



Report and Recommendation of the President to the Board of Directors

Project Number: 53199-001
October 2021

Proposed Loan and Administration of Technical Assistance Grant Kingdom of Cambodia: Livable Cities Investment Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 2 September 2021)

Currency unit	–	riel/s (KR)
KR1.00	=	\$0.00024
\$1.00	=	KR4,086

ABBREVIATIONS

ADB	–	Asian Development Bank
COVID-19	–	coronavirus disease
EMP	–	environmental management plan
IEE	–	initial environmental examination
km	–	kilometer
m ³	–	cubic meter
MPWT	–	Ministry of Public Works and Transport
O&M	–	operation and maintenance
PAM	–	project administration manual
RSIV	–	Rectangular Strategy Phase IV
TA	–	technical assistance
WWTP	–	wastewater treatment plant

NOTE

In this report, “\$” refers to United States dollars.

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PROJECT AT A GLANCE

1. Basic Data		Project Number: 53199-001	
Project Name	Livable Cities Investment Project	Department/Division	SERD/SEUW
Country	Cambodia	Executing Agency	Min. of Land Mgt., Urban Planning & Construction, Ministry of Public Works and Transport
Borrower	Cambodia		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=53199-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=53199-001-PortAtaGlance		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Water and other urban infrastructure and services	Urban flood protection		33.50
	Urban policy, institutional and capacity development		6.40
	Urban sewerage		105.30
	Urban solid waste management		34.80
	Total		180.00
3. Operational Priorities		Climate Change Information	
✓ Addressing remaining poverty and reducing inequalities		GHG reductions (tons per annum)	171.400
	✓ Accelerating progress in gender equality	Climate Change impact on the Project	Medium
	✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability		
	✓ Making cities more livable	ADB Financing	
	✓ Strengthening governance and institutional capacity	Adaptation (\$ million)	30.86
✓ Fostering regional cooperation and integration	Mitigation (\$ million)	5.46	
		Cofinancing	
		Adaptation (\$ million)	0.00
		Mitigation (\$ million)	0.00
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 1.5		Effective gender mainstreaming (EGM)	✓
SDG 5.1, 5.5			
SDG 6.3		Poverty Targeting	
SDG 11.5, 11.6, 11.b		General Intervention on Poverty	✓
SDG 13.a			
4. Risk Categorization:		Low	
5. Safeguard Categorization		Environment: B Involuntary Resettlement: B Indigenous Peoples: C	
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		180.00	
Sovereign Project (Concessional Loan): Ordinary capital resources		180.00	
Cofinancing		0.00	
None		0.00	
Counterpart		14.10	
Government		14.10	
Total		194.10	
Note: An attached technical assistance will be financed on a grant basis by the Japan Fund for Poverty Reduction in the amount of \$2,000,000.			
Currency of ADB Financing: US Dollar			

CAMBODIA

LIVABLE CITIES INVESTMENT PROJECT



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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Kingdom of Cambodia for the Livable Cities Investment Project. The report also describes the proposed administration of technical assistance (TA) to be provided by the Japan Fund for Poverty Reduction for the Technical Support and Capacity Development in Urban Planning, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the administration of the TA.

2. The project will support inclusive and sustainable development of the secondary cities of Bavet, Kampot, and Poipet, by providing (i) access to improved wastewater services to 26,850 people, (ii) improved solid-waste management services benefiting 91,130 people, (iii) reduced flooding through improved urban stormwater and drainage systems benefiting 23,960 people, and (iv) capacity development to strengthen the institutional capacity of the municipal administrations in the operation and maintenance (O&M) of public services.

II. THE PROJECT

A. Rationale

3. **Economic outlook.** Between 1998 and 2019, Cambodia's economy grew at an average rate of 7.7% per year. The opening of Cambodia's borders to international trade attracted foreign direct investments that supported the manufacturing and tourism industries, and its high growth contributed toward a decline in the poverty rate from 47.8% in 2007 to 13.5% in 2014.¹ Travel restrictions and lockdowns as a result of the coronavirus disease (COVID-19) pandemic, however, have resulted in a decline in the construction, garment, and manufacturing industries and the collapse of the tourism and hospitality sector with a decline of 80.2% in international arrivals in 2020.² The economy contracted by 3.1% in 2020 and, although the full effects of the pandemic remain uncertain, it is expected to recover with growth projected to increase to 1.9 % in 2021 and 5.5% in 2022.³

4. **Urban development and planning constraints.** From 2008 to 2019, the population of Cambodia grew at an average of 1.4% per year from 13.4 million to 15.5 million and, by 2030, is expected to approach 20.0 million. During the same time, the urban population has increased at a rate of 8.1% per year from 2.60 million to 6.14 million, growing from 19.5% to 39.4% as a proportion of the total population.⁴ Currently, most of the urban population is concentrated around the capital city of Phnom Penh, but it is slowly spreading to secondary cities where limited access to urban infrastructure and services is resulting in increased environmental degradation and deteriorating livability. The provision of basic infrastructure services is critical to attracting private sector investments and promoting economic competitiveness.⁵ However, the weak institutional capacity and limited availability of resources of the municipal administrations constrain effective planning and service delivery to meet the needs of the growing population.

¹ Asian Development Bank (ADB). 2021. *Basic 2021 Statistics*. Manila.

² Government of Cambodia. 2020. *Tourism Statistics Report in 2020*. Phnom Penh. Compared to the pre-pandemic level, the decline in international arrivals in 2021 is estimated to be 91.3%. (ADB. 2021. *Asian Development Outlook 2021 Update: Transforming Agriculture in Asia*. Manila.)

