRIDC has committed under ESCP to implement all of these plans. HPRIDC has disclosed the following documents: draft ESIA for the two priority upgradation corridors on November 18, 2019. Subsequently it has also disclosed the draft ESMPs for both corridors; Resettlement Policy Framework, Draft Stakeholder Engagement Plan and the Environment and Social Commitment plan (ESCP) on its website

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***

The project comprises 88 km of upgradation corridors and 158 km of maintenance corridors. Based on the draft designs that were ready at this stage, ESIA were carried out in two of the upgradation corridors and are presented under each ESS 2-8. Detailed ESIA for the other two corridors shall be undertaken once the draft designs are ready. GoHP will finance one of the other two upgradation corridors, while the other corridor is dependent on an associated facility being built by National Highways Authority of India. ESIA shall be carried out, upon finalization of designs for both these corridors and mitigation plans shall be prepared. Also similar assessments shall be carried out for the 158 km of maintenance roads and generic ESMP will be prepared and shall be included as part of bid documents. It is anticipated that location profiles and impacts and risks identified for the other corridors shall be similar in nature and type, though extent of impact could vary depending on geographic locations, higher altitude in this mountainous state and design alignments, curve and blind spot improvement measures, etc.



HPRIDC prepared ESIA for the Baddi Sai Ramshahar road (34km) and Dadhol Ladrour road (13.5km). The project's impacts are associated to water and soil contamination from wastewater generated from construction/workers camps; spillage and handling of chemical and hazardous materials; damage to vegetation; disruption to drainage pattern due to drying of springs, clogging of streams and drainage facilities; potential inducement of landslides, landslips, erosion from cut faces of hill slopes and disposal of spoils from hill side cutting; deteriorated air quality due to fugitive dust from hill side cutting and earthwork, and emission from operation of vehicle, equipment and plants; cutting of trees for widening of road; reduction of natural resources base and degradation due to extraction/quarrying; land degradation from project induced development; change in aesthetic of landscape; impacts on culturally and socially important common properties like schools etc. Seven forest stretches run along the Baddi Sai Ramshahar road (34km) which may cause diversion of 1.5ha of forest land. A total of 269 trees of 5380 enumerated is likely to be impacted in both roads due to widening and geometry improvement. However, the trees impacted is likely to change after verification of land ownership and finalization of design. The identified environmental risks and impacts is substantial and mitigated through measures based on principle of mitigation hierarchy that was applied in the environment and social assessments: for example to avoid cutting of trees and hills, wherever possible, valley filling has been followed rather than hill cutting for road width expansion, to minimize the impact of noise pollution near the sensitive locations like school, not only the working hour will be controlled, noise barrier of masonry wall type will be constructed. Social impacts at the pre-construction stage of the project involve minor or partial impacts on , structures, Common Property Resources including religious structures, handpumps that fall within the Corridor of Impact. These locations do not have any schedule V areas or tribal households that meet the characteristics outlined in ESS 7.

HPRIDC is the designated nodal agency under GoHP for implementation of HPSRTP in Himachal Pradesh. HPRIDC besides having its direct workers i.e. employees shall contract agencies: for civil works, agencies/firms to support core-functions; primary suppliers of material/equipment and other implementation support partners, and these could be from anywhere in the country or outside. Influx of migrant labor from other states for construction works has been a norm in the state and is likely to continue in this project as well resulting in potential gender-based violence (GBV), however assessment based on the GBV risk rating tool and site findings confirm the risk level as Moderate (12.0)

From the findings of the ESIA, the Government has developed the Environmental and Social Commitment Plan (ESCP) to ensure the successful implementation of mitigation measures, capacity requirement and the enhancement of the Environment and Social Unit of HPRIDC. Given that the geographical and environmental settings are similar for the road augmentation works for the other two roads Raghunathpura-Mandi-Harpura-Bharari (2.7km) and Mandi Rewalsar Kalkhar road of (28km), the impacts from these two roads are expected to be similar as well. After completion of ESIA studies and based on the findings, a Tribal Development Framework will prepared, if required, prior to invitation of bid. The same is stated as a requirement in the ESCP

