



Periodic Financing Request Report

PUBLIC

Project Number: 48434-004
MFF Number: 0093-IND
April 2023

India: Visakhapatnam–Chennai Industrial Corridor Development Program (Tranche 2)

This document is being disclosed to the public in accordance with ADB's Access to Information Policy.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 March 2023)

Currency unit	–	Indian rupee (₹)
\$1.00	=	₹82.63
₹1.00	=	\$0.12

ABBREVIATIONS

ADB	–	Asian Development Bank
APIIC	–	Andhra Pradesh Industrial Infrastructure Corporation
APRDC	–	Andhra Pradesh Road Development Corporation
DOIC	–	Department of Industries and Commerce
ECEC	–	East Coast Economic Corridor
EWCD	–	elderly, women, children, and people with disabilities
GoAP	–	Government of Andhra Pradesh
ha	–	hectare
IEE	–	initial environmental examination
km	–	kilometer
MFF	–	multitranche financing facility
O&M	–	operation and maintenance
PAM	–	project administration manual
PBL	–	policy-based loan
PMU	–	project management unit
TA	–	technical assistance
VCIC	–	Visakhapatnam–Chennai Industrial Corridor
VCICDP	–	Visakhapatnam–Chennai Industrial Corridor Development Program

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., FY2023 ends on 31 March 2023.
- (ii) In this report, “\$” refers to United States dollars.

Vice-President	Shixin Chen, Vice-President (Operations 1)
Director General	Kenichi Yokoyama, South Asia Department (SARD)
Deputy Director General	Cindy Malvicini, SARD
Director	Norio Saito, Urban Development and Water Division (SAUW), SARD
Team leaders	Akira Matsunaga, Principal Urban Development Specialist, SAUW, SARD Ashwin Hosur Viswanath, Senior Project Officer, India Resident Mission (INRM), SARD
Team members	Deepa Ahluwalia, Senior Social Development Officer (Gender), INRM, SARD Achyutha Rao Aleti, Environment Specialist, SAUW, SARD Mikael Andersson, Financial Management Specialist, Public Financial Management Division, Procurement, Portfolio, and Financial Management Department Saswati Belliappa, Senior Safeguards Specialist, SAUW, SARD Soumya Chattopadhyay, Senior Programs Officer, INRM, SARD Liming Chen, Urban Economist, SAUW, SARD Luca di Mario, Urban Development Specialist, SAUW, SARD Jogendra Ghimire, Principal Counsel, Office of the General Counsel Anita Kumari, Associate Project Analyst, INRM, SARD Rodellyn Manalac, Operations Assistant, SAUW, SARD Edgardo Moises, Project Officer, SAUW, SARD
Peer reviewer	Stefan Rau, Senior Urban Development Specialist, Urban and Social Sectors Division, 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
TRANCHE AT A GLANCE	
MAP	
I. BACKGROUND	1
II. ASSESSMENT OF MULTITRANCHE FINANCING FACILITY IMPLEMENTATION	2
III. PERIODIC FINANCING REQUEST	4
A. Impact and Outcome	4
B. Outputs	5
C. Summary Cost Estimates and Financing Plan	6
D. Implementation Arrangements	7
E. Project Readiness	8
IV. DUE DILIGENCE	8
A. Technical	8
B. Economic and Financial	9
C. Governance	9
D. Poverty, Social, and Gender	10
E. Safeguards	11
F. Summary of Risk Assessment and Risk Management Plan	12
V. ASSURANCES	13
VI. MINOR CHANGE OF THE MULTITRANCHE FINANCING FACILITY	13
VII. THE PRESIDENT'S DECISION	13
 APPENDIXES	
1. Design and Monitoring Framework for Project 2	
2. Loan Agreement	
3. Project Agreement	
4. Project Administration Manual for Project 2	
5. Contribution to Strategy 2030 Operational Priorities	
6. Economic Analysis for Project 2	
7. Financial Analysis for Project 2	
8. Summary of Poverty Reduction and Social Strategy	
9. Procurement Plan	
10. Risk Assessment and Risk Management Plan	
11. Climate Change Assessment	
12. Gender Equality and Social Inclusion Action Plan	
13. Updated Environmental Assessment and Resettlement Framework	
14. Initial Environmental Examination – Development of Internal Infrastructure in the Start-up Area of Chittoor–South Industrial Cluster (APIIC/06A)	
15. Initial Environmental Examination – Development of Internal Infrastructure in the Start-up Area of Rambilli Industrial Cluster (APIIC/08A)	
16. Initial Environmental Examination – Development of Internal Infrastructure in the Start-up Area of Nakkapalli Industrial Cluster (APIIC/09A)	

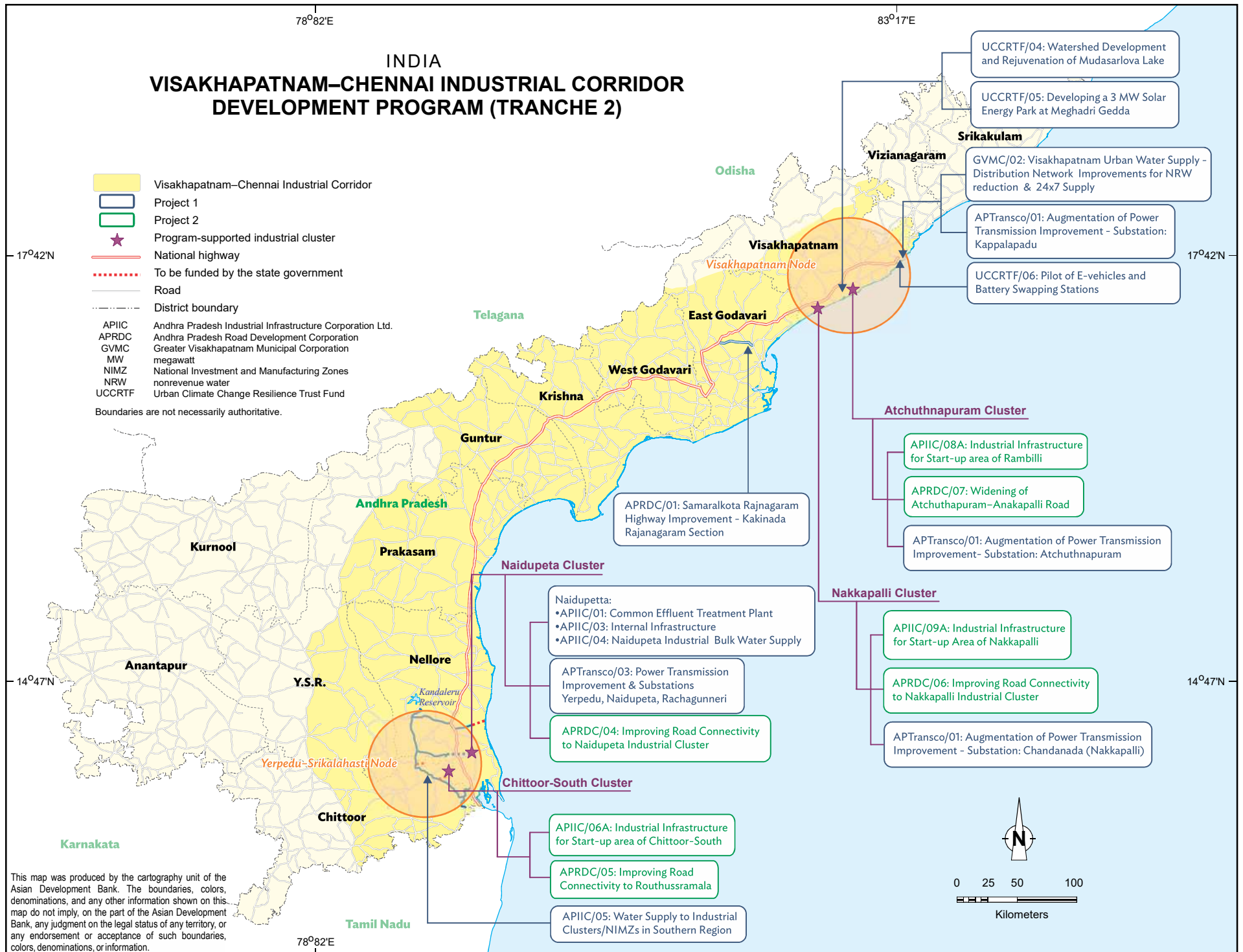
17. Initial Environmental Examination – Development of Road for External Connectivity to Naidupeta Industrial Cluster Road Subproject (APRDC/04)
18. Initial Environmental Examination – Development of Road for External Connectivity to Routhusuramala Cluster (APRDC/05)
19. Initial Environmental Examination – Development of Road for External Connectivity to Nakkapalli Industrial Cluster Road (APRDC/06)
20. Initial Environmental Examination – Widening of Anakapalli to Atchuthapuram Road (APRDC/07)
21. Updated Resettlement Framework
22. Resettlement Plan and Indigenous Peoples Plan – Development of Internal Infrastructure in the Start-up Area of Chittoor–South Industrial Cluster (APIIC/06A)
23. Resettlement Plan – Development of Internal Infrastructure in the Start-up Area of Rambilli Industrial Cluster (APIIC/08A)
24. Resettlement Plan – Development of Internal Infrastructure in the Start-up Area of Nakkapalli Industrial Cluster (APIIC/09A)
25. Resettlement Plan – Development of Road for External Connectivity to Naidupeta Industrial Cluster Road Subproject (APRDC/04)
26. Resettlement Plan – Development of Road for External Connectivity to Routhusuramala Cluster (APRDC/05)
27. Resettlement Plan – Development of Road for External Connectivity to Nakkapalli Industrial Cluster Road (APRDC/06)
28. Resettlement Plan – Widening of Anakapalli to Atchuthapuram Road (APRDC/07)
29. Updated Indigenous Peoples Planning Framework

