



Report and Recommendation of the President to the Board of Directors

Project Number: 49125-001
August 2015

Proposed Loan India: Second Jharkhand State Road Project

Distribution of this document is restricted until it has been approved by the Board of Directors. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 05 August 2015)

Currency unit – Indian rupee/s (Re/Rs)

Re1.00 = \$0.0157

\$1.00 = Rs63.8015

ABBREVIATIONS

ADB	–	Asian Development Bank
CSC	–	construction supervision consultant
EIRR	–	economic internal rate of return
km	–	kilometer
NH2	–	National Highway No.2
PMC	–	project management consultant
RCD	–	Road Construction Department
SHAJ	–	State Highways Authority of Jharkhand

NOTES

- (i) The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2015 starts on 1 April 2014 and ends on 31 March 2015.
- (ii) In this report, “\$” refers to US dollars.

Vice-President	W. Zhang, Operations 1
Director General	H. Kim, South Asia Department (SARD)
Director	H. Yamaguchi, Transport and Communications Division, SARD
Team leader	T. Sakai, Senior Transport Specialist, SARD
Team members	T. Kawabata, Transport Specialist, SARD T. Morita, Counsel, Office of the General Counsel P. Sahu, Associate Project Officer, SARD K. Yangzom, Environment Specialist, SARD S. Zhao, Social Development Specialist, SARD
Peer reviewer	D. Fay, Transport Specialist, East Asia Department

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
PROJECT AT A GLANCE	
I. THE PROPOSAL	1
II. THE PROJECT	1
A. Rationale	1
B. Impact and Outcome	3
C. Outputs	3
D. Investment and Financing Plans	4
E. Implementation Arrangements	5
III. DUE DILIGENCE	6
A. Technical	6
B. Economic and Financial	6
C. Governance	6
D. Poverty and Social	7
E. Safeguards	8
F. Risks and Mitigating Measures	9
IV. ASSURANCES	10
V. RECOMMENDATION	10
APPENDIXES	
1. Design and Monitoring Framework	11
2. List of Linked Documents	13

PROJECT AT A GLANCE

1. Basic Data		Project Number: 49125-001	
Project Name	Second Jharkhand State Road Project	Department /Division	SARD/SATC
Country	India	Executing Agency	State Highways Authority of Jharkhand
Borrower	India		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		191.45
	Transport policies and institutional development		8.55
		Total	200.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Adaptation (\$ million)	18.60
		Climate Change impact on the Project	Medium
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Organizational development	Some gender elements (SGE)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Rural	High
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: A Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		200.00	
Sovereign Project loan: Ordinary capital resources		200.00	
Cofinancing		0.00	
None		0.00	
Counterpart		106.25	
Government		106.25	
Total		306.25	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to India for the Second Jharkhand State Road Project.¹

2. The project will improve about 176 kilometers (km) of state roads in the state of Jharkhand. It will involve upgrading state roads to a two-lane standard. Five year performance-based maintenance of the project roads will ensure sustainability. The project will also support increasing the institutional capacity of the State Highways Authority of Jharkhand (SHAJ) as an autonomous road development agency aiming to ensure long-term sustainable development and maintenance of the state road network in Jharkhand. SHAJ will become the nodal agency for promoting road safety in Jharkhand based on the road safety master plan to be developed under the project.

II. THE PROJECT

A. Rationale

3. Jharkhand was established on 15 November 2000 through bifurcation from Bihar state. It is surrounded by five states: Bihar in the north, West Bengal in the east, Odisha in the south, and Chhattisgarh and Uttar Pradesh in the west. It is known as a tribal and forest state. Jharkhand is endowed with about 40% of India's mineral resources and has the richest deposits of coal and iron ore in the country. Despite this, it is one of India's poorest states with about 37% of its 33 million population living below the state poverty line.² The endowed natural resources have not efficiently contributed to the state's development due to poor access to these areas and limited employment opportunities with the related industries.