As part of its due diligence on risks and impacts on disadvantaged or vulnerable individuals or groups, Bank ensured that: i) terms of reference for undertaking ESIA adequately covered such categories of potentially impacted persons; and ii) questionnaires and consultation checklists used for conducting census & socio-economic surveys and focus group discussions covered such groups. It then reviewed the ESIA's and Stakeholder Engagement Plan to assess: i) coverage of such groups in the consultation meetings including the issues and concerns raised by these groups; ii) their enumeration segregated by group, amongst project affected families; iii) identified additional measures that could be provided in the R&R entitlements that would help to mitigate the differentiated impacts on these groups



including possible job opportunities that could be provided to some able-bodied member of the family; iv) mechanisms and modes by which project will disseminate information to groups consult with them to elicit their participation in the project interventions. Additionally, design intervention for physically challenged particularly provision of access ramps to bus stops were included. Vulnerable households defined under the project include: Scheduled Caste, ST, family/household headed by women/female, disabled, handicapped, Below Poverty Line (BPL) families; widows; and persons above the age of 65 years irrespective of their status of title (ownership). Vulnerable groups would also include those farmers who (after acquisition of land) become small/marginal farmers. Assessments of the two upgradation corridors for which the ESIA have been completed indicated amongst the vulnerable - ST (2) and SC (11) households would be impacted.

It is noted that the planning, alignments and designs of the Baddi Sai Ramshahar and Dadhol Ladrour roads largely followed the existing profile avoiding the locations landslides and erosion and balanced the cut and fill volumes and considered best effort to recycle and reuse of excavated materials in construction of sub grade, sub-base and base layers.

In order to address the environment and social mitigation plans: ESMP, SEP, RPF, RAP, SEA/SH Mitigation Plans are prepared. Labor Management Procedure shall be prepared prior to mobilization of the contractor. The Contractor will prepare the Contractor ESMP (CESMP) including Traffic Management Plan, Labor influx management plan before commencement of the work. HPRIDC has committed under ESCP to implement all of these plans. HPRIDC has disclosed the following documents: draft ESIA's for the two priority upgradation corridors on November 18, 2019. Subsequently it has also disclosed the draft ESMPs for both corridors; Resettlement Policy Framework, Draft Stakeholder Engagement Plan and the Environment and Social Commitment plan (ESCP) on its website.

### **ESS10 Stakeholder Engagement and Information Disclosure**

A SEP has been prepared that provides for continued engagement of all relevant stakeholders of the project – affected persons and institutions such as schools, temples; other interested parties; communities; institutional stakeholders including relevant government departments such as revenue, pollution control board etc. police department for road safety; shopkeeper associations; civil works contractor, project management and construction supervision consultants, service providers such as: NGO who would be involved in RAP implementation, GBV risk mitigation. The SEP details the nature, modes and frequency of engagement with these stakeholders commensurate to the interests and relevance in the project activities, besides specifying the monitoring and reporting requirements on SEP implementation. It shall guide HPRIDC's engagement with all stakeholders in the project. The SEP also details the GRM including principles, processes and timelines that shall be followed in receiving and redressing grievances. Project stakeholders – PAPs, communities, other interested stakeholders in the overall project such as Forest and revenue and Police department, construction contractors and project management consultants shall be involved through various means. These include surveys and consultations (PAPs, communities), training and orientation events on project scope, components and E&S issues (construction contractors and project management), periodic meetings and workshops (institutional stakeholders such as forest, revenue, police department). Also a project level GRM shall be available for those impacted by project activities. Disadvantaged and vulnerable communities shall be engaged through focus group discussions, and consultation meetings that would be organized by community facilitators and,



gender experts who shall be deployed by the RAP implementation agency – that would be contracted by HPRIDC. The Draft Stakeholder Engagement Plan has been disclosed by the HPRIDC on its website.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

