



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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**I. BASIC INFORMATION****A. Basic Operation Data**

Operation ID	Product	Operation Acronym	Approval Fiscal Year
P501071	Investment Project Financing (IPF)	RHMP	2025
Operation Name	Rajasthan Highway Modernization Project (RHMP)		
Country/Region Code	Beneficiary country/countries (borrower, recipient)	Region	Practice Area (Lead)
India	India	SOUTH ASIA	Transport
Borrower(s)	Implementing Agency(ies)	Estimated Appraisal Date	Estimated Board Date
India	Department of Transport and Road Safety, Rajasthan State Highway Authority	09-Dec-2024	10-Apr-2025
Estimated Concept Review Date	Total Project Cost		
26-Mar-2024	780,590,000.00		

Proposed Development Objective

The project development objective (PDO) is to (i) enhance RSHA's capacity for network management; (ii) improve efficiency, resilience, and safety across selected state highway corridors; and (iii) strengthen statewide road safety management.

B. Is the operation 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 Activities

The project interventions may include the following elements: 1. Improvement of about 1000 km of state highway economic corridors on EPC and HAM mode to improve multi-modal integration, first and last-mile connectivity to consumption & production centres, EXIM channel routes, inter-modal terminals/ ICDs in line with the State Warehousing and Logistics Park Policy, 2022. This will help in reduction in transport logistics cost, reduce congestion, improve industrial competitiveness and trade and help in better traffic management by improving the capacity,



resilience and safety of the state highway network. This will encourage mobilization of private capital through the implementation of HAM mode in line with the experience and learnings of Phase-I. 2. Strengthening the newly set up Rajasthan State Highway Authority (RSHA): The operationalization of RSHA has been initiated under the ongoing Phase-1 which is supporting the transfer of the management of state highways from PWD to RSHA. Under the proposed Phase-II, support will be deepened to enable RSHA to transform to a road network service delivery provider. Activities envisaged include: (i) strengthening internal systems and processes of RSHA to meet requirements of corporate governance and as laid down in the RSHA Act; (ii) ensuring operational and functional autonomy of RSHA; (iii) institutional strengthening and capacity building of RSHA to enable it to raise financing by accessing markets including for obtaining a formal credit rating; and (iv) support preparation and piloting of an asset monetization and recycling strategy for the state. 3. Supporting implementation of the Rajasthan Road Safety Strategy and Action Plan, under finalization as part of the Phase-1 of RSHDP including results-focused safe system approach of engineering, enforcement, education and post-crash care including strengthening Ambulance Services and Trauma Care Centers along the high-risk corridors to enhance survival rates. 4. Improving digitization and modernization of Inspection and Maintenance System for In-use Vehicles including digitization of existing centres; registration process; few designated/dedicated centres for upgraded tests for commercial vehicles, well-equipped mobile test centres, model Automated Testing stations (ATS) for vehicle fitness; leveraging ITS for Driver Fatigue Management. This may also include technology to reduce overloading, drunken driving, illegal parking, reduce dwell-time at state borders, monitoring driver behaviour. Other potential areas of intervention to improve logistics efficiency including state level logistics master plan along with department level action plan and M& E framework are also being looked into and under discussion with the state.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The project will be implemented in Rajasthan. Situated in north-western part of India, it is the largest state covering nearly 10% of country's geographical area and 7% of its population. It is among the states with low per capita income (US\$943/INR 86,134), which is 20% less than the national average.

Rajasthan's environmental profile includes varying topographic features, with a major part of the state dominated by parched and dry regions, extensive rocky terrain, rolling sand dunes, barren tracts, river-drained plains, plateaus, ravines, and some wetlands. Rajasthan houses the biggest Indian desert 'Thar', which covers nearly 62% of the state's area. The oldest chain of fold mountains - Aravalli Range splits the state into two geographical zones - desert on one side and forest belt on the other. The state experiences extreme climate with an average annual rainfall less than 25 cm. The state's climate and geographical features have a significant impact on its agriculture, economy, and livelihoods.

Rajasthan is known for its wildlife sanctuaries and national parks in India. While only 9.5% of the total area is classified as forest, there is a diversity in the flora and fauna (including avifauna) owing to its varied topography and climatic variation.

Rajasthan has about 65 varieties of minerals, including large deposits of zinc, copper, gypsum, lignite, and mica. It has a large production of cotton and textiles along with cement, ball bearings, caustic soda, and other chemical industries. Rajasthan is known for its rich cultural heritage, majestic forts, intricately carved temples, and traditional arts and crafts. The state is also famous for its textile, semi-precious stones, handicrafts, wooden furniture, carpets, and blue pottery.