4. Road transport is the dominant mode of transport in Jharkhand. The state has about 2,000 km of railways, which primarily serve interstate traffic. Air transport caters only to interstate traffic. National Highway No. 2 (NH2) connects Delhi and Kolkata through Jharkhand. The state highway network provides connectivity to the NH2 from various parts of the state. Other categories of roads, including rural and forest roads, connect villages to the state highway network. However, Jharkhand does not have an adequate road network. The state has about 60,689 km of roads, of which rural roads represent about 82%. The road density is about 76 km/100 square kilometers, compared with the national average of 143 km. Jharkhand's main road network³ is about 9,278 km; less than 40% meet the two-lane standard.⁴ About 40% of the main road network is in poor condition. This constrains mobility between areas with natural resources and industrial and economic centers, and access to social amenities for the population. In fact, industries are concentrated in the central and eastern parts of the state where access to the NH2 is easier, widening the income disparity within the state.

¹ The design and monitoring framework is in Appendix 1.

² Government of India, Planning Commission. 2013. *Press Note on Poverty Estimates, 2011–2012*. New Delhi. For fiscal year 2012, the national poverty line for rural areas is estimated at Rs816/capita/month and for urban areas Rs1,000. Corresponding figures for Jharkhand state are Rs748/capita/month for rural areas and Rs974 for urban areas.

³ Jharkhand Infrastructure Development Corporation. 2013. *Road Prioritization Study cum Vision Document for Identification of Viable Road Sections to be developed in PPP Mode in the State of Jharkhand*. Ranchi. The main road network comprises national highways, state highways, major district roads, and other roads developed by the Road Construction Department of Jharkhand state.

⁴ India's national target for 2021 is to ensure all national and state highways and 40% of major district roads are at least two lanes. This means about 6,000 km of Jharkhand's main road network should be at least two lanes by 2021. Currently, less than 3,700 km meet the standard.

5. To improve mobility and achieve equitable development across the state, Jharkhand's Road Construction Department (RCD) has set targets to increase road density by constructing new state roads and improving conditions of the existing road network. An investment of about \$2.5 billion is planned to develop and improve about 6,000 km during 2012–2017, including the construction of 79 bypasses and bridges. Aside from the budget for the continuing scheme from the previous 5-year plan period, the government requires a budget of about \$1.6 billion to achieve the target.

6. To enhance capacity and efficiency in improving the state road network, the state government has created three autonomous bodies: State Highways Authority of Jharkhand (SHAJ), Jharkhand Accelerated Road Development Company, and Jharkhand State Rural Roads Development Authority. Jharkhand Accelerated Road Development Company is a special purpose vehicle, a joint venture between the state government and a private firm, established to develop 1,500 lane-km of state highways on a build–operate–transfer (annuity) basis. The state government established Jharkhand State Rural Roads Development Authority as an autonomous single purpose agency to implement the 100% centrally sponsored rural road connectivity program: *Pradhan Mantri Gram Sadak Yojana* (the national rural roads mission).

7. SHAJ, established in 2007 in accordance with the State Highways Authority of Jharkhand Act 2007, has the broadest responsibilities covering the development, maintenance, and management of any state roads entrusted by the state government. While the government envisaged that SHAJ would become independent of government funding within 3 years after its establishment, it still functions as a semi-autonomous body fully relying on government funding under RCD. The institutional setup is still in progress with all key personnel deputed from RCD. SHAJ requires hands-on external support for institutional development. The functioning of SHAJ with a sound governance structure equipped with dedicated and technically capable staff will contribute to sustainable state road development, ensuring appropriate road maintenance with clear accountability. The Jharkhand government intends to gradually shift the responsibility of state road development and maintenance to SHAJ from RCD as SHAJ strengthens its implementation capacity over time.

8. Appropriate road maintenance with adequate budget allocation is critical for a sustainable state road network. The state government has implemented five state road projects for a total of 185 km, all under a build–operate–transfer (annuity) scheme, which include 15 years of maintenance by the contractor. It envisages promoting performance-based maintenance contracts to ensure appropriate service for the road network. The maintenance budget allocation is prioritized under these schemes in accordance with the contractual requirements. Mainstreaming these schemes will ensure sustainability of the road network.

9. Road safety is a concern. In 2012, Jharkhand had 2,119 road accidents/10,000 km, about 72% higher than the national average of 1,227.⁵ Annual fatality rates along roads in Jharkhand total 9/10,000 vehicles. While state and district road safety councils conduct road safety awareness campaigns annually in accordance with national government initiatives to promote road safety, no state initiatives address road safety, either for road engineering or road user awareness. Currently, road safety audits are not mandatory for road engineering in Jharkhand; a nodal agency should be designated to promote road safety.

