



Report and Recommendation of the President to the Board of Directors

INTERNAL

Project Number: 52298-002
October 2022

Proposed Loan India: Connecting Economic Clusters for Inclusive Growth in Maharashtra

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 3 October 2022)

Currency unit	–	Indian rupee/s (₹)
₹1.00	=	\$0.012
\$1.00	=	₹81.63

ABBREVIATIONS

ADB	–	Asian Development Bank
FY	–	fiscal year
GDP	–	gross domestic product
GESI	–	gender equality and social inclusion
IEE	–	initial environmental examination
km	–	kilometer
MPWD	–	Maharashtra Public Works Department
PAM	–	project administration manual
PIU	–	project implementation unit
PMU	–	project management unit

NOTES

- (i) The fiscal year (FY) of the Government of India and its agencies ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2022 ends on 31 March 2022.
- (ii) In this report, “\$” refers to United States dollars.

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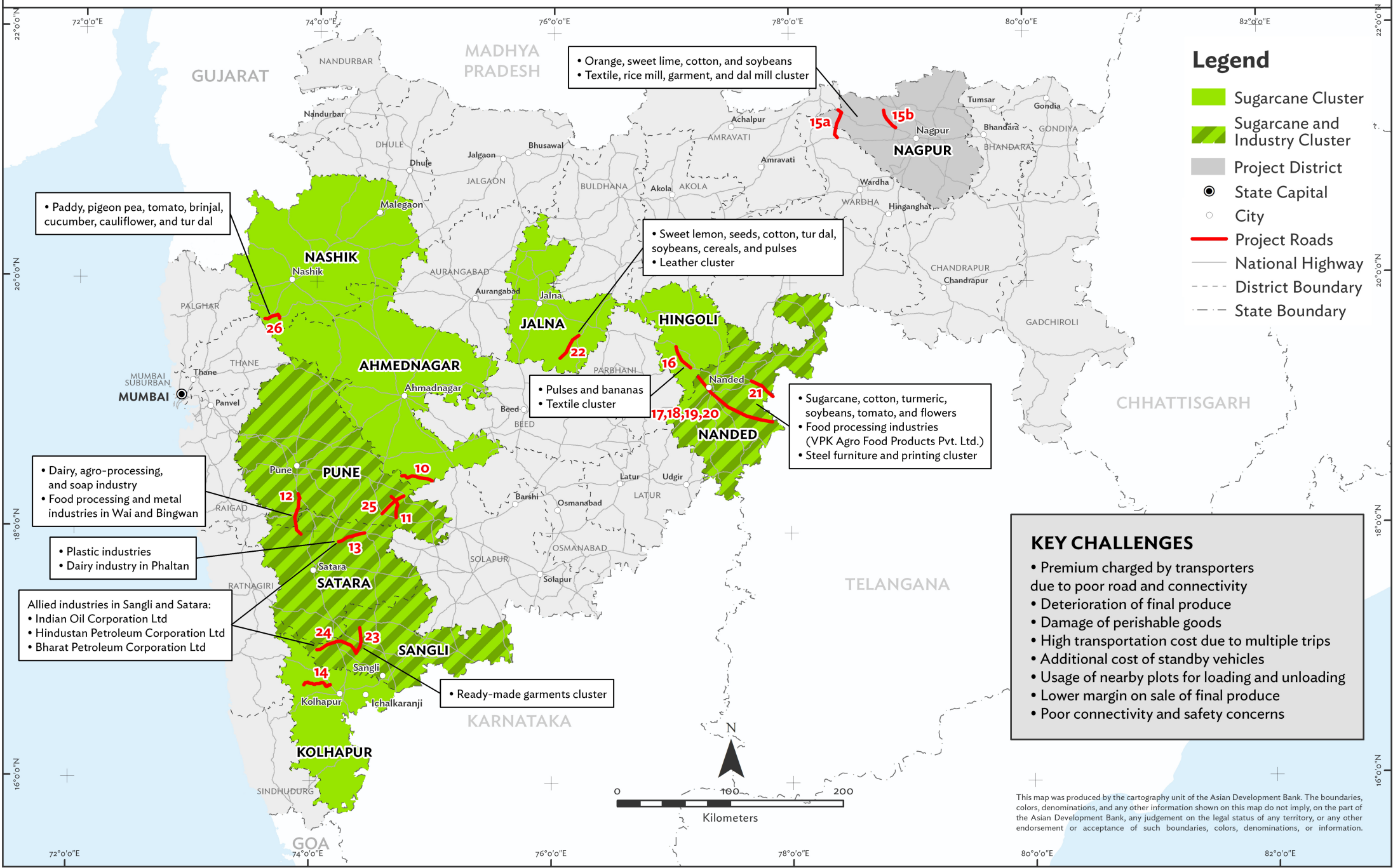
PROJECT AT A GLANCE

1. Basic Data		Project Number: 52298-002	
Project Name	Connecting Economic Clusters for Inclusive Growth in Maharashtra	Department/Division	SARD/SATC
Country	India	Executing Agency	Public Works Department of the Government of Maharashtra
Borrower	India		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=52298-002-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=52298-002-PortAtaGlance		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		350.000
		Total	350.000
3. Operational Priorities		Climate Change Information	
✓ OP1: Addressing remaining poverty and reducing inequalities		GHG reductions (tons per annum)	105,050
✓ OP2: Accelerating progress in gender equality		Climate Change impact on the Project	High
✓ OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ OP5: Promoting rural development and food security		ADB Financing	
✓ OP6: Strengthening governance and institutional capacity		Adaptation (\$ million)	90.480
		Mitigation (\$ million)	4.670
		Cofinancing	
		Adaptation (\$ million)	0.000
		Mitigation (\$ million)	0.000
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 5.5		Effective gender mainstreaming (EGM)	✓
SDG 9.1			
SDG 13.a		Poverty Targeting	
		General Intervention on Poverty	✓
4. Risk Categorization:	Complex		
5. Safeguard Categorization	Environment: B Involuntary Resettlement: A Indigenous Peoples: C		
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		350.000	
Sovereign Project (Regular Loan): Ordinary capital resources		350.000	
Cofinancing		0.000	
None		0.000	
Counterpart		155.000	
Government		155.000	
Total		505.000	
Currency of ADB Financing: US Dollar			