TRANCHE AT A GLANCE

1. Basic Data		Project Number: 48434-004	
Project Name	Visakhapatnam-Chennai Industrial Corridor Development Program (Tranche 2)	Department/Division	SARD/SAUW
Country	India	Executing Agency	Department of Industries & Commerce, Government of Andhra Pradesh
Borrower	India		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=48434-004-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=48434-004-PortAtaGlance		
2. Sector		ADB Financing (\$ million)	
✓ Water and other urban infrastructure and services	Other urban services		28.220
Industry and trade	Industry and trade sector development		63.500
Transport	Urban roads and traffic management		49.400
		Total	141.120
3. Operational Priorities		Climate Change Information	
✓ OP1: Addressing remaining poverty and reducing inequalities		GHG reductions (tons per annum)	815
✓ OP2: Accelerating progress in gender equality		Climate Change impact on the Project	Medium
✓ OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ OP4: Making cities more livable		ADB Financing	
✓ OP6: Strengthening governance and institutional capacity		Adaptation (\$ million)	44.170
✓ OP7: Fostering regional cooperation and integration		Mitigation (\$ million)	0.290
		Cofinancing	
		Adaptation (\$ million)	0.000
		Mitigation (\$ million)	0.000
Sustainable Development Goals		Gender	
SDG 1.a		Effective gender mainstreaming (EGM)	✓
SDG 5.5			
SDG 9.2, 9.4		Poverty Targeting	
SDG 10.1		General Intervention on Poverty	✓
SDG 11.2			
SDG 12.6			
SDG 13.a			
4. Risk Categorization:		Complex	
5. Safeguard Categorization		Environment: B Involuntary Resettlement: A Indigenous Peoples: B	
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		141.120	
Sovereign MFF-Tranche (Regular Loan): Ordinary capital resources		141.120	
Cofinancing		0.000	
None		0.000	
Counterpart		73.680	
Government		73.680	
Total		214.800	
Currency of ADB Financing: US Dollar			

INDIA

VISAKHAPATNAM-CHENNAI INDUSTRIAL CORRIDOR DEVELOPMENT PROGRAM (TRANCHE 2)



This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

I. BACKGROUND

1. **Multitranche financing facility.** The Asian Development Bank (ADB) approved on 20 September 2016 a multitranche financing facility (MFF) worth \$500 million available up to 30 June 2025 and a policy-based loan (PBL) worth \$125 million for the Visakhapatnam–Chennai Industrial Corridor Development Program (VCICDP).¹ ADB also approved on that day a technical assistance (TA) worth \$1 million for Capacity Development for Industrial Corridor Management in Andhra Pradesh. On 26 September 2016, ADB administration of a \$5 million grant from the Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility was approved.²

2. The VCICDP complements ongoing efforts of the Government of Andhra Pradesh (GoAP) to enhance industrial growth and create high-quality jobs. It has three outputs: (i) corridor management strengthened and ease of doing business improved; (ii) Visakhapatnam–Chennai Industrial Corridor (VCIC) infrastructure strengthened; and (iii) institutional capacity, human resources, and program management enhanced. The MFF and grant support the priority infrastructure investments in the VCIC, while the PBL and TA support the policy reform and institutional development in the state. The Department of Industries and Commerce (DOIC) of GoAP is the MFF executing agency. The implementing agencies are the Andhra Pradesh Industrial Infrastructure Corporation (APIIC), Transmission Corporation of Andhra Pradesh, Andhra Pradesh Road Development Corporation (APRDC), and Greater Visakhapatnam Municipal Corporation.

3. **Policy challenges in industrial development.** Despite India's rapid economic growth over the last two decades, a pressing policy challenge remains, which is to create more productive jobs in manufacturing and services to sustain economic growth. In Andhra Pradesh—India's 10th most populous state, with 54 million people—manufacturing contributes only 9% to the state's gross domestic product, below the national average of 15%.³ To usher in greater industrialization, industry and manufacturing employment could be diversified away from small, labor-intensive informal enterprises with low productivity, earnings, and demand for skills. Infrastructure in industrial clusters remains inadequate to support growing demand from industries. The state needs to improve its procedures for doing business to become more competitive.

4. The state government adopted the Andhra Pradesh Industrial Development Policy, 2015–2020 to establish state-of-the-art infrastructure, promote manufacturing-led growth, enhance inclusivity, foster innovation, and create employment opportunities across sectors.⁴ Working with ADB, the Government of India established the East Coast Economic Corridor (ECEC), India's first coastal corridor. Stretching from Kolkata in West Bengal to Kanyakumari in Tamil Nadu, the ECEC aims to stimulate growth in manufacturing by strengthening links between domestic urban and industrial clusters and integrating them with regional value chains in East and Southeast Asia. The VCIC, to be developed along the Andhra Pradesh coast, was proposed as the first phase of

¹ ADB. 2016. [*Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility, Policy-Based Loan, Technical Assistance Grant, and Administration of Grant to India for Visakhapatnam–Chennai Industrial Corridor Development Program*](#). Manila.

² Financing partners are the Rockefeller Foundation and the governments of Switzerland, the United Kingdom, and the United States.

³ GoAP, Planning Department. 2022. *Socio-Economic Survey 2021–2022*. Vijayawada.

⁴ GoAP, Department of Industries and Commerce. 2015. *Andhra Pradesh Industrial Development Policy, 2015–2020*. Hyderabad.

the ECEC.⁵ With support from ADB, GoAP prepared a conceptual development plan and a regional perspective plan for the VCIC. These plans have outlined an infrastructure development strategy, identified nodes for industrial development and industries with high potential, and established a set of potential projects. Along with this strategic road map, GoAP developed a sector policy framework through the PBL to strengthen institutional mechanisms for industrial corridor development and improve the business environment.

5. **Tranches.** The MFF anticipated two tranches (footnote 1). ADB approved on 26 September 2016 a loan of \$245 million for project 1 under the first tranche of the MFF available up to 30 June 2023. It aims to (i) develop internal and external infrastructure of industrial clusters, (ii) strengthen electric power distribution capacity to meet industry demand, (iii) widen a section of a state highway to improve connectivity from the national highway to a port, and (iv) improve the water distribution network in Visakhapatnam for 24/7 supply. On 8 February 2023, the Government of India submitted a periodic financing request for \$141.12 million in the second MFF tranche for project 2, to enhance VCIC infrastructure, with a focus on prioritized industrial nodes in Visakhapatnam and the Srikalahasti–Chittoor.⁶ The Government of India also requested the extension of the MFF availability period from 30 June 2025 to 19 September 2026 to provide sufficient implementation period for the second tranche. DOIC remains the executing agency of project 2, and APIIC and APRDC are the implementing agencies.

