



# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 14-Jun-2019 | Report No: PIDISDSC21659

**BASIC INFORMATION****A. Basic Project Data**

Country India	Project ID P163328	Parent Project ID (if any)	Project Name Himachal Pradesh State Roads Transformation Program (P163328)
Region SOUTH ASIA	Estimated Appraisal Date Mar 02, 2020	Estimated Board Date Mar 26, 2020	Practice Area (Lead) Transport
Financing Instrument Investment Project Financing	Borrower(s) Government of Himachal Pradesh	Implementing Agency Himachal Pradesh Road & Other Infrastructure Development Corporation	

**Proposed Development Objective(s)**

The proposed PDO is to enhance efficiency of the transportation and Road Safety institutions and develop efficient logistics system for horticulture and overall economic growth in Himachal Pradesh..

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

<b>Total Project Cost</b>	398.00
<b>Total Financing</b>	398.00
<b>of which IBRD/IDA</b>	200.00
<b>Financing Gap</b>	0.00

**DETAILS****World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	200.00
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**Non-World Bank Group Financing**

Counterpart Funding	198.00
Borrower/Recipient	198.00



Environmental and Social Risk Classification

High

Concept Review Decision

Track I-The review did authorize the preparation to continue

Other Decision (as needed)

## B. Introduction and Context

### Country Context

1. **India's growth remains robust but has moderated from prior high levels in the past fiscal year (FY18/19).** After growing at 7.2 percent in FY17/18, economic growth slowed to 6.8 percent in FY 18/19, with quarterly growth falling to 5.8 percent (y-o-y) in Q4. Growth remains broad-based, but the impact of accelerating industrial growth was counterbalanced by decelerations in services and agriculture growth, on the production side. On the demand side, consumption has been bolstered by public spending, but investment growth has decelerated. In FY18/19, the current account deficit is estimated to have reached 2.6 percent of GDP but a strong rebound in foreign investment over the second half of the year allowed foreign reserves to remain at a comfortable level of US\$411.9 billion, as of end-March 2019 (equivalent to about 9.7 months of imports). Going forward, output growth is projected to recover and stabilize at around 7.5 percent, thanks primarily to resilient private consumption, but also to a rise in exports of goods and services and a gradual recovery in investment. The current account deficit is projected to narrow to 1.9 percent of GDP in FY19/20 but external headwinds—in the form of re-escalating trade tensions and elevated oil prices—could put pressure on the balance of payments.

2. **Since the 2000s, India has made remarkable progress in reducing absolute poverty.** Between FY2011/12 and 2015, poverty declined from 21.6 to an estimated 13.4 percent at the international poverty line (2011 PPP US\$ 1.90 per person per day), continuing the earlier trend of robust reduction in poverty. Aided by robust economic growth, more than 90 million people escaped extreme poverty and improved their living standards during this period. Despite this success, poverty remains widespread in India. In 2015, with the latest estimates, 176 million Indians were living in extreme poverty while 659 million, or half the population, were below the higher poverty line commonly used for lower middle-income countries (2011 PPP US\$ 3.20 per person per day). Recent trends in the construction sector and rural wages, a major source of employment for the poorer households, suggest that the pace of poverty eradication may have moderated.

3. **Himachal Pradesh (HP) is a special status state located in the Himalayan mountains.** HP is categorized as special status state due to, inter alia: (i) mountainous terrain; (ii) low population density; (iii) sizable tribal population; (iv) strategic location bordering neighboring countries; (v) economic and infrastructure backwardness; and (vi) non-viable nature of the state finance. Hence, the State receives significant financial support from the central government and development partners. HP is endowed with abundant natural and human resources, and the Government of Himachal Pradesh (GoHP) intends to promote green growth, including eco-tourism, forestry, agriculture/horticulture, culture,



specialized services, including medical tourism, IT and education, as well as renewable energy generation, including hydro power. However, ensuring development effectiveness is a challenge in the absence of synergy among development initiatives and institutional efficiency. The World Bank has been supporting agriculture, forestry, public finance, green growth, sustainable development and transport projects, but implementation has been sluggish due to institutional capacity limitations.