The National legal provisions on labor almost cover all requirements in ESS2 except relating to community workers and a functional GRM for different types of workers. HPRIDC would contract agencies to undertake civil works, agencies/firms to support core-functions; primary suppliers of material/equipment and other implementation support partners. All categories of project workers: Direct workers, Contracted workers including migrant labor, primary supply workers (quarry owners, labor contractors) and community workers would be involved. Risks include: Non-payment of wages by Employer; Non-payment of benefits (compensation, bonus, maternity benefits etc.) by Employer; Discrimination in Employment (e.g. abrupt termination of the employment, working conditions, wages or benefits etc.); Possibility of Gender based violence arising from large influx of migrant workers, particularly in sensitive locations such as hospitals, schools, etc. that are near to habitations; Health risks of labour relating to HIV/AIDS and other sexually transmitted diseases. Based on the ESIA's undertaken thus far for the two upgradation, it is anticipated that the construction activities shall directly involve about 1000 workers.

A Labor Management Procedure would be developed prior to mobilization of contractor for civil works, that would clearly lay down and spell out the requirements relating to provision of terms and conditions of employment; promoting of non-discrimination and equal opportunity; worker's organization etc. besides a mechanism to redress grievances mechanism to the direct and contracted workers. In order to address labor influx, contractor will prepare a Labor Influx Management Plan that shall comprise provisions: for source all unskilled labor from within the project area and its vicinity to minimize labor influx into the project area. Skilled labor force, if unavailable locally, would be brought in from outside the project area either from within or outside the state; develop a Workers' Camp Management Plan that addresses specific aspects of the establishment and operation of workers' camps e.g. cordoning of separate areas for labor camps and material storage; conduct training programs on HIV/AIDS and other communicable diseases; develop a complaint handling mechanism at the project level.

The bid documents for construction has also listed out the requirements of applicable national/state labor laws and provisions and the metrics for periodic reporting by contractors. The ESMP outline the various measures that need to be considered to prepare contractor's OHS plan which will be part of Contractor's ESMP (C-ESMP). World Bank to review the contractor's OHS Plan to ensure it is acceptably comprehensive and detailed. In addition the contractor obligations to manage these adverse impacts is clearly reflected in the contractual obligations of the Civil Works Contractor with appropriate mechanisms for addressing non-compliance

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

The assessment of impacts and risks due to road constructions has considered sensitive receptors such as settlement, drainage pattern of the area, water bodies, springs/streams/river crossing, forest, protected areas, animal crossing



within and outside protected area, roadside trees/plantation, erosion prone locations, receptors vulnerable to air, water, noise and soil quality etc. In addition, natural calamity like landslide, earthquake and flooding were also considered during assessment due to location of road in such sensitive geography. The project impacts on sensitive environmental receptors is anticipated substantial due to direct impacts of construction activities and associated facilities that include deteriorating air quality due to emission from vehicles, plants, machinery and fugitive dust during hill side cutting, excavation earthwork; contamination of water and soil from wastewater (18000L/day), municipal solid wastes (122kg/day) generated during construction period; spillage and handling of chemical and hazardous waste materials (used oil – 8592L, grease – 859L, cotton wastes-250kg); disruption to drainage pattern due to drying of springs and clogging of streams (30 Nos.); erosion due to disturbing of already stable slope during excavation and disposal of spoils from hill side cutting (939499 c.m); cutting of trees and diversion of forest land (1.5ha) for widening of road; reduction of natural resources base and degradation due to extraction/quarrying (borrow area- 227212 cu.m), aggregate- 535204 MT, sand- 65648 MT); land degradation from project induced development; change in aesthetic of landscape; impacts on culturally and socially important common properties, religious properties/sites, sacred groves on or near the project roads; exposure of settlements (29 Nos.) along road to construction related traffic, accident, and occupational health & safety issues; distress of public/community due disruption of utility services (transformer – 12 Nos., water supply line – 18km, electric and telephone poles – 278 Nos.); and likely indirect and induced impacts on ecological functions of forests and natural habitats excluding protected areas. The project's impacts and risk would be of significance on sensitive receptors, which shall can be addressed through management and mitigation measures in the ESMP. The site specific ESMP will includes various plans for hazardous and non-hazardous wastes management, OHS, traffic and road safety management, muck disposal management and restoration, borrow area management and restoration etc. In addition, avoidance and minimization of impacts has also considered design interventions analyse include widening on valley side to optimise use of muck and rock from excavation/hill side cutting; widening schemes (concentric or eccentric); road configurations to minimize hill side cutting; mitigation measures like nature based engineering to prevent soil erosion, slope stability; treatment of upstream of seasonal streams by providing check dams. The GHG emission were projected by IVE and ROADEO with estimated reduction equivalent to 9,61,747 tons of CO2 during the life cycle of road up to year 2038 due to improvement of two priority road.

