



Report and Recommendation of the President to the Board of Directors

INTERNAL

Project Number: 58395-001
November 2024

Proposed Results-Based Loan and Technical Assistance Grant India: Amaravati Inclusive and Sustainable Capital City Development Program

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 11 November 2024)

Currency Unit	–	Indian rupee/s (₹)
₹1.00	=	\$0.0118
\$1.00	=	₹84.3989 or ¥154.6300
¥1.00	=	\$0.0065

ABBREVIATIONS

ADB	–	Asian Development Bank
ADCL	–	Amaravati Development Corporation Limited
APCRDA	–	Andhra Pradesh Capital Region Development Authority
DLI	–	disbursement-linked indicator
E&S	–	environmental and social
G20	–	Group of Twenty (countries)
GDP	–	gross domestic product
GOAP	–	Government of Andhra Pradesh
km	–	kilometer
LPS	–	land pooling scheme
O&M	–	operation and maintenance
OP	–	operational priority
PAP	–	Program Action Plan
PGMC	–	program management consultant
PMC	–	project management consultant
PPP	–	public–private partnership
RBL	–	results-based lending
SDG	–	Sustainable Development Goal
SPS	–	Safeguard Policy Statement
TA	–	technical assistance

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., FY2025 ends on 31 March 2025.
- (ii) In this report, “\$” refers to United States dollars.

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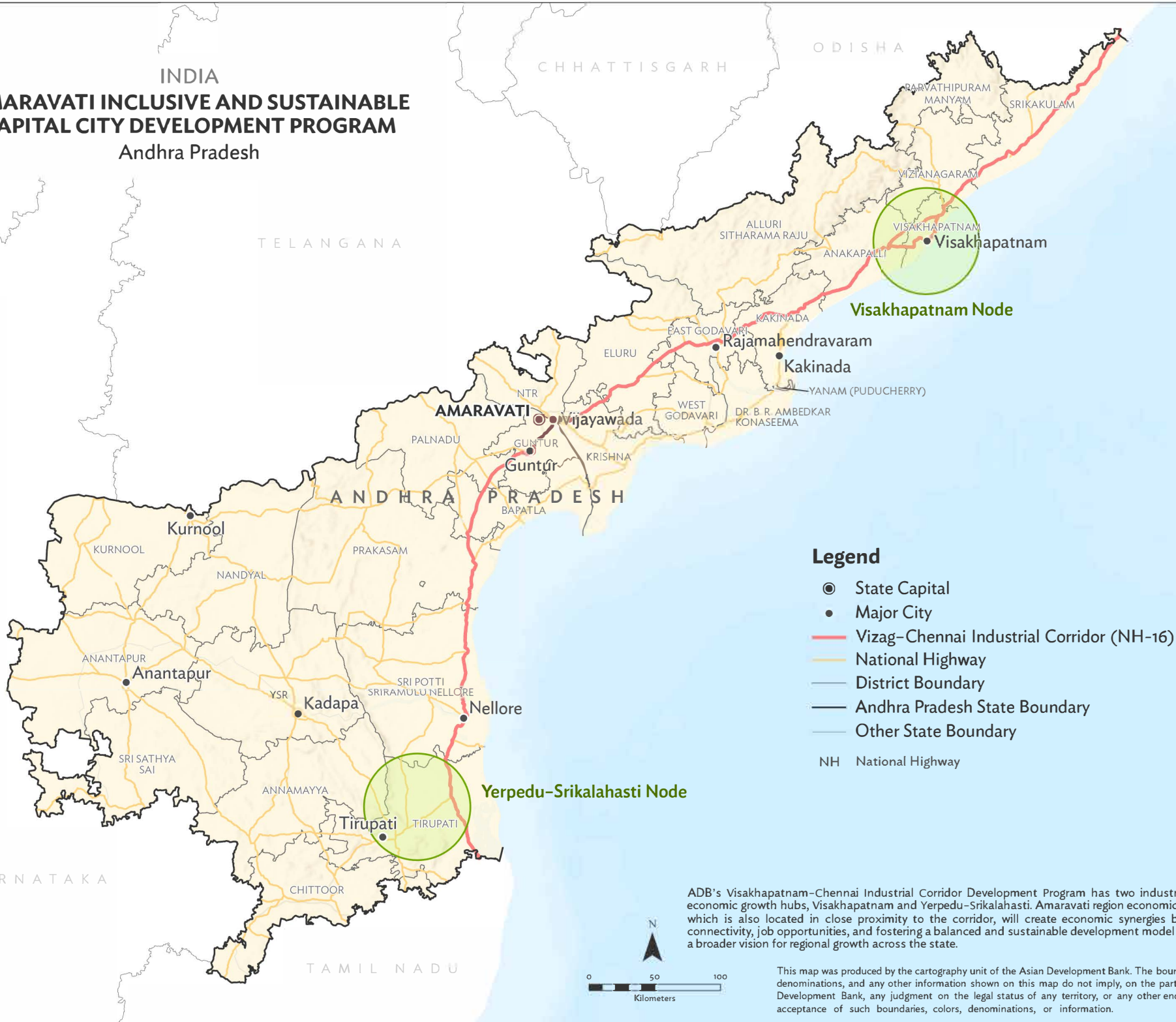
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PROGRAM AT A GLANCE

1. Project Data			
Project number	58395-001	Project name	Amaravati Inclusive and Sustainable Capital City Development Program
Country	India	Executing or implementing agency	Andhra Pradesh Capital Region Development Authority
Borrower	India	Geographical location	Country
Sector office	Water and Urban Development Sector Office	Sector	Water and other urban infrastructure and services
Sector	Water and other urban infrastructure and services	Subsector	Other urban services Urban policy, institutional and capacity development
Country economic indicators	https://www.adb.org/Documents/Links/Docs/?id=58395-001-CEI	Portfolio at a Glance	https://www.adb.org/Documents/Links/Docs/?id=58395-001-PortAtaGlance
Operational priorities	OP1: Addressing remaining poverty and reducing inequalities OP2: Accelerating progress in gender equality OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability OP4: Making cities more livable OP6: Strengthening governance and institutional capacity	Sustainable Development Goals	SDG 1.1 SDG 5.1 SDG 6.3 SDG 8.4 SDG 10.1 SDG 11.1, 11.5 SDG 13.a SDG 17.3
Lending modality	Results Based Lending		
2. Financing			
ADB Financing		Amount (\$ million)	
Regular ordinary capital resources loan		788.80	
Cofinancing		Amount (\$ million)	
World Bank		800.00	
Counterpart		Amount (\$ million)	
Government		185.00	
Total		1,773.80	
ADB Climate Financing			
ADB			
Adaptation		204.57	
Mitigation		252.77	
Cofinancing			
Adaptation		0.00	
Mitigation		0.00	
Total		457.34	
ADB and World Bank are financing equal amount of ₹121.972 billion each. Different benchmark exchange rates are used, resulting in varying United States dollar equivalent. Note: An attached technical assistance will be financed on a grant basis by the Technical Assistance Special Fund (TASF-other sources) in the amount of \$1,500,000.00.			
3. Climate Change			
Absolute GHG emissions (tCO₂e per year)			
Relative GHG emissions (tCO₂e per year)			
Climate change risk on the project without adaptation measures		High	
4. Private Sector Development			
Private capital mobilized (\$):			
PSD Classification:		Medium-PSD	
5. Safeguards			
Category	Environment:	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI	
	Involuntary resettlement:	<input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI	
	Indigenous peoples:	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI	
6. Gender Equality			
Category	<input type="checkbox"/> GEN (gender equity theme)	<input checked="" type="checkbox"/> EGM (effective gender mainstreaming)	
	<input type="checkbox"/> SGE (some gender elements)	<input type="checkbox"/> NGE (no gender elements)	
7. Poverty Targeting			
Category	<input type="checkbox"/> General intervention	<input type="checkbox"/> Individual or household (TI-H)	
	<input checked="" type="checkbox"/> Geographic (TI-G)		