INDIA

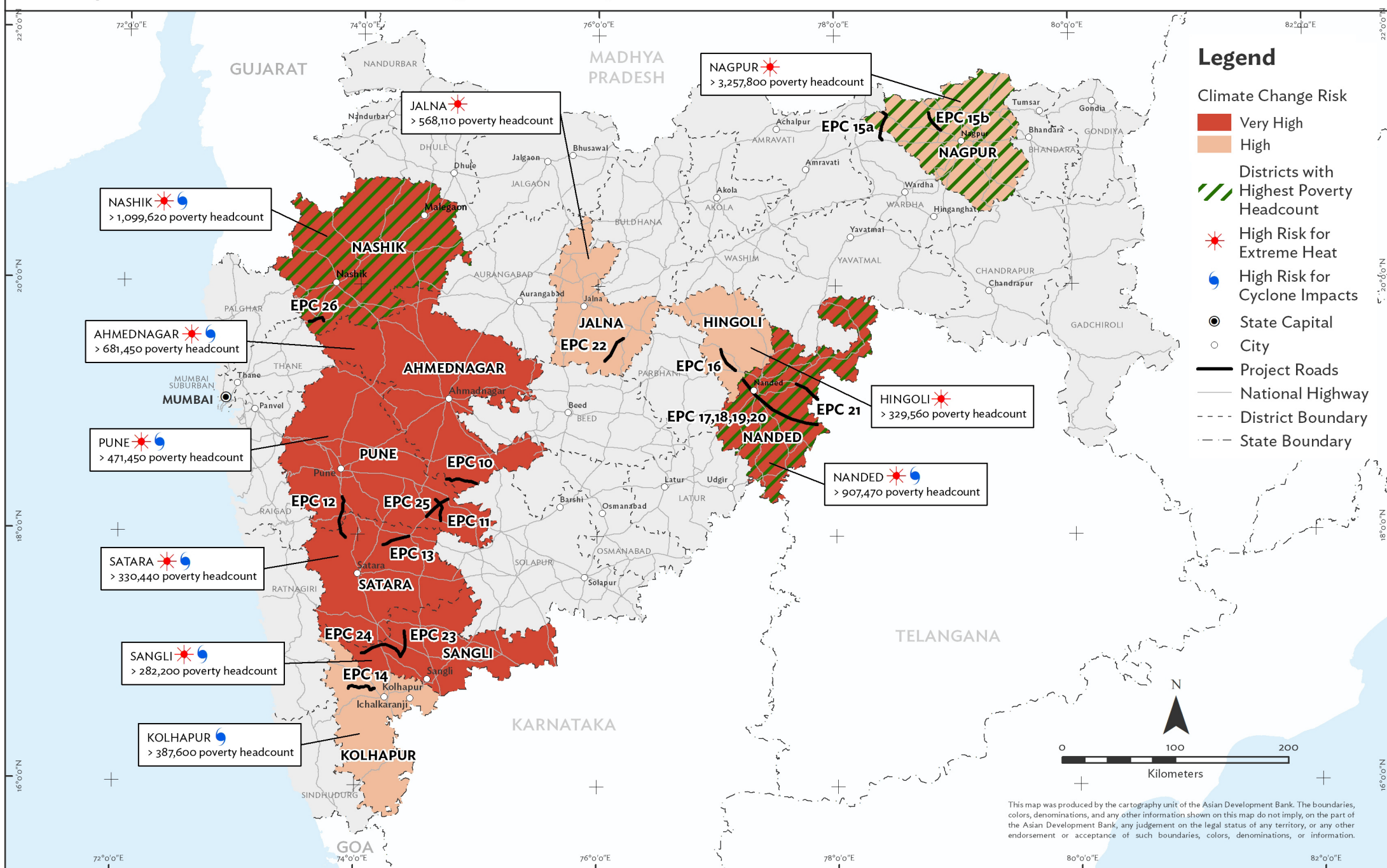
CONNECTING ECONOMIC CLUSTERS FOR INCLUSIVE GROWTH IN MAHARASHTRA

Economic Clusters



CONNECTING ECONOMIC CLUSTERS FOR INCLUSIVE GROWTH IN MAHARASHTRA

Poverty Headcount and Climate Change Risk in Project Districts



I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to India for the Connecting Economic Clusters for Inclusive Growth in Maharashtra project.

2. The project will help further develop the state of Maharashtra's strategic core road network in 10 lagging and disaster prone districts in line with the state's Vision 2030 and (i) connect underdeveloped rural communities, in particular women and disadvantaged groups, with off-farm opportunities in city centers and nearby markets; (ii) provide direct and indirect opportunities to the primarily agrarian population, in particular women and disadvantaged groups, through improved access to health and social services; (iii) boost the road connectivity of border districts such as Nanded to neighboring states; (iv) improve agricultural value chains for small and medium-sized enterprises by reducing transportation costs in synergy with the state's economic cluster programs; and (v) enhance safety and climate and disaster risk resilience.¹

II. THE PROJECT

A. Rationale

3. **State context.** Maharashtra is characterized by significant rural–urban disparity in income, human development, gender equality, and poverty. A key development challenge is enabling more balanced and inclusive growth. Maharashtra is the largest Indian state by gross domestic product (GDP) but ranks 13th in per capita income. Development is concentrated around major cities, mostly in the west of the state. The five most prosperous districts of Maharashtra contribute about 46% to the state's GDP, while the remaining 31 districts account for 71% of the population but contribute only 54% to the state's GDP.² Maharashtra ranks 17th in the number of persons who are multidimensionally poor.³ The percentage of multidimensionally poor in Maharashtra (15%) is lower than the national average (25%). However, in many districts in the largely agrarian eastern Vidarbha and central Marathwada regions, the percentage of multidimensionally poor is higher than the national level, such as in Jalna (29%), Hingoli (28%), and Nanded (27%) (footnote 3).⁴

4. **Social dimensions.** Road safety remains a concern; among Indian states, Maharashtra ranked second in road fatalities in 2019.⁵ Many community members, including women, children, and the elderly, rely on roads to access health care and educational facilities. The poor in particular are vulnerable to the impact of road accidents, and low-income households such as those of unskilled laborers in agriculture, are disproportionately affected.⁶ Road transport extends into most facets of community life and access to transportation on safe roads has direct impacts on economic outcomes and quality of life. Roads not only provide infrastructure but can also ensure access for beneficiaries to income and employment opportunities and better public health, education, social, economic, and gender equality outcomes, especially for rural people.

5. **Gender dimensions.** Significant gender disparities persist in Maharashtra. Women have lower levels of empowerment, with 42% of rural working women against 28% of rural working men

¹ Government of Maharashtra, Planning Department. 2017. [Vision 2030](#). Mumbai.

² Government of Maharashtra, Directorate of Economics and Statistics. 2021. [State Economic Survey: 2020–2021](#). Mumbai.

³ Government of India, National Institution for Transforming India (NITI Aayog). 2021. [National Multidimensional Poverty Index: Baseline Report](#). New Delhi.

⁴ The Government of Maharashtra recognizes Marathwada and Vidarbha as lagging in socioeconomic indicators.

⁵ Government of India, Ministry of Road Transport and Highways. 2020. [Road Accidents in India \(2019\)](#). New Delhi.

⁶ World Bank. 2021. [Traffic Crash Injuries and Disabilities: The Burden on Indian Society](#). Washington, DC.

engaged in casual labor.⁷ A primary survey conducted in October and November 2021 indicated that the majority of rural community members in the 10 project districts surveyed earn less than ₹10,000 per month (68%), have a high average unemployment rate (23%) that increases among women (49%), and report gender gaps in literacy levels as high as 24% in Jalna district.⁸ The assessment also found that men and women agricultural laborers travel long distances with their children every year from October to February to access jobs during the harvest, and these families live in temporary shelters without access to water, electricity, or sanitation facilities.