6. Project 2 has the potential to drive structural economic transformation in the state through innovative and multisectoral interventions. It aligns with the operational priorities of ADB's Strategy 2030 by (i) addressing remaining poverty and reducing inequalities; (ii) accelerating progress in gender equality; (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability; (iv) making cities more livable; (v) strengthening governance and institutional capacity; and (vi) fostering regional cooperation and integration.⁷ In line with the strategic pillars of ADB's country partnership strategy for India, 2018–2022, project 2 boosts economic competitiveness to create more and better jobs, and strengthens climate resilience.⁸ The project will contribute to ensuring an infrastructure-urban-skills-logistics development nexus to catalyze high-quality, job-led, and inclusive growth. The spine of the VCIC aligns with the Bay of Bengal Highway, which connects Cox's Bazar in Bangladesh to Thoothukudi and is a priority corridor identified in the South Asia Subregional Economic Cooperation program.⁹

II. ASSESSMENT OF MULTITRANCHE FINANCING FACILITY IMPLEMENTATION

7. **Progress on road map and policy framework.** The strategic aim of the VCICDP road map—to promote manufacturing growth and foster high-quality jobs—has been relevant since ADB approved the program. GoAP further envisions the state becoming a leader in manufacturing to enable growth by adding value to market-oriented products, create local jobs, and increase the contribution of industry in the state from 20% of economic output in 2015 to 28% in 2029.¹⁰ With

⁵ ADB. 2016. [Scaling New Heights: Vizag–Chennai Industrial Corridor, India's First Coastal Corridor](#). Manila.

⁶ The two nodes are well-connected to local and international gateways within 100 kilometers through roads, railways, ports, and airports to enable domestic and international trade. Collectively, they contribute more than 40% of manufacturing in the state.

⁷ ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila.

⁸ ADB. 2017. [Country Partnership Strategy: India, 2018–2022–Accelerating Inclusive Economic Transformation](#). Manila. The Country Partnership Strategy for 2023–2027 is currently being prepared.

⁹ ADB. 2016. [South Asia Subregional Economic Cooperation: Operational Plan 2016–2025](#). Manila.

¹⁰ GoAP. 2016. *Sunrise Andhra Pradesh Vision 2029*. Amaravati. The state envisions making a structural transformation and sustaining inclusive double-digit economic growth to become the best state by 2029 and a leading global investment destination by 2050.

ADB's assistance, the state government finalized in June 2018 the VCIC master plan, which will prioritize two nodes, conduct an industry assessment, and identify priority projects.¹¹ GoAP issued its Industrial Development Policy, 2020–2023 to (i) create jobs for the youth, (ii) increase industrial gross value added per capita to match the national average, (iii) plan balanced growth across regions and communities, and (iv) achieve environmentally sustainable growth.¹²

8. GoAP has implemented, through the PBL, a policy reform to improve corridor management and ease of doing business. The first tranche of PBL was released on 1 February 2018 upon compliance with 12 tranche policy conditions, while the second tranche was released on 25 October 2019.¹³ The institutional foundation has been laid for a state industrial corridor management authority to assume sole responsibility for regulating corridor development and for special purpose vehicles to implement the industrial estates plan. The Economic Development Board has initiated proactive marketing to attract investors. The state government has created an enabling environment for the industry by offering incentives to investors including women, providing skills development training, establishing a statewide single desk, and enhancing district industry center support to micro, small, and medium-sized enterprises. These interventions have unlocked the state's manufacturing potential, contributing to Andhra Pradesh's first ranking among India's states for ease of doing business in 2016–2019.¹⁴

9. **Progress of investment program.** The MFF has shown steady progress since its approval. The MFF performance has been rated *on track* except for 2021.¹⁵ Under project 1, all civil works packages were awarded and \$147.2 million disbursed, or 60.0% of the loan amount. Two of the eight subprojects are completed. Project 1 is expected to be completed in December 2023.¹⁶ The Naidupeta industrial cluster is being developed, with physical progress at 75% for the provision of high-quality infrastructure such as internal roads, an electric power supply system, storm water drains, a common effluent treatment plant, and a water supply system including bulk water facilities, storage reservoirs, and a distribution system. Nonphysical investments also show good progress, with GoAP having established a project development mechanism to enhance the readiness of future industrial infrastructure projects in the corridor, and the Andhra Pradesh State Skill Development Corporation having provided skills training to 25,000 workers, entrepreneurs, and students, of whom 35% were women. With these interventions under project 1, VCICDP has been supporting industries across their entire business value chain by reducing the upfront risks in setting up a business, providing reliable basic services, and ensuring skilled labor for quality production.

10. The Urban Climate Change Resilience Trust Fund grant strengthens urban climate change resilience in Visakhapatnam with a grid-connected floating solar photovoltaic field, lake

¹¹ ADB. 2018. *Visakhapatnam–Chennai Industrial Corridor Comprehensive Masterplan*. Manila.

¹² GoAP. 2020. *Andhra Pradesh Industrial Development Policy 2020–2023*. Vijayawada.

¹³ ADB. 2019. [Progress Report on Tranche Release: India: Visakhapatnam–Chennai Industrial Corridor Development Program \(Second Tranche\)](#). Manila.

¹⁴ Reserve Bank of India. 2021. [Handbook of Statistics of Indian States](#). Delhi. The ranking from 2020 onwards is not publicly available.

¹⁵ In 2021, the MFF performance was rated *potential problem*. Tranche approval timeliness was rated *at risk* after a delay of more than 2 years from the year projected in the Report and Recommendation of the President. Tranche 1 performance was also *at risk* from low disbursement on account of the coronavirus disease pandemic and delay in fund flow and submission of audited entity financial statements from implementing agencies. These issues are being resolved through a series of consultations with the government.

¹⁶ The original closing date of tranche 1 is 30 June 2023. The extension is required to complete the remaining subprojects. The request for the extension is being prepared by the GoAP in consultation with the Government of India and ADB.

rejuvenation, and an e-vehicle pilot program.¹⁷ With ADB TA support, GoAP implemented policy action under the PBL and developed the Green Corridor Concept Framework, designed to make VCIC a green and inclusive manufacturing hub that promotes sustainable economic growth while mitigating environmental impact. Stakeholders benefited from an awareness workshop and capacity building for implementing the green corridor framework.¹⁸

11. **Compliance with undertakings and loan covenants.** There is no non-compliance with undertakings in the framework financing agreement, and loan covenants and grant covenants of project 1. Among 31 undertakings in the framework financing agreement, two have been complied with, 28 are being complied with on a continuous basis, and one has not become due. Of the 36 loan covenants in project 1, two have been complied with, 32 are being complied with on a continuous basis, and 2 have not become due. All six grant covenants of project 1 are being complied with on a continuous basis. The executing agency demonstrated the capacity and commitment to comply with ADB safeguard requirements. The grievance redress system and gender action plans are being implemented adequately.¹⁹

12. There is no substantial and material change in the type of investments contemplated under the investment program. Considering the state's available financial resources and limited project implementation period, the Government of India requested \$141.12 million in the second tranche which was reduced from \$255 million indicated in the original financing plan of the MFF. The MFF availability period is proposed to be extended to ensure sufficient implementation period of contracts under the second tranche and achieve the intended outcome and outputs. GoAP has shown continuous commitment to the investment program through implementing the enhanced state policies to accelerate broader changes, holistic interventions for promoting industrial agglomeration, and structural and non-structural measures for strengthening climate change resilience. Built on the implementation experiences of project 1, project 2 will incorporate the enhanced project implementing capacity, improved financial management, and effective interventions into the project design to maximize the integrated impacts.