AMARAVATI INCLUSIVE AND SUSTAINABLE CAPITAL CITY DEVELOPMENT PROGRAM

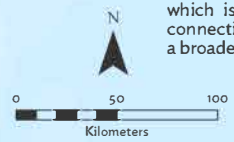
Andhra Pradesh



Legend

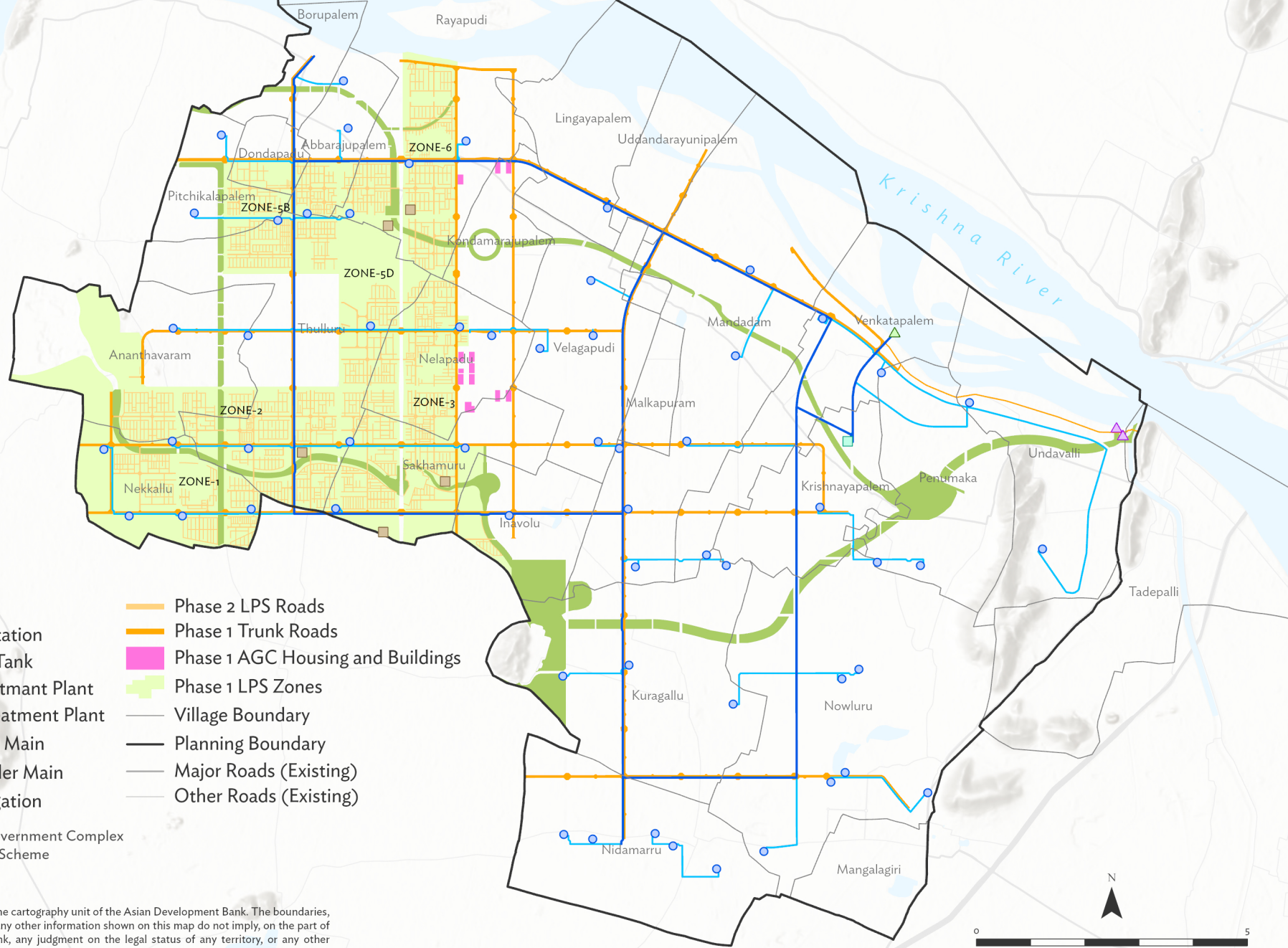
- State Capital
- Major City
- Vizag-Chennai Industrial Corridor (NH-16)
- National Highway
- District Boundary
- Andhra Pradesh State Boundary
- Other State Boundary
- NH National Highway

ADB's Visakhapatnam-Chennai Industrial Corridor Development Program has two industrial nodes as economic growth hubs, Visakhapatnam and Yerpedu-Srikalahasti. Amaravati region economic growth hub, which is also located in close proximity to the corridor, will create economic synergies by enhancing connectivity, job opportunities, and fostering a balanced and sustainable development model aligning with a broader vision for regional growth across the state.



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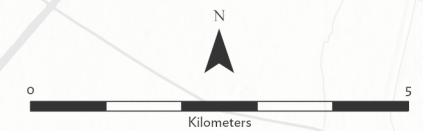
INDIA
**AMARAVATI INCLUSIVE AND SUSTAINABLE
 CAPITAL CITY DEVELOPMENT PROGRAM**



Legend

- ▲ Intake Well
 - ▲ Pumping Station
 - Overhead Tank
 - Water Treatment Plant
 - Sewage Treatment Plant
 - Water Ring Main
 - Water Feeder Main
 - Flood Mitigation
 - Phase 2 LPS Roads
 - Phase 1 Trunk Roads
 - Phase 1 AGC Housing and Buildings
 - Phase 1 LPS Zones
 - Village Boundary
 - Planning Boundary
 - Major Roads (Existing)
 - Other Roads (Existing)
- AGC Amaravati Government Complex
 LPS Land Pooling Scheme

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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed results-based loan to India for the Amaravati Inclusive and Sustainable Capital City Development Program. The report also describes proposed technical assistance (TA) for Creating Green, Inclusive, Sustainable, and Resilient Amaravati Capital City, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the TA.

2. The Government of Andhra Pradesh (GOAP) plans to build Amaravati as a new capital city on a 217.23 square kilometer site in Guntur district.¹ Phase I of Amaravati development will be implemented over a period of 5 years (2024–2029) with an estimated investment of \$3.64 billion.² The proposed results-based lending (RBL) program is carved out of the government program costing \$1.774 billion, of which the Asian Development Bank (ADB) financing is ₹121.972 billion (\$788.80 million equivalent). The World Bank will provide an equal amount of loan denominated in yen in parallel financing (not ADB-administered). The RBL program comprises implementing climate-resilient, sustainable, and inclusive infrastructure and service delivery solutions; supporting inclusive green economic growth; and strengthening inclusive governance and financing frameworks. The expected outcome of the program is access to inclusive, efficient, and resilient infrastructure and public services, and jobs provided.

II. THE PROGRAM

A. Rationale

3. **Strategic context.** India is experiencing rapid urbanization, with its urban population projected to grow from 498 million in 2021 to about 600 million by 2030 and 876 million by 2050.³ The urbanization rate in India (36.4% in 2023) remains low compared with the rest of Asia (56.9% in 2022).⁴ The fast pace of urban population growth and consequent high urbanization (projected at 40% by 2030 and 60% by 2050) is aggravating the already severe challenges in existing cities such as growing infrastructure deficits, poor urban service delivery, congestion, increasing risks of climate change and disasters, and environmental degradation. Additionally, Indian cities face challenges of urban spillover and proliferation of slums and informal settlements, exacerbating social inequality and the urbanization process.

4. **Cities as engines of growth.** The haphazard and unsystematic urbanization has not led to the economic benefits associated with increasing urbanization. Despite the challenges, cities in India are poised to become the engines of growth—generating higher-value economic outputs, creating well-paying jobs, streamlining urban logistics, and improving the livability of their residents. Even with the current low level of urbanization, urban areas in India contribute about 60% to its gross domestic product (GDP) and generate more economic opportunities, provide

¹ The state of Andhra Pradesh went through a bifurcation process in 2014 following the enactment of the Andhra Pradesh Reorganization Act, which led to the creation of two separate states: Telangana and the residuary Andhra Pradesh. After bifurcation, Telangana retained the state's original capital city of Hyderabad. The residuary Andhra Pradesh state announced the decision to build Amaravati as the new capital.

² The Phase I of Amaravati development is the government's overarching program that comprises of development of the Amaravati Government Complex, construction of the trunk infrastructure works (e.g., major arterial and sub-arterial roads, and associated utility corridors for water, sewerage, drainage, and communications); the delivery of neighborhood basic infrastructure in the land pooling scheme zones 1 to 7 and 10; strengthening governance and financing framework; and promoting inclusive socioeconomic growth and community development.

³ Government of India. 2019. [Census of India, 2011: Population Projections for India and States, 2011–2036—Report of the Technical Group on Population Projections.](#)

⁴ The World Bank. [World Development Indicators](#) (accessed 23 October 2024).

better access to health and education services, and offer improved living conditions.⁵ ADB estimates that every 1% increase in urbanization is associated with a 3%–5% rise in real GDP per capita in Asia.⁶ Indian cities could generate 70% of net new jobs, 70% of the country's GDP, and drive a fourfold increase in per capita incomes by 2030.⁷ Further, climate change- and disaster-resilient development is becoming increasingly necessary to ensure that cities can sustainably support growth, while also leveraging private capital to finance long-term needs.

5. **India's urban strategy.** Recognizing this potential of its cities, India emphasized the need to make cities inclusive, resilient, and sustainable as one of the main agenda under its Group of Twenty (G20) Presidency in 2023.⁸ The Government of India has strengthened its urban sector strategy with a focus on urban reforms, as reflected in successive central government annual budgets from FY2023 to FY2025. The budget of FY2025 has laid out an agenda of facilitating the development of “Cities as Growth Hubs” through economic and transit planning, and orderly development of peri-urban areas through town planning schemes. The development of greenfield cities is a key priority to address the challenges of rapid urbanization and to foster economic growth. Amaravati is the first such city to be developed and will become a replicable example for other cities in the country. The Government of India has provided special financial assistance through multilateral development banks and other sources in the central budget of FY2025 for development of Amaravati capital city.⁹

6. **Need for a new capital city.** Redeveloping an organically grown existing city of Andhra Pradesh into the new capital city has been constrained by unavailability of space for expansion and encountered inherent social challenges. On the other hand, the development of a new city presents an opportunity for integrated spatial and economic planning with socially inclusive, and gender-responsive interventions to drive inclusive economic growth, attracting people to this new city. Additionally, it provides an opportunity for integrating modern infrastructure with smart technologies, fostering green and low-carbon development to enhance livability. Such a planned city, with investor-friendly policies and institutional and governance frameworks, would attract the private investment crucial for the fast-paced development of a new city, generating high-paying jobs, and efficient service delivery through public–private partnerships (PPPs).