³ ADB. 2021. *Asian Development Outlook 2021 Update: Transforming Agriculture in Asia*. Manila.

⁴ Government of Cambodia. 2020. *General Population Census of the Kingdom of Cambodia 2019*. Phnom Penh.

⁵ ADB. 2017. *Tourism Sector Assessment, Strategy and Road Map for Cambodia, Lao People's Democratic Republic, Myanmar, and Viet Nam, 2016–2018*. Manila.

5. **Access to urban infrastructure and services.** In 2019, about 46.7% of the urban population had access to piped water supply in dwellings, with 10.6% reliant on piped water in a compound, public taps, or standpipes. About 44.8% of the urban population had access to a pour flush toilet connected to sewerage, and 34.7% had access to a pour flush toilet connected to a septic tank or pit (footnote 4). Many cities across the country experience poor wastewater service because of the absence of wastewater treatment plants and poor sanitation management. Untreated sewage is commonly discharged to the open environment through combined sewers and road drains, or indirectly via open canals. Solid-waste services are limited and are often outsourced to private contractors, but inconsistent performance of the waste contractors and weak enforcement have resulted in a large proportion of solid waste remaining uncollected, dumped in open canals or the open environment, or burned.

6. **Institutional arrangements.** As part of the decentralization reform, the government adopted a regulation in December 2019 under which planning, delivery, and O&M of public services are delegated to the municipal administrations.⁶ The municipal administrations currently do not have the capacity to deliver these services due to limited financial independence, lack of technical capacity and human resource constraints,⁷ and will need to be supported initially by the provincial government, and central line ministries. Unlike for water supply provision and solid-waste services in some cities, private sector investments in the delivery of urban services for wastewater and stormwater are limited because of the low revenue potential.

7. **Project area.** The country partnership strategy of the Asian Development Bank (ADB) for Cambodia, 2019–2023 identified the need to focus on the development of the cities of Bavet, Kampot, and Poipet because of their location along the Greater Mekong Subregion Southern Economic Corridor, their potential to service cross-border trade (Bavet as the key border entry point to Cambodia from Viet Nam, and Poipet as the key border entry point from Thailand) and opportunities to promote tourism (Kampot).⁸

8. **Access to services in the project area.** While ADB has been supporting the government to improve urban infrastructure in the three participating cities,⁹ access to infrastructure remains limited.¹⁰ There are currently no wastewater treatment plants in operation in Bavet and Poipet, and a significant proportion of raw sewage is discharged to the open environment through a series of combined sewers and road drains. Solid-waste services in these two cities are also inadequate. For Kampot, there is a need to provide additional investments to expand the existing wastewater network to service the urban population. Table 1 provides an overview of the state of urban infrastructure and services in the three project cities.

⁶ Government of Cambodia. 2019. *No. 182 ANK.BK. Sub-Decree on Functions and Structure of Municipal Administrations*. Phnom Penh. Under the subdecree, the municipal administrations, through the Public Works, Transportation, Hygiene, Environment, and Public Order Office, will provide public services including wastewater, stormwater drainage, and solid-waste management.

⁷ Staff resources of municipal administrations are limited. Currently, only three staff members for Bavet, five for Poipet, and seven for Kampot are engaged under the Public Works, Transportation, Hygiene, Environment and Public Order Office.

⁸ ADB. 2019. *Country Partnership Strategy: Cambodia, 2019–2023—Inclusive Pathways to a Competitive Economy*. Manila.

⁹ ADB. 2012. [Greater Mekong Subregion Southern Economic Corridor Towns Development Project](#). Manila; and ADB. 2015. [Second Greater Mekong Subregion Corridor Towns Development Project](#). Manila.

¹⁰ For Bavet and Poipet, earlier interventions include the construction of a material recovery facility and improvements to the drainage network. For Kampot, earlier interventions include the construction of a new wastewater treatment plant and network, and solid waste landfill.

Table 1: Status of Urban Infrastructure and Services

City	Permanent Population (2020)	Projected Permanent Population (2040)	Piped Water Supply (% coverage, 24 hours)	Sanitation (% safely managed) ^a	Stormwater (% population experiencing flooding) ^b	Solid Waste (% household collection coverage)
Bavet	44,570	73,500	57 ^c	26	6	14
Kampot	40,500	66,400	77	23	22	38
Poipet	110,500	203,500	50 ^c	9	15	16

^a Fecal sludge is contained by onsite sanitation and not discharged to the open environment.

^b Proportion of population experiencing flooding in their yard at least once a year, based on a comprehensive city survey conducted in December 2019–January 2020.

^c Operated by a private service provider under a license arrangement provided by the Ministry of Industry, Science, Technology and Innovation (previously the Ministry of Industry and Handicraft).

Source: Asian Development Bank estimates.

9. **Financial capacity and operation and maintenance.** The financial capacity of the municipal administration of the three participating cities is weak. The municipal administrations rely heavily on transfers from the central government to subsidize operations and to maintain a break-even cash situation.¹¹ Revenue from the operation of the public utility services is limited, and the O&M of the existing combined wastewater and drainage network has been funded by the municipal budget and central transfers. As a result, it is subject to significant uncertainties depending on other budgetary priorities.