Rajasthan is overwhelmingly rural, with more than three-quarters of its population living in rural areas. It has one of the highest proportions of scheduled caste and scheduled tribe population among the Indian states.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

The Rajasthan State Highways Authority (RSHA) and Transport Department, Govt. of Rajasthan will be responsible for implementation of the proposed project. RSHA has already acquired some experience while implementing the ongoing World Bank funded Rajasthan State Highways Development Program II (RSHDP II) and familiarity of undertaking PPP projects supported by the World Bank and Asian Development Bank.

Due to a long association between Govt. of Rajasthan/State Public Works Department (with its PPP Division and now its officials posted in the RSHA) and the World Bank right through Rural Roads Project (P077977), PMGSY - Rural Roads Project (P124639) and its Additional Financing, Rajasthan Road Sector Modernization Project (P130164), and the on-going RSHDP (P157141), the road agency in the state has gained reasonable experience in applying and implementing Bank's safeguard policies.

However, RSHA is a newly operationalized entity which is still in the process of developing detailed organization structure, staffing plan, investment strategy, business plan and the schedule of powers for running business under the ongoing Bank supported RSHDP II. Further, the proposed operation will apply the Bank's ESF for the first time in the state, for which some capacity augmentation on environment and social risk management, road safety and associated technical areas will be required.

The current institutional capacity of RSHA, which is dependent on consultancy firms needs to evolve into a strong in-house capability, including on E&S Risk Management and Sustainability as part of RSHA's core business strategy and functions. The capacity requirement of RSHA and the Transport Department would be assessed in detail during the preparation of the project. The adequacy of the implementation and institutional arrangements including inter-departmental coordination (on matters such as regulatory clearances, permits, land acquisition etc.) will also be assessed as part of this exercise.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

A.1 Environmental Risk Rating

Substantial

The environment risk rating is rated 'substantial' based on the assessment carried out at the concept stage. The key environment risks are envisaged from activities under Component 2 and 3 that entail civil works. The likely adverse impacts due to proposed project interventions may include: (i) adverse implications on drainage/local hydrology due to raising of road embankments; (ii) issues pertaining to safety of road users/local communities on account of sub-optimal engineering/Detailed Project Report quality; (iii) pressure on natural resource requirements (particularly earth and water); (iv) impact on avenue plantations and forest areas due to tree felling and diversion of some land demarcated as 'protected forest'; (v) delays in obtaining requisite regulatory permissions and slippages in compliance to conditions therein; (vi) disruption to services due to shifting of utilities; (vii) risks to occupational health and safety (OHS) of workers; (viii) improper disposal of construction wastes/debris; (ix) increase in air/dust and noise pollution



(during construction and operation); (x) impact on water quality due to pollution during construction and accidental spills during operations; (xi) direct or indirect impact on cultural heritage and; (xii) challenges pertaining to appropriately managing outreach and engaging a considerably diverse set of stakeholders, including their meaningful participation in preparation and implementation of the project. While PWD's track record on environment management has been largely satisfactory, risk classification and initial assessment on potential issues will be revalidated during project's preparation as sub-project locations/details become available and RSHA's staffing/capacity evolves. Overall, environmental impacts are likely to be site-specific/localized and can be mitigated with proper engineering design, adoption of good construction management practices and implementation of environment management/mitigation plans.

A.2 Social Risk Rating

Substantial

The preliminary assessment suggests potential social risks to include those on land, private and community-owned assets including structures, trees, and crops within existing land, and those areas identified for land up-taking. Physical and economic displacement, too, is very likely. The clear range of impacts would only be established after finalization of the project roads, for which feasibility studies are under progress. Though the implementing agency RSHA/PWD has a reasonable track record in implementing R&R activities through its previous Bank assisted projects (RRP I, RRSMP, PMGSY) and on-going RSHDP, the land acquisition requirements, possible impacts on vulnerable and disadvantaged individuals & groups, expected impacts on residential, commercial structures and the lower institutional capacities to manage social aspects, would all be the challenges for effective R&R outcomes. Management of these risks would be undertaken through the principle of the 'mitigation hierarchy'. The sub-project specific ESAs would bring out impacts on the general population, vulnerable and disadvantaged individuals/groups. Labor influx, and resultant Gender Based Violence (GBV) issues would be assessed as part of the ESA as migration of skilled labor required for many of the works, is expected to be a common feature. If any roads with tribal population are selected, FPIC and tribal assessments would be undertaken for such sub-projects. These sub projects will not be proceed further, if these do not ascertain and comply FPIC provisions.