The ESMP will be part of contract and environmental mitigation cost budgeted in scope of contractor by including ESMP items in Bill of Quantity. The implementation of mitigation measures shall be monitored as per the environmental monitoring plan in the ESMP. In addition, the contractor's will prepare and submit the Contractor Environmental and Social Management Plan (C-ESMP) to HPRIDC for acceptance which will include the detail implementation plan and approach of mitigation measures. Periodic training will be provided to staffs of both contractors and PIU. The integration of ESMP in civil work bidding document is one of HPRIDC's commitment in the Environmental and Social Commitment Plan.

### **ESS4 Community Health and Safety**

The project expects to have positive impact on the community during the operation phase by increasing the accessibility and road safety. However, ESIA identified environmental and social risks and impacts on sensitive receptors identified under ESS4 consider vulnerability to risk due to natural calamities like earthquake, landslides and even at times may be landslide triggered due to road construction work. The construction activities related impacts such as fugitive dust from earthworks, hill cutting; proneness to landslide/slides (27 locations) due to disturbing



already stable hill slope during excavation and disposal of excavated material (9,39,499 cu.m); exposure of settlements (29 Nos.) along road to construction and operation stage related traffic, accident. Majority of these impacts are location specific that could be addressed through management and mitigation measures in the Environmental and Social Management Plan (ESMP). The ESMP outline Contractor responsibilities during project planning, implementation and monitoring and evaluation of plans (for muck disposal, wastes management plan, traffic management plan, OHS, emergency response etc) for which contractor is mandated to prepare a Contractor Environmental Management Plan. The integration of ESMP in civil work bidding document is one of HPRIDC's commitment in the Environmental and Social Commitment Plan. HPRIDC has prepared a Sexual Exploitation and Abuse /Sexual Harassment risk mitigation plan to address the potential risks and impacts that might arise from the influx of migrant labor. The contractor as part of CESMP shall also develop a Labor influx management plan and also provide necessary sensitisation and awareness training on HIV/AIDS and other sexually transmitted diseases to construction workers and community besides ensuring availability of necessary STD preventive materials.

### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

impacts include: partial or minor impacts on Structure (Private, Encroachments) - Residential, commercial and Squatters (residential, commercial and Residential –cum- commercial); and ii) Common Property resources (School, College, religious spots, bus shelter/bus stand, borewell and Hand pump. There is no acquisition of private land. 158 households (22 in Baddi-Ramshahr road and 136 in Dadhol-Ladraur) are affected – all of these all non-titleholders. 21 CPR – schools, religious shrines, handpumps and bus-shelter are impacted within the corridor of impact.

The social risks identified include, inadequate coordination between concerned agencies on land acquisition and resettlement, lack of dedicated personnel dealing with social aspects within HPRIDC and PIUs; mismatches between road design drawings and revenue maps, changes of alignments, delays in negotiations for direct purchase and disbursements.

Based on the national and State level acts and provisions and WB ESS 5, a Resettlement Policy Framework (RPF) has been prepared. The RPF guided the preparation of Resettlement Plans for the two upgradation corridors. Later during the implementation stage, as and when designs are ready, RPF will guide the conducting of SIAs and preparation of RAPs for the remaining upgradation corridors and maintenance corridors. The RPF provides for encroachers and squatters measures such as compensation for structures without depreciation; one-time subsistence grant; shifting assistance; three months' notice to vacate occupied land or cash assistance in lieu and also provisions salvage the affected materials. For the disadvantaged and vulnerable groups such as SC, STs, Below Poverty line families, women headed household elderly above 60yrs and those farmers who shall experience change in land holding status the RPF provides for assistances such as one-time Resettlement Allowance; training for skill development. In case of SC, STs an additional subsistence grant would be payable as well.

### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

The project is not expected to significantly affect forest habitats and ecosystems during construction and O&M since the road is already existing and any improvement works will be carried out within the existing ROW, which has already largely been acquired for and owned by the project. During construction, workers will be prohibited from using and collecting forest products and resources, which will be spelled out in the workers code of conduct. During operation of the improved roads, direct and indirect impacts to forest habitats and ecosystems are also not expected



as the volume of traffic is not expected to significantly increase. During the preparation of the ESIA, the ESIA team has reviewed the existing state plan of the Himachal State which shows no evidence of big industrialization or tourism plan in near future. The improved roads will facilitate the existing apple belts by introducing better safety measures, proper signage of habitat movement etc.

Besides the surrounding forests along the road corridor are already fragmented and disturbed. The project will support “compensatory tree planting” ‘to replace the trees that will be cut due to the project to meet national requirements. It is not offset or compensation for lost biodiversity to meet ESS6 since the project is not adversely affecting forest and natural habitats and biodiversity.

The ESIA of two corridors indicated that none of site are located in legally protected areas National Parks, Wildlife Sanctuary, and conservations reserves etc. At Baddi Sai Ram Shaher road is running adjacent to forest land and improvement of road is likely to require acquisition of 1.512ha of forest land. A total of 269 trees is likely to be impacted of 5,380 trees enumerated within the existing right of way. However, the extent of trees that would be affected will be determined after verification of land ownership of road stretches through forest. In accordance with mitigation hierarchy, avoidance of impact on trees and diversion of forest land is considered through design intervention analysis like filling on valley side and road widening scheme (concentric or eccentric). The department of forest, in accordance with Forest Conservation Act, is the only competent authority to determine the Net Present Value (NPV) for the forest areas to be diverted and compensatory plantation for trees cut with an overall objective of achieving the no net loss (NNL) or net gain (NG) of the biodiversity aspects. The department of forests assess the ecological sensitivity of forest land diverted to arrive NPV of forest and extent of area to be brought under compensatory afforestation. Similarly, for the trees cu, Department of Forest GoHP will carry out compensatory afforestation in ratio of 1:3 i.e. for each tree cut three sapling will be planted. No rare, endangered and threatened flora species exist along the road. The majority of species identified are local species with good distribution along the road. The GoHP is already implementing management measures to control four invasive species identified.

The Monitor Lizard (*Varanus Bengalensis*), Common peafowl (*Pavo Cristatus*), Cheer Pheasant (*Catreus wallichii*) and Kalij Pheasant (*Lophura leocomelanos*) are recorded in project area which are protected under the Wildlife Protection Act-1972, but these species presence in along project corridor was not identified during biodiversity investigation survey. Based on input during consultation, the biodiversity and habitat assessment is planned to prepare a biodiversity management plan to address wildlife animal movement outside protected areas. This is also one of actions (bullet 6.1 and 6.2) in ESCP.

### ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

The state of Himachal Pradesh has designated Schedule V areas i.e. areas that have a preponderance of tribal population – Kinnaur, Lahaul-Spiti and two blocks of Chamba district namely Pangi and Bharmour. The four upgradation corridors are located in Solan, Bilaspur and Mandi districts, while the 158 km of maintenance roads are spread across five districts (Sirmour, Shimla, Mandi, Una and Bilaspur). Hence none of these roads are located in Schedule V areas. The ESIA's conducted for the first two upgradation roads and the social screening carried out for the other two upgradation roads, confirmed that these though these had a few tribal households en-route, but these households did not meet the characteristics outlined in ESS 7. Also, the maintenance corridors are not located in the afore-mentioned Schedule V areas. As social screening is yet to be carried out for the maintenance corridors, a Tribal



Development Framework (TDF) will be prepared, if required, based on its findings, prior to issuance of bids. The same is stated as a requirement in the ESCP. The TDF will guide the preparation of consolidated Tribal Development Plan (TDP) in accordance with requirements of the ESS.