10. **Strategic alignment.** The government is guided by the Rectangular Strategy Phase IV (RSIV) which aims to promote economic development, strengthen the capacity and governance of public institutions, improve service delivery, and foster inclusive and sustainable development.¹² The RSIV is supported by the National Strategic Development Plan 2019–2023, which details an action plan to develop cities with improved services, achieving 100% service coverage for both water supply and sanitation, and strengthening the management of solid waste.¹³ The project is aligned with the RSIV and will promote (i) development of land use plans to facilitate effective urban planning; (ii) digitalization to improve the management of urbanization; (iii) infrastructure master plans to support the provision of basic and essential infrastructure; and (iv) core cities and urban areas that incorporate smart city principles, including conservation of buildings and green cities. The project is also consistent with ADB's Strategy 2030 (Table 2)¹⁴ and pillar 4 on improving governance of ADB's country partnership strategy for Cambodia, 2019–2023 (footnote 8); the GMS Urban Development Strategic Framework;¹⁵ and the ADB Action Plan for Healthy Oceans and Sustainable Blue Economies.¹⁶

Table 2: Alignment with Strategy 2030

Strategy 2030 Priority	Project Interventions
Addressing remaining poverty and reducing inequalities	Improve services to women, poor people, and vulnerable groups through pro-poor initiatives (providing household connections and waste facilities including personal hygiene facilities to improve livelihoods and working conditions of waste pickers).
Accelerating progress in gender equality	Provide opportunities for women's participation in technical fields through the provision of scholarships in engineering and development of gender-responsive and inclusive recruitment and training plans within each municipal administration.

¹¹ Between 2016 and 2018, transfers from the central government averaged 94% of Bavet's income, 93% of Kampot's, and 76% of Poipet's.

¹² Government of Cambodia. 2018. *Rectangular Strategy for Growth, Employment, Equity and Efficiency: Building the Foundation Toward Realizing the Cambodia Vision 2050 Phase IV*. Phnom Penh.

¹³ Government of Cambodia. 2019. *National Strategic Development Plan 2019–2023*. Phnom Penh.

¹⁴ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

¹⁵ ADB. 2015. *Greater Mekong Subregion Urban Development Strategic Framework, 2015–2022*. Manila.

¹⁶ ADB. 2019. [Action Plan for Healthy Oceans and Sustainable Blue Economies](#). Manila.

Strategy 2030 Priority	Project Interventions
Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability	Provide climate-resilient infrastructure solutions that improve the management of solid waste and sewage and reduce riverine and marine pollution, and capacity-building and awareness programs that promote understanding of pollution prevention, waste minimization, environmental sustainability, and climate change.
Making cities more livable	Develop urban plans to improve long-term land use and city planning, implement infrastructure solutions to increase access to basic essential services, and improve conditions of the urban environment.
Strengthening governance and institutional capacity	Improve governance and operational capacity of the municipal administrations of the project cities to deliver improved public services and promote financial sustainability and efficiency in operations.
Fostering regional cooperation and integration	Improve opportunities for trade and cross-border environmental management by enhancing the condition of rivers, waterways, and the marine environment through improved pollution control.

Source: Asian Development Bank.

11. **Lessons learned.** Since 1993, ADB has provided \$544.3 million¹⁷ of funding support to the water and sanitation sector of Cambodia to improve water and urban infrastructure. While earlier interventions¹⁸ have improved access to basic infrastructure, there is growing recognition that any further infrastructure investments should be approached with a long-term planning perspective. Otherwise, delivery of partial infrastructure solutions through stand-alone projects may have only limited impact on communities. The project builds on these lessons by (i) adopting an integrated infrastructure planning approach that complements the proposed land use, anticipated growth, and development of the cities; (ii) strengthening the technical capacity of the municipal administrations in urban and land use planning and public utility management to ensure operations are sustainable in the long term; and (iii) raising awareness on health, hygiene, and sanitation, particularly among women.

12. **Development partner coordination.** ADB is a lead partner in the urban sector in Cambodia, working alongside other development partners including the Agence Française de Développement, the Japan International Cooperation Agency, and the World Bank. These partners have focused on improving water supply and sanitation services in Phnom Penh, Siem Reap, Battambang, Kampot, and Kampong Thom, and are also involved in the development of sanitation laws and regulations on tariff setting. In addition, the Government of Australia has been assisting the government in the development of a financing and cost recovery framework for wastewater.

B. Project Description

13. The project is aligned with the following impact: livability of secondary cities improved (footnote 12). The project will have the following outcome: access to urban infrastructure and services in participating cities improved.¹⁹

14. **Output 1: Policy and regulatory environment improved.** The project will support the participating cities and stakeholders in developing resilient spatial and land use plans to inform

¹⁷ ADB. 2020. *Asian Development Bank Member Fact Sheet: Cambodia*. Manila.

¹⁸ ADB. 2012. [Greater Mekong Subregion Southern Economic Corridor Towns Development Project](#). Manila; ADB. 2015. [Cambodia: Second Greater Mekong Subregion Corridor Towns Development Project](#). Manila; ADB. 2018. [Fourth Greater Mekong Subregion Corridor Towns Development Project](#). Manila; ADB. 2015. [Integrated Urban Environmental Management in the Tonle Sap Basin Project](#). Manila; and ADB. 2018. [Second Urban Environmental Management in the Tonle Sap Basin Project](#). Manila.

¹⁹ The design and monitoring framework is in Appendix 1.

and regulate future growth and development.²⁰ Planning and service delivery guidelines for wastewater, stormwater drainage, and municipal solid waste will be prepared to provide guidance to the municipal administrations of the participating cities on the O&M and delivery of sustainable and efficient services. These will include climate-resilient and gender-responsive and inclusive measures, taking into account the different needs of women, men, and vulnerable groups.