#### Sectoral and Institutional Context

4. **HP is endowed with abundant fruit belts and natural tourism potential, which could help the State to be a lead in green growth, if its transport infrastructure and logistics system are well developed.** The economic growth of the state is mainly attributed to agriculture/ horticulture and related activities as it provides employment to about 62 percent of the total workers in the state. However, the roads connecting farm areas to the wholesale markets are substandard (narrow mountainous roads) and horticultural products are transported by informal cartels of short-bed truck operators. Moreover, the Himalayan mountains and valleys covered with the state record (SoER, HP) of 3,295 species of plants and 5,721 species of fauna are attracting tourists to HP and make tourism account for seven percent of the State GDP. The natural scenery in the Himalayan mountains, including the Rotana Pass is attracting enormous tourists. The tourism industry is growing fast and the number of tourists in HP has increased from 7 million in 2005 to 13 million in 2010 and 18 million in 2016. Students from all over India join the universities in Solan, which are providing high quality education in agriculture, IT and medicine, which makes HP a center for specialized services. Himachal's hydropower plants generate 7,000-Megawatt electricity. Recently, manufacturing plants, including pharmaceutical, cement, small steel mills and wool factories are emerging. The absence of physical and digital logistics infrastructure for the production clusters, and Small and Medium Enterprises (SMEs) clusters producing downstream value chains is a major constraint for consolidation of products and lowering transportation cost. Overall economic growth development in the state thus calls for the provision of efficient transportation services.

5. The transport system of HP is characterized by:

- (a) Inefficient maintenance system.
- (b) Congested narrow roads network (often single lane roads), which were constructed over 50 years ago and not to acceptable, safe and resilient engineering standards;
- (c) High construction cost and long (5 to 7 years) slope stabilization period, due to topography and geo-hazard;
- (d) Inability to connect the urban centers, fruit belts and tourist destinations of HP with domestic, regional and international markets with cost effective and safe transportation, due to lack of efficient transportation services;
- (e) Lack of system for transloading to the rail network and limited expressways/high capacity highways (dependent on substandard road transportation);
- (f) High road crash incidences that make Road Safety risks along HP roads among the highest in India. In 2016 some 7,036 persons were injured in accidents, of which 1,272 suffered fatal injuries. The fatality rate in the state is 18.17 people per 100,000 population, compared to the national level fatality rate of 11.53 people per 100,000 population).

6. **Roads are the main mode of transportation, since rail and air transportation services are not well-developed.** The state has 200 km of railway network of which only 20 km is broad gauge and the remaining is single/ narrow gauge built in the early 1990s. Indian Railways is considering the construction of a new strategic railway that links the northern



part of HP to Mandi. Currently, there are three airports, developed and managed by the Airports Authority of India (AAI). However, due to the terrain the airstrips are short and serve mainly small aircrafts. HP has 35,376 km of roads consisting of 2,017 km of national highways, 4,207 km of MDRs and 29,152 km of rural roads. In addition, the Border Roads Organization (BRO) provides road access (about 800km) in difficult terrain or in sensitive locations. **HP does not have “state highways”**, since these have been reclassified and transferred to the National Highways Authority of India (NHAI). In the absence of this the Himachal Pradesh Public Works Department (HPPWD), has reclassified about 2,007km of MDRs as State Core Road Network (SCRN).

7. **The first World Bank funded HP State Road Project focused on improving critical state roads and process reengineering, but the reforms were not transformational.** Under HPSRP I<sup>1</sup>, roads with a total length of 435Km have been upgraded to double/intermediate lane roads with international best practice engineering (geometric) design standard. In addition, 1484.79 Km of core roads have been provided periodic maintenance. The average speed on the upgraded roads increased by 38.4 percent while vehicle operating cost a proxy to transport cost reduced by about 32 percent. Death rate has also reduced. In addition, several state-of the art institutional strengthening and capacity building measures have been implemented, including: (i) the establishment of the Himachal Pradesh Roads Infrastructure Development Corporation (HPRIDC<sup>2</sup>), (ii) development of a web-based Road Accident Data Management System (RADMS); (iii) development of an Electronic Project Management System (e-PMS); (iv) introduction of Output and Performance-based Maintenance Contracting (OPBMC- 347.00 Km) and other maintenance contracts; and (v) first time use of ICB contracts in the state. Alongside the piloting of OPBMC, HPSRP I supported initiatives that attempted to improve the management of maintenance works by increasing productivity and reducing cost, mainly: (i) by equipping the crew with adequate and appropriate tools that will increase productivity; (ii) training; and (iii) rebalancing of workload and manpower. However, the development and operationalization of HPRIDC as a corporate entity was not well pursued. HPRIDC managed the completion of the road upgrading and process reengineering under HPSRP I, and it is currently developing the HP State Roads Transformation Program. The asset management functions are still carried out mixed with the direct labor operation. The creation and strengthening of the functional units required to discharge its corporate responsibilities is neglected, and this calls for the reestablishment and operationalization of HPRIDC.

