



India: Karnataka State Highways Improvement III Project

Project Name	Karnataka State Highways Improvement III Project	
Project Number	42513-014	
Country	India	
Project Status	Approved	
Project Type / Modality of Assistance	Loan	
Source of Funding / Amount	Loan 3619-IND: Karnataka State Highways Improvement III Project	
	Ordinary capital resources	US\$ 346.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth	
Drivers of Change	Governance and capacity development Partnerships Private sector development	
Sector / Subsector	Transport - Road transport (non-urban) - Transport policies and institutional development	
Gender Equity and Mainstreaming	Some gender elements	
Description	The Karnataka State Highways Improvement III Project (KSHIP III) will improve about 418 kilometers (km) of state highways in the state of Karnataka, in line with the state's core road network (CRN) development plan. It will involve upgrading of identified state highways to two- and four-lane with paved shoulders, depending on traffic requirements, and reconstruction, widening, and strengthening of culverts and bridges. Contracts will be based on a hybrid-annuity model with a 7-year annuity period, post-construction. The project will carry out a road safety audit to identify critical accident spots across state highways on the CRN, and implement suitable measures to improve these accident spots. The project will also strengthen institutional capacity and efficiency in Karnataka Public Works, Ports, and Inland Water Transport Department (KPWD).	

Project Rationale and Linkage to Country/Regional Strategy

State context. Karnataka state in southwest India has an area of about 192,000 square km and a population of about 64 million. Economically, Karnataka is one of India's better-performing states: the net income per capita is about 50% above the national average, and grew at over 10% per year during FY2012 to FY2016. The population density is lower than the national average, and the sex ratio (number of females to males) is 968 females per 1,000 males, compared to the national average of 940. The unemployment and poverty rates are also lower than the national averages, and the state receives substantial foreign direct investment (third-highest nationally, after the National Capital Region and Maharashtra).

Transport network. The state's rail network is sparse, with only about 3,000 route km, most of which is single line. The terrain along the western hill ranges limits east west rail connectivity to one line from Hassan in the hinterland to Mangalore on the west coast making the road network a critical element of the economic infrastructure. Consultants supported by the Asian Development Bank (ADB) technical assistance for the Karnataka State Highway Network Improvement Strategy completed a study identifying the CRN, which totals about 24,000 km.

Government strategy. Although economic development in Karnataka has been above the national average, it has also been uneven, being focused around the capital region of Bengaluru and Mysuru, and the coastal towns of Mangaluru and Udupi. In its state road policy (2009), the Government of Karnataka (GOK) recognizes the importance of road development as an engine of economic growth, and proposed developing all state highways to a two-lane width. GOK has used various means including financing through the state budget, public private partnerships (PPPs), the World Bank, and ADB to improve state roads. The first project was approved by the World Bank in 2001 for \$360 million, and addressed about 2,400 km of roads. The second project is ongoing, and covers about 1,500 km of roads; it comprises a \$350 million World Bank loan approved in 2011, and a \$315 million ADB loan approved in 2010. Further details of the road sector in Karnataka are given in the linked documents. The government's key objective is to upgrade the capacity and condition of the state highway system, improve maintenance, and increase road safety. Achieving these goals also requires that the state build the institutional capacity of the road agencies for planning, preparing, and implementing projects.

Road institutions. KPWD is the main GOK institution responsible for state roads. The Karnataka Road Development Corporation, Ltd. established KPWD in 1999 to promote surface infrastructure by taking up specific road works and bridges, and take up projects with PPPs. In addition, a project implementation unit (PIU) for the Karnataka State Highways Improvement Project was established to undertake projects financed by multilateral agencies. The PIU, acting on behalf of GOK, will implement the present project. Priority road corridors. The Government's strategy calls for state highways to be improved to at least a two- or four-lane standard, depending on traffic. The CRN study initially prioritized roads across the state. The PIU subsequently commissioned a prefeasibility study to categorize and prioritize projects in the CRN. Based on these studies, the PIU identified nine key road corridors, portions of which could be taken up for upgrading on a priority basis. The corridors were chosen based on economic returns, connectivity to industrial and tourist centers, and other criteria. A feasibility study further assessed these roads and chose specific priority roads sections, following which consultants recruited by the PIU prepared detailed project reports for these roads, which have now been proposed to ADB for financing.