7. **Regional development strategy.** The GOAP has proposed developing Amaravati as a growth hub for the region given its strategic connectivity and proximity to the surrounding major cities of Vijayawada and Guntur. Rooted in an agrarian economy, the region presents opportunities for economic diversification into high-technology and non-polluting industries for creating high-paying jobs. Drawing on global examples, such as Songdo smart city, Amaravati seeks to build on successful practices of promoting green and low carbon mixed development.

8. **Amaravati Development Plan.** The GOAP approved the Perspective Plan 2050, and the Detailed Master Plan (2016–2036) for the development of Amaravati targeting an ultimate population of 3.5 million (2050), which outline the following key goals: (i) realize economic potential and attract private investments to create high-quality jobs; (ii) ensure good-quality

⁵ Government of India, Ministry of Housing and Urban Affairs. 2019. [Consultation Paper on City GDP Measurement Framework](#).

⁶ ADB. 2019. [Asian Development Outlook 2019 Update—Fostering Growth and Inclusion in Asia's Cities](#).

⁷ S. Sankhe et al. 2010. [India's urban awakening: Building inclusive cities, sustaining economic growth](#). McKinsey Global Institute.

⁸ India G20 Presidency. 2023. [Principles on Financing Cities of Tomorrow: Inclusive, Resilient, Sustainable](#). As part of Infrastructure Working Group of India G20 Presidency, ADB prepared a deliverable on [G20 Framework on Capacity Building of Urban Administrations for Financing Cities of Tomorrow](#).

⁹ Government of India. 2024. [Budget 2024-25. Speech of Nirmala Sitharaman, Minister of Finance](#).

housing for all, particularly low-income groups to help ease the population pressure on neighboring cities; (iii) adopt inclusive urbanization approach to ensure that urban infrastructure and services are gender-responsive;¹⁰ (iv) preserve natural ecosystems and build resilience against climate change; and (v) integrate heritage and cultural preservation. With an overall objective of developing a knowledge-based economy, nine theme-based clusters are being proposed for the economic development of Amaravati.¹¹

9. **Alignment with India's climate change strategy.** Amaravati is being developed as a climate-smart city, aligning with India's strategy outlined in its First Updated Nationally Determined Contribution.¹² The planning and design of Amravati has embedded climate and disaster resilience to cope with projected adverse climate change impacts such as floods, rising temperatures and extreme heats, changing rainfall patterns, and cyclones. The program prioritizes energy efficiency, the use of green technologies, low-carbon transportation modalities, green buildings, integrated urban water management, sewage reuse, and green spaces through nature-based solutions adopting a sponge-city approach. These initiatives also provide socioeconomic benefits as these green and blue corridors will serve as recreational spaces.

10. **Lending modality.** ADB's due diligence confirmed that the program meets the RBL modality's requirements:¹³ (i) the program supports and is aligned with a government program with well-defined priorities, strategies, and an expenditure framework with strong government ownership;¹⁴ (ii) it supports institutional development by encouraging a strong governance framework for sustainable infrastructure and service delivery, as well as inclusive economic and social growth, and fostering the capacity building of implementing agencies in urban planning, infrastructure design, municipal governance, climate resilience, and social inclusion; (iii) it creates incentives for delivering results, given that ADB and the World Bank disbursements will be based on the achievement of the program results as measured by disbursement-linked indicators (DLIs); and (iv) the program fosters partnership between ADB and the World Bank as both are providing financing with strategic and global expertise to help the GOAP in rolling out this large and complex program and to develop systems and capabilities for managing risks in developing a vibrant capital city. ADB's existing TA supported program due diligence.¹⁵

11. **Strategic alignment.** The program aligns with ADB's Strategy 2030 in building livable cities that are green, inclusive, competitive, and resilient, and other operational priorities (OPs).¹⁶ It is also aligned with the objectives of ADB's country partnership strategy for India, 2023–2027, which prioritizes climate-smart urban development and promotes regional economic growth through urbanization and decarbonize transportation.¹⁷ The program aims to (i) integrate

¹⁰ Gender-responsive infrastructure refers to infrastructure design that identifies and addresses the needs and priorities of women and vulnerable groups.

¹¹ The proposed nine thematic cluster cities include Education, Electronics, Finance, Government, Health, Justice, Knowledge, Sports, and Tourism.

¹² Government of India. 2022. [India's Updated First Nationally Determined Contribution Under Paris Agreement](#).

¹³ ADB. 2021. Result-Based Lending for Programs. Operations Manual. OM section D18.

¹⁴ GOAP, Municipal Administration & Urban Development Department. 2024. [White Paper on Amaravati](#).

¹⁵ ADB. 2019. [Technical Assistance for India Water and Urban Projects Support Facility](#) (TA 9849-IND) supported the program preparation and due diligence covering safeguards, gender, the sector assessment, the fiduciary system, procurement, economic assessment, and financial management.

¹⁶ ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). The program contributes to (i) OP1: addressing remaining poverty and reducing inequalities; (ii) OP2: accelerating progress in gender equality; (iii) OP3: tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability; (iv) OP4: making cities more livable; and (v) OP6: strengthening governance and institutional capacity.

¹⁷ ADB. 2023. [Country Partnership Strategy: India, 2023–2027—Catalyze Robust, Climate-Resilient, and Inclusive Growth](#); Government of Andhra Pradesh. 2014. [Smart City Amaravati: Infrastructure Master Plan](#); and ADB. 2023. [Strategy 2030 Transport Sector Directional Guide](#).

economic drivers and employment generation in line with the guiding principles set by the government and ADB on people-centric urbanization;¹⁸ (ii) strengthen climate smart urban development through water-sensitive urban design principles espoused in the government;¹⁹ and (iii) develop pilot projects for new and innovative market, regulatory, and voluntary mechanisms for sustainable urban development in line with national strategies.²⁰ The program supports several Sustainable Development Goals (SDGs).²¹

12. ADB's experience and lessons. ADB has significant involvement both in India urban growth story and rich experience in new city development. ADB is supporting the development of (i) new capital city Nusantara in Indonesia, as a carbon-neutral and inclusive city; and (ii) the New Clark City in the Philippines, envisioned to be model for sustainable urban development.²² ADB has been engaged for over a decade with GOAP in conducting analytical work on urbanization through the Visakhapatnam–Chennai Industrial Corridor Development Program, which has supported the state's industrial growth and urbanization since 2016.²³ ADB has supported the development of transit-oriented development and multimodal integration in Bengaluru and other cities. ADB conducted a study with “NITI Aayog” aimed at finding bottlenecks in cities' growth.²⁴ ADB, with the World Bank, is supporting the knowledge frameworks for Cities as Growth Hubs and the Creative Redevelopment of Cities, which will provide lessons on the Amaravati development. The program follows recommendations from ADB's Independent Evaluation Department's sector assistance program evaluation to adopt a comprehensive approach of integrated planning and implementation in urban development and municipal service provision.²⁵ Key lessons adopted from ADB's past sector experiences in the program design include building strong institutional frameworks, ensuring stakeholder engagement, and developing PPP models for sustainable service delivery. The World Bank's experience is also useful as it has published a study on financing India's urbanization needs.²⁶

13. Private sector participation. The program will support the mobilization of long-term private capital, reducing the fiscal burden on the state, and enhancing operational efficiency. However, given Amaravati's early stage of development, public sector investment is essential in the initial phases to construct trunk infrastructure; prepare land for the landowners contributing through the land pooling scheme (LPS) by providing basic infrastructure; and implementing

¹⁸ Government of India, Ministry of Urban Development. 2015. [Urban and Regional Development Plans Formulation and Implementation \(URDPFI\) Guidelines, Volume I](#); GOAP. 2014. *Amaravati: Infrastructure Master Plan*; and ADB. 2022. [Urban Sector Directional Guide—Toward Making Cities More Livable in Asia and the Pacific](#).

¹⁹ Government of India, Ministry of Housing and Urban Affairs. 2021. [River Centric Urban Planning Guidelines](#); and ADB. 2022. [Strategy 2030 Water Sector Directional Guide](#).

²⁰ Government of India, Prime Minister's Council on Climate Change. 2021. [National Action Plan on Climate Change](#).

²¹ The program will help reduce poverty (SDG 1), promote gender equality (SDG 5), water and sanitation (SDG 6), and generate economic growth and job opportunities (SDG 8) while reducing inequalities (SDG 10). It will focus on building Amaravati as a sustainable and livable city (SDG 11) and aligns with global climate goals (SDG 13). The collaboration between ADB, the World Bank, and the private sector enhances partnerships for sustainable development (SDG 17).