III. PERIODIC FINANCING REQUEST

A. Impact and Outcome

13. Project 2 is aligned with the following impact: contribution of the manufacturing sector to the state's gross domestic product, trade, and employment increased.²⁰ The outcome will be

¹⁷ The floating solar photovoltaic field in Meghadrigedda reservoir has been commissioned to generate 3 megawatts of renewable energy with zero land footprint and reduce evaporation in the reservoir to conserve drinking water supplies. Mudasarlova reservoir rejuvenation works have been completed with augmentation of drinking water storage capacity by improving soil and water conservation, enhancing groundwater recharge, and expanding vegetation and green cover around the reservoir. The e-vehicle pilot was completed in March 2023 and ready for operation to provide clean, low-carbon transportation to ferry passengers along the beach road and collect solid waste.

¹⁸ The Green Corridor Concept Framework outlines 25 initiatives in 6 priority categories: (i) reduce environmental impact, (ii) use resources more efficiently, (iii) reduce climate change impacts, (iv) institute a circular economy, (v) establish a green transport network, and (vi) make procurement and finance sustainable. The Andhra Pradesh Pollution Control Board was among the key state agencies to benefit from digital training modules.

¹⁹ Project 1 is classified *effective gender mainstreaming*. The gender equality and social inclusion action plan is being implemented to (i) increase women's participation in the skills enhancement programs and jobs in the civil works of the subprojects; (ii) support the set up and operationalization of businesses, fiscal incentives, and special packages for women entrepreneurs; (iii) mainstream the gender-responsive features of infrastructure; and (iv) provide water supply service connections to women-headed and poor households in the selected areas of Visakhapatnam.

²⁰ Government of India, Ministry of Commerce and Industry, Department of Industrial Policy, and Promotion. 2011. *National Manufacturing Policy*. Delhi; ADB. 2015. *Indian's First Coastal Corridor: Visag-Chennai Industrial Corridor*

industrial investment and employment of the VCIC increased.²¹ With investment support through projects 1 and 2 under the MFF, the VCICDP will develop two industrial clusters in the Visakhapatnam node (Rambilli and Nakkapalli) and two clusters in the Srikalahasti–Chittoor node (Naidupeta and Chittoor–South). These clusters will attract manufacturers with high-quality infrastructure that provides road connectivity, electric power supply, bulk water supply, and other internal infrastructure along with various interventions to promote investment, develop skills, strengthen climate and disaster resilience, and integrate industrial and urban planning.

B. Outputs

14. **Output 1: Visakhapatnam industrial node infrastructure strengthened.** The project will (i) develop internal infrastructure in the start-up area of the 160-hectare (ha) Rambilli industrial cluster; (ii) develop internal infrastructure in the start-up area of the 441-ha Nakkapalli industrial cluster with a bulk water transmission line; (iii) widen the 13.8 kilometer (km) Atchuthapuram–Anakapalli road with features friendly to the elderly, women, children, and persons with disabilities (EWCD) for better access to National Highway 16;²² (iv) improve a 4.4 km access road to the Nakkapalli cluster with EWCD-friendly features; and (v) improve awareness and knowledge among the community members including women in and around Rambilli and Nakapalli industrial clusters and along Atchuthapuram to Anakapalli roads.²³ Internal infrastructure in the proposed clusters will include internal roads, storm water drains, water supply systems, and electric power distribution systems. Target industries in the Visakhapatnam node include pharmaceuticals, transport equipment, electronics and information technology, and textiles.

15. **Output 2: Srikalahasti–Chittoor industrial node infrastructure strengthened.** The project will (i) develop internal infrastructure in the start-up area of the 938-ha Chittoor–South industrial cluster; (ii) improve a 9.5 km access road to the Chittoor–South industrial cluster with EWCD-friendly features; (iii) improve an 8.7 km access road to the Naidupeta industrial cluster with EWCD-friendly features; and (iv) improve awareness and knowledge among the community members including women in and around Chittoor–South industrial cluster. Internal infrastructure in the start-up area of the Chittoor–South cluster will include internal roads, storm water drains, water supply systems, and electric power distribution systems. Target industries in the Srikalahasti–Chittoor node include machinery, food processing, electronics and information technology, and textiles.

16. **Output 3: Sustainable, green, and integrated industrial development enhanced.** The project will (i) roll out an updated marketing action plan for investment promotion; (ii) enhance skills of people including socially vulnerable and those belonging in the economically weaker section;²⁴ (iii) establish green corridor model operational guidelines at industrial cluster level; (iv)

Conceptual Development Plan. Manila; and Government of India, Ministry of Commerce and Industry, Department of Commerce. 2015. *Foreign Trade Policy, 2015–2020*. Delhi.

²¹ The design and monitoring framework (DMF) is in Appendix 1.

²² EWCD-friendly features include adequate lighting for safety; cautionary/informative signage including women helpline and emergency numbers; women only restrooms; guard stones, rumble strips, and speed breakers; shoulders as safe sidewalks; and covered drain cum footpath with wheelchair-friendly design.

²³ The community awareness raising program includes road safety, gender-based violence, sexually transmitted infections, and the risks and benefits of infrastructure projects specifically for women and children.

²⁴ The term of “socially vulnerable and those belonging in the economically weaker section” defined by the state government include below-poverty-line families of backward castes and other backward classes; poor rural youth, women candidates, and candidates belonging to particularly vulnerable tribal groups; scheduled tribes and scheduled castes; minorities; persons with disabilities; transgender; rehabilitated bonded laborer; victims of trafficking; manual scavengers; and HIV-positive persons who will be given preference based on the Government of India’s guidelines. Government of India, Ministry of Rural Development. 2016. [Deen Dayal Upadhya-Gram Kaushal Yojana \(DDU-GKY\) Programme Guidelines](#). Delhi.

develop a disaster risk management plan to strengthen industrial cluster resilience under extreme weather; (v) formulate a plan for the sustainable operation and maintenance (O&M) of start-up industrial clusters; (vi) roll out a toolkit with gender-responsive and socially inclusive guidance, to integrate industrial and urban planning including industry housing in areas adjacent to industrial clusters;²⁵ (vii) prepare and implement gender mainstreaming guidelines of DOIC;²⁶ and (viii) disseminate knowledge of innovative corridor program designs, including gender equality and socially inclusive intervention results, among industrial clusters across the region.

17. **Value added by ADB.** The VCICDP is the first ADB program to build a robust framework for long-term industrial development. ADB has extended comprehensive support through upstream strategic studies and regular programmatic intervention to help government-led reforms create an enabling environment for industrial growth (paras. 1 and 4). The holistic approach of the VCICDP has been widely disseminated to other areas of India and beyond. ADB published a knowledge product to help policy makers understand the economic corridor development strategy to spur manufacturing and create decent jobs (footnote 5). The experience gained from the VCICDP is captured in other ADB programs in India, notably the Chennai–Kanyakumari Industrial Corridor and the national industrial corridor development program.²⁷ With ADB support, project 2 will support the state in reaching its economic potential for structural transformation through fostering industrial agglomeration with holistic infrastructure support and investment promotion, strengthening climate- and disaster-resilient industrial development, and enhancing industry–urban linkage to improve urban livability (para. 16). With the enabling policy framework supported by the PBL and the TA, the project will attract investments from manufacturing industries in the start-up areas and from private developers for infrastructure development of future full-scale industrial clusters.

C. Summary Cost Estimates and Financing Plan

18. Project 2 is estimated to cost \$214.80 million (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).²⁸

Table 1: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Visakhapatnam industrial node infrastructure strengthened	103.27
2. Srikalahasti–Chittoor industrial node infrastructure strengthened	74.29

²⁵ The proposed toolkit will define the livable urban ecosystem of VCIC in preparation for the future influx of new jobs and the resulting increased population. It will identify the elements required for integrated planning to be adopted in the local context (e.g., climate and disaster resilience, environmental management, sustainable energy, efficient mobility for commuting, conducive living environment, and enhanced municipal resource mobilization). The gender-responsive and socially inclusive guidance in the toolkit will include guidance in identifying gender equity and social inclusion needs and strategies that are to be mainstreamed in the industry and urban planning linkages; and guiding principles on inclusive urban infrastructure and industrial housing in the project-influence nodes.

²⁶ The gender mainstreaming guidelines aim to ensure the inclusion of women in skills enhancement training; higher women's participation in the industrial labor force; and the provision of business-related licenses, fiscal incentives, and special packages for women.