Value added by ADB's assistance. The project will continue and strengthen ADB's engagement in the state. The continued contribution by ADB to the development of the state's roads sector will increase inclusiveness by improving access to markets and basic services. The project is in line with the objective set out in ADB's country partnership strategy for India 2018-2022 regarding development of the state CRN, with the objective of increased, more efficient, and sustainable movement of people and goods. ADB would also add value through the proposed use of hybrid-annuity contracts to improve the sustainability of capital investments. Under hybrid-annuity contracts, 75% of the project cost will be paid to the contractor on a milestone basis during construction. The balance of the project cost and the cost of maintenance will be paid in specified semi-annual payments over a period of 7 years following completion of construction. This approach shifts from traditional construction contracts to contracts focused on output delivery and sustainable asset maintenance. ADB's participation will encourage partial private financing of construction. The project will also conduct a road safety audit on all CRN state highways, and implement measures to improve identified accident black spots to improve road safety. KPWD field and headquarters units are managing road projects of increasing scale, leading the government to seek to improve KPWD's quality monitoring and management systems, including its environment management systems. ADB will support the assessment and process requirements for KPWD offices to attain conformity with International Organization for Standardization (ISO) 9001:2015 (quality management system) and ISO 14001:2015 (environmental management system) standards. This will build institutional capacity in KPWD.

Impact Mobility and accessibility to economic opportunities improved

Project Outcome

Description of Outcome Road transport efficiency and safety in Karnataka improved.

Progress Toward Outcome

Implementation Progress

Description of Project Outputs State highways upgraded
Road safety measures on state highways installed
Institutional capacity and efficiency of KPWD improved

Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location Karnataka

Safeguard Categories	
Environment	B
Involuntary Resettlement	A
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	<p>The project scope involves improvement of existing state highways to standard two-lane width, with some four-lane sections. The project roads do not pass through environmentally sensitive areas, and no significant and irreversible environmental impacts are expected. Five initial environmental examination (IEE) reports, including an environmental management plan (EMP), have been prepared for the five project roads and are disclosed on ADB's website. Approximately 16,000 trees, including 866 considered large and old, will be removed. Best efforts (through measures such as eccentric widening) have been made to minimize removal of large old trees in the project design. Compensatory afforestation of 68,455 trees will be carried out. Other anticipated environmental impacts during construction entail typical road construction-related issues, such as generation of dust, noise, exhaust, and waste from construction and worker camps; water contamination; occupational health and safety; erosion; and siltation. Key operational impacts are increased noise levels and safety issues. To address these, noise barriers have been proposed and appropriate road safety features included in the project design. Mitigation measures to address all construction- and operation-related impacts have been included in the EMPs, which are part of the bidding documents, with implementation mandatory for the contractor. The project includes innovative environmental measures such as the use of plastic waste in the bitumen mix in urban road sections, where feasible. Meaningful consultations have been conducted during project preparation, and all concerns voiced by affected persons and stakeholders have been incorporated in the project design. The existing grievance redress mechanism being used by the PIU will be followed under this project.</p>
Involuntary Resettlement	<p>The project will require the acquisition of 544.63 hectares of land, including 463.58 hectares of private land. A total of 5,684 households (24,224 persons) will be affected. Most (75%) of affected households are titleholders, with about 60% of affected households below poverty level.</p> <p>The project will use direct purchase to acquire private land and assets based on the provisions of national law and ADB's Safeguard Policy Statement. Should negotiations fail, land and assets will be acquired in accordance with the same law and policy. Resettlement plans were prepared for all five roads and disclosed on ADB's website; they address identified impacts and reflect lessons from previous projects, including measures to ensure compensations at replacement cost, utility shifting and reconstruction assistance, special measures for vulnerable households, and a livelihood improvement program. GOK will finance all direct purchase, resettlement activities and utility shifting. Assessment of project impacts and proposed mitigation measures are both adequate.</p>
Indigenous Peoples	<p>Karnataka's tribal population makes up 6.95% of the total population. The roads do not cross customary or tribal land. The social impact assessment and census survey confirmed that 5.5% of affected households are scheduled tribes, and that these households hold similar occupations and religious beliefs as the wider society.</p>