15. **Output 2: Urban infrastructure improved.** The project will improve access to urban infrastructure through (i) construction of wastewater treatment plants and sewerage network in Bavet and Poipet, and expansion of the sewerage network in Kampot; (ii) rehabilitation of existing canals and construction of new stormwater drains in Bavet and Poipet; and (iii) construction of landfills, including sorting and composting plants, in Bavet and Poipet.²¹ A behavior change campaign to promote awareness of pollution prevention and waste minimization measures will also be developed. Expanded access to improved sanitation will be particularly beneficial to vulnerable households, including those headed by women.

16. **Output 3: Institutional effectiveness and governance improved.** Institutional development plans for each participating city will be developed to guide the municipal administrations to become self-sufficient service providers. The plans will include tariff reform to cover O&M and to reduce the risk of ineffective service delivery because of poor infrastructure maintenance. A program for recruitment, mobility, and training will be developed to ensure that regular skills development. Women's participation in the sector will be encouraged through the promotion of women to technical and decision-making positions and provision of scholarships for women in engineering or relevant disciplines.

C. Value Added by ADB

17. ADB's involvement in the water and sanitation sector has supported the government to improve the livability of cities by increasing access to basic infrastructure. The project will build on the progress made in the sector and assist the government in adopting good practices in urban and infrastructure planning and providing tools for effective monitoring.

Noteworthy Features of the Project

(i) **Effectively integrating long-term planning solutions:** The project will support the development of spatial and land use plans for each participating city, which will form the basis for future interventions and ensure the long-term sustainable development of the cities. The municipal administration will be supported through training and capacity building programs to improve their oversight of urban development and planning in their respective cities.

(ii) **Boosting capacity and accountability for effective operations and maintenance:** Institutional development plans, including tariff reforms and cost-recovery mechanisms, will be prepared for each municipal administration, and capacity development assistance will be provided to ensure that the municipal administrations have the capacity to operate the investments sustainably and with greater accountability for operations and maintenance.

Source: Asian Development Bank.

²⁰ The spatial and land use plans will consider provisions to improve special conservation areas, biodiversity areas, border zones, and coastal and riverfront areas, and to promote green infrastructure and sustainability principles.

²¹ Output 2 will include (i) in Bavet, constructing a wastewater network including a wastewater treatment plant (WWTP) with a capacity of 3,930 cubic meters per day (m³/day), 1,522 household connections, 9.6 km of new or rehabilitated drainage network, and a sorting and a composting plant with a controlled landfill of 516,305 m³ capacity with waste collection vehicles; (ii) in Poipet, constructing a wastewater network including a WWTP with a capacity of 9,576 m³/day, 2,415 household connections, 7.13 km of new or rehabilitated drainage network, and a sorting and a composting plant with a controlled landfill of 632,784 m³ capacity with waste collection vehicles; and (iii) in Kampot, extending the existing sewerage network (being delivered under the Second Greater Mekong Subregion Corridor Towns Development Project (footnote 18) by constructing additional sewerage gravity lines and providing 1,515 household connections.

D. Summary Cost Estimates and Financing Plan

18. The project is estimated to cost \$194.1 million (Table 3). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).²² The major expenditure items include civil works and consultancy services.

Table 3: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Output 1: Policy and regulatory environment improved	1.6
2. Output 2: Urban infrastructure improved	147.5
3. Output 3: Institutional effectiveness and governance improved	2.1
Subtotal (A)	151.2
B. Contingencies^c	37.1
C. Financial Charges During Implementation^d	5.8
Total (A+B+C)	194.1

^a Includes taxes and duties of \$13.63 million. The government will finance \$1.96 million of taxes and duties associated with mechanical and equipment, and consultancy services through exemption and \$0.01 million of taxes for audit service in cash. The balance of taxes and duties of \$11.66 million for civil works will be financed by the Asian Development Bank loan. Such amount does not represent an excessive share of the project cost.

^b In mid-2021 prices as of 22 July 2021.

^c Includes physical and price contingencies and a provision for exchange rate fluctuation.

^d Includes interest on all sources of financing.

Source: Asian Development Bank estimates.

19. The government has requested a concessional loan of \$180 million from ADB's ordinary capital resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years; an interest rate of 1.0% per year during the grace period and 1.5% per year thereafter; and such other terms and conditions set forth in the draft loan agreement.

20. The summary financing plan is in Table 4. ADB will finance the expenditures in relation to investment costs, contingencies and taxes and duties on civil works. The government will finance expenditures in relation to land acquisition and compensation, recurrent costs (staff allowances and financial auditing services), and interest during construction through cash, and make an in-kind contribution that includes other running costs and exemption of local taxes on mechanical and equipment, and consulting services.

Table 4: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	180.0	92.7
Government of Cambodia	14.1	7.3
Total	194.1	100.0

Source: Asian Development Bank estimates.

21. Climate adaptation is estimated to cost \$30.86 million and climate mitigation is estimated to cost \$5.46 million, which will be fully financed by ADB.²³

²² Project Administration Manual (accessible from the list of linked documents in Appendix 2).