⁵ Government of India, Ministry of Road Transport and Highways. 2014. *Road Accidents in India 2013*. New Delhi.

10. In 2009, the Asian Development Bank (ADB) provided a loan to support improvement of state roads in Jharkhand, with RCD as the executing agency.⁶ The project is financing the rehabilitation and improvement of 311 km of a state road to a two-lane standard. The road is in the northern part of the state connecting to the NH2. All civil works contracts have been awarded and the construction works are making good progress. The project also supports enhancing the skills of RCD officials. The management information system established under the project is operating and facilitates project management and planning in RCD. In addition to the standard covenants, the ongoing loan includes a covenant to establish a dedicated state road fund. The Jharkhand State Road Development Fund Act was enacted in 2011, followed by the Jharkhand State Road Development Fund Rules, 2012. Further, in February 2015, the state government issued a notification in the official gazette setting the rate of local tax on fuel to be levied and collected for the fund.

11. The sector assistance program evaluation of ADB's transport operations found that ADB's strategic selection and priority areas of its involvement in the sector were significant and appropriate to the country's needs.⁷ The main weaknesses identified are poor project design and limited enforcement of safeguards. To overcome these weaknesses, the project has been designed to focus on improving executing agency performance in core functions, and providing assistance during project preparation and implementation to address issues of safeguard compliance.

12. The project is consistent with the strategic objective set out in ADB's country partnership strategy, 2013–2017 for India on development of the state road network in lagging states; and the transport sector objective of increased, more efficient, and sustainable movement of people and goods.⁸ The project is included in ADB's country operations business plan, 2013–2015 for India.⁹

B. Impact and Outcome

13. The impact will be improved mobility and accessibility. The outcome of the project will be improved safety and efficiency of the road transport network in Jharkhand state.

C. Outputs

14. The physical output of the project will be about 176 km of state roads reconstructed or rehabilitated. The nonphysical output will be institutional capacity of SHAJ improved for key aspects of road design, project implementation, maintenance, and safeguards. Performance-based maintenance will be undertaken for 5 years after construction. An international standard road safety master plan will be developed for SHAJ to act as the nodal agency for promoting road safety in Jharkhand.

⁶ ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Jharkhand State Road Project*. Manila.

⁷ ADB. 2007. *Country Assistance Program Evaluation: India*. Manila.

⁸ ADB. 2013. *Country Partnership Strategy: India, 2013–2017*. Manila.

⁹ ADB. 2013. *Country Operations Business Plan: India, 2013–2015*. Manila.

D. Investment and Financing Plans

15. The project is estimated to cost \$306.25 million (Table 1).¹⁰ Civil work represents about 53% of the project cost. Details are described in the project administration manual.¹¹

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Road improvement	210.80
2. Institutional capacity development	8.55
3. Five-year performance-based maintenance ^c	12.00
Subtotal (A)	231.35
B. Contingencies^d	62.94
C. Financing Charges During Implementation^e	11.96
Total (A+B+C)	306.25

^a Includes taxes and duties of \$14.72 million to be partially financed from ADB loan resources.

^b In January 2015 prices.

^c Performance-based maintenance contracts will be financed entirely from the state government budget, and be paid partially after project completion.

^d Physical contingencies computed at 5% for civil works. Price contingencies computed at 1.4% on foreign exchange costs and 7% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest and commitment charges. Interest during construction for the ADB loan has been computed at the 5-year forward London interbank offered rate plus a spread of 0.50%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

16. The government has requested a loan of \$200 million from ADB's ordinary capital resources to help finance the project. The loan will have a 20-year term, including a grace period of 5 years, straight-line method, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements.

17. The financing plan is in Table 2. The ADB loan will finance 65.31% of the project cost; the state government will finance the balance.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (loan)	200.00	65.31
State Government of Jharkhand	106.25	34.69
Total	306.25	100.00

Source: Asian Development Bank.

¹⁰ ADB financing includes part of taxes and duties of about \$14.72 million. The estimated expenditure is not excessive (7.36% of ADB financing) and will apply only to ADB-financed expenditures. The amount will be within the reasonable threshold identified during the country partnership strategy preparation process. The financing of the taxes and duties is material and relevant to the success of the project. Any incidental expenditures relating to bank charges, local transport, freight, and insurance are eligible for ADB financing.