²² ADB. 2022. [Technical Assistance for Smart and Livable Cities in Southeast Asia](#) (TA 10069-REG); Asia Pacific Project Preparation Facility (AP3F). [New Clark City Information and Communications Technology PPP Project](#); and AP3F. [Project Preparation Assistance for the New Clark City Public Transportation PPP Project](#).

²³ ADB. [India: Visakhapatnam–Chennai Industrial Corridor Development Program](#); and ADB. 2016. [Scaling New Heights: Vizag–Chennai Industrial Corridor, India's First Coastal Corridor](#).

²⁴ ADB and NITI Aayog. 2022. [Cities as Engines of Growth](#). Niti Aayog is government of India's public policy think tank. The objectives of the study was to sensitize government the need to develop policy frameworks at state and city level to realize cities' potential as economic growth hubs creating high-quality jobs.

²⁵ Independent Evaluation Department. 2023. [ADB's Support for Urban Infrastructure and Services in India](#), 2012–2022. ADB.

²⁶ S. Athar, R. White, and H. Goyal. 2022. [Financing India's Urban Infrastructure Needs: Constraints to Commercial Financing and Prospects for Policy Action](#). World Bank.

institutional reforms. As Amaravati's infrastructure evolves, the private sector will play a more prominent role in funding commercial and residential infrastructure and driving economic growth in designated economic clusters.

B. Program Scope

14. The scope of the broader government program and the RBL program is summarized in Table 1.

Table 1: Program Scope

Item	Broader Government Program	Results-Based Lending Program
Outcome	Development of Amaravati which will provide (i) world-class green infrastructure, (ii) resilience through efficient resource management, (iii) good quality of life and a high-level of convenience to people, and (iv) a range of jobs by skilling existing rural residents	Access to inclusive, efficient, and resilient infrastructure and public services, and jobs provided.
Key outputs	<ol style="list-style-type: none"> 1. Delivering government complex, trunk, and neighborhood infrastructure 2. Attracting investments 3. Preserving nature and environment 4. Improving flood management and climate resilience 5. Revitalizing heritage and culture 	<p>The program's outputs are:</p> <ol style="list-style-type: none"> 1. Inclusive governance and financing frameworks strengthened 2. Inclusive green economic growth and social development supported 3. Climate-resilient, sustainable, and inclusive infrastructure and service delivery solutions implemented
Activities	<ol style="list-style-type: none"> 1. Provide government offices, assembly, and courts. 2. Provide infrastructure services in government complexes, and neighborhood areas. 3. Provide good quality housing for government officials and judicial members and staff. 4. Develop an efficient public transport system, convenient neighborhoods, and a safe environment for people to live, work, learn, and play. 5. Create a network of parks and green spaces. 6. Provide affordable housing and health care facilities for all groups of people. 7. Promote efficient resource management through "reduce, recycle and reuse." 	<ol style="list-style-type: none"> 1. Implement trunk and neighborhood infrastructure. 2. Prepare draft proposals and policies for the establishment of professional institutions, entities, and municipal authorities. 3. Prepare and adopt an overall financing plan for Amaravati city, which includes loans, grants, land monetization, PPPs, bonds, user charges, and service fees. 4. Establish an environment and social management unit. 5. Adopt strengthened policies and procedures for climate change- and disaster resilience and gender responsiveness. 6. Enable urban job skills trainings, with focus on women and young residents. 7. Prepare policies and procedures for promoting private sector investment. 8. Design and implement digital solutions.
Expenditure size	Phase I: \$3.640 billion	\$1.774 billion (Phase I)
Main financiers and their respective total amounts	ADB: \$788.80 million World Bank: \$800 million GOAP and other sources: \$2.051 billion	ADB: \$788.80 million World Bank: \$800 million GOAP: \$185 million
Geographic coverage	Amaravati Capital Region	Amaravati Capital Region
Implementation period	2024–2029	2025–2029

ADB = Asian Development Bank, GOAP = Government of Andhra Pradesh, PPP = public-private partnership.
Sources: GOAP and ADB.

C. Program Results

15. The RBL program's impact will be: Amaravati developed as a pioneer world class green, smart city as an economic powerhouse with global quality of living standards for all people (footnote 14). The outcome will be access to inclusive, efficient, and resilient infrastructure and public services, and jobs provided, measured by: (i) developing urban space with 8,000 parcels having improved access to infrastructure services and green recreational spaces (DLI 8);²⁷ (ii) 45,000 persons (including 22,500 women) having access to water and sanitation; (iii) 100,000 persons (including 50,000 women) having access to climate-resilient, and sustainable transport infrastructure and services;²⁸ (iv) 3,315 hectares of area with new or improved drainage systems protected from flood risks; (v) 20 anchor investors attracted by Amaravati (DLI 4); (vi) \$900 million in private capital inflows enabled; and (vii) 12,000 new jobs created, including 7,000 for women and 2,400 for youth (DLI 4).²⁹ The program will have three outputs:

16. **Output 1: Inclusive governance and financing frameworks strengthened.** The program will support (i) the establishment of operational systems and mechanisms for enhanced program delivery, primarily focusing on procurement, financial management, and environmental and social (E&S) safeguards systems (DLI 1); (ii) the establishment of institutional mechanisms for green and resilient service delivery (DLI 2); (iii) the adoption of effective mechanisms for the mobilization of private capital finance of \$210 million through land monetization and asset management (DLI 3); (iv) the introduction of tariffs for water, wastewater, and public transport to sustain service provision; and (v) the completion of at least three PPP transactions.

17. **Output 2: Inclusive green economic growth and social development supported.** This output includes (i) establishing an economic development unit, which will adopt a business road map to guide the city's economic strategy; (ii) operationalizing policies and programs for increased access to green and resilient affordable housing in Amaravati including the establishment of an Affordable Housing Shelter Fund (DLI 5); (iii) providing 3,200 households with access to new affordable housing, including households headed by women; (iv) delivering skills development for 17,000 beneficiaries, including 10,100 women and 3,400 youth, focused on urban construction and service sector job skills (DLI 4); (v) establishing a full participatory system for grievance redressal and community outreach with a strong gender focus (DLI 6); (vi) preparing and approving a climate change action plan for the city; and (vii) reviewing and strengthening the flood management plan, considering the city's high vulnerability to floods, along with its implementation and monitoring.

18. **Output 3: Climate-resilient, sustainable, and inclusive infrastructure and service delivery solutions implemented.** The program will support climate-resilient and inclusive infrastructure solutions to create a robust urban environment, meeting the needs of Amaravati as a forward-looking urban space through (i) the delivery of 390 kilometers (km) of trunk infrastructure, including roads, drainage, water supply, sewage, and treated wastewater networks for horticulture reuse (DLI 7); (ii) strengthening of flood mitigation plan including implementation and monitoring (DLI 7); (iii) 390 km of non-motorized transport infrastructure; (iv) the development of 50 km of bus lanes or a bus rapid transit system; (v) the adoption of updated urban design guidelines for sustainable, climate-resilient, and gender-responsive development; and (vi) the development and adoption of digital solutions for service delivery.

²⁷ A parcel refers to a developed plot of land that will be handed over to landowners who contributed to the LPS.

²⁸ The water supply and sewerage systems will serve Amaravati residents, while the transport system will extend beyond Amaravati, including nearby urban centers like Vijayawada and Guntur.

²⁹ The design and monitoring framework for the program is in the Appendix.

19. The program will track progress using 13 indicators linked to DLIs and 8 non-DLI indicators (footnote 29). DLIs 4 and 8 will monitor outcome achievements focusing on (i) developing sustainable urban space with access infrastructure services; and (ii) establishing an economic development unit, attracting anchor investors, skills development, and the creation of new jobs. DLIs 1, 2, and 3 will support the establishment of institutional mechanisms for enhanced program delivery, the establishment of green and resilient service delivery, and the adoption of effective financing mechanisms through land monetization and asset management. DLI 5 supports increased access to green and resilient affordable housing. DLI 6 assists in establishing a participatory system. DLI 7 and 8 covers the delivery of trunk and neighborhood infrastructure services, including flood management plans. The non-DLI indicators complement these efforts by focusing on broader institutional reforms, infrastructure development, and improvements in service delivery. The DLIs and their disbursement allocations are summarized in Table 2.

Table 2: Disbursement-Linked Indicators^a

Indicator	Disbursement Allocated		Share of Total ADB Financing
	(¥ million)	(\$ million)	(%)
1. By 2028, operational systems and mechanisms established and strengthened for program delivery (Output 1 indicator)	7,775.72	50.29	6.38
2. By 2029, institutional mechanisms for inclusive, green, and resilient service delivery established ^b (Output 1 indicator)	6,098.60	39.44	5.00
3. By 2029, mechanism to mobilize private capital finance through land monetization and asset management adopted (Output 1 indicator)	7,623.25	49.30	6.25
4. By 2029, economic development unit established, anchor investors attracted, job skills provided, and new jobs created (Outcome indicator)	9,910.23	64.09	8.13
5. By 2029, policies and programs operationalized for increased access to green and resilient affordable housing in Amaravati (Output 2 indicator)	7,470.79	48.31	6.13
6. By 2029, full participatory system for grievance redressal and outreach in place with gender and social inclusion focus to develop communities (Output 2 indicator)	3,811.63	24.65	3.13
7. By 2029, climate-informed trunk and flood mitigation infrastructure delivered (Output 3 indicator)	52,600.43	340.17	43.13
8. By 2029, urban space with improved access to sustainable infrastructure and services, green transport, and recreational space (Outcome indicator)	26,681.38	172.55	21.88
Total	121,972.03	788.80	100.0

ADB = Asian Development Bank.