²³ Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

E. Implementation Arrangements

22. Implementation arrangements are summarized in Table 5 and described in detail in the PAM (footnote 22).

Table 5: Implementation Arrangements

Aspects		Arrangements	
Implementation period	December 2021–November 2027		
Estimated completion date	30 November 2027		
Estimated loan closing date	31 May 2028		
Management			
(i) Project steering committee	Chaired by MPWT with representatives from MEF, MISTI, MLMUPC, MOE, and MOI		
(ii) Executing agency	MPWT supported by a PMU		
(iii) Key implementing agencies	PDPWT of Banteay Meanchey (for Poipet), Kampot, and Svay Rieng (for Bavet)		
(iv) Implementation unit	The PIU will comprise representatives from the PDPWTs and municipal administrations and will be supported by technical, safeguards, and social and financial staff.		
Procurement	Open competitive bidding (internationally advertised)	7 contracts	\$132.7 million
	Request for quotations	2 contracts	\$1.0 million
Consulting services	Quality- and cost-based selection	1 contract 769 person-months	\$10.5 million
	Individual consultant selection	2 contracts	\$0.4 million
Retroactive financing	Not applicable		
Advance contracting	Advance contracting will apply to the procurement of the design and construction supervision consultants.		
Disbursement	Disbursement of the loan proceeds will follow ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank; MEF = Ministry of Economy and Finance; MISTI = Ministry of Industry, Science, Technology and Innovation; MLMUPC = Ministry of Land Management, Urban Planning and Construction; MOE = Ministry of Environment; MOI = Ministry of Interior; MPWT = Ministry of Public Works and Transport; PDPWT = provincial department of public works and transport; PIU = project implementation unit; PMU = project management unit.

Source: ADB.

III. ATTACHED TECHNICAL ASSISTANCE

23. The attached TA is estimated to cost \$2 million, which will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The TA will complement the project by developing the capacity of the municipal administrations in urban and infrastructure planning to ensure the cities' sustainable development and resilience to climate changes. The TA will focus on two key outputs: (i) spatial and land use planning improved and (ii) institutional capacity and governance strengthened. ADB will administer the TA, which will be implemented during 2021–2024. The Ministry of Land Management Urban Planning and Construction will be the executing agency and will coordinate with the three participating cities and the other relevant line ministries for national regulatory and policy reforms. The Ministry of Land Management Urban Planning and Construction, provincial governments, and municipal administrations will provide counterpart support in the form of staff, local data collection and coordination, and other in-kind contributions.²⁴

²⁴ Attached Technical Assistance Report (accessible from the list of linked documents in Appendix 2).

IV. DUE DILIGENCE

A. Technical

24. Technical due diligence involved a detailed assessment of different treatment, layout and routing options, and estimated capital and operational expenditure. For wastewater, treatment options using waste stabilization ponds and conventional activated sludge systems were assessed;²⁵ for stormwater drainage, climatic change mitigation and storm runoff rates were considered; and for solid waste, different collection and treatment options were assessed, including the use of presorting and composting facilities to reduce the amount of waste going to landfill.²⁶ Digital solutions (telemetry systems, sensors, and transmitters) were incorporated in the designs to improve efficiencies in public service management and to facilitate real-time monitoring.

25. **Climate change and environmental provisions.** The participating cities are expected to experience increased localized flooding and the proposed investments have been designed to be compatible with local conditions and resilient to the anticipated climatic changes, such as rainfall increase, rising sea levels, and storm surge. Climate adaptation measures proposed include increasing the capacity of the stormwater drainage network and constructing embankments to isolate the wastewater treatment plants from flooding. The proposed installation of solar panels to complement the building power requirements and the construction of sorting and composting plants to reduce greenhouse gas emissions will contribute to climate change mitigation.²⁷

26. **Safe work practices.** Project implementation will be responsive and flexible to meet evolving occupational health and safety protocols. The project will incorporate best construction practices to manage COVID-19 risks and follow guidance from the government and ADB on safe work practices under COVID-19 conditions.²⁸

B. Economic and Financial Viability

27. **Economic analysis.** The project is economically viable with a 12.1% economic internal rate of return for the overall project, using a 9.0% economic opportunity cost of capital.²⁹ The project's economic benefits include improvements to public health; lower health care expenditure; reduction in groundwater, waterway, and general environmental pollution; and savings in time and convenience with improved access to sanitation and waste disposal facilities. Sensitivity analysis showed that the project is economically robust against all adverse scenarios.

28. **Financial analysis.** The financial analysis for the three cities confirmed that revenue from the project components will not be sufficient to achieve a positive cash flow throughout the project life or generate a sufficient return to offset the capital investment and O&M costs without proper tariffs in place. Ongoing commitment from the municipal administrations, the executing agency,

²⁵ The assessment of the treatment options considered the required quality level of treated effluent and land availability for the treatment facility to accommodate the projected future flows.

²⁶ Sorting and composting plants were determined to be the appropriate treatment options to reduce the amount of waste going to landfill, and controlled landfills were determined to be the most appropriate waste disposal option.

²⁷ This aligns with the Cambodia Climate Change Strategic Plan, which promotes low-carbon planning and technologies to support sustainable development. Climate Change Assessment (accessible from the list of linked documents in Appendix 2).

²⁸ ADB. 2020. *Interim Advisory Note: Protecting the Safety and Well-Being of Workers and Communities from COVID-19*. Manila.