8. **Inefficiency of the direct labor/own force account maintenance operations and absence of a stable maintenance financing scheme are major policy reform issues.** The direct labor operations are carried out on cashflow basis, which accounts only for direct operating expenses, keeping wages for the permanent direct labor staff and depreciation costs of maintenance equipment hidden. A preliminary cost comparison of the maintenance works executed under the direct labor on the national highways administered by HPPWD and the performance-based maintenance contracts under HPSRPI show that expenditure by direct labor was higher by about 268<sup>3</sup> percent. There is neither a means of monitoring performance and quality nor knowing the true costs of the maintenance works. HPPWD has about 27,000 labor organized under the four zonal offices, currently carrying out emergency, routine and periodic maintenance, as well as minor road improvement works. In the past, the HPPWD direct labor has developed specialized skills in constructing

<sup>1</sup> Launched in 2007 and implemented through 2017. The loan amount was US\$400.63 million.

<sup>2</sup> HPRIDC is mandated to build the commercialized states roads network through Public, Private Partnership (PPP) and managing major road development projects.

<sup>3</sup> As reported by HPPWD, in 2016-17 budget year, expenditure by direct labor was about US\$22,000 per lane km/year while the payment for the maintenance contracts was about US\$8,200 per lane km/year.



and maintaining roads in the Himalayan mountains. Cognizant of the challenges, GOHP is considering reorganizing the direct labor and commercialize in a socially responsive manner that could avoid the risk of lay-off and retain the specialized skill of the direct labor to undertake emergency maintenance in the rugged mountains. During the commercialization process, all unskilled and semiskilled labor, which have guaranteed employment will continue to work until the age of retirement under the civil service regime, and the retirees will be gradually replaced by contractual labor.

9. Currently, maintenance of state roads is financed through budgetary allocation from central and state governments. However, the allocations only cover about 64 percent of the demand. Annual maintenance allocation over the last five years (2013-14 to 2017-18) was on the average about US\$60 million per year. Budgetary provisions for construction and improvement of roads and bridges are made through State budgetary support, Central Road Fund (CRF), Pradhan Mantri Gram Sadak Yojana (PMGSY) and National Bank for Agriculture and Rural Development (NABARD). The capital expenditure during 2016-17 was about US\$ 226 million. The Government of Himachal Pradesh (GoHP) is considering establishing a dedicated road maintenance financing scheme and commercializing direct labor operations.

#### Relationship to CPF

10. The operation will support the achievement of the core focus area and objectives of the Country Partnership Framework (CPF, 2018-2022), primarily by:

- (a) *enhancing competitiveness and enabling job creation by improving connectivity and logistics*, as it is targeting to finance initiatives that will reduce transport cost and accidents; improve safety along tourism corridors in HP; enhance logistics along the fruit belts; and strengthen rural and urban linkages.
- (b) *enabling quality job to women* through the provision of efficient agro-logistics in the apple corridors (and digital marketing and freight management, as well as packaging services to develop around freight consolidation platforms).
- (c) *enhancing resilience* to climate change (coping with geo-hazard risks by adopting bio-engineering solutions).
- (d) *promoting resource efficient, inclusive and diversified growth in the rural sector* by facilitating green growth (providing efficient agro-logistics along the fruit belts and improve safety along tourism corridors).
- (e) *strengthening public sector institutions* by instilling efficiency in the functional units of HPPWD and Department of Transportation (HPDOT) and promoting innovative development solutions in the implementation of programs.