¹¹ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

E. Implementation Arrangements

18. The executing agency for the project will be the state government of Jharkhand acting through SHAJ. SHAJ will implement the project through its field offices at key locations, which will be responsible for day-to-day project implementation and management, and will assign staff to work on the project. A full-time project manager will be assigned for each of the four contract packages. The project managers will be delegated adequate technical and administrative authority for expeditious project implementation. A construction supervision consultant (CSC) will be recruited as the engineer for the construction contracts. A project management consultant (PMC) will be recruited for the capacity development of SHAJ. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

19. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (footnote 11).

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	March 2015–December 2019		
Estimated completion date (loan closing date)	31 December 2019 (30 June 2020)		
Management			
(i) Executing and implementing agency	State Government of Jharkhand, acting through the State Highways Authority of Jharkhand		
(ii) Implementation unit	Three project implementation units will be set up to implement four road construction packages at Dumka, Giridih, and Ranchi. A project manager will head each unit with 8–10 full-time technical staff and consultants.		
Procurement	International competitive bidding	4 contracts	\$163 million (4 contracts)
	Shopping	10 contracts	\$0.8 million
Consulting services	Quality- and cost-based selection with full technical proposal, with quality–cost ratio of 90:10, as the assignment requires priority consideration for quality	2 contracts 1,791 person-months	\$15 million (2 contracts)
Retroactive financing and advance contracting	Works, equipment, and consulting services		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank.
Source: Asian Development Bank.

20. ADB approved advance contracting of civil works in November 2014; procurement activities are ongoing. Based on this, the government requested retroactive financing for all project components. Up to 20% of the loan proceeds will be eligible for retroactive financing, provided that expenditures are incurred on works, equipment, and consulting services for the project in accordance with agreed procedures and during the 12 months before the signing of the loan agreement. The government and SHAJ were informed that approval of advance contracting and retroactive financing does not in any way commit ADB to finance the project.

III. DUE DILIGENCE

A. Technical

21. The engineering designs were prepared to avoid or minimize land acquisition as well as social and environmental impacts, taking road safety into account, and minimizing climate change risks. In addition, advance actions have been undertaken to ensure that construction can commence early. All of these measures have improved project readiness and will mitigate the risk of implementation delays. Road safety audits were conducted for all project roads at the preparation stage. The construction supervision consultant will conduct road safety audits during and after project implementation.

B. Economic and Financial

22. **Economic evaluation.** The evaluation followed the standard practice of comparing life-cycle road and user costs with and without the project, using the net present value with a 12% discount rate and economic internal rate of return (EIRR) as decision criteria. The highway development and management system was used in the analysis, focusing on transport cost savings. Value added from better transport links, resulting in new industries and employment, is captured through benefits from generated traffic.

23. The EIRR for the project roads is estimated as 16.9%. The sensitivity analysis indicates that the project would remain economically viable in the event of (i) a 10% increase in capital cost, (ii) a 10% reduction in benefits, and (iii) a 1-year delay in construction. The results show the quantified economic benefits are robust to various sensitivity tests. All selected roads have an EIRR above 12% for all sensitivity tests. In the unlikely event that both a 10% increase in capital cost and a 10% reduction in benefits occur together, the EIRRs of the four project roads would remain above the 12% benchmark.

24. **Financial sustainability.** Incremental recurrent costs associated with the project are estimated to be 1.2% of the current road maintenance budget of the state government. Periodic maintenance costs of the project roads are estimated as 0.7% of the overall RCD budget in FY2014. Initial 5-year maintenance will be covered under the performance-based contract, which is budgeted as part of the state government's counterpart contribution. Thus, the state government will likely be able to allocate sufficient budget to SHAJ to maintain the project roads.

C. Governance

25. **Institutional capacity.** While the institutional setup of SHAJ is still in progress, RCD will fully support project implementation by providing key personnel, including the chief executive officer, from RCD to SHAJ until adequate implementation capacity is established. The state government envisages strengthening the implementation capacity of SHAJ and developing SHAJ as a full autonomous body as envisioned in the State Highways Authority of Jharkhand Act 2007 through project execution. To support early achievement of the goal and ensure efficient project implementation, the project will provide hands-on support to SHAJ through the PMC to be recruited under the project for project implementation as well as overall institutional capacity development.