²⁷ ADB. 2019. [Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to India for Chennai-Kanyakumari Industrial Corridor: Power Sector Investment](#). Manila; and ADB. 2021. [Report and Recommendation of the President to the Board of Directors: Proposed Programmatic Approach and Policy-Based Loan for Subprogram 1 and Technical Assistance Grant to India for Industrial Corridor Development Program](#). Manila. This national industrial corridor PBL has replicated the Green Corridor Concept Framework developed under ADB's TA support for VCICDP (para. 10).

²⁸ The Project Administration Manual is in Appendix 4.

Item	Amount ^a
3. Sustainable, green, and integrated industrial development enhanced	2.22
Subtotal (A)	179.78
B. Contingencies^c	21.98
C. Financial Charges During Implementation^d	13.04
Total (A+B+C)	214.80

^a Includes taxes and duties of \$24.14 million to be financed from state government resources by cash contribution.

^b In November 2022 prices. Exchange rate of \$1.00 = ₹81.89 is used.

^c Physical contingencies computed at 5% for civil works. Price contingencies computed at average of 1.7%–1.8% on foreign exchange costs and 4.0%–6.7% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for the ordinary capital resource (OCR) loan has been computed at the 5-year fixed US dollar fixed swap rate plus an effective contractual spread of 0.50%, maturity premium of 0.10%, and funding cost margin of 0.16%. Commitment charges for the OCR loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

19. The Government of India submitted a periodic financing request for a loan of \$141.12 million from ADB's ordinary capital resources to help finance the project. The loan will have a 26-year term including a grace period of 5 years, an annual interest rate determined in accordance with ADB's Flexible Loan Product, a commitment charge of 0.15% per year, and such other terms and conditions as set forth in the draft loan and project agreements. Based on the straight-line method, the average maturity of the loan is 15.75 years, and the maturity premium payable to ADB is 0.10% per year. The summary financing plan is in Table 2. ADB will finance (i) civil works, (ii) consulting services and skills development, and (iii) part of incremental administrative costs. GoAP will provide \$73.68 million to cover (i) taxes, (ii) land acquisition and resettlement, (iii) part of incremental administrative costs, (iv) contingencies, and (v) financing charges. The GoAP has provided assurance that it will meet any financing shortfall to ensure that project outputs are fully achieved.

20. Climate adaptation is estimated to cost \$51.77 million, of which ADB will finance \$44.17 million (85%). Climate mitigation is estimated to cost \$0.34 million, of which ADB will finance \$0.29 million (85%). The balance will be financed by the government.²⁹

Table 2: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (regular loan)	141.12	65.7
Government	73.68	34.3
Total	214.80	100.0

Source: Asian Development Bank estimates.

D. Implementation Arrangements

21. Implementation arrangements are summarized in Table 3 and described in detail in the PAM (footnote 28).

Table 3: Implementation Arrangements for Tranche 2

Aspects	Arrangements
Implementation period	April 2023–March 2026
Estimated completion	19 March 2026

²⁹ The Climate Change Assessment is in Appendix 11.

Aspects	Arrangements		
date			
Estimate loan closing date	19 September 2026 (MFF availability period: 19 September 2026) ^a		
Management			
(i) Oversight body	A program steering committee, chaired by the chief secretary and with representatives of key collaborative agencies, will provide policy direction and oversee implementation.		
(ii) Executing agency	Department of Industries and Commerce (DOIC), Government of Andhra Pradesh		
(iii) Implementing agencies	Andhra Pradesh Industrial Infrastructure Corporation (APIIC) and Andhra Pradesh Road Development Corporation (APRDC)		
(iv) Implementation unit	DOIC has established a program management unit to plan, implement, monitor, and supervise the Visakhapatnam–Chennai Industrial Corridor Development Program (18 staff). Project implementation units established in APIIC and APRDC will implement subprojects (49 staff).		
Procurement	Open competitive bidding	7 contracts	\$158.01 million
Consulting services	Consultants engaged under project 1 will support the executing agency and implementing agencies in project management and supervision of project 2.	1 contract (consulting firms with 844 person-months)	\$4.80 million
Retroactive financing and advance contracting	Advance contracting and retroactive financing are used for eligible expenditures incurred for civil works and consulting services. Retroactive financing will be considered for up to 20% of the loan amount for eligible expenditures incurred before loan effectiveness, but not earlier than 12 months before the signing of the loan agreement.		
Disbursement	Disbursement of the loan proceeds will follow ADB's <i>Loan Disbursement Handbook</i> (2022, as amended from time to time) and detailed arrangements agreed between the government and Asian Development Bank.		

^a The original availability period of the multitranche financing facility is up to 30 June 2025.

Source: Asian Development Bank estimates.

E. Project Readiness

22. Project 2 readiness is high, with (i) the project management unit (PMU) and project implementation units functional,³⁰ (ii) consultants to supervise project 2 already mobilized under project 1, and (iii) 35% of works contracts already awarded.

country

IV. DUE DILIGENCE

A. Technical

23. Project 2 aims to provide state-of-the-art infrastructure for selected industrial clusters. Technical due diligence of subprojects was conducted to ensure (i) the adoption of cost-effective and innovative technical options, (ii) operational sustainability, (iii) enhanced occupancy rates in existing clusters, (iv) the immediate salability of plots developed in proposed clusters through phasing and prioritization, and (v) minimized environmental and social impacts. Year-round water availability is assured by bulk water-supply projects with adequate upstream and/or onsite storage. A modular approach has been adopted in the provision of critical internal infrastructure for scalability to suit phased cluster development.

24. **Climate change adaptation and mitigation.** The primary climate change risks to the project are temperature increase, higher intensity of rainfall and storm events, and increased variability of precipitation, which may induce prolonged droughts and flooding. Project 2 design incorporates the following adaptation measures to reduce sensitivity to climate change: (i) intake

³⁰ GoAP will enhance the implementation capacity of the PMU and project implementation units by (i) adding human resources such as a full-time deputy project director and engineering staff for technical, procurement, and contract management in the PMU; and (ii) establishing dedicated field units for project implementation in two nodes and adding full-time managers for safeguards and communication.

from sustainable sources, enhanced water storage capacity to cope with longer dry periods, and water demand management in industrial clusters through smart water management components; (ii) improved flood management measures (such as side and cross sectional drains to prevent water logging that could erode the road pavement, and bridges height adjustment to prevent erosion and structural collapse during heavy rains and storm events); and (iii) vegetation planted on road sides and medians and in industrial clusters to moderate high temperatures. Light-emitting diode street lighting will contribute to energy saving as a mitigation measure. The project will also support the preparation of (i) green corridor model guidelines to promote greener and more sustainable production practices, and (ii) plans to manage disaster risk and strengthen industrial cluster resilience under extreme weather.

B. Economic and Financial

25. **Economic analysis.** Economic analysis was carried out on industrial cluster development and road subprojects. The estimated economic internal rate of return for project 2 is at 14.6% (11.3% for industrial clusters and 18.5% for roads), which is higher than the minimum required economic opportunity cost of capital of 9.0%, indicating sufficient economic return. Sensitivity analysis found satisfactory results against downside risks, including a 10% increase in capital expenditure, a 10% increase in O&M costs, a 10% decrease in benefits, a 1-year delay, and a slower industrial occupancy rate. Further, project 2 will promote investment from India and beyond in manufacturing along the VCIC, an integral part of corridor 2 of the South Asia Subregional Economic Cooperation program, thereby enhancing regional economic benefits through trade facilitation, foreign direct investment, and cross-border integration in the subregion and beyond.

26. **Financial analysis.** Project 2 includes industrial cluster development and road subprojects. The financial internal rate of return for industrial cluster development subprojects is estimated at 8.6%, higher than the estimated weighted average cost of capital of 1.8%, indicating sufficient financial viability and sustainability. Sensitivity analysis found satisfactory results against downside risks, including higher capital and O&M costs, revenue stream reduction, slower industrial occupancy, and delayed operation. To ensure financial sustainability, project 2 will support the GoAP in promoting investment by rolling out an updated marketing action plan and ensuring sustainable operation through developing sustainable O&M improvement plan. For road subprojects, O&M cost will be covered by the repair and maintenance budget of state highways and district roads which increased at a compounded annual growth rate of 13.4% from 2016–2017 to 2020–2021. The analysis shows that the budget utilization ranges between 71.8% and 97.1% from 2016–2017 to 2020–2021. GoAP is committed to ensure adequate funds for O&M of project roads through budgetary allocations.