Note: Percentages may not sum precisely because of rounding.

^a ADB and the World Bank disbursement-linked indicator frameworks are largely synchronized.

^b These include the establishment of Amaravati city government, ring-fenced water utility, and unified metropolitan transportation authority.

Source: ADB.

20. A detailed and robust verification protocol has been developed for the DLIs (Annex 1). An independent verification agency will verify and confirm the achievement of the DLIs and other program indicators. The verification process will include sample spot checks to ensure the reliability and accuracy of reported results. An indicative timeline for the achievement of DLIs has been established, with provisions for partial disbursement allowed for selected DLIs. To maintain transparency and credibility, the verification agent will be independent of the executing and implementing agencies, as well as the consultants involved in the management of the program. Beneficiary feedback will be incorporated into the results verification process, where appropriate, ensuring that the voices of local communities and stakeholders are heard. Additionally, ADB and the World Bank will undertake regular missions to review the progress on DLI achievements, the Program Action Plan (PAP), financial management, and annual work plans and budgets.

D. ADB Value Addition

21. ADB will bring its experience from the development of Nusantara and New Clark city. ADB's value addition lies in its approach to enhancing urban governance, inclusiveness, and sustainability along with infrastructure investments. This will be through (i) strengthening institutional capacity and enhancing urban governance frameworks to ensure transparency, accountability, and sustainable operation and maintenance (O&M) of assets for efficient service delivery; (ii) fostering economic development, attracting private investments, creating enabling environments for PPPs, and supporting innovative financing mechanisms by leveraging land assets; (iii) supporting the Andhra Pradesh Capital Region Development Authority (APCRDA) in developing the city climate change action plan and a disaster risk management plan including flooding, by integrating nature-based solutions; (iv) preparing gender-responsive urban development guidelines, including mainstreaming of gender equality and social inclusion; (v) providing capacity building and knowledge dissemination through ADB and partner networks including city-to-city collaboration; and (vi) supporting for the adoption of smart digital technology and solutions to improve urban planning, resource management, and public service accessibility and data-informed decision and policymaking. ADB will use the attached TA to support the above activities in collaboration with the World Bank.

E. Expenditure Framework and Financing Plan

22. **Program expenditures.** The RBL program expenditures are estimated to be \$1,773.80 million from 2025 to 2029 (Table 3).

Table 3: Summary of Program Expenditure Framework, 2025–2029
(2024 prices)

Item	Amount		Share of Total (%)
	(¥ million)	(\$ million)	
1. Institutional strengthening and capacity building activities, job skill trainings and social support, and technical assistance to improve governance and service delivery	8,813.9	57.0	3.2
2. Program management cost	4,298.7	27.8	1.6
3. Trunk infrastructure (including road, water, electricity, drainage, sanitation, flood mitigation works, ICT, walk and cycle paths, and public transport)	136,538.3	883.0	49.8
4. Neighborhood level infrastructure (including municipal streets, walk and cycle paths, utility connection, and blue green infrastructure)	73,294.6	474.0	26.7
5. Green and resilient government housing	51,027.9	330.0	18.6
6. Front end fee ^a	309.3	2.0	0.1
Total	274,282.7	1,773.8	100.0

ICT = information and communication technology.

^a The front-end fee applies to the World Bank financing. The government will bear the financing charges (commitment fee and interest during the grace period) for the Asian Development Bank and the World Bank; these are not included as part of the program expenditure.

Sources: Asian Development Bank and World Bank estimates.

23. **Program financing.** The government has requested a regular loan of ¥121,972,000,000 (\$788.80 million equivalent) from ADB's ordinary capital resources to help finance the program. The loan will have a 26-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; and such other terms and conditions set forth in the draft loan and program agreements. Based on the straight-line method, the average maturity is 15.75 years, and the maturity premium payable to ADB is 0.10% per year.

24. The summary program financing plan is in Table 4. The program will be jointly financed by ADB and the World Bank, and the financial resources of each financier will be co-mingled and administered by the borrower for the program. Therefore, universal procurement will be applicable.³⁰

Table 4: Program Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Government	185.0	10.4
Development partners		
Asian Development Bank		
Ordinary capital resources (regular loan)	788.8 ^a	44.8
The World Bank	800.0	44.8
Total	1,773.8	100.0

^a To be provided in ¥121,972,000,000 (\$788.8 million equivalent).

Sources: Asian Development Bank and World Bank estimates.

25. **Climate finance.** Total climate finance for the program is \$457.34 million, with an estimated \$252.77 million in mitigation costs and \$204.57 million in adaptation costs. ADB will finance 100% of the mitigation and adaptation costs. Climate adaptation interventions include flood protection measures integrating nature-based solutions, and creating a network of green and blue corridors along the canals.³¹ Climate mitigation efforts include bus rapid transit systems, public transport using only electric vehicles powered by renewable energy, non-motorized transport (bicycle lanes and pedestrian pathways), green building measures, and other sustainable practices aimed at fostering smart and energy-efficient urban development.

F. Capacity Development and Program Action Plan

26. A comprehensive PAP was developed in consultation with GOAP to address identified capacity gaps and strengthen the institutions involved in the program. The PAP focuses on five key areas: (i) technical capacity for managing large-scale urban infrastructure projects; (ii) fiduciary requirements in procurement and financial management, particularly accounting and audit; (iii) E&S safeguards; (iv) gender equality and social inclusion; and (v) climate and disaster resilience. The PAP is designed to leverage the opportunities provided by the program to achieve incremental, positive, and sustainable changes in these areas. The capacity development activities will be updated and refined as needed during implementation, ensuring that they remain relevant and aligned with the evolving needs of the program. The attached TA (para. 30) will further support the government in implementing the PAP.

G. Implementation Arrangements

27. The APCRDA, established under the APCRDA Act of 2014, will be the executing agency, responsible for the overall coordination, monitoring, supervision, and implementation of the program's core activities. The Executive Committee of APCRDA is responsible for making key decisions related to investment planning and project approvals, while day-to-day operations are managed by the Commissioner of APCRDA. The Commissioner is supported by sectoral experts in infrastructure, urban planning, and environmental management, providing strong oversight for the city's ongoing development. In addition, Amaravati Development Corporation Limited (ADCL), formed under the Companies Act, 2013, is tasked with executing specific civil works related to

³⁰ ADB. 2015. [Enhancing Operational Efficiency of the Asian Development Bank](#). (paragraphs 25 and 90[iii]).

³¹ The program has the overarching goal of building a climate-resilient urban system and is designed as a Type 2A adaptation project.

trunk infrastructure and flood mitigation by procuring contractors and consultants and overseeing the supervision of projects.

28. To enhance implementation capacity, both the APCRDA and ADCL will engage several project management consultants (PMCs). PMCs will supervise and manage on-site activities and ensure compliance with E&S safeguards. Additionally, the APCRDA will appoint a program management consultant (PGMC), which will provide operational support for overall program coordination and management, monitoring, quality assurance, and the oversight of E&S safeguards. The PGMC will offer a unified digital monitoring and evaluation framework to track progress across technical, environmental, social, financial, and contract management domains.

29. **Disbursement arrangements.** Disbursement of the loan proceeds will follow ADB's *Loan Disbursement Handbook* (2022, as amended from time to time) and detailed arrangements agreed between the government and ADB. The loan proceeds will be disbursed to a separate government bank account, following verification of the achievement of the DLIs. Where achievements are partial, partial disbursements may be made following the verification protocol. The program includes a provision for advance financing of 25% of the loan amount, which will be liquidated before any further disbursement is made. It also includes financing for prior results of \$5 million contingent on verification by the independent verification agency.