26. **Financial management.** The financial management assessment concludes that the overall financial management risk is substantial and suggests mitigation measures. Despite being set up in 2007, SHAJ is still in its early stages of institutional development. Financial and

accounting activities are being conducted with minimal staff. Financial management practices require strengthening, including the development of a management information system and an internal control mechanism. However, experience under the ongoing ADB-funded project indicates that fund flow arrangements are reliable and predictable. With the PMC support provided to SHAJ, the financial management arrangements are expected to be adequate.

27. **Procurement.** RCD has experience in procurement and consultant recruitment for an ADB project, and will oversee the procurement activities of SHAJ. Goods and works will be procured according to ADB's Procurement Guidelines. All civil works will be procured through international competitive bidding. All consulting firms will be recruited in accordance with ADB's Guidelines on the Use of Consultants using quality- and cost-based selection, with a quality-cost ratio of 90:10. SHAJ has prepared the bid documents following the agreed form of master bidding documents and commenced procurement of all four civil work packages as advance actions. The procurement plan for the project is in the project administration manual (footnote 11).

28. **Anticorruption.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and SHAJ. The specific policy requirements and supplementary measures are described in the project administration manual.

D. Poverty and Social

29. The project's area of impact can be characterized by a predominance of traditional farming and lack of adequate road connectivity, resulting in limited access to health care, education institutions, commercial facilities, and government development agencies. More than 300 households along the project roads were surveyed; they indicated that the poor road conditions prevent safe and reliable travel, especially at night and during poor weather. Communities indicated that positive benefits will include (i) improved access to education and health facilities, (ii) better public and private transport options, and (iii) increased job opportunities. An efficient road network linking villages, towns, and cities will provide stronger links between rural regions and urban hubs. Road development encourages other development initiatives, which together considerably stimulate economic growth. The improvements are expected to significantly improve the socioeconomic situation and enhance poverty reduction in the beneficiary districts and the state as a whole. The project roads cover five districts where approximately 8.3 million people reside. The project is expected to generate approximately 105,000 person-months of employment.

30. **Gender.** Women in the project areas are mainly involved in household work, cultivation, and other farming activities. During the nine women-only focus group discussions held during project preparation, women indicated that improved road conditions would provide better access to health services, higher education, economic opportunities, and social interactions. Mitigation and proactive key actions for the project include (i) constructing more than 60 bus-stop shelters, 50 km of raised sidewalks in urban areas, and 4 km of dedicated bicycle lanes, which will benefit pedestrians, the elderly, women, and children; (ii) integrating road safety features for the elderly, women, children, and people with disabilities into road design such as proper signage, marked crossings, and 4 km of road with solar-powered street lights; (iii) involving local women in additional compensatory afforestation where at least 20% of workers engaged are women; and (iv) encouraging civil works contractors to engage women workers as wage laborers and ensuring equal pay for equal work. The CSC will monitor implementation. At the institutional level, the PMC will integrate socially inclusive practices into SHAJ operations. This includes mainstreaming gender issues into operations such as ensuring a woman-friendly workplace.

The PMC will also build capacity of SHAJ staff to ensure social issues such as gender, labor, health, and trafficking are considered and implemented during design and construction of future projects.

31. **HIV/AIDS and trafficking.** Based on an assessment by the National AIDS Control Organization of the Ministry of Health and Family Welfare and the State AIDS Prevention and Control Society, the project area of impact is identified as having low prevalence of HIV/AIDS. The state government has set up the District AIDS Prevention and Control Unit to provide more targeted interventions to high-risk groups, and an integrated and augmented system of prevention, care, support, and treatment in the districts. Existing government initiatives and mitigating measures are in place to address all health and social risks and impacts associated with infrastructure development in the project area. Based on the poverty and social assessment, the project will not increase HIV/AIDS incidence as all improved roads will be along the existing corridor. SHAJ will ensure that civil works contractors conduct awareness programs on HIV/AIDS, human trafficking, and child labor at construction camps and workplaces. All contracts will have clauses on these initiatives, and the state government will monitor compliance during implementation. In project-affected villages, awareness-raising activities will be conducted for HIV/AIDS, basic hygiene, and human trafficking.