6. **Agriculture and horticulture in the state economy.** Agriculture is the backbone of the state. Maharashtra leads India's agricultural crop production and contributed 12% to total GDP in 2019–2020. Almost 70% of the state's rural labor force is employed in agriculture and allied activities (footnote 2). Maharashtra is India's third largest producer and exporter of horticulture products, with 25.9 million tons of fruits and vegetables in fiscal year (FY) 2020. Horticulture processing provides year-round employment opportunities, especially for women, and demand for fruit and vegetables is predicted to increase. However, the agriculture sector's growth is stagnating.⁹ To boost small-scale industries and marginal farmers' incomes, capacity and infrastructure bottlenecks must be overcome so that the movement of fresh produce in Maharashtra will be more reliable, and produce can be transported with minimum spoilage. Of these highly perishable crops, almost 40% is lost or wasted in different stages of the existing value chains, and 60% of such waste occurs between the farm and the end consumer.¹⁰ The state's crop varieties also require diversification, and enhanced resilience to climate change is needed.

7. **Climate and disaster risk.** Maharashtra is highly prone to climate-related risks. These include extreme temperature, which is projected to exceed 40°C on a regular basis, droughts, tropical cyclones, river floods, landslides, water scarcity, and earthquakes. Lower road density is a major driver of climate change vulnerability in the state.¹¹ Severe flooding occurs during the monsoon season, and strategic road connections become submerged in the districts of Kolhapur, Nanded, Nashik, Pune, Sangli, and Satara. Crop losses are a persistent problem, caused mainly by climate variability and limited access to processing and storage infrastructure. In Nanded, one-third of crop land is devoted to cotton farming. However, infrastructure constraints—including missing road links and lack of all-weather access to the cotton market in Bhainsa in the neighboring state of Telangana—result in continuous crop losses. This has caused high farmer indebtedness and increasing numbers of farmer suicides, particularly in Marathwada and Vidarbha regions. During 2001–2021, the district of Nanded recorded 1,523 incidents of farmer suicides.¹²

8. **Vision 2030.** The Government of Maharashtra, through its Vision 2030 strategic plan, aims to achieve sustainable, balanced, and all-inclusive growth across Maharashtra. The plan presents a five-pillar strategy with focus on (i) agriculture, (ii) infrastructure, (iii) industry, (iv) social sector, and (v) governance (footnote 1). The plan specifically targets the Marathwada and

⁷ Government of India, Ministry of Statistics and Programme Implementation, National Sample Survey Office. 2019. [Periodic Labor Force Survey: 2017–18](#). New Delhi.

⁸ The poverty and social assessment survey was conducted in Ahmednagar, Hingoli, Jalna, Kolhapur, Nagur, Nanded, Nashik, Pune, Sangli, and Satara districts throughout October and November 2021.

⁹ Government of India, Ministry of Agriculture and Farmers Welfare, Department of Agriculture, Cooperation and Farmers Welfare, Directorate of Economics and Statistics. 2021. [Pocket Book of Agricultural Statistics](#). New Delhi.

¹⁰ McKinsey and Company. 2017. [Harvesting Golden Opportunities in India Agriculture: From Food Security to Farmers' Income Security by 2025](#). New York.

¹¹ Indian Institute of Technology Mandi and Indian Institute of Technology Guwahati. 2021. [Climate Vulnerability Assessment for Adaptation Planning in India Using a Common Framework 2019–2020](#).

¹² Government of Maharashtra, Ministry of Electronics and Information Technology. 2022. [Farmers Suicide List](#). Nanded.

Vidarbha regions to address poverty in lagging districts and tackle climate change vulnerability. Transformation of the agriculture and horticulture sectors is envisaged through diversification, improved profitability, and higher yields and quality of horticulture products. Economic corridors and market links must be strengthened to improve transport efficiency and safety through improved national and state highways and rural road networks to fill infrastructure gaps in transport, accompanied by enhanced storage, cold chain, and agro-processing.

9. **Road development plans.** The state government has identified targeted interventions for more than 18,000 kilometers (km) of the core road network to address constraints (paras. 4–7) and to provide necessary links.¹³ The state government prepared a detailed framework to systematically prioritize state roads that considers (i) climate change vulnerability; (ii) poor and disadvantaged population served; (iii) connectivity to priority economic, industrial, agricultural, and horticultural clusters; (iv) transport network connectivity; (v) traffic volumes; (vi) existing road width; (vii) economic internal rate of return; and (viii) land, environment, and social impacts. To finance the road subsector development needs, the government is exploring external funding sources, including raising debt, multilateral and/or bilateral funding, and public–private partnerships.¹⁴ About 8,600 km of core road network improvements are already being delivered under the hybrid annuity model. Opportunities for further private sector involvement in nonrevenue-generating road projects in rural areas are limited, and the government is considering other ways to involve the private sector, e.g., maintaining the state road network. The Asian Development Bank (ADB) is financing the implementation of an additional 450 km of core road network upgrades.¹⁵ The government plans to finance the balance of improvements through regular state budget provisions and multilateral development bank assistance.

10. **Alignment with strategic objectives.** The project aligns with ADB’s country partnership strategy for India, 2018–2022, which aims to boost economic competitiveness, create more and better jobs, provide inclusive access to infrastructure networks and services, address climate change and increase climate resilience, and build greater institutional capacities.¹⁶ The project contributes to ADB’s Strategy 2030 operational priorities by (i) reducing inequality in access to opportunities; (ii) providing women with access to income-generating opportunities and greater economic empowerment; (iii) promoting rural development and supporting agricultural value chains through improved connectivity; and (iv) strengthening the institutional capacity in road safety, climate and disaster resilience, and gender equity and social inclusion.¹⁷

11. **Lessons from past assistance.** Lessons from previous road transport projects in India and sector assessments highlight the need for (i) effective contract management; (ii) increased focus on road maintenance, road safety, and climate change; (iii) encouraging the uptake of new technology for real-time monitoring of project performance during implementation and for

¹³ Government of Maharashtra, Public Works Department. 2018. *Information on Core Road Network*. Mumbai.

¹⁴ The Road Development Plan 2021–2041 for Maharashtra is currently under preparation with financing support from ADB, under the ongoing Maharashtra State Road Improvement Project, and it is expected to be finalized in 2022.

¹⁵ ADB. 2020. [Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for Maharashtra State Road Improvement Project](#). Manila.

¹⁶ ADB. 2017. [Country Partnership Strategy: India, 2018–2022—Accelerating Inclusive Economic Transformation](#). Manila.

¹⁷ ADB. 2018. [Strategy 2030](#). Manila. The project will support operational priorities 1 (addressing remaining poverty and reducing inequalities), 2 (accelerating progress in gender equality), 3 (tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability), 5 (promoting rural development and food security), and 6 (strengthening governance and institutional capacity).

evaluation; and (iv) scaling up of gender mainstreaming.¹⁸ Past and ongoing projects in Maharashtra have also suggested the opportunity to include more complementary interventions not only for roadways but also focusing on the needs of women. The project will build on the specific lessons from ADB's earlier road subsector operations, as seen in the proposed capacity strengthening activities and gender and social inclusion outputs.