²⁹ Economic Analysis (accessible from the list of linked documents in Appendix 2). The economic internal rate of return was calculated to be 15.5% for Bavet, 15.2% for Kampot, and 9.7% for Poipet.

and project implementation agencies to support the implementation of tariff reforms will be essential to meet the ongoing O&M costs and to ensure the financial sustainability of the project.³⁰

C. Sustainability

29. The capacity of the municipal administrations is limited, and its financial sustainability will depend on the ability to raise revenue through adequate tariffs and fund the operational expenses. Each participating municipal administration will be required to adopt an institutional development plan that includes tariff reform, with procedures to raise tariffs, when necessary, during the operation of the project infrastructure and services. Deficiencies in O&M will need to be supported through budget allocations by the central government. The Ministry of Public Works and Transport (MPWT), as the responsible line ministry, will be required to provide continuous technical guidance and ensure that sufficient budgetary and resourcing requirements are allocated to support the municipal administrations in the O&M of the infrastructure.³¹

D. Governance

30. **Procurement.** The MPWT is experienced in ADB-financed projects however, the premitigation procurement risk is rated *high* due to limited: (i) understanding of the procurement framework, and (ii) project and contract management capabilities. The procurement risk assessment concluded that capacity development initiatives will be required to reduce the procurement risk to *medium*. The strategic procurement planning process will support the project in achieving value for money.³² All procurement of civil works and consulting services will comply with the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

31. **Financial management.** The assessed premitigation financial management risk is rated *substantial* as the provincial departments of public works and transport and municipal administrations have limited human resources for financial management, lack experience in implementing large projects, and have low financial autonomy. A time-bound action plan to mitigate risks has been prepared. Measures include developing a financial management training plan and financial management manual, implementing an internal audit function, and installing a computerized financial management system.

32. **Anticorruption.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government. The specific policy requirements and supplementary measures are described in the PAM (footnote 22).

³⁰ Financial Analysis (accessible from the list of linked documents in Appendix 2). The government is conducting a tariff study on wastewater services, including mechanisms for billing. Each participating city's municipal administration has confirmed its commitment to follow the national guidelines (once developed and implemented) and to promote awareness and information sharing regarding the tariffs for services.

³¹ In accordance with the government's Standard Operating Procedure on Project Management for all Externally Financed Projects/Programs in Cambodia (promulgated under Sub-Decree No. 181.ANK.BK on 2 December 2019), the MPWT, as the executing agency, will be required to prepare a financing plan that outlines the budgetary requirements to service any financing gaps to ensure sustainability of the investments.

³² Value for money will be achieved by (i) adopting appropriate evaluation criteria that address sustainability, cost, quality, and risks; (ii) ensuring that abnormally low bid provisions are included in open competitive bidding from internationally advertised packages to manage risks from substandard subcontracting; (iii) adopting the use of contract management plans for civil works; and (iv) applying the most appropriate procurement method and contract type based on past lessons to ensure that bidding is open to all parties and attracts qualified bidders.

E. Poverty, Social, and Gender

33. **Poverty targeting.** The project is classified as a general intervention for poverty targeting. The project will improve access to urban services for 28,200 households (141,940 people) across the three cities, including 632 poor and vulnerable households (3,170 people). Targeted interventions include pro-poor and social inclusion design features to ensure that the poor and vulnerable communities benefit from the improved urban infrastructure and services.³³

34. **Gender features.** The project is classified as effective gender mainstreaming and a gender equality and social inclusion action plan has been prepared.³⁴ The gender analysis identified that women are the primary contributors to household and sanitation tasks, are underrepresented in decision-making processes outside of the household, and hold very few technical and decision-making positions in the water and sanitation sector. Households headed by women were also found to spend a larger proportion of the household budget on health expenses. The project's gender features include (i) development of gender-responsive and inclusive guidelines on financial planning, tariff setting, and reporting; (ii) behavior change analysis and development of strategy on wastewater and solid-waste management targeting women, men, and vulnerable groups in the project area; (iii) development of gender-responsive and inclusive recruitment and training plans for participating municipal administrations; and (iv) award of at least 20 scholarships to female employees of the MPWT, the provincial departments of public works and transport, and/or municipal administrations to study engineering or other relevant sciences at an accredited institution to advance their careers in the water and sanitation sector.

F. Safeguards

35. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows:³⁵

36. **Environment (category B).** Three initial environmental examinations (IEEs) and corresponding environmental management plans (EMPs) have been prepared for the project in accordance with ADB's Safeguard Policy Statement (2009) and government laws and regulations.³⁶ The IEEs were prepared based on meaningful consultations during the project preparation. It is expected that the project sites will experience short-term, localized impacts during construction. These impacts will be site specific and reversible and can be avoided, minimized, or mitigated to an acceptable level with good construction practices and mitigation measures as defined in the EMPs and the corresponding site-specific construction EMPs to be prepared and implemented by the contractors.³⁷ Further consultations will be carried out during the implementation stage, and the IEEs and corresponding EMPs will be updated based on detailed engineering designs approved by the government, cleared by ADB, and disclosed before contract award. Updated EMPs will be included in the bidding documents. Civil works will

³³ As part of the project, household connections (or provision of septic tanks) for ID poor and vulnerable households, as identified by the government, who are unable to connect to the system will be included as part of the capital works. Public sanitation blocks will be constructed in public areas and/or marketplaces where there are no public toilets.

³⁴ Gender Equality and Social Inclusion Action Plan (accessible from the list of linked documents in Appendix 2).

³⁵ ADB. [Safeguard Categories](#).

³⁶ Initial Environmental Examination: Bavet; Initial Environmental Examination: Kampot; and Initial Environmental Examination: Poipet (accessible from the list of linked documents in Appendix 2).

³⁷ Potential environmental impacts include temporary disruption of roads and access to properties, increase in dust concentration and noise levels, sediment runoff, solid-waste generation and disposal, and occupational and community health and safety. Longer-term impacts associated with landfill sites (e.g., odor) have been appropriately assessed and will be mitigated in line with national and international requirements.

commence only after domestic national environmental clearances have been secured and the relevant construction EMP has been approved by the project management unit.