E. Safeguards

32. **Environment.** The project is categorized B for environment in accordance with ADB's Safeguard Policy Statement (2009). Overall no significant, irreversible, diverse, or unprecedented environmental impacts are expected. Adequate right-of-way is available for most project roads. The project area does not include any protected areas. Elephant crossings exist along three of the four project roads. While the incremental impacts from the project are assessed as minimal, additional measures to facilitate elephant movement, improve their habitat, and minimize collisions between elephants and human beings are included in the project. A consolidated initial environmental examination report, including road-specific environmental management plans was prepared for the four project roads in accordance with the Safeguard Policy Statement and was disclosed on the ADB website. Noise, pollution, and safety issues may impact receptors adjacent to the roads during construction as well as during operation due to the increased traffic. Mitigation measures to address all construction and operation-related impacts are included in the road-specific environmental management plans, which form part of the bidding documents as a mandatory requirement for the contractor. Meaningful consultations were conducted during project preparation and concerns of the affected persons and stakeholders were incorporated in the initial environmental examination and environmental management plans. The member (administration) of SHAJ will serve as the overall coordinator of safeguards. At the project implementation unit, a dedicated safeguards focal person will oversee implementation of safeguards in the field. The CSC will include an environment specialist to support SHAJ in monitoring environment safeguards. ADB and the PMC will conduct an initial coordination and training workshop for SHAJ staff, the CSC, and the contractors during the preconstruction stage. Further training will be conducted during construction as necessary.

33. **Involuntary resettlement.** The project is categorized A for involuntary resettlement in accordance with ADB's Safeguard Policy Statement. The four project roads are designed to minimize the need for land acquisition and involuntary resettlement. Four resettlement plans were prepared. About 63 hectares of private land will be acquired at replacement cost. Some 4,024 households will be affected, occupying 2,377 structures. A total of 3,056 households will experience physical displacement, and 1,203 households will experience economic

displacement. The resettlement plans are in compliance with The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act (2013) and ADB's Safeguard Policy Statement. The displaced households will be entitled to compensation for the loss of land and structures at replacement cost, shifting cost, and other income restoration assistance. Resettlement cost is estimated at about \$27.3 million. SHAJ will appoint an overall coordinator of safeguards. At the project implementation unit, a dedicated safeguard focal person will oversee implementation of safeguards in the field. Experienced nongovernment organizations and a CSC resettlement specialist will support implementation of involuntary resettlement and safeguard monitoring by SHAJ. The PMC will include a resettlement specialist to improve SHAJ capacity for social safeguards.

34. **Indigenous peoples.** The project is categorized C for indigenous peoples, as 307 indigenous peoples' households will be impacted by involuntary resettlement. The census found that these households are not distinctive because they are integrated with the dominant population of the project area. Tribal groups in the subproject areas freely interact with the outside community. These groups have nuclear families and are open to new ideas like family planning and formal education. Social impact assessments confirm that the socioeconomic impacts caused by the four project roads will not be different for these people than for the remainder of the population. An in-depth analysis of the magnitude of the resettlement impact that will be experienced by indigenous peoples' households is included in a special chapter of the resettlement plans. Adequate compensation and assistance provisions are in place. The CSC will closely monitor implementation of project activities related to indigenous peoples.

F. Risks and Mitigating Measures

35. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹² The integrated benefits and impacts are expected to outweigh the costs.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Weak public financial management	The PMC will support strengthened financial management operations of SHAJ during project implementation by (i) installing enterprise resource planning software integrated with financial management, and (ii) preparing a financial management manual to reflect accounting policies and procedures and internal control mechanisms commensurate with the size and scale of SHAJ.
Weak safeguard implementation	The project roads were selected as having the minimum social and environmental impacts through the PPTA process undertaking all engineering measures and consultation. The CSC and PMC will provide support during project implementation.
Unsustainable operations and maintenance	A 5-year performance-based maintenance contract will be procured covering the four project roads. The PMC will support SHAJ in carrying out procurement for the contract, and support development of a road asset management system for SHAJ. The state government has given assurance of the establishment of the state road development fund as an additional revenue source for SHAJ.