B. Project Description

12. The project is aligned with the following impacts: sustainable, balanced, all-inclusive growth achieved across Maharashtra; and growth and industrialization promoted in the Marathwada and Vidarbha regions (footnote 1). The project will have the following outcome: transport efficiency, safety, and access to markets and basic social services in Maharashtra improved and sustained.¹⁹

13. **Output 1: State highways and major district roads of the core road network upgraded and maintained.** The project will (i) upgrade at least 319 km of state highways and 149 km of major district roads with climate- and disaster-resilient features as well as features that respond to the needs of the elderly, women, children, and people with disability; and (ii) commence 10-year performance-based maintenance contracts.

14. **Output 2: New interstate roads connecting Nanded and Telangana developed and maintained.** The project will (i) construct 5 km of major district roads with climate- and disaster-resilient features as well as those that respond to the needs of the elderly, women, children, and people with disability to connect Nanded with Telangana; and (ii) commence 10-year performance-based maintenance contracts.

15. **Output 3: Capacity for project monitoring, road safety, and maintenance strengthened.** The project will complement the central government's state road safety incentive program and contribute to replicable road safety and maintenance improvements: it will (i) implement automated traffic survey and traffic direction systems on project roads; (ii) establish and manage a project-specific web interface and dashboard with real-time information to monitor traffic, design, contracting and construction progress, land acquisition, and compensation disbursement; (iii) establish road safety demonstration corridors on project roads with advanced technology, improved standards for road design and construction, and strengthened enforcement;²⁰ (iv) reach villages in project areas with road safety awareness campaigns by self-help groups led by women;²¹ (v) develop at least two modalities for road maintenance involving the private sector using output and performance or area-based maintenance contracts for other roads forming the core road network; and (vi) develop and implement a good practice handbook for climate change adaptation and disaster risk reduction in road design and maintenance.

16. **Output 4: Gender equality and social inclusion promoted in highway works, schools, health, and social services.** The project will (i) prepare and implement guidelines for

¹⁸ ADB. 2019. [Report and Recommendation of the President: Chhattisgarh Road Connectivity Project](#). Manila: ADB. 2022. [Completion Report: Rural Connectivity Investment Program in India \(Tranche 3 and Multitranchise Financing Facility\)](#). Manila; and Independent Evaluation Department. 2020. [Independent Evaluation, Sector-wide Evaluation: ADB Support for Transport](#). Manila: ADB.

¹⁹ The design and monitoring framework is in Appendix 1.

²⁰ Technologies include drainable and high-friction pavement, new material and equipment for delineation, and warning and reporting systems through mobile devices. Climate adaptation and disaster risk reduction features will also be incorporated as well as targeted initiatives focused on vulnerable road users. Vulnerable users from a road safety perspective are defined as pedestrians, motorcyclists, and bicyclists.

²¹ Self-help groups led by women are defined as those with more than 90% women members, based on the national government scheme, Deendayal Antyodaya Yojana-National Rural Livelihoods Mission. Government of India. 2019. [Reserve Bank of India Master Circulars](#). Mumbai.

gender equality and social inclusion (GESI)-responsive state highway works programs; (ii) provide enterprises led by women of poor and disadvantaged groups with certified skills training for livelihood opportunities as wayside service providers; (iii) establish water and sanitation facilities at schools along project roads; (iv) develop *janasuvudha kendras* (integrated service centers) for women cane cutters and migrant populations to provide basic health, sanitation, education, and other services; and (v) train people from self-help groups led by women in knowledge and skills to operate the *janasuvudha kendras*.²²

17. **Roads selected for ADB assistance.** The state government requested ADB assistance for upgrading selected priority roads. The Maharashtra Public Works Department (MPWD) estimated an initial financing requirement of at least \$500 million from ADB for two project loans. The initial loan of \$177 million was approved in 2020 and covers about 450 km of roads across six districts of Maharashtra (footnote 15). About 70% of the physical works under this project was completed as of June 2022. The proposed loan of \$350 million will improve 18 roads with a total length of about 460 km across 10 new districts. The interventions focus on providing better connectivity in Ahmednagar, Hingoli, Jalna, Kolhapur, Nagur, Nanded, Nashik, Pune, Sangli, and Satara districts that will augment the impacts of the state's cluster development program and the central government's Micro and Small Enterprises-Cluster Development Program.²³ This includes supporting the leather cluster in Jalna; steel furniture and printing cluster in Nanded; textile cluster in Hingoli and ready-made garments cluster in Sangli; and textile, rice mill, garment, and dal mill clusters in Nagpur. The roads selected will further increase the efficiency of the state road network; boost farm-to-market, rural, intrastate, and interstate connectivity; enhance access for small-scale industries; and improve road safety.

C. Value Added by ADB

18. **ADB's approach.** ADB's approach is to continue reinforcing development impacts and demonstrating exemplary best practices for proactive replication in Maharashtra and other jurisdictions. ADB is supporting rural connectivity improvement projects to improve 5,000 km of rural roads.²⁴ Combined with enhancements to state highways and major district roads, all levels of the state road transport hierarchy will provide beneficiaries with an efficient and safe road network for intrastate and interstate connectivity (footnote 15). ADB is also enhancing agricultural value chains, including cold storage capacity, as well as supporting agribusiness, energy efficiency through improved rural distribution systems with solarization, expanded efficient irrigation, and a forthcoming results-based loan promoting micro, small, and medium-sized enterprises-cluster development.²⁵ At the central government level, ADB is coordinating with the

²² Enterprises owned or led by women are defined using the International Finance Corporation's definition: (i) $\geq 51\%$ of the enterprise is owned by a woman or women; or (ii) $\geq 20\%$ of the enterprise is owned by a woman or women, and (a) has ≥ 1 woman as chief executive officer, chief operating officer, president, or vice-president; and (b) has $\geq 30\%$ of the board of directors composed of women, where a board exists. ADB. 2021. [Guidelines for Gender Mainstreaming Categories of ADB Projects](#). Manila. The *janasuvudha kendras* may include health services such as women's reproductive health care, primary health care, water and sanitation services, early childhood care and education facilitation, child protection units, food grain public distribution system centers, and other one-stop service centers to ensure access to social protection schemes.

²³ Government of Maharashtra. Directorate of Industries. 2014. [Maharashtra State Industrial-Cluster Development Programme \(MSI-CDP\)](#). Mumbai; and Government of India, Ministry of Micro, Small and Medium Enterprises. 2010. [Micro and Small Enterprises-Cluster Development Programme](#). New Delhi.

²⁴ ADB. 2021. [Report and Recommendation of the President to the Board of Directors: Proposed Loan for Additional Financing to India for Maharashtra Rural Connectivity Improvement Project](#). Manila.

²⁵ ADB. 2021. [Report and Recommendation of the President: Maharashtra Agribusiness Network Project](#). Manila; ADB. 2020. [Report and Recommendation of the President to the Board of Directors: Maharashtra Rural High Voltage Distribution System Program](#). Manila; and ADB. 2020. [Technical Assistance to India for Strengthening Micro, Small, and Medium Enterprises Ecosystem Development](#). Manila.

Ministry of Road Transport and Highways through a state road safety incentive program, which focuses on institutional aspects, accident response and monitoring systems, vehicle fitness, and awareness campaigns. This ADB program supports 7 states including Maharashtra, which has established a state level road safety council and road safety plan. The project will augment the program by delivering two road safety demonstration corridors showcasing infrastructure and enforcement improvements.