As part of its due diligence on risks and impacts on disadvantaged or vulnerable individuals or groups, Bank ensured that: i) terms of reference for undertaking ESIA adequately covered such categories of potentially impacted persons; and ii) questionnaires and consultation checklists used for conducting census & socio-economic surveys and focus group discussions covered such groups. It then reviewed the ESIA and Stakeholder Engagement Plan to assess: i) coverage of such groups in the consultation meetings including the issues and concerns raised by these groups; ii) their enumeration segregated by group, amongst project affected families; iii) identified additional measures that could be provided in the R&R entitlements that would help to mitigate the differentiated impacts on these groups including possible job opportunities that could be provided to some able-bodied member of the family; iv) mechanisms and modes by which project will disseminate information to groups consult with them to elicit their participation in the project interventions. Additionally, design intervention for physically challenged particularly provision of access ramps to bus stops were included. ESIA for the two priority corridors indicated the presence of 2 Scheduled Tribe households though these two households are well mainstreamed in the overall society and do not exhibit characteristics outlined under ESS 7

**ESS8 Cultural Heritage**

The alignment of the project road does not have any ancient monuments and/or archaeological site(s). Thus, no impacts are foreseen on ancient monuments and archaeological sites due to the construction of road project. However, 4 religious’ structures/shrines are expected to be partially impacted by the proposed road improvement activities. Extent of impact including on access on these structures, could vary depending on the final designs during preparation and potential modifications during construction stage. In order to mitigate these, actions are proposed in the RAP and also a chance find procedure to help identify and address any such issues during construction stage is incorporated into Cultural Heritage Management Plan as part of ESMP.

**ESS9 Financial Intermediaries**

At this stage, no FIs are proposed to be involved. However, the ESS requirement will be revisited during project implementation.

**B.3 Other Relevant Project Risks**

None

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways**

No

Public Disclosure



OP 7.60 Projects in Disputed Areas

No

III. BORROWER’S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)

DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED	TIMELINE
<b>ESS 1 Assessment and Management of Environmental and Social Risks and Impacts</b>	
HPRIDC will establish and maintain an E&S organizational structure in HPRIDC with qualified staffs to support management of E&S risks including at least one Environmental Expert, one Social Expert and one Labor officer for ensuring compliance with the Bank’s ESF and ESS’s at the State level and as appropriate at the District/Division officer level. E&S structure shall be maintained through project period	12/2019
HPRIDC to contract Project Management Consultant Firm with Environmental, bioengineering and Social team members	06/2020
MANAGEMENT OF CONTRACTORS: HPRIDC ensure incorporating relevant aspect of ESMP (E&S mitigation measures, BOQ, Technical Specifications, drawings and mitigation cost) and ESCP requirements in bidding document for procurement of civil work contractor.	12/2019
HPRIDC to disclose ESIA, ESMPs and RAPs for Baddi-Ramshahr and Dadhol-Ladraur.	12/2019
Include in bidding document Environmental and Safety Manager and Social -cum-Community Liaison Officer as Key member of Contractor Team and explicitly list resources that would be mandatory for effective ESHS implementation.	12/2019
HPRIDC to prepare i) Draft ESIA, ESMP and RAP for Mandi – Rewalsar – Kalkhar & Raghunathpura-Mandi-Harpura- Bharari ii) ESIA, ESMP, ARAP and TDP (if required) for proposed maintenance roads of 158 km.	07/2020
HPRIDC will obtain or assist in obtaining clearances, licenses/approvals and permits under existing legal framework that are applicable to the Project from relevant national and/or local authorities.	06/2020
HPRIDC to prepare and disclose Gender Based Violence Mitigation Plan	12/2019
HPRIDC to obligate contractor to submit CESMP prior to starting of civil work and updation every six months.	06/2020
During implementation, HPRIDC and World Bank to screen and re-classify project risk based on the risks and impacts of other two upgradation roads	06/2020