37. **Involuntary resettlement (category B).** Draft resettlement plans were prepared for the three participating cities in accordance with ADB's Safeguard Policy Statement (2009) and government laws and regulations.³⁸ Based on the feasibility study, the project may require a total area of 518,924.40 square meters (m²) to be acquired,³⁹ with 200 households (685 people) affected, of which (i) 19 households (81 people) may experience major impacts with loss of more than 10% of their productive land, and (ii) 17 households (60 people) are potentially vulnerable.⁴⁰ No relocation will be required, and all other impacts are minor such as on secondary structures and trees. The draft resettlement plans will be updated based on the detailed engineering designs, approved by the government, cleared by ADB, and disclosed prior to contract award. Compensation and allowances are to be provided prior to commencement of works. The General Department for Resettlement will oversee finalization, implementation, monitoring, and reporting of the resettlement plans during the project implementation stage.

38. **Indigenous peoples (category C).** An indigenous peoples due diligence report has been prepared in accordance with ADB's Safeguard Policy Statement (2009) and government laws and regulations.⁴¹ Meaningful consultations were carried out with 83 representatives from ethnic minorities, including 47 women, as part of the feasibility study, and the social impact assessments found that (i) there are no indigenous peoples communities that will be positively or negatively affected within the project impact area; (ii) there is a small number of ethnic Vietnamese people in Bavet; (iii) the Cham minorities in Poipet and Kampot are well-integrated into Cambodian society in terms of citizenship, language, education, and political representation, and enjoy equal rights and opportunities as Cambodian citizens; and (iv) the project will not have differential impacts on ethnic minorities, and any potential minor involuntary resettlement impacts are adequately addressed in the resettlement planning documents. During project implementation, the MPWT will ensure regular consultations with the ethnic minorities as well as the Khmer population.

39. **Grievance redress mechanism.** Field visits, meaningful consultations, and focus group discussions were held with the project beneficiaries as part of the project due diligence and will continue throughout the project implementation period.⁴² A grievance redress mechanism has been defined in the IEEs and resettlement plans and will be established in accordance with government regulations and ADB's Safeguard Policy Statement (2009) to address any project-related complaints.

G. Summary of Risk Assessment and Risk Management Plan

40. Significant risks and mitigating measures are summarized in Table 6 and described in detail in the risk assessment and risk management plan.⁴³

³⁸ Basic Resettlement Plan: Bavet; Basic Resettlement Plan: Kampot; and Basic Resettlement Plan: Poipet (accessible from the list of linked documents in Appendix 2).

³⁹ The estimated area to be acquired is 189,204.9 m² in Bavet, 456.5 m² in Kampot, and 329,263.0 m² in Poipet.

⁴⁰ The total area to be acquired and the number of affected households will be confirmed at the time of detailed engineering design measurement survey, and will be documented in the updated resettlement plans.

⁴¹ Indigenous Peoples Due Diligence Report (accessible from the list of linked documents in Appendix 2).

⁴² Project beneficiaries include the poor, ethnic groups, households headed by women, people with a disability, the elderly, and youth. Consultation and Participation Plan (accessible from the list of linked documents in Appendix 2).

⁴³ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 6: Summary of Risks and Mitigation Measures

Risks	Mitigation Measures
Lack of coordination during project implementation between provincial and municipal authorities, line ministries, and stakeholders, resulting in reduced project scope or conflicts in infrastructure design	PMU will facilitate regular meetings with provincial and municipal authorities to provide updates on the project implementation status. Representatives from provincial and municipal administrations will be included in review missions.
Low willingness to pay for services, resulting in a financially unviable system	Household connections will be provided as part of the project to ensure upfront connection to the system. Public awareness campaigns will be conducted to improve understanding of the benefits of household connections and solid-waste collection services.
Low willingness to implement institutional plan, resulting in lack of resources (financial and technical) and unsustainable service delivery	Institutional development plans on planning, service delivery, and financial management will be developed. The executing agency and PIAs will provide support to the municipal administrations in the development and implementation of the plans.
Insufficient tariff reforms and funding shortfall, resulting in limited revenue to cover operation and maintenance costs, leading to poor level of service	Institutional development plans including financial sustainability plans will be developed. Tariff structures and adjustments will be documented. Any deficiencies in the budget for operation and maintenance will be funded by the executing agency in accordance with the loan agreement.
The PIAs and project implementation units have limited experience with the implementation of externally funded projects	The Asian Development Bank will provide training on disbursement, financial management, and procurement. The PMU and design and construction supervision consultants will support project management, financial management, evaluation procedures, and capacity building.
The use of spreadsheet-based financial management systems by the PDPWTs and municipal administrations may lead to improper record keeping or mistakes	Accounting software and cloud-based backup storage will be purchased and implemented for each PDPWT and municipal administration. The PMU and PIA will ensure staff are trained in the use of the software. A qualified external auditor will be engaged to carry out an audit of financial statements.

PDPWT = provincial department of public works and transport, PIA = project implementation agency, PMU = project management unit.

Source: Asian Development Bank.