19. **Delivery and replication of innovative elements.** In strong partnership with the MPWD, the project will demonstrate approaches and best practices that are not yet common practice in Maharashtra. These infrastructure and technology components will be complemented by capacity development, add value beyond the project scope, and be replicated by the state government. The MPWD will lead and guide other road agencies in India in replicating the new approaches. These include implementing real-time traffic systems and a web interface for project monitoring. The project will establish safety demonstration corridors for wider replication, with measures under advanced technology, engineering, and enforcement. The project will identify appropriate modalities to demonstrate the private sector's effectiveness in undertaking long-term road maintenance for greater life-cycle quality and operational efficiency. Maintenance modalities developed under this project will be replicated for at least two roads in the state. The project will also develop and implement sector guidelines in climate change adaptation and disaster risk reduction as well as GESI-responsive highway works programs. The project will also demonstrate approaches to promote GESI through the integrated service centers of the *janasuvudha kendras*.

D. Summary Cost Estimates and Financing Plan

20. The project is estimated to cost \$505 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).²⁶ Civil works and consulting services are the major expenditure items under the project.

Table 1: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Output 1: State highways and major district roads of the CRN upgraded and maintained	400.40
2. Output 2: New interstate roads connecting Nanded and Telangana developed and maintained	11.35
3. Output 3: Capacity for project monitoring, road safety, and maintenance strengthened	15.87
4. Output 4: Gender equality and social inclusion promoted in highway works, schools, health and social services	1.64
Subtotal (A)	429.26
B. Contingencies^c	50.62
C. Financial Charges During Implementation^d	25.12
Total (A+B+C)	505.00

^a Includes taxes and duties of \$54.06 million. Such amount does not represent an excessive share of the project cost. The Asian Development Bank will finance taxes and duties of \$39.30 million. The government will finance taxes and duties of \$14.76 million through cash contribution.

^b Prices as of March 2022.

^c Physical and price contingencies and a provision for exchange rate fluctuation are included.

^d Includes interest, commitment, and other charges on all sources of financing.

Source: Asian Development Bank estimates.

²⁶ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

21. The government has requested a regular loan of \$350,000,000 from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an interest rate determined in accordance with ADB's Flexible Loan Product; a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan); and such other terms and conditions set forth in the draft loan and project agreements. Based on the straight-line method, the average maturity is 15.25 years, and the maturity premium payable to ADB is 0.10% per year.

22. The summary financing plan is in Table 2. ADB will finance civil works and consulting services expenditures. The government agreed to make counterpart funds available for additional costs arising from unforeseen circumstances, such as price escalation or design changes.

Table 2: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (regular loan)	350.0	69.3
Government ^a	155.0	30.7
Total	505.0	100.0

^a The Government of Maharashtra will fund the 10-year performance-based maintenance contracts.
Source: Asian Development Bank estimates.

23. Climate change impact on the project is assessed as *high*. Climate mitigation is estimated to cost \$5.8 million and climate adaptation is estimated to cost \$113.0 million or 32.6% of the project's civil works cost. ADB will finance 80% of these adaptation and mitigation costs.

E. Implementation Arrangements

24. The project will be implemented by the MPWD through the project management unit (PMU) and project implementation units (PIU) for civil works contract packages. The MPWD will also engage consulting firms to be the authority engineers for the works contracts, a project management services consultant to support project implementation, a quality infrastructure investment consultant to support capacity strengthening in project monitoring, GESI as well as consulting services for internal audit and resettlement plan implementation in Nanded district, and an external monitor for resettlement plan implementation.

25. Implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 26).

Table 3: Implementation Arrangements

Table of Implementation Arrangements			
Aspects	Arrangements		
Implementation period	December 2022–July 2027		
Estimated completion date	31 January 2027		
Estimated loan closing date	30 July 2027		
Management			
(i) Executing agency	Government of Maharashtra, Public Works Department		
(ii) Key implementing agency	Project management unit in the Public Works Department, Government of Maharashtra		
(iii) Implementation unit	Project implementation unit in the Public Works Department, Government of Maharashtra staff, 142 staff		
Procurement	Open competitive bidding (nationally advertised)	18 contracts	\$389.48 million

Aspects	Arrangements		
Consulting services	Quality- and cost-based selection; full technical proposal	7 contracts for authority engineers, project management services, quality infrastructure investment support, internal audit, resettlement plan implementation, and external monitoring; 3,990 person-months.	\$6.69 million
Retroactive financing and/or advance contracting	Retroactive financing of eligible works and consulting services expenditures, incurred before loan effectiveness but within 12 months prior to loan signing, up to 20% of the loan amount; advance contracting for recruitment of consultants and procurement of civil works.		
Disbursement	Disbursement of the loan proceeds will follow ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank.

Note: Seventeen works packages are shown in the procurement plan; at least one subsequent works package is envisaged.

Source: Asian Development Bank.

III. DUE DILIGENCE

A. Technical

26. The project is assessed as technically viable. The MPWD prepared and approved the project's engineering design during project preparation. The engineering design follows the applicable criteria in line with the Indian Road Congress regulations and also incorporates several climate change mitigation and adaptation as well as road safety aspects. The project team conducted an independent review of the engineering design and recommended improvements that were addressed subsequently. Climate change adaptation features include new roads to avoid flood-prone areas, rigid pavement design, overall improvement of flood discharge capacities, and embankment height of roads. Climate change mitigation measures cover in situ soil stabilization, recycling of asphalt, and tree plantation.²⁷

B. Economic and Financial Viability

27. The project is economically viable, providing an overall economic internal rate of return (EIRR) of 14.6%. Economic evaluation was undertaken following ADB guidelines by comparing life-cycle economic costs and benefits in with-project and without-project scenarios, against an assumed hurdle rate of 9%.²⁸ The Highway Development Model 4 was used to estimate road agency and road user costs based on traffic, road geometry, pavement condition, and improvement and maintenance costs. The analysis also showed that all 17 construction packages are feasible for implementation with EIRRs above 9%. Quantifiable benefits include vehicle operating cost and travel time savings. Additional benefits from safety, quality of maintenance works, climate change adaptation and mitigation, and GESI activities are not included in the quantitative analysis and would improve the project's economic viability further. The project's viability remained robust under a sensitivity analysis of several key parameters including (i) 10% increase in construction costs, (ii) lower traffic growth rates from moderate gross state domestic product growth, (iii) 10% decrease in values of time for passengers and freight, and (iv) the combination of all the above. The estimated poverty impact ratio of 0.335 exceeds the estimated

²⁷ Climate Change Assessment and attached Climate Risk and Adaptation Assessment (accessible from the list of linked documents in Appendix 2).

²⁸ ADB. 2017. [Guideline for the Economic Analysis of Projects](#). Manila.

poverty and vulnerable headcount ratio in the project-influenced area, which indicates that all poor and vulnerable people are served by the project.