III. TECHNICAL ASSISTANCE

30. The TA will support the program implementation by (i) strengthening the institutional capacity of the implementing agencies and new entities like Amaravati city government, water utility, unified metropolitan transportation authority, etc. to promote inclusive, green, and economic planning, and sustainable urban services delivery; (ii) reviewing, strengthening, and updating the flood management plan considering the high vulnerability of Amaravati to the risks of floods aggravated by climate change impacts and supporting the GOAP in implementing and monitoring the revised flood management plan; (iii) conducting a climate risk assessment to inform the preparation and implementation of a city climate change action plan; (iv) mainstreaming sustainable, and gender-responsive approaches into the infrastructure development; (v) strengthening the capacity to apply digital technology solutions for urban planning, resources management, service delivery, and data-informed decisions; and (vi) strengthening institutional capacity and governance to attract private sector investments, including PPPs. The TA will also support city-to-city partnerships. These activities will be undertaken in close collaboration with the World Bank. The TA financing amount is \$1.5 million, which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The government will provide counterpart support in the form of counterpart staff, and other in-kind contributions.³²

IV. DUE DILIGENCE

A. Program Technical Assessments

31. **Program soundness and results assessment.** Assessments confirm that the program design and implementation arrangements are sound and incorporate key lessons from the sector and other RBL programs, ensuring a logical and effective structure. The DLIs were developed in close consultation between ADB, the World Bank, and the GOAP, and they represent critical milestones for achieving the program's expected results. The program's expenditure framework and financing plan are robust, ensuring financial sustainability using public funds, land

³² Technical Assistance Report (Annex 5).

monetization, and PPPs. The monitoring and evaluation system is comprehensive and fit for purpose, allowing the effective tracking of program progress and performance. The program is highly relevant to the region's economic development and job generation, and its successful implementation will deliver significant benefits to the state. Following the Joint Multilateral Development Banks Methodological Principles for Assessment of Paris Agreement Alignment, the operation has been assessed as aligned with the goals of the Paris Agreement.³³

32. **Economic analysis.** Economic benefits include access to reliable water supply and sanitation services, savings in vehicle operating costs and travel time, reduced greenhouse gas emissions, and savings in income losses and infrastructure maintenance expenses related to floods, etc. A cost-benefit analysis, following ADB guidelines, shows that the economic internal rates of returns of quantifiable components (13.6%–23.0%) exceed the economic opportunity cost of capital of 9.0%, and are robust under various adverse sensitivity scenarios.³⁴ Further, Amaravati's strategic location, with planned connectivity to surrounding industrial clusters, and integrated urban planning can leverage synergies and maximize potential job creation.

B. Gender Equality

33. The program is categorized *effective gender mainstreaming*, and a gender assessment has been prepared (Annex 3). Key gender issues identified include (i) women in Andhra Pradesh mainly work in poor-quality jobs, with only 34% of urban women in the formal labor force; (ii) they do not have the skills and training to be employed in sectors where better jobs are available; and (iii) they face constraints in accessing urban services, including water and sanitation, impacting their health. The program directly addresses women's and girls' issues through (i) gender-responsive urban designs (DLI 1), an affordable housing program for low-income groups and households headed by women (DLI 5), and safe transport (DLI 8); (ii) women's skills enhancement through skills training programs in construction, services, and entrepreneurship development; and increased access to skilled economic opportunities for women representing 58% of jobs (DLI 4); (iii) women's increased access to quality infrastructure and services with access to water and sanitation; (iv) women's representation in participatory mechanisms to guide city development and to solicit inputs for livability and livelihood outcomes (DLI 3); and (v) access to designated recreational spaces in Amaravati (DLI 8). The program will increase awareness of gender issues in the water and sanitation sector among the local communities. It will conduct training programs for the APCRDA, ADCL, PGMC, PMCs, Amaravati city government, water utility and unified metropolitan transportation authority on gender-mainstreaming, and gender and socially inclusive responsive program design and implementation.

C. Poverty and Social Dimensions

34. The program emphasizes inclusive planning and community involvement to ensure stakeholder participation and access to serviced land and city-wide infrastructure. Poverty and social issues and risks, particularly for landless agricultural labor and other vulnerable groups, are integrated into the program design through various government incentives. The program addresses key issues such as climate vulnerability, affordable access to urban infrastructure, and the provision of a shelter fund (DLI 5) to enhance access to affordable housing, and job opportunities, particularly for women and vulnerable groups. Economic growth and inclusion of the vulnerable groups will be ensured by: (i) providing access to sustainable job opportunities (DLI 4), (ii) delivering skills development and related employment (DLI 4), and (iii) imparting job-centric

³³ ADB. 2023. [MDBs Agree Principles for Aligning Financial Flows with Paris Agreement Goals](#). News release. 20 June.

³⁴ ADB. 2017. [Guidelines for the Economic Analysis of Projects](#).

training to foster inclusive development. Core labor standards will be adhered to, and provisions related to community health and safety risks and sexual exploitation, abuse, and harassment will be included in the bidding documents.

D. Program Systems Assessments

35. **Monitoring and evaluation system.** The due diligence confirmed that the APCRDA has an effective monitoring and evaluation system in place for overseeing infrastructure development and governance-related indicators. This will be strengthened by integrating a digital platform that will consolidate key data, infrastructure asset management, and governance performance. The enhanced platform will be used to monitor progress against the DLIs and to generate real-time performance evaluation reports and informed decision-making. The platform will enable the APCRDA and ADCL to track and report on the achievement of program results, ensuring transparency and accountability.

36. **Fiduciary systems.** The program fiduciary systems assessment rated the financial management risk high. Key risks identified include: (i) untimely provision of funds by the state government for some recent externally assisted projects, (ii) overdue audited financial statements of APCRDA and ADCL, (iii) inadequate financial staff capacity, and (iv) lack of fixed asset register. To mitigate these risks, the APCRDA and ADCL agreed to include strengthening of financial management systems, including preparing an accounting manual for both entities, establishing a fixed asset register, and reducing the audit backlog (DLI 1). Further, an external audit firm will be engaged to conduct the program audit, key professional finance staff will be appointed, a program financial management manual will be prepared, the program will be included in the internal audit plan, and audit findings will be reviewed and addressed by an audit committee to be formed.

37. **Procurement.** The program involves 36 works packages, including 25 packages above the usual RBL contract ceiling of \$50 million for ADB.³⁵ ADB has concurred for the inclusion of high-value contracts above \$50 million under exceptional cases because of the cofinancing context, aligning with the World Bank threshold, with appropriate procurement risk mitigation measures put in place. The procurement risk was assessed as *high* because (i) implementing agencies have no previous experience working with ADB, and limited experience and capacity to handle high-value contracts; (ii) some of the previously stalled contracts are yet to be closed; and (iii) established procurement processes, online monitoring, and complaint management handling are lacking. Procurement risk mitigation actions have been agreed (DLI 1). An information and communication technology platform for procurement and contract management will ensure efficiency and integrity of the procurement function including contract lifecycle management. An annual procurement audit will be conducted and integrated with the fiduciary audit. In line with ADB's Procurement Policy (2017, as amended from time to time) and ADB's focus on the promotion of sustainability in ADB-financed procurement, a sustainable procurement guidance note will be prepared and pilot-tested by APCRDA in the new contracts.

38. Integrity due diligence was conducted on ADCL, its board, and key management members and no significant or potentially significant integrity risk related to the program was identified. ADB's Anticorruption Policy (1998, as amended from time to time) and relevant guidelines and procedures were explained to and discussed with the government and the APCRDA and ADCL.

39. **Safeguard systems.** The program is classified as *category B* for environment, *category*

³⁵ The splitting of civil works packages below \$50 million was not feasible as it would have disrupted the cohesive design, apart from increased coordination challenges, and compromised efficiency

A for involuntary resettlement, and *category C* for Indigenous Peoples following ADB's Safeguard Policy Statement (SPS, 2009).³⁶ Activities that are classified as category A for environment under the SPS will be ineligible for financing through the RBL modality.³⁷ In addition, ADB will not finance activities on ADB prohibited investment activities list. The program excludes high-risk activities, including the physical displacement of people living in village clusters. ADB and the World Bank jointly conducted the safeguards systems assessment, and the environment and social systems assessment (ESSA) prepared by the World Bank is being adopted for this program with additional actions and gap-filling measures to meet SPS and RBL policy requirements.

40. Potential adverse environmental impacts include soil erosion, pollution of ecosystems such as natural water bodies, air quality deterioration, increased carbon emissions, poor construction waste management, traffic congestion, construction-related disturbances, and occupational and community health and safety risks.³⁸ Disaster risks, particularly from floods, are high and aggravated by climate change impacts. These will be addressed by strengthening and updating the current flood management plan, which includes nature-based solutions, and strengthening institutional capacities for flood management. The program will also support the GOAP in preparing a climate change action plan for Amaravati.

41. More than 98% of the land required for the program was acquired before 2019 and before ADB's involvement. The land acquisition is pending for about 248.03 acres (about 1.9% of the program's total land requirement of 12,918.972 acres) for the program, which will involve resettlement impacts.³⁹ The APCRDA has relied on the LPS as the primary instrument for land assembly while other instruments include negotiated settlement policy.⁴⁰ The institutional capacity of the APCRDA is demonstrated in the land pooling targets achieved, enabled by community-level engagement, and the implementation of resettlement policies by a team of experienced safeguard professionals.⁴¹ The resettlement policy framework notified by the APCRDA recognizes the eligibility and entitlement of both titled and non-titled affected persons. It also includes provisions for livelihood-related skills training, with a targeted and tailored approach for the landless and vulnerable affected households. The compensation and resettlement benefits are assessed to meet replacement cost and livelihood enhancement and/or restoration requirements in line with the SPS. The consultations and assessment suggest that affected communities are used to urban living because of its proximity to Vijayawada, and the program enjoys general acceptance among the community for offering them better living conditions and livelihood opportunities. The program's legacy issues are a manifestation of its

³⁶ ADB. 2009. [Safeguard Policy Statement](#). Following the SPS (2009), a project is classified as category A if it causes physical displacement or the loss of 10% or more of productive, income-generating assets to 200 or more persons, deemed as significant impacts.