V. ASSURANCES

41. The government and the MPWT 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 (footnote 22) and loan documents.

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

VI. RECOMMENDATION

43. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$180,000,000 to the Kingdom of Cambodia for the Livable Cities Investment Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 1.0% per year during the grace period and 1.5% per year thereafter, for a term of 32 years, including a grace period of 8 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

22 October 2021

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
2. Urban infrastructure improved	responsive and inclusive, ^b are developed and implemented for each participating city (2021 baseline: None) (OP 2.3.2, OP 3.2.2)		
	1c. Provincial spatial plans and municipal land use plans developed ^c (2021 baseline: None) (OP 4.2)	1c. Provincial spatial plans and municipal land use plans for each participating city	
3. Institutional effectiveness and governance improved	2a. Two wastewater treatment facilities with combined capacity of 13,506 m ³ /day constructed and operational (2021 baseline: 0) (OP 3.2.5, OP 4.1.2; OP 7.3)	2a.–b. Quarterly project performance monitoring reports of the PMU, contractor's project construction records	R: Lack of coordination during project implementation between the government and stakeholders, resulting in reduced project scope or conflicts in infrastructure design
	2b. Two landfills with combined capacity of 1,149,089 m ³ constructed and operational (2021 baseline: 0) (OP 3.2.5, OP 4.1.2; OP 7.3)		
	3a. Institutional development plan on planning, service delivery, and financial sustainability (including tariff plan) developed and implemented for each participating city (2021 baseline: None) (OP 4.2.1; OP 6.2.1)	3a. Institutional development plan	R: Lack of government support to implement institutional plan, resulting in lack of resources (financial and technical) and unsustainable service delivery
	3b. A recruitment, continuous training, mobility, and promotion plan, that is gender responsive and inclusive, ^b is developed and implemented in each municipal administration (2021 baseline: None) (OP 2.3.2)	3b. Training and mobility program, training records, quarterly project performance monitoring reports of the PMU	
	3c. A memorandum of understanding agreed with accredited institutes or universities to promote women's careers in engineering, sciences, and technical studies (2021 baseline: None) (OP 2.2.1)	3c.–d. Quarterly project performance monitoring reports of the PMU, project completion report	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	3d. At least 20 scholarships (master's or graduate level) awarded to female employees of Ministry of Public Works and Transport, provincial departments of public works and transport, and/or municipal administrations to study engineering and/or other relevant sciences at an accredited institution to advance their careers in the water and sanitation sector (2021 baseline: 0) (OP 2.2.1)		
Key Activities with Milestones 1. Policy and regulatory environment improved 1.1 Conduct sector and regulatory review for wastewater, solid waste, and stormwater management, Q4 2022. 1.2 Prepare planning and service delivery guidelines for wastewater, solid waste, and stormwater management, Q4 2024. 1.3 Conduct consultation and situation analysis and develop provincial spatial plan and municipal land use plans, Q1 2022–Q2 2023 (under attached TA). 2. Urban infrastructure improved 2.1 Prepare detailed engineering design, bidding documents, and safeguard activities, Q2 2022–Q1 2024. 2.2 Construct civil infrastructure, Q1 2024–Q2 2027. 2.3 Develop and conduct behavior change and awareness campaigns, Q4 2023–Q2 2027. 3. Institutional effectiveness and governance improved 3.1 Conduct capacity-building needs assessment, Q4 2022 (under attached TA). 3.2 Prepare capacity-building program on urban planning, Q3 2023 (under attached TA). 3.3 Implement capacity-building and training workshops on urban planning, Q4 2023–Q4 2024 (under attached TA). 3.4 Prepare institutional development plan for each participating city, Q4 2025. 3.5 Implement capacity-building and training program and workshops, Q1 2025–Q3 2027.			
Project Management Activities Recruit design and construction supervision consultant, Q1 2022. Manage and supervise project, Q2 2022–Q3 2027. Implement gender equity and social inclusion action plan, Q2 2022–Q3 2027. Deliver project completion report, Q4 2027.			
Inputs Asian Development Bank: \$180.0 million (loan) Government of Cambodia: \$14.1 million Japan Fund for Poverty Reduction: \$2.0 million (TA grant)			

m³ = cubic meter, OP = operational priority, PMU = project management unit, Q = quarter, R = risk, TA = technical assistance.

^a Government of Cambodia. 2018. *Rectangular Strategy for Growth, Employment, Equity and Efficiency: Building the Foundation Toward Realizing the Cambodia Vision 2050 Phase IV*. Phnom Penh.

^b Gender responsiveness and inclusiveness will consider the different needs of women, men, and vulnerable groups.

^c Delivered under the attached TA.

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 (accessible from the list of linked documents in Appendix 2). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for

OP 2.1 Skilled jobs for women generated (number)

OP 2.3 Women represented in decision-making structures and processes (number)

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=53199-001-3>

1. Loan Agreement
2. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services
3. Project Administration Manual
4. Financial Analysis
5. Economic Analysis
6. Summary Poverty Reduction and Social Strategy
7. Risk Assessment and Risk Management Plan
8. Contribution to Strategy 2030 Operational Priorities
9. Attached Technical Assistance Report
10. Climate Change Assessment
11. Gender Equality and Social Inclusion Action Plan
12. Initial Environmental Examination: Bavet
13. Initial Environmental Examination: Kampot
14. Initial Environmental Examination: Poipet
15. Basic Resettlement Plan: Bavet
16. Basic Resettlement Plan: Kampot
17. Basic Resettlement Plan: Poipet

Supplementary Documents

18. Detailed Economic Analysis
19. Financial Management Assessment
20. Strategic Procurement Plan
21. Climate Risk and Vulnerability Assessment: Bavet
22. Climate Risk and Vulnerability Assessment: Kampot
23. Climate Risk and Vulnerability Assessment: Poipet
24. Indigenous Peoples Due Diligence Report
25. Consultation and Participation Plan