C. Governance

27. **Financial management.** Financial management assessment of executing and implementing agencies was conducted in accordance with ADB guidelines.³¹ Project 2 will follow financial management arrangements established under project 1 with minor modifications. The assessed pre-mitigation financial management risk is *substantial* mainly because of the following: (i) project 1 has experienced significant delays in making available ADB loan proceeds and government counterpart funds, (ii) there is scope for improvement in the quality of financial reporting at the project level, (iii) the audited project financial statements of project 1 were submitted with some delays, and (iv) the audited entity financial statements of implementing agencies under project 1 were delayed and qualified. These risks will be mitigated by (i) engaging

³¹ ADB. 2015. [Financial Management Technical Guidance Note: Financial Management Assessment](#). Manila.

financial management experts to support the project; (ii) providing training in ADB's financial reporting, audit, and disbursement requirements; (iii) establishing stringent service standards and monitoring mechanisms to ensure that funds are made available to the project in a timely manner; (iv) including financial information in quarterly progress reports; and (v) monitoring the timely issuance of audited entity financial statements and resolving the pending audit qualifications in a systematic manner. The GoAP established a sub-advance ledger account in the state treasury to streamline the fund flow in the state financial system. No funds will be disbursed by ADB under the advance fund procedure until the assessment of the updated state financial system is completed to ensure the underlying control and reporting features are acceptable to ADB. Project financial statements will be audited annually by an independent auditor in accordance with auditing standards acceptable to ADB. A detailed financial management action plan with target dates is included in the PAM (footnote 28).

28. **Procurement.** All procurement of goods and works will follow ADB's Procurement Guidelines (2015, as amended from time to time) and Consulting Guidelines (2013, as amended from time to time). The executing agency and implementing agencies have prior and ongoing experiences in implementing procurement for project 1 and demonstrated the capacity to manage the complex contracts per international standards. They proactively engage in marketing activities and develop suitable qualification criteria to attract quality bidders in wider competition, which enhances value for money for project 2. The development of infrastructure in the start-up area packages adopted fit-for-purpose employer's design-based construction contracts with O&M of water treatment plants, demanding the contractors to meet the required production and quality outputs and train personnel of implementing agencies during the O&M period. Project 2 adopts full electronic government procurement system to improve fairness, efficiency, and transparency. All bids are required to be submitted electronically so that procurement process will not be affected by possible resurgence of the coronavirus disease pandemic.

29. **Anticorruption.** A governance risk assessment indicated that there are robust systems in place at the government level to check corruption in procurement, including the 2018 amendment to the Prevention of Corruption Act (which deals with the supply side of corruption by punishing the person offering the bribe) and General Financial Rules which provide code of integrity to prevent corruption and unfair practices. The Office of the Comptroller and Auditor General of India (the supreme audit institution of India) conducts regular statutory external audits of all public sector entities including state-level, government-owned companies. The Anti-Corruption Bureau in Andhra Pradesh investigates and prosecutes offenses against public servants in the state public sector including DOIC, APIIC, and APRDC. Integrity due diligence was conducted on APIIC and APRDC, the members of their Board of Directors, and senior management.³² They do not appear to constitute a significant or potentially significant integrity risk on the project. It has been confirmed that they do not pose potentially significant integrity risk or risks relating to money laundering or terrorism financing in the project jurisdiction. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the state government, DOIC, APIIC, and APRDC. Specific policy requirements and supplementary measures are described in the PAM (footnote 28).

D. Poverty, Social, and Gender

30. **Poverty and social.** Andhra Pradesh has socioeconomic inequality and disparity between its regions and social groups. Visakhapatnam district has a multidimensional poverty index of

³² ADB. 2003. [*Enhancing the Asian Development Bank's Role in Combating Money Laundering and the Financing of Terrorism*](#). Manila.

0.071, well above the state average of 0.053.³³ The socioeconomic survey 2020–2021 indicates that poverty predominantly afflicts underprivileged groups—at 22% in scheduled castes, 15% in scheduled tribes, and 9% in other backward castes.³⁴ The project will address remaining poverty and reduce inequality through infrastructure development that promotes manufacturing growth and the creation of high-quality jobs. The project will link lagging areas with industrial and urban clusters, providing (i) enhanced access to employment opportunities, (ii) a skills development program for 500 people including socially vulnerable and economically weaker people (footnote 24), (iii) entrepreneurship awareness and development programs for 200 students at professional educational institutes, and (iv) skills training for 50 tribal women in project-affected areas.

31. **Gender.** The project is classified *effective gender mainstreaming*. Affirmative measures to enhance gender equity and social inclusion include (i) incorporating EWCD-friendly features in road subprojects; (ii) improving community awareness of road safety, gender-based violence, sexually transmitted infections, and the risks and benefits of infrastructure projects specifically for women and children in and around industrial areas and Atchuthapuram–Anakapalli road; (iii) providing skills enhancement training for community members, including women, socially vulnerable, and economically weaker people; (iv) incorporating gender-responsive and socially inclusive guidance into the toolkit for enhancing integrated industry–urban planning linkage; (v) enhancing the institutional capacity on gender equality issues in entrepreneurship, industrial development, skills development, and the monitoring of sex-disaggregated data; and (vi) preparing and implementing gender mainstreaming guidelines of DOIC.³⁵ The residents of the project impact area will benefit from improved urban civic amenities and social infrastructures such as hospitals, schools, colleges, and universities; better access to markets and jobs through enhanced connectivity; and greater opportunities to earn higher incomes.

E. Safeguards

32. The PMU with APIIC and APRDC will prepare semiannual environmental and social monitoring reports until project completion, for ADB review and disclosure. In compliance with ADB's Safeguard Policy Statement (2009), the project 2 safeguard categories are as follows.³⁶

33. **Environment (category B).** Project 2 is unlikely to have significant adverse environmental impacts that are irreversible, unprecedented, or diverse. An environmental assessment and review framework developed for the MFF in 2016 in accordance with ADB's Safeguard Policy Statement and applicable government laws and regulations has been updated to reflect the scope of project 2. Initial environmental examination (IEE) and environmental management plans were prepared for seven subprojects in project 2. None of the project sites are located within or adjacent to environmentally sensitive areas. Potential environmental impacts are mainly related to construction, which can be minimized by environmentally sound engineering and construction practices consistent with international good practice. Proper measures are included in project designs to mitigate operation impacts to acceptable levels. Stakeholder consultations were carried out during preparation and will continue in implementation. Regulatory compliance including environmental clearances will be ensured prior to the start of works, and a grievance redress mechanism will be implemented. The updated environmental assessment and review framework and IEEs were disclosed on ADB and project websites. The IEEs and environment management plans will form part of bid and contract documents. All draft IEEs will be updated with detailed designs, and works cannot commence until final IEEs are approved and disclosed

³³ Niti Aayog. 2021. [National Multidimensional Poverty Index: Baseline Report](#). New Delhi.

³⁴ GoAP, Planning Department. 2021. *Socioeconomic Survey 2020–21*. Vijayawada.

³⁵ The Gender Equality and Social Inclusion Action Plan is in Appendix 12.

³⁶ ADB. [Safeguard Categories](#).

by ADB.