B. Relevance of Standards and Policies at Concept Stage

B.1 Relevance of Environmental and Social Standards

ESS1 - Assessment and Management of Environmental and Social Risks and Impacts

Relevant

Since not all sub-project locations will not be known by appraisal, an Environment and Social Management Framework (ESMF) will be prepared. It will: (a) identify the E&S risks envisaged from project activities; (b) lay-out procedures for screening, sub-project level ESIA, and RAP; (c) provide template for Environmental and Social Management Plans (ESMPs) and/or any other instrument; (d) monitoring and reporting requirements and; (e) capacity development measures. The ESMF will be guided by WBG's EHS Guidelines (General, Toll Roads and Construction Materials Extraction) and Good Practice Note on Road Safety. For priority investments (to meet readiness criteria of the GoI), sub-project level ESIA, ESMPs and RAPs will be prepared keeping in mind potential risks and impacts envisaged from such sub-projects. These instruments along with over-arching documents for the Project (ESMF, RPF, SEP, LMP, and ESCP) will be prepared, consulted upon, and disclosed by the RSHA by project's appraisal.



ESS10 - Stakeholder Engagement and Information Disclosure

Relevant

Key stakeholders in the project include road users, commercial and industrial operators, project affected persons, contractors, officials of Public Works Department, Revenue, Forest, Tribal Affairs, Social Welfare, Power, Water and Other Interested Groups. The composition may change depending on the specific geographical areas where the sub-projects will be located, which is not known at the concept stage. It is necessary to ensure that a consistent, comprehensive, coordinated, and culturally appropriate approach is taken for stakeholder engagement and disclosure of project related information. For this, a Stakeholder Engagement Plan (SEP) will be prepared, consulted upon, and publicly disclosed before project appraisal. RSHA will actively seek feedback from stakeholders and take measures to incorporate the inputs into project design. The GRM experience under on-going RSHDP II would be reviewed, and revised (as required) for the proposed project and included in the SEP.

ESS2 - Labor and Working Conditions

Relevant

Project will involve: (1) direct workers employed by RSHA, (2) contracted workers engaged for construction work and consultancy services for specific deliverables and technical support to RSHA and, (3) Primary Supply Workers of construction material providers. Construction work may require migrant workers from both within and outside Rajasthan, depending on contractor's strategy and skill set requirements, though majority are expected to be from within the state. Involvement of community workers is not envisaged given the technical nature of the project. As part of the assessment, relevant national and state laws related to labor welfare, compensation, use of child labor and forced labor, OHS etc. would be reviewed. Requirements will be integrated in the Bidding Documents and Labour related GRM, including for SEA/SH, will be set-up. Labour Management Procedures (LMP), would be prepared and disclosed, as may be appropriate for implementation, prior to appraisal.

ESS3 - Resource Efficiency and Pollution Prevention and Management

Relevant

On resource efficiency, the project will consider: (a) improving water efficiency, (b) enhancing energy efficiency, (c) reuse of excavated pavements and; (d) use of alternative/local and marginal materials. For pollution prevention/management, focus will be on: (i) debris/construction waste management; (ii) silt control at work sites to prevent sedimentation; (iii) preventing contamination of water sources, particularly from activities in construction camps and plant sites during construction; (iv) measures for controlling dust and noise pollution during construction and operation; (v) management of hazardous wastes, if any, which will be ascertained as part of sub-project assessment and, (vi) storage and management of construction materials to prevent ground/soil contamination. Moreover, institutional capacity of RSHA on resource efficient, green and resilient construction methods will be created by integrating appropriate approaches into policies and work/business procedures.

ESS4 - Community Health and Safety

Relevant

As the project will be implemented in dispersed and remote areas of Rajasthan, some labor influx is expected. The project induced labor influx could expose local communities, including children, to communicable diseases, sexually transmitted diseases, as well as SEA/SH risks. Other risks associated with civil works may arise with increase in vehicular traffic movement leading to road safety, disruption in movement, dust and noise/vibration. The ESA (to be undertaken for the preparation of ESMF) will evaluate the risks and impacts of the project on health and safety of the communities during project's life cycle. The proposed mitigation measures in accordance with the mitigation



hierarchy will be included in the ESMF and integrated in the ESMPs and bidding documents. The interventions will be adapted to reflect site-specific requirements.