C. Sustainability

28. The project will not generate revenue. The MPWD will assume responsibility for maintenance through regular budget allocations after the 10-year maintenance period is over. Comparison of costs under the with-project and without-project scenarios over the 30-year design life reveals that the project will save ₹163 million annually in the MPWD's maintenance budget, indicating that the project's recurrent costs will not place an excessive burden on the MPWD.²⁹ Financial sustainability analysis showed that the MPWD's annual budget allocation for maintenance increased from ₹16.39 billion in FY2017 to about ₹29.30 billion in FY2021. However, some portions of the road network still require maintenance and rehabilitation, suggesting that adequate resources for routine and periodic maintenance must be committed along with enhanced monitoring and maintenance policies. Although the MPWD has committed to prioritizing future maintenance funding for the project roads, the project sustainability risk is assessed as *substantial*. Road assets must be sustained at desirable levels, subsector policies and procedures improved, and financial sustainability in the subsector increased. Capacity development under an ongoing ADB-financed project will help the MPWD develop and adopt a maintenance planning methodology to help sustain road assets at desirable levels (footnote 15). To further mitigate the financial sustainability risk, the proposed project will develop two new modalities for road maintenance involving the private sector.

D. Governance

29. **Institutional.** The MPWD will implement the project through a PMU dedicated to ADB projects in Mumbai. Eight field offices have been established under a PIU to support the PMU. The PMU and the field offices have sufficient staff capacity to prepare and implement the project. A project management services consultant will support the PMU in reporting, financial management, and safeguard monitoring.

30. **Financial management.** The assessed pre-mitigation financial management risk is *moderate* because of the risk of continued inadequate finance and accounting resources at PMU and PIU levels, lack of internal audit arrangement, and financial information included in periodic progress reports requiring strengthening. A comprehensive financial management action plan, comprising mitigation measures for identified risks as well as standard ADB financial management and reporting requirements, was agreed with the MPWD. Key risk mitigation measures agreed with the MPWD include engaging a chartered accountant firm to perform internal audits of the project on a semiannual basis, recruiting specialist support staff as needed, and training project financial management staff and consultants. Templates were included in the PAM for preparation of project financial statements, audits, and periodic progress reporting.

31. **Procurement and value for money.** The project procurement risk classification is *low* upon application of risk mitigation measures, considering the MPWD's extensive experience in implementing similar road projects, including an ongoing ADB project (footnote 15). Under advance contracting, procurement of 17 civil works packages and recruitment of authority engineer consulting services are at advanced stages. The procurement of civil works and consulting services financed by the ADB loan is in accordance with the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time), and all procurement has been conducted under prior review. The

²⁹ The details are in the Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

e-procurement system was assessed by ADB as part of due diligence and found to be satisfactory. Value for money is optimized through strategic procurement planning and a risk-managed approach as follows (and as detailed in the PAM): (i) open competitive arrangement using multiple-contract bidding; (ii) use of e-procurement; (iii) arranging contract packaging considering geographic spread; and (iv) promoting innovation through single-responsibility engineering-procurement-construction contracts with 10-year performance-based maintenance requirements.

32. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MPWD. The specific policy requirements and supplementary measures are described in the PAM (footnote 26).

E. Poverty, Social, and Gender

33. **Poverty reduction and social benefits.** The state has wide intraregional income disparity. The proportion of the population who are poor is 5% in urban areas and 23% in rural areas, including poor rural villages within higher-income districts (footnote 3). The project will help address disparities by improving connectivity, facilitating access to services, and accelerating inclusive economic growth of lagging villages in the state. The project preparatory phase involved poverty and social assessments of local communities living along the project roads. The community members were supportive of the project and expressed that the improved roads will enhance mobility between commercial centers, schools, and health centers, which would increase economic and employment opportunities. Local communities also expressed their belief that improved connectivity would also help reduce poverty. The project is designed to enhance the benefits of improved roads through activities that target access to basic services and a better living environment, and improved livelihood and trade opportunities.

34. **Gender.** The project is categorized *effective gender mainstreaming* based on the Guidelines for Gender Mainstreaming Categories of ADB Projects (2021). A GESI action plan is attached to the project with activities and measurable indicators: (i) promoting gender-responsive infrastructure; (ii) training self-help groups led by women to conduct road safety awareness campaigns; (iii) conducting health camps for community women; (iv) preparing GESI-responsive guidelines for state highway works program and implementing these at identified locations, along with capacity building of MPWD staff; (v) providing water and sanitation facilities in schools; (vi) providing enterprises led by women from poor and disadvantaged groups with skills training for livelihood opportunities as wayside service providers; (vii) establishing demonstration *janasuvudha kendras* with basic health and sanitation, education, and other services; and (viii) training for self-help groups led by women to operate the *janasuvudha kendras*.

35. **Labor.** Provisions in the bidding documents for the civil works contractors (i) ensure that all applicable labor laws are complied with, including the prohibition against employing children in construction; (ii) encourage the employment of the poor and affected communities; and (iii) ensure that wages for men and women are equal for work of equal value.

F. Safeguards

36. In compliance with ADB's Safeguard Policy Statement (2009), environment and social impacts have been assessed and the proposed measures are adequate to address the impacts. The project's safeguard categories are as follows (paras. 37–39).³⁰

³⁰ ADB. [Safeguard Categories](#).

37. **Environment (category B).** All works follow existing alignments, except for improvements in road geometry in some portions. No significant irreversible environmental impacts are anticipated. One road will pass through a section of the Great Indian Bustard Sanctuary.³¹ This area has previously been assessed (footnote 15) and ruled out as critical habitat for this species.³² No other roads pass through or are near any protected or environmentally sensitive areas; however, wildlife crossing points have been identified. Other environmental impacts are typical of road projects and are confined within the construction period. Mitigation measures are proposed in the initial environmental examination (IEE) covering noise, air and water quality, occupational and community health and safety impacts, and wildlife movement. A consolidated IEE has been prepared for the project following the Safeguard Policy Statement. The MPWD confirmed that it will not allow road construction to start without obtaining necessary permits and clearances. Mitigation measures to address environmental impacts have been included in the package-specific environmental management plans, which are part of the bid documents. The MPWD conducted meaningful consultations with affected persons and other key stakeholders (e.g., forestry officials) while preparing the IEE. Concerns have been considered and will continue to be addressed during project implementation through the grievance redress mechanism. Environmental management plan implementation and monitoring arrangements will follow the structure of the ongoing loan (footnote 15). Semiannual monitoring reports during construction will be disclosed on the ADB website and to affected communities, as needed. Monitoring will continue on an annual basis during operation until the project completion report is prepared.

38. **Involuntary resettlement (category A).** The project will require 19.27 hectares of private land, to be acquired following the provisions of India's Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013; Maharashtra's Direct Purchase Act, 2016; and the Safeguard Policy Statement. Land acquisition and freeing the right-of-way from encroachment will potentially affect 357 titled and 277 non-titled households (4,172 persons). No household will be significantly impacted by loss of shelter and relocation, although 193 households (1,284 persons) will lose 10% or more of agricultural land in greenfield realigned sections of major district roads in Nanded. The MPWD prepared resettlement plans for 15 of the 18 project roads with involuntary resettlement impacts.³³ Three roads in Nanded and Nashik are expected to have no impacts because the right-of-way is sufficient and unencumbered. The MPWD has submitted due diligence reports for these three roads confirming that no land and assets will be affected. The MPWD and ADB conducted meaningful consultation and information disclosure; some consultations needed to be delayed and conducted using pandemic-appropriate measures. The resettlement plans are in line with national, state, and ADB requirements, including compensation at replacement cost, livelihood restoration, grievance redress, and semiannual internal and external monitoring. The MPWD is experienced in implementing resettlement plans under an ongoing ADB loan (footnote 15). Focal persons in the PMU, PIUs, social experts of the authority engineers, a resettlement plan implementation support agency, and an external expert will implement and monitor involuntary resettlement safeguards. ADB mobilized technical assistance for two training workshops on safeguards and climate change for the MPWD and its consultants, and additional training will be conducted before project implementation. The resettlement plans are disclosed on the ADB website and to affected communities through local government offices. The state government will meet the cost of resettlement plan implementation.