³⁷ Activities with potential significant adverse environmental impacts that are diverse, irreversible, or unprecedented; however, these activities may still be included in the broader government-owned program.

³⁸ The environmental impacts of the program implementation and of urbanization also include environment deterioration because of air and water pollution; increased in generation of wastewater and solid waste; increased urban heat island effects, changes in community dynamics; strain on local infrastructure and services; and increased living costs and economic disparity, driven up by the influx of new businesses and residents.

³⁹ The program's pending land procurement is anticipated to result in economic displacement of 871 landowners (2,987 family members) and 4 business owners (14 family members). About 74 households (270 persons) are anticipated to face physical displacement. Among the affected, 210 are vulnerable affected households (720 family members).

⁴⁰ LPS offers returnable plots and annuity to the landowners, and pensions and other assistance to the landless. The negotiated settlement policy is an option to involuntary land acquisition under the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. Refusal by the landowner to avail of the negotiated settlement or the land pooling option may lead to exercise of eminent domain.

⁴¹ The APCRDA is assessed to have a core team of safeguards personnel, which needs to be strengthened considering the program scale with a well-defined structure and additional staffing, and standard operating procedures on key safeguards aspects, including a GRM.

contextual risks, include pending compensation payments to assigned landholders, and a 5-year implementation delay, resulting in delayed realization of benefits by communities. The borrower’s capacity and commitment to address these risks is demonstrated through recent measures.⁴²

42. Scheduled tribe households constitute 4.6% of the population and there are no Indigenous Peoples’ groups or territories such as tribal villages, scheduled areas or integrated tribal development blocks. There is also no presence of “vulnerable tribal groups” as defined by the Government of India. The program is not anticipated to impact the dignity, human rights, livelihood systems, or culture; or affect the territories or natural or cultural resources that Indigenous Peoples own, use, occupy, or claim as an ancestral domain or asset.

43. Based on the safeguards system assessment, risk mitigation measures agreed with the APCRDA include (i) establishing an E&S management unit to be supported by the PGM and PMCs and strengthening of safeguard monitoring and stakeholder engagement as part of the DLI; (ii) including health and safety clauses and environmental management plans in the bidding documents and contracts; (iii) institutional strengthening and capacity building for safeguards monitoring and reporting; and (iv) formalizing and strengthening the grievance redress mechanism and communication, outreach with standard operating procedures. Any grievances or legacy issues will be addressed by the grievance redress mechanism and through corrective actions if required during implementation. Limited physical displacement will take place, and the program will avoid major irreversible impacts as entire village clusters will not be affected. The program has significant impacts on the livelihoods of affected people, and adequate provisions are in place to restore and improve their livelihoods.

E. Sustainability

44. A financial sustainability analysis was conducted for the program to determine whether there are sufficient resources available for the O&M of the program assets. The financial sustainability risk is assessed as *substantial* because of (i) insufficient allocation and/or delay in the release of O&M budget; (ii) further development of Amaravati contingent upon several factors such as relocation, population growth, additional infrastructure works, and private sector participation; and (iii) limited capacity of the APCRDA and ADCL. To mitigate these risks, (i) the APCRDA will procure long-term O&M contracts for asset management, and (ii) institutional and governance strengthening and creation of a ring-fenced department or utility for sustainable operation are included as a DLI.

F. Summary of Risk Assessment

45. Major risks and mitigating measures are summarized in Table 5 and described in detail in the integrated risks assessment and mitigating measures section of the program implementation document.⁴³

Table 5: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Results. Limited experience of the APCRDA and ADCL in effectively implementing large-scale infrastructure projects.	A PGM and each contract-wise PMC will be engaged to assist the APCRDA and ADCL in overseeing program management and construction.
Expenditure and financing. The weak	Regular monitoring of the state’s fiscal health combined with

⁴² These include clearance of arrears to assigned landholders, enhanced in unit rates of compensation based on inflation adjustment to address implementation delays, and flexibility in selecting returnable plots for land pooling.

⁴³ Program Implementation Document (Annex 4).

Risks	Mitigating Measures
macroeconomic situation of Andhra Pradesh because of its ongoing fiscal stress, and delays in the release of a budget may hinder the state's ability to allocate counterpart funding in a timely manner for program implementation. Further, as the government is contributing only 10% of RBL program expenditures, expenditures may be less than development partners' financing.	offering incentives for achieving first-year DLIs will help ease the financial pressure of investments and will ensure timely funding to sustain the program's progress. Quarterly monitoring of the program execution through periodic progress reports including a report on the utilization of all sources of funds and continuous dialogue with the government will be undertaken by ADB. The Government of India has strong support for development of Amaravati as announced in the Union Budget of 2024.
Fiduciary. Weak financial management capacity of the implementing agencies may result in inefficient allocation or improper use of funds	Implementation of financial management actions by APCRDA and ADCL: (i) preparing a financial management manual, (ii) developing a fixed asset register, (iii) engaging professional finance staff, (iv) reducing audit backlogs, and (v) conducting an internal audit.
Safeguards. Inadequacy of personnel and procedures to manage E&S risks	E&S management unit established (prior result). PGMC and PMCs will support the unit, including monitoring of SOP. The works contracts will include EMPs and SOPs for the grievance redress mechanism.
Flooding. Flooding aggravated by climate change may impact service delivery and quality of life for residents in Amaravati.	The program and the attached TA will support the GOAP in reviewing, strengthening, and updating the flood management plan considering climate change impacts. The program will also support the implementation and monitoring of the revised plan.
Political and Governance. Strong political and local stakeholder support is in place for the development of the new capital. However, ongoing scrutiny is anticipated, especially concerning the program, and its progress and quality of implementation.	The APCRDA will adopt a communication strategy to ensure that key stakeholders have consistent access to information. The program also supports the creation of transparent and accountable governance institutions responsive to the needs of citizens and other stakeholders. Additionally, a Citizens' Advisory Committee is being proposed to enhance participation and oversight (DLI 6).
Sustainability. Insufficient allocation of funds for operation and maintenance may hamper the usefulness of the assets throughout its economic life.	The operationalization of ring-fenced utilities (DLI 2) and adoption of tariff and user charges policy is a part of the Program Action Plan (PAP 1.3). The TA attached to the program will support the capacity building of new utilities.

ADB = Asian Development Bank, ADCL = Amaravati Development Corporation Limited, APCRDA = Andhra Pradesh Capital Region Development Authority, DLI = disbursement-linked indicator, E&S = environmental and social, EMP = environmental management plan, GOAP = Government of Andhra Pradesh, PGMC = program management consultant, PMC = project management consultant, SOP = standard operating procedures, TA = technical assistance.
Source: ADB.

V. ASSURANCES

46. The government and the APCRDA have agreed with ADB on certain covenants for the RBL program, which are set forth in the draft loan agreement and program agreement.

VI. RECOMMENDATION

47. I am satisfied that the proposed results-based loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of ₹121,972,000,000 to India for the Amaravati Inclusive and Sustainable Capital City Development Program, 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 26 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 agreement presented to the Board.

Masatsugu Asakawa
President

20 November 2024

DESIGN AND MONITORING FRAMEWORK

Impact the Program is Aligned with			
Amaravati developed as the pioneer world class green, smart city as an economic powerhouse with global quality of living standards for all people (GOAP. 2024. <i>White Paper on Amaravati, Government of Andhra Pradesh</i>)			
Results Chain	Performance Indicators^a	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<p>Outcome Access to inclusive, efficient, and resilient infrastructure and public services, and jobs provided</p>	<p>By 2029:</p> <p>a. Urban space with 8,000 parcels having improved access to sustainable services, green transport and recreational space^b (2024 baseline: 0) (OP 4.3.1) DLI 8</p> <p>b. 45,000 persons (of whom 22,500 are women) have access to climate-resilient, and sustainable water, sanitation infrastructure and services^c (2024 baseline: 0) (OP 4.1.2; OP 2.1.4)</p> <p>c. 100,000 persons (of whom 50,000 are women) have access to climate-resilient, and sustainable transport infrastructure and services^d (2024 baseline: 0) (OP 4.1.2; OP 2.1.4)</p> <p>d. 3,315-hectare area with new/improved drainage system protected from flood risks^e (2024 baseline: 0) (OP 3.2.1; OP 4.3.2)</p> <p>e. 20 anchor investors attracted by Amaravati (2024 baseline: 0) (OP 1.2.1) DLI 4</p> <p>f. \$900 million private capital enabled^f (2024 baseline: 0) (OP 1.2.1)</p> <p>g. New jobs for 12,000 persons (of which 7,000 women and 2,400 youth) created (2024 baseline: 0) (OP 1.2; OP 2.1) DLI 4</p>	<p>a–g. Reports from the APCRDA and PGMC, annual reports on the operationalization of urban institutions, and quarterly and/or semi-annual reports, verified through the IVA.</p>	<p>A: The government remains committed to operationalizing urban institutions for efficient service delivery.</p> <p>A: The government provides incentives to attract both residents and businesses for sustained economic development.</p>
<p>Outputs 1. Inclusive governance and financing frameworks strengthened</p>	<p>1a. By 2028, operational systems and mechanisms established and strengthened for program delivery⁹ (2024 baseline: not applicable) (OP 4.1.1; OP 6.2.1) DLI 1</p> <p>By 2029:</p> <p>1b. Institutional mechanisms for inclusive, green and resilient service delivery established^h (2024 baseline: not applicable) (OP 4.1.2; OP 6.2.1; OP 6.2.2) DLI 2</p> <p>1c. Financing plan and policy for land and asset monetization with a long-term land</p>	<p>1a–1d. Reports from the PGMC, APCRDA, ADCL, and other institutions; Orders on tariff structure, and public private partnership, quarterly and/or semi-annual reports, verified through the IVA.</p>	<p>R: Land monetization does not result in sufficient capital.</p>