Public Disclosure



<b>ESS 10 Stakeholder Engagement and Information Disclosure</b>	
HPRIDC to prepare and disclose Draft Stakeholder Engagement Plan (SEP) which should include: i) details on Project GRM including dates of notification of constitution of Grievance redressal committees and ii) a budget for implementation of SEP.	12/2019
<b>ESS 2 Labor and Working Conditions</b>	
HPRIDC will: develop a LMP for all type of employees and workers likely to be involved in the project and will include LMP in bid document for all contracted agencies to implement.	01/2020
HPRIDC shall establish a Grievance Redress Mechanism (GRM) and operated by the contracted agencies to address Project workers workplace concerns. HPRIDC will monitor implementation of these provisions	03/2020
HPRIDC will require contractor to develop and implement OHS plan to maintain safe working environment and workplace. The OHS Plan will include emergency preparedness and response plan; training of project	06/2020
<b>ESS 3 Resource Efficiency and Pollution Prevention and Management</b>	
Contractor ESMP to include hazardous and non-hazardous wastes and implement	06/2020
Contractor ESMP to include SPOIL EARTH DISPOSAL SITE MANAGEMENT AND RESTORATION PLAN	06/2020
Contractor ESMP to include project's specific water use and water balance analysis and water conservation and management plan.	06/2020
<b>ESS 4 Community Health and Safety</b>	
Contractor ESMP to include Traffic and Road Safety Plan, Emergency Response Plan, Labor influx plan, Community Health and Safety Plan (in relation to land slide, project workers, any risk of labor influx and communicable & non-communicable disease).	06/2020
<b>ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</b>	
HPRIDC to prepare and disclose RPF HPRIDC to prepare RAP for two upgradation corridors and disclose following their endorsement by Bank	12/2019
HPRIDC to prepare and disclose consolidated RAP for i) remaining two upgradation corridors and ii) maintenance corridors of 150 km	07/2020
HPRIDC to appoint arbitrator for land related issues in specific districts wherein land taking might be required.	02/2020



HPRIDC to contract RAP Implementation Agency	02/2020
<b>ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>	
HPRIDC to conduct Biodiversity and Habitat Assessment and prepare and disclose Biodiversity and Habitat management plan including budget for mitigation measures.	04/2020
HPRIDC to contract independent biodiversity expert for biodiversity and habitat assessment following Bank's approval of the Terms of Reference for the study.	01/2020
<b>ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities</b>	
HPRIDC shall prepare and disclose Tribal Development Framework (if required) and Tribal Development Plans for maintenance corridors (based on ESIA findings)	06/2020
<b>ESS 8 Cultural Heritage</b>	
HPRIDC to develop a chance finds procedure in the ESIA's and ESMPs and include as a requirement in ESIA's/ site-specific ESMPs and also in the Bid documents for civil works	12/2019
<b>ESS 9 Financial Intermediaries</b>	

Public Disclosure

**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?** No

**Areas where “Use of Borrower Framework” is being considered:**

The borrower/government has not proposed for adoption of borrower’s E&S Framework to address environmental risks and impacts of the project. The project will comply with the Bank’s new Environmental and Social Framework and its Environmental and Social Standards.

The Project, however, is subject to the national, state and local permits and clearances as per the existing legal-institutional framework. These permits and clearances will be obtained prior to approval, and the exact requirements to obtain such permits and clearances will be recorded in the ESCP.

**IV. CONTACT POINTS**

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**Borrower/Client/Recipient**

Borrower: Government of Himachal Pradesh

**Implementing Agency(ies)**

Implementing Agency: Himachal Pradesh Road & Other Infrastructure Development Corporation

**V. FOR MORE INFORMATION CONTACT**

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**VI. APPROVAL**

Task Team Leader(s):	Pratap Tvgssshr, Manivannan Pathy, Tesfamichael Nahusenay Mitiku
Practice Manager (ENR/Social)	David Seth Warren Cleared on 07-Jan-2020 at 11:47:2 EST
Safeguards Advisor ESSA	Agi Kiss (SAESSA) Concurred on 09-Jan-2020 at 13:16:27 EST