Stakeholder Communication, Participation, and Consultation

During Project Design	<p>The potential primary beneficiaries of the project are the road users, communities in the vicinity of the project influence area, villagers, Panchayats (rural local government), KPWD, other development partners active in India's transport sector development, and business and community groups. The poor and the excluded also get an improved access to roads, which further help them in reaching markets and other services. Adversely impacted stakeholders would primarily be those who lose land or livelihood. However, the focus of the project is on improving and rehabilitating existing roads, thus land acquisition will be limited to areas where roads need some geometric improvement, bridge approaches, or bypasses' to avoid infringing existing settlements. Adverse impacts will be mitigated through proper stakeholder consultations and incorporated into the resettlement plan.</p> <p>The objective of the Project is improved road connectivity in the state of Karnataka, leading to improved access to basic services, trade, and employment. Primary concerns for poor and vulnerable stakeholders would be loss of land and/or livelihood as a result of land acquisition activities. The project preparation will include investigations and consultations covering all beneficiaries, including the poor and vulnerable stakeholders. Community meetings and focus group discussions will be organized as part of the poverty and social analysis. The local consultative meetings will involve all relevant stakeholders including representatives of the poor and other socially excluded groups (e.g., women, scheduled tribes, etc.) to disseminate the information as well as to get the feedback about the project design and its potential impacts. Other key stakeholders such as the relevant line departments, local government representatives and NGOs will also be consulted. Consultations will also be undertaken with the affected households and communities during the course of the census survey and socioeconomic survey along the project roads for the preparation of the safeguard plans.</p>
During Project Implementation	<p>Adverse impacts will be mitigated through proper stakeholder consultations and incorporated into the resettlement plan.</p> <p>The Project will build on the consultation and community participation exercises undertaken during the PPTA, with the support from PPTA consultants NGOs, and CBOs. These include community participation for planning, design and implementation in highly dense and poor settlements. Community consultations will also be carried over to the project implementation stages and user awareness will be included as an important activity.</p>

Business Opportunities

Consulting Services All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time). KSHIP will engage "Independent Engineers" (engineering consulting firms) for the implementation of the performance-based, hybrid-annuity contracts. Recruitment process for Independent Engineers under advance contracting has commenced in Q3 2016 and is in its final stages. Contract negotiations were held with the firms recommended for award in Q1 2018. A consortium of firms has already been engaged to undertake the project preparatory technical assistance. The consulting firm was engaged following the quality- and cost-based selection method, in accordance with ADB's Guidelines on the Use of Consultants (March 2013). The assignment is completed and closed.

Procurement The implementing agency is KSHIP. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (April 2015, as amended from time to time). The works contracts will be based on a "hybrid-annuity" concession model, where a percentage of the project cost will be paid during construction, and the balance, including operating and maintenance payments, will be paid on an annuity basis over a period of 7 years. Procurement actions for all the three hybrid annuity contract packages, under advance contracting, have commenced in Q1 2017 and is in its final stages. The financial bid evaluation reports have been received by ADB in Q1 2018.

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Responsible ADB Division	Transport and Communications Division, SARD
Executing Agencies	<i>Government of Karnataka CS@KARNATAKA.GOV.IN Dr Ambedkar Rd., Sampangi Ramnagar, Bangalore, Karnataka, India</i>

Timetable

Concept Clearance	24 Jul 2014
Fact Finding	23 Jun 2016 to 30 Jun 2016
MRM	04 Sep 2017
Approval	08 Dec 2017
Last Review Mission	-
Last PDS Update	23 Sep 2018

Loan 3619-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
08 Dec 2017	30 Aug 2018	-	30 Jun 2024	-	-

Financing Plan			Loan Utilization			
	Total (Amount in US\$ million)		Date	ADB	Others	Net Percentage
Project Cost	548.00		Cumulative Contract Awards			
ADB	346.00		08 Dec 2017	0.00	0.00	0%
Counterpart	202.00		Cumulative Disbursements			
Cofinancing	0.00		08 Dec 2017	0.00	0.00	0%

Project Page	https://www.adb.org/projects/42513-014/main
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