34. **Involuntary resettlement (category A).** Significant involuntary resettlement impacts are envisaged for two road subprojects and three industrial startup areas under project 2. The total land requirement for project 2 is estimated at 1,744.5 ha, of which 544.6 ha is government land, 676.9 ha is assigned land, and the remaining 523.0 ha is privately owned. The resettlement framework and entitlement matrix are updated to reflect policy changes.³⁷ Six resettlement plans and one resettlement and indigenous peoples plan are prepared in consultation with the affected people. Meaningful consultations were conducted by the implementing agencies, project NGOs and consultants, and ADB team to understand the views and concerns of affected persons including the vulnerable and to disclose information about the project impact, schedule, entitlements, implementation arrangements, and grievance redress mechanism. Project 2 is assessed to impact 938 structures, including 642 residential and commercial structures and 296 minor structures. Project 2 will affect 3,009 households with 10,208 members among which 1,827 households with 5,958 members are expected to experience significant impacts. Affected persons will be compensated and assisted in accordance with the resettlement framework. The impacts are adequately assessed and the proposed measures to deal with the impacts are adequate. All social safeguards documents will be reviewed and agreed by ADB, disclosed to affected persons, and posted on project and ADB websites. An external monitor will undertake independent monitoring until project completion. The project grievance redress mechanism is adequate and commensurate with the project risks and impacts. The project management and supervision consultant will be strengthened with enhanced staffing to support social safeguards compliance under both tranches. They will also undertake capacity development activities for safeguards officers of PMU, project implementation units, and nongovernment organizations.

35. **Indigenous peoples (category B).** The indigenous peoples planning framework has been updated in line with relevant sections of the resettlement framework. Direct and indirect impacts of the subprojects under project 2 on indigenous peoples have been assessed. A resettlement and indigenous peoples plan is prepared for the Chittoor-South industrial cluster, where 138 tribal families of the *Yenadi* tribe, with 261 members, are losing their assigned government land, which is assessed to be an involuntary resettlement impact. The positive impacts and benefits are designed to reach indigenous peoples in a culturally appropriate manner while plans are in place to mitigate the project's negative impacts. There is no envisaged physical displacement of scheduled tribe communities or groups. No direct or indirect impacts on the dignity, human rights, livelihood systems or territories, or natural or cultural resources that are used, owned, occupied, or claimed by indigenous peoples as their ancestral domain or asset are anticipated. Project 2 will not require broad community support for implementation.

F. Summary of Risk Assessment and Risk Management Plan

36. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.³⁸

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Delayed payment of compensation and assistance and land acquisition would delay the commencement of construction.	The Government of Andhra Pradesh (GoAP) has finalized the scope of each subproject and minimized land acquisition by identifying land already available or defining the alignment to mitigate impact. It

³⁷ The resettlement framework prepared for the MFF in 2016 has been updated to include project 2 subprojects and reflect the changes according to applicable national and state laws.

³⁸ The risk assessment and risk management plan is in Appendix 10.

Risks	Mitigating Measures
	initiated advance actions to acquire needed private land. The project management unit and implementation units will monitor progress and compliance with support from the project management and supervision consultant, nongovernment organizations, and the external monitor.
Loan proceeds may not be made available to the project in a timely manner due to slow transfer within the state. While the GoAP established a sub-advance ledger account in the state treasury to streamline the fund flow, the updated state financial system has not been validated. Implementing agencies may not issue their audit reports per statutory timelines, hence constraining transparency and leaving financial management issues unnoticed.	The GoAP established stringent service standards and monitoring mechanism. The executing agency will include financial information in quarterly progress reports for more timely monitoring. No funds will be disbursed under the advance fund procedure until the assessment of the updated state financial system is completed to ensure the underlying control and reporting features acceptable to ADB. The executing agency will strengthen monitoring for the timely issuance of audited entity financial statements and systematically resolve the pending audit qualifications. The financial management experts engaged under the project will enhance support to the implementing agencies.
Low demand from investors would leave project industrial clusters with low occupancy rates.	GoAP has implemented various measures to promote investment per the policy actions set out in the policy-based loan. The industrial clusters supported by the project will have competitive advantages conferred by the high-quality internal and external infrastructure. The project will help the government roll out an updated marketing action plan for investment promotion and implement skills development programs in response to industry demand.

Source: Asian Development Bank.

V. ASSURANCES

37. The Government of India and the GoAP 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.

38. The Government of India and the GoAP have agreed with ADB on certain covenants for the project, which are set forth in the draft loan and project agreement.

VI. MINOR CHANGE OF THE MULTITRANCHE FINANCING FACILITY

39. As described in para. 5, the Government of India requested to extend the MFF availability period from 30 June 2025 to 19 September 2026. The request is supported as it will ensure sufficient implementation period of contracts under the proposed second tranche and achieve the intended outcome and outputs. In accordance with para. 43 and Table A4.4 of the Staff Instructions on Business Processes for MFF, the requested extension of the MFF is considered minor as it does not involve any of the substantial or material changes described in Table A4.4 and is within 10 years from the MFF approval date.

VII. THE PRESIDENT'S DECISION

40. On the basis of the approval by ADB's Board of Directors for the provision of loans under the multitranchise financing facility in an aggregate principal amount not exceeding \$500,000,000 to India for the Visakhapatnam–Chennai Industrial Corridor Development Program, the President has approved (i) the tranche as described in para. 19 and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements; and (ii) the minor change in the MFF to extend the availability period from 30 June 2025 to 19 September 2026, as described in para. 39 pursuant to para. 43 and Table A4.4 of Staff Instructions on Business Processes for MFF.

DESIGN AND MONITORING FRAMEWORK FOR PROJECT 2

Impacts the Project is aligned with:			
Contribution of the manufacturing sector to the state's GDP, trade, and employment increased ^a			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Industrial investment and employment of the VCIC increased	<p>By 2027:</p> <p>a. New industrial investment proposals of ₹3.8 billion in Visakhapatnam and Srikalahasti–Chittoor nodes approved (2022 baseline: 0) (OP 7.2)^b</p> <p>b. 3,200 additional industrial employment generated, including at least 960 women within the Visakhapatnam and Srikalahasti industrial nodes (2022 baseline: 0) (OPs 1.2 and 2.1)^c</p>	<p>a. (i) Records of Commissioner of Industries and District Industries Centre, and (ii) Single Desk Portal website</p> <p>b. (i) Records of Commissioner of Industries and District Industries Centre, and (ii) Single Desk Portal website</p>	<p>A: GoAP will continue to pursue the cluster-based industrialization.</p> <p>R: Low demand from investors would leave project industrial clusters with low occupancy rate.</p>
Outputs 1. Visakhapatnam industrial node infrastructure strengthened	<p>By 2026:</p> <p>1a. Start-up area in Rambilli industrial cluster (160 ha) developed with internal infrastructure including internal roads of 6.5 km, storm water drains of 14.5 km, and WTP of 3.5 MLD (2022 baseline: 0) (OPs 1.2.1 and 7.2.2)</p> <p>1b. Start-up area in Nakkapalli cluster (441 ha) developed with internal infrastructure including internal roads of 21.9 km, storm water drains of 43.8 km, and WTP of 6.5 MLD (2022 baseline: 0) (OPs 1.2.1 and 7.2.2)</p> <p>1c. Atchuthapuram to Anakapalli road of 13.8 km widened to four lanes with EWCD-friendly features (2022 baseline: 0) (OPs 2.4.1 and 3.2.5)^d</p> <p>1d. Access road of 4.4 km to Nakkapalli industrial cluster improved with EWCD-friendly features (2022 baseline: 0) (OPs 2.4.1 and 3.2.5)^d</p> <p>1e. At least 900 community members in and around Rambilli and Nakapalli industrial clusters and along Atchuthapuram to Anakapalli road reported improved awareness and knowledge on addressing gender-based violence (Target: 300 persons for Rambilli cluster, 300 persons for</p>	<p>1a–1e. (i) Annual reports of the DOIC and PIUs, and (ii) QPRs of VCICDP</p>	<p>R: Lack of coordination among various agencies may result in delay of project implementation.</p> <p>R: The prolong procurement process may cause the delay in project implementation.</p> <p>R: Delayed payment of compensation and assistance and land acquisition would delay the commencement of construction.</p>