Results Chain	Performance Indicators ^a	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	monetization strategy adopted by APCRDA (2024 baseline: not applicable) (OP 6.1.2) DLI 3 1d. At least 3 PPP transactions supported (2024 baseline: not applicable) (OP 6.1.2)		
2. Inclusive green economic growth and social development supported	By 2029: 2a. Establishment of economic development unit for Amaravati with adopted business roadmap (2024 baseline: not applicable) (OP 1.2.2) DLI 4 2b. Policies and programs operationalized for increased access to green and resilient affordable housing in Amaravati ⁱ (2024 baseline: not applicable) (OP 1.3.3) DLI 5 2c. 17,000 beneficiaries (of which 10,100 are women and 3,400 are youth) trained in urban construction or services job skills ^l (2024 baseline: 0) (OP 2.1.1) DLI 4 2d. Full participatory system for grievance redressal and outreach in place with gender and social inclusion focus to develop communities ^k (2024 baseline: not applicable) (OP 1.3.3) DLI 6 2e. A Climate change action plan for Amaravati strengthened. (2024 Baseline: not applicable)	2a–2e. Reports from the APCRDA, and economic development unit; affordable housing policies, orders on participatory system, TA reports, quarterly / semi-annual reports, verified through IVA.	R: Limited private sector interest in participating in long-term infrastructure projects because of perceived regulatory and financial risks. R: Lack of integration between the Economic Development Unit's roadmap and the actual infrastructure and services developed, leading to a disconnect between asset creation and economic growth. A: The economic development unit works closely with the APCRDA to ensure economic planning directly tied to infrastructure development, with a focus on service delivery that supports local businesses and job creation.
3. Climate-resilient, sustainable, and inclusive infrastructure and service delivery solutions implemented	By 2029: 3a. 390 km of the trunk and neighborhood infrastructure (road, drainage, pipe network for water supply, sewage and treated wastewater) with climate-resilient features delivered (2024 baseline: 0) (OP 3.2.5, OP 4.1.2) DLI 7 3b. Flood management plan strengthened along with its implementation and monitoring. Baseline: not applicable (OP4.3.2) DLI 7 3c. 390 km of non-motorized transport infrastructure delivered ^l (2024 baseline: 0) 3d. 50 km of bus lane or bus-rapid transport system developed ^m (2024 baseline: 0) 3e. Updated sustainable, resilient and gender and socially inclusive urban design	3a–3f. Reports from the APCRDA, ADCL, and other institutions; quarterly / semi-annual reports, verified through IVA.	A: The government supports balanced investments that emphasize not only the creation of infrastructure but also its ongoing management and maintenance, ensuring the availability of critical services alongside physical development.

Results Chain	Performance Indicators ^a	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	guidelines adopted (2024 baseline: Basic urban design guidelines available) (OP 2.3.2) (DLI 1 and TA output) 3f. Digital solutions for service delivery developed and adopted (2024 baseline: not applicable) (OP 4.1.2) (TA output)		

<p>Key Program Actions</p> <p>Area 1: Program technical aspects</p> <p>1.1 Hire IVA based on TOR agreed with the World Bank and ADB (Q1 2025)</p> <p>1.2 Appoint a consulting firm to review road safety designs, recommend design adjustments, and establish an international road assessment program rating for the revised design (Q2 2025)</p> <p>1.3 Develop operational guidelines for an early warning system for disaster risk management including flooding (Q4 2025)</p> <p>1.4 Adopt water and wastewater connection and tariff policy (Q4 2025)</p> <p>Area 2: Fiduciary aspects</p> <p>2.1 Appointment of Chartered Accountant firm for program audit (Q2 2025)</p> <p>2.2 Establish a Fiduciary complaint-handling mechanism at APCRDA and ADCL to redress procurement, financial management, and corruption-related complaints within 3 months of effectiveness (reporting starts Q3 2025)</p> <p>Area 3: Safeguards</p> <p>3.1 Conduct a social audit of the Land Assembly process and livelihood impacts for Amaravati, at Program baseline, midterm, and end term with a focus on (i) the process, (ii) the impacts on landowners, landless, and other Program Affected Persons, and (iii) livelihood impacts (baseline, mid-term and end-term)</p> <p>3.2 Appoint an implementation support NGO</p> <p>Area 4: Gender Equity</p> <p>4.1 Monitor progress and collect data disaggregated by sex on the number of new and better jobs received by local community, including the targeted number of women (Q4 2026–Q4 2029)</p> <p>4.2 Ensure coverage of the targeted percentage of households headed by women in the provision of access to new affordable housing in Amaravati (Q4 2027–Q4 2029)</p> <p>4.3 Integrate gender-responsive features in the updated urban design guidelines (Q4 2025)</p> <p>4.4 Monitor progress related to the implementation of TA gender indicators and targets (Q4 2025–Q4 2029)</p>
<p>Financing Plan</p> <p>Total program financing (2025–2029): \$1.774 billion</p> <p>Government of Andhra Pradesh: \$185 million</p> <p>ADB: \$788.80 million equivalent (to be provided ₹121.972 billion)</p> <p>World Bank: \$800 million (not ADB-administered)</p>

A = assumption, ACR = Amaravati Capital Region, ADB = Asian Development Bank, ADCL = Amaravati Development Corporation Limited, APCRDA = Andhra Pradesh Capital Region Development Authority, DLI = disbursement-linked indicator, E&S = environment and social, EMP = environmental management plan, ESHS = environmental, social, health, and safety, GBV = gender-based violence, GRM = grievance redress mechanism, IVA = independent verification agency, km = kilometer, OP = operational priority, PGMC = program management consultant, PMC = project management consultant, PPP = public-private partnership, Q = quarter, R = risk, RAP = resettlement action plan, SEA = sexual exploitation and abuse, SOP = standard operating procedure, TA = technical assistance, TOR = terms of reference.

^a There are 21 performance indicators, of which 13 are linked to 8 DLIs, and the remaining 8 are non-DLIs.

^b A parcel refers to a developed plot of land that will be handed over to landowners who contributed to the land pooling scheme.

^c Access to water supply and sanitation facilities will result from the infrastructure delivered under DLI 7, its connection to parcels developed under DLI 8, and the services provided through institutional mechanisms established under DLI 2.

^d The water supply and sewerage systems will serve Amaravati residents, while the transport system will extend beyond Amaravati, including nearby urban centers like Vijayawada and Guntur. Access to transport facilities will result from the infrastructure delivered under DLI 7, its connection to parcels developed under DLI 8, and the services provided through institutional mechanisms established under DLI 2.

^e An improved drainage system will result from the infrastructure delivered under DLI 7.

^f Establishing an economic development unit and promoting investors under DLI 4 will also enable the inflow of private capital. The monetary value of all potential private investments, including financing, investment, guarantees and

technical assistance, that are: (i) expected to materialize or be measured within 3 years of project closure; and (ii) enabled by the physical, operational, policy, institutional interventions under the program that address binding constraints to private investments and affect private investment and/or commercial financing.

- ^g Updated sustainable urban design guidelines adopted by APCRDA for Amaravati development; E&S management unit established; Functional information and communication technology platforms operationalized by APCRDA for procurement and E&S compliance monitoring; Accounting manuals for APCRDA and ADCL approved; information and communication technology systems for E&S and procurement and contract management applied to program activities.
- ^h The State adopted a medium-term governance and institutional plan for ACR and Amaravati and for the delivery of urban services; Disaster Risk Management and Flood Monitoring Agency for Amaravati operationalized; Unified Metropolitan Transport Authority for ACR operationalized; A proposal for the legal structure of Amaravati city government has been approved by the Competent Authority; and Service delivery arrangements for water and sewerage has been through a rig-fenced corporate structure operationalized.
- ⁱ The policy establishes a framework for green and resilient affordable housing in Amaravati, mandating 10% affordable housing in private developments or an equivalent monetary contribution. The Amaravati Affordable Housing Shelter Fund will manage these contributions to support affordable housing initiatives across income groups.
- ^j While 17,000 beneficiaries are expected to receive skills development training, the job creation target is set at 12,000, under DLI 4 as not all trained beneficiaries may secure employment.
- ^k Participatory mechanism through the Citizen Advisory Committee, GRM, and village community groups.
- ^l Non-motorized transport infrastructure will be developed through improvements to trunk infrastructure.
- ^m Bus lane or bus rapid transport system infrastructure will be developed through improvements to trunk infrastructure.

Source: ADB.