ESS5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant

The estimated land acquisition will be known after feasibility studies are undertaken/completed and sub-projects are ascertained. Social impact assessments/RAPs will be prepared for all sub-project roads. With the long association between Rajasthan Public Works Department and the World Bank on account of previous projects, the department has gained experience in implementing R&R plans. Under the RSHDP II (on-going project), the PWD/RSHA has developed e-RAP software, and Resettlement Policy Framework (RPF) for implementation of R&R activities. The RPF covers all the provisions of ESS 5 and also allows for the coverage of non-title holders, such as squatters and encroachers. The RPF will be reviewed and updated, as needed to ensure that it is consistent with the requirements under ESS 5 and national laws. Key stakeholders will be consulted before its finalization.

ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

TBD

Interventions under Component 2 and 3 may have limited/localized impacts on different types of habitats but this can be determined/confirmed after feasibility studies are undertaken and sub-projects are identified. If any sub-project in or close to national parks or wildlife sanctuaries or wildlife habitats is identified after technical feasibility studies are completed and environment screening exercise are conducted (which will be undertaken early-on in the project cycle), country's regulatory framework as well as the principles/requirements of ESS 6 will be applied. This will include the application of mitigation hierarchy and consultations with subject experts before further course of action is decided.

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

TBD

At this stage, the project roads/sub-projects are yet to be identified. Therefore, the information on the presence of tribal population in the project area can't be established. Following the identification of sub-projects during the preparation stage and based on screening exercises, which are required to establish potential impacts and risks, the relevance of ESS 7 shall be determined and necessary assessments/documents will be prepared, as required by project's appraisal.

ESS8 - Cultural Heritage

Relevant

Rajasthan is a land with many layers of history, culture, ethnicity, and religion. Given the vast geographical coverage of the Project, there is a possibility of cultural heritage related concerns coming up in case of certain project works. Such sub-projects will be identified early-on in the project preparation cycle using: (a) environment and social screening procedures and, (b) consultation mechanisms with stakeholders to identify any sensitive issues related to tangible or intangible cultural resources. The sub-project level E&S assessments will confirm the existence of cultural heritage for which a cultural heritage management plan may be required. Chance finds procedures will be included in the ESMF to guide the preparation of the ESMPs and bidding/contract documents will include relevant clauses to deal with such finds. These requirements/commitments will be reflected in the ESCP.



ESS9 - Financial Intermediaries

Not Currently Relevant

No involvement of Financial Intermediaries (FI) is proposed or envisaged in the project.

B.2 Legal Operational Policies that Apply

OP 7.50 Operations on International Waterways

No

OP 7.60 Operations in Disputed Areas

No

B.3 Other Salient Features

Use of Borrower Framework

In Part

In the light of long experience with Govt. of Rajasthan/PWD (including its PPP Division from where officials have been posted to RSHA) and over-all satisfactory E&S performance on past projects, the application of Borrower's Systems (partial) in the proposed project will be explored by the Bank during project preparation.

Use of Common Approach

No

Not applicable

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required by Appraisal?

The following actions would be required prior to Bank's Appraisal for this operation to allow for an informed decision-making, commensurate with issues/risks identified during project preparation:

- 1) Environment and Social Management Framework (ESMF)
- 2) Stakeholder Engagement Plan (SEP)
- 3) Labor Management Procedures (LMP) - Will be possibly combined with ESMF, which will be determined during the project preparation cycle based on assessments.
- 4) Environmental and Social Commitment Plan (ESCP)
- 5) Site specific ESIA's and/or ESMPs for sub-projects for which civil works would be awarded by Negotiations/Board Approval based on the risks/impacts identified in the E&S screening and scoping process.
- 6) Any other, as needed based on requirements identified during project preparation

The following key aspects are likely to be a part of Borrower's Environmental and Social Commitment Plan (ESCP):

- 1) Organizational structure and staffing to manage EHS and social risks/impacts at the RSHA/PMU and PIU/District level
- 2) Preparation and implementation of site-specific screening/assessments/plans for sub-projects that will be known after the Appraisal Stage



- 3) Worksite safety and labor management, including OHS aspects
- 4) Training and activities for strengthening E&S capacity
- 5) Evidence-based reporting requirements, to facilitate real time tracking of ESHS management.

Project Documents where E&S requirements will be Integrated, will include:

- 1) Integration/reflection of E&S requirements in the Terms of Reference for consultancies
- 2) Integration of ESHS aspects into relevant outputs/deliverables/studies carried out under the project
- 3) Bidding Documents
- 4) Operations Manual

III. CONTACT POINT

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