

COUNTRY CLIMATE INVESTMENT PLAN

1. The country climate investment plan represents a systematic process to anchor climate work into the strategic objectives of the country partnership strategy (CPS) and related country programming processes. ADB's climate planning and programming is intended to set the direct for ADB's climate support, promote innovation and improve capacity, and support coordination and communication for better outcomes. Climate support spans sovereign and nonsovereign lending operations, as well as knowledge and technical support. The country climate investment plan will support partnerships and policy dialogue on critical challenges.

A. Operational Climate Needs

2. **Increasing impact of climate change.** Cambodia is among the world's most vulnerable countries to climate change, ranking 149th out of 182 countries for vulnerability and readiness to improve climate resilience. The country's high level of vulnerability is due to a combination of its geography with extensive floodplains and low-lying terrain, high dependence on climate-sensitive sectors, and its low readiness to adapt to a changing climate. Cambodia ranked 19th out of 182 economies in the 2022 Notre Dame Global Adaptation Index for its vulnerabilities and low readiness to improve climate resilience, including limited human and financial resources, poor infrastructure, limited institutions, and limited access to technologies. It is estimated that climate change could lower the country's GDP by 9.8% by 2030.¹ The impacts of climate change are multi-dimensional and may significantly exacerbate existing wealth and income inequality, and hinder efforts to reduce poverty.

3. **Sensitivity of natural resources and other climate-vulnerable sectors.** Cambodia's economy and labor force is highly dependent on climate-sensitive sectors (such as agriculture, construction, and manufacturing). Climate change is expected to increase the frequency and intensity of flooding and drought, raise average temperatures and sea levels, and worsen saline intrusion. Extreme temperatures and changing hydrological cycles have already resulted in unpredictable rainfall patterns, droughts and floods, sea-level rise, and saltwater intrusion. These are expected to reduce the productivity of labor in the agriculture, fisheries, as well as manufacturing sectors and negatively affect the tourism and forestry sectors.² It is estimated that a 1 in 10-year flood could cause up to 7–11% of GDP loss, with lower impacts where businesses are more prepared.³ Floods also result in indirect costs in travel time to hospitals, schools, and markets and cause disruptions in supply chains and freight. Frequent droughts, especially in southeast regions, have severe impacts on crop yields and on the rural population who rely on subsistence agriculture. The impacts of drought are exacerbated by upstream dams on the Mekong River causing decreased water availability. Extreme heat is projected to lower labor productivity by more than 20% by 2050 and reduce tourism revenue by around 8% by 2050. Climate change is also associated with growing health risks including vector-borne diseases, malnutrition, respiratory tract infections, and heat-related illness.

4. **Disproportionate impact on vulnerable groups and regions.** Women, children, the elderly, people with disabilities, people experiencing poverty, and socially marginalized groups

¹ Ministry of Economy and Finance. 2019. Addressing Climate Change Impacts on Economic Growth in Cambodia. Phnom Penh. Climate change affected all key economic sectors including agriculture, tourism, garments, and construction. For example, climate change can increase the number of hot days, which is expected to reduce labor productivity in garment manufacturing, tourism, and construction.

² The government estimated that labor productivity loss caused by extreme heat stress accounted for 57% of loss and damage caused by climate change.

³ World Bank. 2023. [Cambodia Climate and Development Report](#). Washington, DC.

are often hit harder by climate change. Cambodian women are particularly vulnerable as they represent about 64% of the labor force in agriculture and are mostly engaged in manual work with low wages.⁴ Female-headed households account for 20% of rural households and face major challenges in accessing irrigation water and agricultural land mainly because of their exclusion from decision-making in water management.⁵ Children remain highly vulnerable due to high rates of malnutrition and stunting. At a broader level, poorer regions in Cambodia along the Mekong river, Tonle Sap basin and northwest provinces are at greater risk than wealthier areas around Phnom Penh (footnote 3). The combined impacts of climate change could increase poverty rates from anywhere between 1% and 6% by 2040, depending on climate scenarios considered.

5. **Early investment in adaptation is critical.** Investment in reducing climate risk and scaling up adaptation could significantly reduce economic impacts of climate change. With measures such as climate-proofing infrastructure, robust land-use planning informed by climate risk and better management of water resources, expected GDP losses could be halved (footnote 3). Promoting climate-smart infrastructure, especially at early stages of the project cycle i.e. during infrastructure design could help reduce losses related to infrastructure. Existing infrastructure is highly susceptible to loss and damage, with average annual losses in physical assets estimated at \$530 million in 2020, with the potential to increase to \$3.3 billion per year by 2050 (footnote 3).