### C. Proposed Development Objective(s)

11. The proposed PDO is to strengthen state level transportation institutions, and enhance safety and resilience of state roads in Himachal Pradesh, whilst developing the logistics system for horticulture and overall economic development.

#### Key Results (From PCN)

12. The implementation of the core initiatives of the project is expected to result in:
- (a) Establishing efficient transport institutions;
  - (b) Reducing maintenance expenditure;



- (c) Reducing the average time for transporting products from production clusters to wholesale markets and from SMEs/wholesale markets to terminal markets;
- (d) Enhancing resilience of state roads to climate change;
- (e) Reduction in road accident fatalities.

#### D. Concept Description

13. The challenges to improve the efficiency of HP's transport infrastructure and logistics system are multifaceted and it is necessary to prioritize the interventions to be supported under this operation. In line with this, the proposed project will focus on the following:

- (a) Creating institutions that could provide adequate infrastructure and enable the private sector to deliver efficient transport and logistics services;
- (b) Developing a logistics system for HP's horticulture and overall economic growth and field test the system.
- (c) Reducing road accident incidences and fatality by enhancing enforcement.

14. Preliminary Scope of the Proposed Operation

#### 15. **Component 1. Strengthening HP's Transport Institutions and Building Resilience**

16. The support to strengthening HP transport and logistics institutions will focus on:

17. **Reestablishing the Himachal Pradesh Road and Infrastructure Development Corporation (HPRIDC)** to support GoHP's initiative to create a corporate entity responsible for the administration of the development and maintenance of HP roads. Associated with this, the project will support the preparation of a strategic plan for the development of multimodal transportation system.

18. **Commercializing the direct labor operations and promoting competitive performance-based maintenance contracting** to support GoHP's initiative to improve the efficiency of maintenance execution and reduce maintenance cost.

19. **Performance based maintenance contracting**, including improvement of accident-prone locations and provision of additional drainage structures. The maintenance contracts will be used to benchmark the performance of the direct labor operation.

20. **Establishing HP Motor Vehicle Administration (HPMVA)** to enhance governance and modernize the vehicle administration system through process re-engineering of vehicle registration, transaction processing, vehicle safety inspection, drivers licensing, liberalizing the trucking market from the informal cartels, and promoting the provision of safe and clean mass transportation services. This will also be implemented in stages, including: (a) Stage 1. Reorganizing the motor vehicle administration services and inaugurate the new corporate entity; (b) Stage 2. Process re-engineering



and training the core staff to create a critical mass; and (c) Stage 3. Efficient delivery of motor vehicle administration services.

21. **Supporting the creation of dedicated road financing mechanism** by adopting innovative financing schemes for state roads development, including annuity road rehabilitation contracts financing. Assessing options for Public, Private Partnership (PPP) arrangement for construction of tunnels as well as partially equity financing for upgrading highly trafficked roads.

22. **Mainstreaming resilience in the Himalayan mountain roads and protecting the natural and social environment**, through:

- (a) developing policy and regulatory reform framework; and conducting elaborate disaster risk and impact assessment to identify remedial measures and mainstream in project screening, design and implementation.
- (b) applying bio-engineering solutions along all the state roads through women self-help group contracting arrangement;
- (c) preparing bio-engineering manual and training;
- (d) mapping of geo-hazard risks and establishing early warning system; and
- (e) strengthen the Environmental and Social (ES) management capacity of HPPWD by supporting HPRIDC to prepare “Borrowers’ ES Framework” and capacity building.

23. **Component 2. Developing transport corridors and complementary facilities, and a logistics system for HP’s horticulture and overall economic growth**, including:

24. **Designing a logistics system** that could transform the marketing and production of downstream value chains for strategic horticultural produce, including apple and contribute to the overall economic growth of HP. The logistics system design, inter alia will analyze : (a) the specific logistics infrastructure and services demands of the production clusters, including the option of establishing physical and digital platforms for aggregation of products and bus depots; (b) the logistics and infrastructure demands of the wholesale markets/SME clusters, including the option of establishing production cluster freight consolidation and passenger transport terminals; (c) the option for developing the logistics infrastructure by attracting private investment; (d) connectivity and logistics services between production clusters and wholesale markets/SME clusters, as well as the wholesale markets/SME clusters and the rail terminals in Chandigarh, including last-mile connectivity; (e) attracting end to end multimodal logistics services provision companies; (f) options for managing the logistics infrastructures; (g) liberalizing the informal cartel; and (h) creating quality jobs for women, including the operation of the digital freight management platform connecting the smallholding farmers- wholesale markets/ SME clusters – truckers – logistics companies.