	Nakapalli cluster, and 300 persons for Atchuthapuram to Anakapalli road [30% women]) (2022 baseline: 0) (OP 2.2.3)		
2. Srikalahasti–Chittoor industrial node infrastructure strengthened	<p>By 2026:</p> <p>2a. Start-up area in Chittoor–South cluster (938 ha) developed with internal infrastructure including internal roads of 42.8 km, and storm water drains of 86 km, and WTP of 4.5 MLD (2022 baseline: 0) (OPs 1.2.1 and 7.2.2)</p> <p>2b. Access road of 9.5 km to Chittoor–South industrial cluster improved with EWCD-friendly features (2022 baseline: 0) (OPs 2.4.1 and 3.2.5)^d</p> <p>2c. Access road of 8.7 km to Naidupeta cluster improved with EWCD-friendly features (2022 baseline: 0) (OPs 2.4.1 and 3.2.5)^d</p> <p>2d. At least 300 community members in and around Chittoor–South industrial clusters reported improved awareness and knowledge on addressing gender-based violence (Target: 300 persons [30% women]) (2022 baseline: 0) (OP 2.2.3)</p>	2a–2d. (i) Annual reports of the DOIC and PIUs, and (ii) QPRs of VCICDP	<p>R: Lack of coordination among various agencies may result in delay of project implementation.</p> <p>R: The prolong procurement process may cause the delay in project implementation.</p> <p>R: Delayed payment of compensation and assistance and land acquisition would delay the commencement of construction.</p>
3. Sustainable, green, and integrated industrial development enhanced.	<p>By 2024</p> <p>3a. updated marketing action plan for investment promotion rolled out (2022 baseline: 0) (OP 7.2.2)</p> <p>By 2026</p> <p>3b. 500 persons (including at least 40% women), including socially vulnerable and those belonging in the economically weaker section reported enhanced skills (2022 baseline: 0) (OPs 1.1.1 and 2.1.1)^e</p> <p>3c. Green Corridor Model Operational Guidelines at industry cluster level endorsed by the GOAP (2022 baseline: 0) (OP 7.3.1)</p> <p>3d. Disaster risk management plan for industrial clusters endorsed by the GOAP (2022 baseline: 0) (OP 3.2.4)</p> <p>3e. Sustainable Operation and Maintenance Improvement Plan for Rambilli, Nakkapalli and Chittoor–South industrial clusters endorsed by the</p>	<p>(i) APIIC website, and (ii) GoAP website</p> <p>APSSDC Annual Report</p> <p>(i) APIIC website, and (ii) GoAP website</p> <p>(i) APIIC website, and (ii) GoAP website</p> <p>(i) DOI documents and website, and (ii) APIIC documents and websites</p>	R: Lack of coordination among various agencies may result in delay of project implementation.

	<p>GOAP (2022 baseline: 0) (OPs 4.2.2 and 6.2.2)</p> <p>3f. Toolkit for enhancing integrated industry-urban planning linkage with gender-responsive and socially inclusive guidance rolled out (2022 baseline: 0) (OP 4.2.1)^f</p> <p>3g. Gender mainstreaming guidelines of DOIC prepared and implemented (2022 baseline: 0) (OP 2.3.2)^g</p> <p>3h. At least one knowledge product of VCICDP including GESI intervention results published and disseminated to other cities in India and beyond (2022 baseline: 0)^h</p>	<p>(i) MAUDD website, and (ii) DOI website</p> <p>(i) Project QPR, and (ii) DOI website.</p> <p>(i) Project QPR, and (ii) DOI website.</p>	
<p>Key Activities with Milestones</p> <p>1. Visakhapatnam industrial node infrastructure strengthened</p> <p>1.1 Award all civil works contracts by June 2023</p> <p>1.2 Complete construction and commissioning of all subprojects by March 2026</p> <p>1.3 Complete community awareness raising program by December 2025</p> <p>2. Srikalahasti–Chittoor industrial node infrastructure strengthened</p> <p>2.1 Award all civil works contracts by June 2023</p> <p>2.2 Complete construction and commissioning of all subprojects by March 2026</p> <p>2.3 Complete community awareness raising program by December 2025</p> <p>3. Sustainable, green, and integrated industrial development enhanced</p> <p>3.1 Update marketing action plan for investment promotion by December 2023</p> <p>3.2 Conduct trainings for enhancing skills by December 2025</p> <p>3.3 Draft Green Corridor Model Operational Guidelines at industrial cluster level by December 2025</p> <p>3.4 Draft disaster risk management plan for industrial clusters by December 2025</p> <p>3.5 Prepare Sustainable Operation and Maintenance Improvement Plan by December 2025</p> <p>3.6 Prepare toolkit for enhancing integrated industry-urban planning linkage with gender-responsive and socially inclusive guidance by December 2025</p> <p>3.7 Prepare and implement Gender Mainstreaming Guidelines of DOIC by December 2025</p> <p>3.8 Prepare knowledge products including GESI intervention results of VCICDP by December 2025</p> <p>Project management Activities</p> <p>Strengthen project management and supervision consultant for Project 2 scope by March 2023</p> <p>Implement GESI AP from March 2023 to March 2026</p> <p>Review missions, midterm review, and preparation of progress reports, annual reports, audited project financial statements, and audited entity financial statements</p>			
<p>Inputs</p> <p>Asian Development Bank: \$141.12 million (regular ordinary capital resources loan)</p> <p>Government: \$73.68 million</p>			

A = assumption, APSSDC = Andhra Pradesh State Skill Development Corporation, APIIC = Andhra Pradesh Industrial Infrastructure Corporation, BPL = below poverty line, DMF = design and monitoring framework, DOI = Directorate of Industries, DOIC = Department of Industries and Commerce, EWCD = elderly, women, children, disabled, GDP = gross domestic product, GESI = gender equality and social inclusion, GESI AP = gender equality and social inclusion action plan, GoAP = Government of Andhra Pradesh, ha = hectare, km = kilometer, MAUDD = Municipal Administration and Urban Development Department, MLD = million liter per day, OP = operational priority, PIU = project implementation unit, QPR = quarterly progress report, R = risk, STP = sewage treatment plant, VCIC = Visakhapatnam–Chennai Industrial Corridor, VCICDP = Visakhapatnam–Chennai Industrial Corridor Development Program, WTP = water treatment plant.

^a Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion. 2011. *National Manufacturing Policy*. Delhi; ADB. 2015. *Indian's First Coastal Corridor: Visakhapatnam–Chennai Industrial Corridor*

Conceptual Development Plan. Manila; and Government of India, Ministry of Commerce and Industry, Department of Commerce. 2015. *Foreign Trade Policy, 2015-2020*. Delhi.

^b The amount of new approved industrial investment proposals will be ₹23 billion by year 2032 and ₹76 billion by year 2037.

^c 19,000 industrial employment will be generated by 2032 and 64,000 by 2037.

^d EWCD-friendly features include (i) adequate lighting for safety; (ii) cautionary and/or informative signage including women helpline and emergency numbers; (iii) women-only restrooms; (iv) guard stones, rumble strips, and speed breakers; (v) shoulders as safe sidewalks; and (vi) covered drain cum footpath with wheelchair friendly design.

^e The term of "socially vulnerable and those belonging in the economically weaker section" defined by the state government include below-poverty-line families of backward castes and other backward classes; poor rural youth, women candidates, and candidates belonging to particularly vulnerable tribal groups; scheduled tribes and scheduled castes; minorities; persons with disabilities; transgender; rehabilitated bonded laborer; victims of trafficking; manual scavengers; and HIV-positive persons who will be given preference based on the Government of India's guidelines. Government of India, Ministry of Rural Development. 2016. [Deen Dayal Upadhaya-Gram Kaushal Yojana \(DDU-GKY\) Programme Guidelines](#). Delhi.

^f Gender-responsive and socially inclusive guidance in the toolkit will include (but not be limited to) (i) guidance in identifying GESI needs and strategies that are to be mainstreamed in the industry and urban planning linkages; and (ii) guiding principles on inclusive urban infrastructure and industrial housing in the project-influence nodes. Suggested features for industrial housing include (i) separate rooms for privacy for women and girls, separate kitchens, proper ventilation, access to potable water, open spaces and/or parks; (ii) transport facilities for access to workplaces and markets; and (iii) access to healthcare and educational facilities.

^g DOIC will prepare and implement the gender mainstreaming guidelines that will aim to ensure the inclusion of women in skills enhancement training, higher women's participation in the industrial labor force, and the provision of business-related licenses, fiscal incentives, and special packages for women.

^h The knowledge product should capture results from GESI AP and DMF indicators for project 1 and project 2.

Contribution to Strategy 2030 Operational Priorities

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.

Source: Asian Development Bank.