³¹ Identified as an important bird and biodiversity area by BirdLife International, though noted as unsuitable habitat for the Great Indian Bustard. Environmental wildlife clearances are required per GOI EIA Notification, 2006.

³² Based on the International Finance Corporation. 2019. *Guidance Note 6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources*. Washington, DC, and ADB's Safeguard Policy Statement.

³³ Located in the districts of Ahmednagar, Hingoli, Jalna, Kolhapur, Nagpur, Nanded, Pune, Satara, and Sangli.

39. **Indigenous peoples (category C).** Indigenous peoples within the meaning of the Safeguard Policy Statement are not present in the villages where project roads will be improved. While scheduled tribe households are present in Jalna, Hingoli, Nanded, and Nashik project villages, the households do not (i) have collective attachment to distinct habitats; (ii) occupy, use, or claim ancestral domain; and (iii) have cultural, economic, social, and political systems distinct from the Hindu majority. The households speak Marathi, the official state language. Consultations with scheduled tribe households indicated that the benefits of road improvements (e.g., all-year and safe access to markets, schools, and health services) will not adversely affect their dignity, human rights, livelihood systems, or culture.

G. Summary of Risk Assessment and Risk Management Plan

40. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.³⁴

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
Insufficient funding for maintenance reduces project sustainability.	Civil works contracts include 10-year performance-based maintenance, which is the responsibility of the contractors. The pavement of the project roads is designed for 30-year durability thereafter. The Maharashtra Public Works Department has committed to allocate funds for maintenance.
Extreme weather events that exceed climate change projections may cause damage on completed roads.	Impacts of extreme weather conditions were identified in the climate risk and vulnerability assessment report, and climate change adaptation and mitigation measures were incorporated in the project design.

Source: Asian Development Bank.

IV. ASSURANCES AND CONDITIONS

41. The government and the MPWD have assured ADB that implementation of the project shall conform to all applicable ADB requirements, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, financial management, and disbursement as described in detail in the PAM and loan documents.

42. The government and the MPWD have agreed with ADB on certain covenants for the project, which are set forth in the draft loan and project agreements.

V. RECOMMENDATION

43. 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 \$350,000,000 to India for the Connecting Economic Clusters for Inclusive Growth in Maharashtra project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's Flexible Loan Product; for a term of 25 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.

Masatsugu Asakawa
President

10 October 2022

³⁴ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
Sustainable, balanced, all-inclusive growth achieved across Maharashtra (Vision 2030) ^a			
Growth and industrialization promoted in the Marathwada and Vidarbha regions (Vision 2030) ^a			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Transport efficiency, safety, and access to markets and basic social services in Maharashtra improved and sustained	By 2028: a. Average travel time on project roads reduced by at least 30% (2022 baseline: 2.03 minutes per km for motorized transport) b. Average travel time for farmers to transport produce from Nanded to markets reduced by at least 30% (2022 baseline: 2.07 minutes per km for motorized transport) c. People in project areas who reported ease in access to health and education facilities increased by at least 5% (2022 baseline: 68% for health facilities and 58% for education facilities) (OP 1.1) d. At least 700 persons employed by the project (2022 baseline: 0) (OP 1.2) e. Average number of fatalities per year in road accidents on the project roads reduced by at least 10% (2021 baseline: 44 fatalities) f. Road safety corridor replicated in at least 60 km of the CRN (2022 baseline: Not applicable) g. Road sector maintenance modalities developed under this project replicated for at least two roads in the state with procurement initiated (2022 baseline: Not applicable)	a.–b. Travel time surveys on project roads by MPWD c. Survey of beneficiaries along the project roads and at the <i>janasuvridha kendras</i> ^b d. Progress reports endorsed by MPWD e. Police reports for road accidents along the project roads f.–g. Progress reports endorsed by MPWD	A: Coronavirus disease (COVID-19) pandemic has abated significantly and economic activities in Maharashtra have been revived.
Outputs 1. State highways and major district roads of the CRN upgraded and maintained	By 2027: 1a. At least 319 km of state highways and 149 km of major district roads upgraded with climate- and disaster-resilient features as well as features that respond to the needs of the elderly, women, children, and people with disability ^c (2022 baseline: 0) (OP 1.3.1; OP 2.4.1; OP 3.2.5; OP 5.1.1) 1b. 10-year performance-based maintenance contracts commenced for 468 km of roads (2022 baseline: 0)	1a.–b. Progress reports endorsed by MPWD	R: Interruptions because of COVID-19 pandemic may cause unexpected delays in construction.

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
2. New interstate roads connecting Nanded and Telangana developed and maintained	2a. At least 5 km of major district roads constructed with climate- and disaster-resilient features as well as features that respond to the needs of the elderly, women, children, and people with disability (2022 baseline: 0) (OP 1.3.1; OP 2.4.1; OP3.2.5; OP 5.1.1)	2a.–b. Progress reports endorsed by MPWD	R: Increase in prices of construction materials beyond projections may affect the total length of roads to be constructed.
3. Capacity for project monitoring, road safety, and maintenance strengthened	2b. 10-year performance-based maintenance contracts commenced for 5 km of new major district roads (2022 baseline: 0)		
	By 2026: 3a. Automated traffic survey and traffic direction systems implemented at 10 locations on project roads (2022 baseline: Not applicable)	3a.–d. Progress reports endorsed by MPWD	
	3b. Web interface and dashboard with real-time information to monitor traffic, design, contracting and construction progress, land acquisition and compensation disbursement established and managed by MPWD (2022 baseline: Not established)		
	3c. Two road safety demonstration corridors with advanced technology, improved standards for design, construction, and enforcement established on project roads ^d (2022 baseline: Not established)		
	3d. At least 54 habitations in the project areas reached by road safety awareness campaigns of self-help groups led by women ^e (2022 baseline: Not applicable)		
	3e. At least two contract modalities for road maintenance involving private sector developed for other roads forming the CRN using output- and performance-based maintenance contracts or area-based contracts (2022 baseline: Not applicable)	3e. Report with recommendation on contract modality endorsed by MPWD	
	3f. Good practice handbook for climate change adaptation and disaster risk reduction in road design and maintenance developed and implemented in five roads (2022 baseline: Not applicable)	3f. Final handbook on climate change adaptation and disaster risk reduction in road design and maintenance	
4. GESI promoted in highway works, schools, health, and social services	By 2025: 4a. Guidelines for GESI-responsive state highway programs prepared and implemented at eight locations ^f (2022: Not	4a. Final guidelines for GESI-responsive state highway	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>applicable) (OP 6.2.1)</p> <p>4b. At least 36 people (of whom 80% are female) from 18 enterprises led by women of poor and disadvantaged groups, provided with certified skills training for livelihood opportunities as wayside service providers^g (2022 baseline: Not applicable) (OP 2.1.1)</p> <p>4c. At least 18 water and sanitation facilities provided at schools along project roads^h (2022 baseline: zero) (OP 2.4.1; OP 5.1.1)</p> <p>4d. At least three demonstration <i>janasuvidha kendras</i> developed in three project districtsⁱ for women cane cutters and migrant population to provide basic health and sanitation, education, and other services (2022 baseline: Not applicable) (OP 2.5.1)</p> <p>4e. At least 15 people (of whom 90% are female) from self-help groups led by women reported increased knowledge and skills on operating the <i>janasuvidha kendras</i>ⁱ (2022 baseline: Not applicable) (OP 2.1.1)</p>	<p>works programs, and GESI monitoring reports endorsed by MPWD</p> <p>4b.–e. Survey results and GESI monitoring reports endorsed by MPWD</p>	