25. **Piloting the logistics systems**, by field testing on the two strategic corridors (the Shimla apple corridor and the Paonta Sahib (Sirmour District) SME cluster logistics corridor). The two wholesale markets/SME clusters are already connected<sup>4</sup> by expressways/high capacity highways to the Chandigarh rail terminal, as well as to the national highways. The end-to-end multimodal logistics companies could thus quickly operationalize the chain connecting the two clusters to terminal markets once the design of the logistics system has been developed. The only requirement to start these end-to-

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<sup>4</sup> The Shimla Chandigarh expressway is expected to be completed in the coming two years, by 2021.





end logistics operations is the connection of the production clusters to the Shimla and Paonta Sahib wholesale markets/SME clusters. This will be done under the project by upgrading the target collector/Major District Roads (including last-mile connectivity to expressways), and by establishing model physical and digital platforms as determined by the logistics system. GoHP plans to finance the upgrading of additional priority horticultural corridors from other means.

**26. Component 3: Enhancing Road Safety:**

27. **Promoting the ‘Safe System’:** Support to road accident data management and enforcement on state roads and critical accident spots along rural roads. The enforcement will replicate the successful piloting work carried out by HP police in the three districts. HPPWD will improve accident spots through its regular maintenance programs, whilst HPDOT will continue with its coordination responsibilities. This operation will support the strengthening the Road Safety Unit/Secretariat of HPDOT. HPMVA to be created/strengthened under component one of this operation will be responsible for vehicle safety inspection. The data management system will be enhanced to establish a system connecting the hospital providing post-accident care and the State Police (the host of the RADMS).

**28. Promoting the ‘Safe Corridor initiative’:**

29. The Safe Corridor initiative will support the state highway patrol by providing surveillance equipment (CCTV cameras for speed control, accident recording, etc.), variable messaging system (VMS) showing traffic information and accident prevention messages, training the police, and establishing emergency response posts equipped with paramedics, ambulances and tow trucks. The operation will also establish communication system connecting accident sites and dedicated hospitals for post-crash care along the corridors, as well as data collection on survival of victims under trauma management.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

While screening of sub-projects is yet to take place, preliminary findings indicated that the expected environmental issues likely to be encountered in the Project are mostly due to sensitive environmental settings of the project roads; water and soil contamination from wastewater generated from construction/workers camps; spillage and handlings of chemical and hazardous materials; damage to vegetation; clogging of waterways; potential inducement of landslides, landslips, erosion from cut faces of hill slopes; disposal of spoils from hill cutting and tunneling; air pollution due to fugitive dust from hill 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 archaeological and historical sites/assets, culturally and socially important common properties, religious properties/sites, sacred groves on or near the project roads; distress of public/community due disruption of utility services; and likely direct, indirect and induced impacts on ecological functions of forests, other natural habitats including protected areas.

Social risks 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. Vulnerable and disadvantaged individuals and groups more likely to be adversely affected number of risks and impacts could arise from associated facilities, and large-scale construction works. About two-thirds of the proposed 2000 km in the project will be maintenance works, curve improvement/black spots correction, these sub-projects will involve nil or minimal land acquisition impacts. while the remaining one-third of the roads are upgradation of existing roads and mostly two lanes. Thus, land acquisition requirements may not be high and people may lose only small proportion of lands. Further roads selected in tribal areas constitute approximately 7% of the total road length under the project and may involve maintenance works only In such areas, FPIC would be undertaken in case of impacts involving impacts on land, livelihood, cultural heritage besides in cases requiring relocation and in case FPIC cannot be ascertained, the project will not proceed with those sub-projects/activities.

**Note** To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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**APPROVAL**

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