ADB = Asian Development Bank, CSC = construction supervision consultant, PMC = project management consultant, PPTA = project preparatory technical assistance, SHAJ = State Highways Authority of Jharkhand.
Source: Asian Development Bank.

¹² Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

IV. ASSURANCES

36. The Government of India, the State Government of Jharkhand, and SHAJ have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and loan documents.

37. The Government of India, the State Government of Jharkhand, and SHAJ have agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and project agreement.

V. RECOMMENDATION

38. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$200,000,000 to India for the Second Jharkhand State Road Project, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 20 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao
President

18 August 2015

DESIGN AND MONITORING FRAMEWORK

Impact the project is aligned with:
 Mobility and accessibility improved (Twelfth Five-Year Plan)^a

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Safety and efficiency of the road transport network in Jharkhand state improved	By 2019: a. Average travel speed on project roads increased by 20% (2013 baseline: 40 km/hour) b. Average daily vehicle-km in the first year of full operations achieved: at 1,300,000 for project roads (2013 baseline: 890,000) c. Annual fatality rates along project roads decreased to less than 5 people/10,000 vehicles. (2013 baseline: 9 people)	Post-implementation measurement reports by SHAJ as approved by the state government	Security situation in the state deteriorates.
Outputs 1. State roads reconstructed or rehabilitated	By 2019: 1a. About 176 km of state roads reconstructed or rehabilitated (2013 baseline: 0)	1a. Monitoring reports and completion report by SHAJ as endorsed by the state government	State government policy on the role of SHAJ is changed.
2. Institutional capacity of SHAJ improved	By 2019: 2a. SHAJ fully staffed and operating (2013 baseline: 10% staffed against the plan) 2b. An average of 60% score received on post-training examinations on road design and construction management, road safety, and essential knowledge of climate-resilient design of roads (2013 baseline: NA) 2c. All SHAJ staff trained on integrating gender-inclusive design and mainstreaming gender in project preparation, consultation, road construction, and maintenance (2013 baseline: NA) 2d. Road safety master plan and 5-year action plan is in use (2013 baseline: NA)	2a. Circulars or orders issued by the state government 2b. Post-evaluation of training participants by SHAJ 2c to 2f. Monitoring reports and completion report by SHAJ as endorsed by the state government	

	<p>2e. 5-year PBM contractor is in place (2013 baseline: NA)</p> <p>2f. Road asset management system is in use (2013 baseline: NA)</p>		
--	--	--	--

Key Activities with Milestones

1. State roads reconstructed or rehabilitated

- 1.1 Engage construction supervision consultants for all civil work packages by November 2015.
- 1.2 Complete bidding process by December 2015.
- 1.3 Complete clearance of nontitleholder, forest clearance, and tree cutting permits by March 2016.
- 1.4 Complete land acquisition by March 2017.
- 1.5 Complete additional compensatory afforestation program through local joint forestry management committees with at least 20% of women workers by December 2018.
- 1.6 Complete all civil works by December 2018.
- 1.7 Award 5-year PBM contract by December 2018.

2. Institutional capacity of SHAJ improved

- 2.1 Training program finalized and training commenced by July 2016.
- 2.2 Road safety master plan, management information system, and road asset management system are in place by June 2017.

Project Management Activities

Engage project management consultant by November 2015.
All required staff assigned in SHAJ by November 2015.

Inputs

ADB: \$200,000,000 (loan)
Government: \$106,250,000

Assumptions for Partner Financing

Not applicable

ADB = Asian Development Bank, PBM = performance-based maintenance, SHAJ = State Highways Authority of Jharkhand.

^a Government of India, Planning Commission. 2013. *Twelfth Five-Year Plan, 2012–2017 Economic Sectors*. Volume II. New Delhi.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=49125-001-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Road Transport (Non-urban)
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Initial Environmental Examination
11. Resettlement Plan: Dumka-Hansdiha Road
12. Resettlement Plan: Giridih-Jamua-Sarwan Road
13. Resettlement Plan: Gobindpur-Tundi-Giridih Road
14. Resettlement Plan: Khunti-Tamar Road
15. Risk Assessment and Risk Management Plan

Supplementary Document

16. Project Climate Risk Assessment and Management Report