Key Activities with Milestones

1. State highways and major district roads of the CRN upgraded and maintained

- 1.1 Issue invitations for bids in Q1 2022
- 1.2 Award civil works contracts by Q3 2022 and complete construction by Q4 2026
- 1.3 Mobilize authority engineer by Q3 2022
- 1.4 Commence road maintenance activities by Q4 2024

2. New interstate roads connecting Nanded and Telangana developed and maintained

- 2.1 Issue invitations for bids in Q1 2022
- 2.2 Award civil works contracts by Q3 2022 and complete construction by Q4 2026
- 2.3 Mobilize authority engineer by Q3 2022
- 2.4 Commence road maintenance activities by Q4 2024

3. Capacity for project monitoring, road safety, and maintenance strengthened

- 3.1 Recruit and mobilize quality infrastructure investment support consultant by Q1 2023
- 3.2 Recruit project management services consultants by Q4 2022
- 3.3 Hold road safety awareness campaign sessions by Q3 2024
- 3.4 Prepare design of priority safe system measures for road safety corridors by Q3 2024
- 3.5 Develop specifications for real-time technology and traffic systems by Q2 2023
- 3.6 Prepare refined contract modalities and bidding documents for private sector participation by Q3 2024
- 3.7 Develop good practice handbook for climate change adaptation and disaster risk reduction in road design and maintenance by Q4 2024
- 3.8 Establish and manage automated traffic survey and directions systems as well as project-specific web interface and dashboard by Q3 2023
- 3.9 Issue invitation for bids for demonstration corridors in Q2 2025
- 3.10 Implement road safety demonstration corridors and advanced technology by Q4 2026

4. GESI promoted in highway works, schools, health and social services

Key Activities with Milestones

- 4.1 Prepare guidelines for GESI-responsive works program by Q2 2024
- 4.2 Conduct livelihood skills training for people from poor and disadvantaged groups of enterprises led by women as wayside service providers by Q4 2024
- 4.3 Construct water and sanitation amenities at schools by Q4 2024
- 4.4 Establish *janasuvidha kendras* by Q4 2024

Inputs

ADB: \$350 million (loan)

Government: \$155 million

A = assumption; ADB = Asian Development Bank; CRN = core road network; EWCD = elderly, women, children, and people with disability; GESI = gender equality and social inclusion; km = kilometer; MPWD = Maharashtra Public Works Department; OP = operational priority; Q = quarter; R = risk.

^a Government of Maharashtra, Planning Department. 2017. [Vision 2030](#). Mumbai.

^b The *janasuvidha kendra*, based on the feasibility study, may include health services such as women's reproductive health care; primary health care; water and sanitation services; early childhood care, creche facilities, and education facilitation; child protection units; food grain public distribution system centers; and other one-stop service centers to ensure access to banking and social protection schemes.

^c EWCD-responsive features include well-marked crossings, safety signage, pedestrian walkways, railings along roads, covered drains, paved shoulder (hard shoulder) and earthen shoulder (soft shoulder), speed bumps, rumble strips, guard stones, and solar blinkers. Other gender-responsive features include streetlights; well-lit bus stops, and with CCTV cameras at warranted locations; and separate toilets suitable for women, children, and people with disability. Climate adaptation and disaster risk reduction features are design interventions based on existing risks and projected climate change impacts that will be identified through the climate risk and adaptation assessment.

^d Road safety demonstration corridors will include improved standards for road design and construction, improved enforcement of safe driving behavior, and targeted initiatives focused on vulnerable road users. Technologies include drainable and high-friction pavement, new material and equipment for delineation, and warning and reporting systems through mobile devices. Climate adaptation and disaster risk reduction features will also be incorporated.

^e The project defines self-help groups led by women as those with more than 90% women members. This is based on the national government scheme, Deendayal Antyodaya Yojana – National Rural Livelihoods Mission, where nearly all self-help groups are 100% women except in some cases like persons with disabilities, and other special categories like elders, transgenders, Deendayal Antyodaya Yojana – National Rural Livelihoods Mission will have both men and women in the self-help groups. https://www.rbi.org.in/Scripts/BS_ViewMasCircularDetails.aspx?id=11743.

^f GESI-responsive program includes GESI mainstreaming mechanism in planning, construction, and maintenance of state highway works. This will include but not be limited to (i) integration of GESI issues and concerns in project planning and design, (ii) mechanism for women's participation in project planning and design, (iii) elements for safety of women and children during construction and integration of requisite advisory and provisions in contractor's contract for the same, and (iv) GESI elements integrated into maintenance contracts.

^g ADB. 2021. [Guidelines for Gender Mainstreaming Categories of ADB Projects](#). Manila (March). Enterprises owned or led by women are defined using the International Finance Corporation's definition: (i) $\geq 51\%$ of the enterprise is owned by a woman/women; or (ii) $\geq 20\%$ of the enterprise is owned by a woman/women, and (a) has ≥ 1 woman as chief executive officer/chief operating officer/president/vice-president; and (b) has $\geq 30\%$ of the board of directors composed of women, where a board exists.

^h Water and sanitation facilities include (i) separate toilets for girls and disabled with running water, handwashing station with soap and water; (ii) space for change of clothes, dustbins, or incinerators for safe disposal of menstrual products; and (iii) safe piped drinking water facilities.

ⁱ The districts of Kolhapur, Sangli, and Satara are the major sugarcane-producing districts of the state.

^j The self-help groups will be identified through a needs assessment based on their availability and willingness to operate the *janasuvidha kendras*.

Contribution to Strategy 2030 Operational Priorities:

The expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for:

OP 2.1: Skilled jobs for women generated (number)

OP 6.2: Entities with improved service delivery (number)

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=52298-002-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Transport (Road Transport [Nonurban])
4. Project Administration Manual
5. Economic and Financial Analysis
6. Summary Poverty Reduction and Social Strategy
7. Risk Assessment and Risk Management Plan
8. Contribution to Strategy 2030 Operational Priorities
9. Climate Change Assessment
10. Gender Equality and Social Inclusion Action Plan
11. Initial Environmental Examination
12. List of Resettlement Plans

Supplementary Document

13. Supplementary Document for Economic and Financial Analysis