6. **Greening growth offers new opportunities to mobilize investment.** Even though Cambodia is a low emitter of GHG, contributing only 0.02% to global emissions, its emissions are rising due to deforestation, expanded rice cultivation, and rising energy consumption driven by increasing energy consumption and transport activity. The carbon intensity per dollar of Cambodia's GDP is higher than others in the region,⁶ and its fossil fuel-related emissions are expected to triple between 2020 and 2050 under a business-as-usual scenario. The major source of GHG emissions (almost half) are from changes in land use and forestry, whereas agriculture is the second highest emitter, followed by energy, industrial processes, and waste management. A transition to a net zero economy will help improve competitiveness and create new potential sources of growth, especially as graduation from LDC categorization will require higher environmental standards to be met for exports to advanced economies. It will also contribute to economic diversification, generate higher-quality jobs, and attract higher FDI from global investors who are increasingly looking for green investments. Cambodia's National Solar Park Project is a good example of how a country can benefit from the declining price of renewable technologies.⁷

7. **Ambitious climate and development priorities.** Cambodia's economic performance has been impressive in the past two decades, and the country aspires to be an upper-middle-income country by 2030 and a high-income country by 2050 in its Vision 2050. Resilience to climate change, environmental sustainability and promoting a green economy are key priorities under the first phase of the government's Pentagonal Strategy. Cambodia increased its mitigation ambition in its updated NDCs in 2020, raising its emissions reduction target to 41.7% from 27% by 2030 compared to business as usual for the same time period.⁸ It also set an ambitious target of halving the country's deforestation rate by 2030 and included new mitigation targets in the

⁴ UN Women and CDRI. 2021. State of Gender Equality and Climate Change in Cambodia. UN Women and Cambodia Development Resource Institute

⁵ The Asia Foundation. 2019. Water, Gender, and Poverty in Cambodia's Stung Chinit Watershed.

⁶ Carbon intensity (kg CO₂ emissions per dollar of 2015 GDP) in 2020 was 0.8 kg compared with 0.6 kg for Indonesia and 0.5 for Thailand.

⁷ ADB. [Kingdom of Cambodia: National Solar Park Project](#).

⁸ Government of Cambodia. 2020. [Cambodia's Updated Nationally Determined Contribution](#). Phnom Penh.

agricultural and waste sectors. A long-term strategy for carbon neutrality sets out a pathway for low-carbon growth, largely dependent on reducing forestry-related greenhouse gas emissions.

8. **Slow implementation across sectors.** Despite a comprehensive framework of climate policies being in place, implementation has been slow and varied across sectors. The government's NDC action tracking found that half the mitigation and adaptation actions outlined in the NDC and long-term strategy had not yet started by the end of 2022.⁹ An earlier review of progress made on the Cambodia Climate Change Strategic Plan (2014–2023) showed similarly slow progress on implementation (footnote 3). Policy frameworks for climate change are not well integrated across sector plans and strategies, nor are they enshrined in Cambodia's legal and regulatory framework. Data gaps affect planning based on a robust understanding of climate risk. Institutional and capacity gaps, especially in sector ministries, impacts the rollout of adaptation and mitigation action.

9. **Significant financing gap for climate action.** Climate change public expenditure after being weighted for climate change relevance constituted only 5.9% of the total public expenditure in 2021.¹⁰ The majority of actions identified in the NDCs are conditional upon international support being made available. NDC actions are estimated to require \$5.8 billion for mitigation and \$2.0 billion for adaptation between 2020 and 2030. Projections to 2050 estimate that additional costs for climate action could be up to \$36 billion or around 1.7% of cumulative GDP over the same period (footnote 3). In contrast, \$632 million in public funds was allocated to climate-related activities in 2021, with 48% coming from the government's own sources and the remainder from development partners. Green finance could play a significant role but capital markets are nascent, with the first domestically listed bond being issued in 2021 and no green bond issuances to date.¹¹

B. ADB's Response to Climate Needs

10. **ADB climate finance for Cambodia.** Between 2018–2022, ADB provided \$240 million in climate finance to Cambodia. The focus of climate operations was on climate-proofing urban infrastructure, sustainable management of natural resources (especially for coastal and marine areas) and increasing the share of renewable energy and promoting energy efficiency. ADB provided integrated support for policy reform and investments to scale up clean energy, including through public private partnerships. The majority of ADB's support has been for adaptation (63% of climate finance for 2018–22) and has been increasing year on year in both total and share of financing. With nearly 20% of the total climate change expenditure for Cambodia in 2021, ADB is the country's largest source of climate-related development assistance.

11. **ADB's intended climate operations under the new CPS.** Under its new strategy, ADB will mobilize a dedicated program of support on adaptation and mitigation under its third pillar '*strengthen climate resilience*' and will align activities across all three pillars of the CPS with the adaptation and mitigation goals of the Paris Agreement, with the intention of mobilizing larger climate finance over the CPS period. ADB will focus on accelerating Cambodia's progress towards its NDC targets by (i) accelerating climate resilience and promoting adaptation in agriculture, water and other natural resources sectors, (ii) maximizing the opportunities for green growth through clean and renewable energy, and (iii) mobilizing public and private climate finance. ADB will prioritize policy support, technical assistance and investments directly linked to adaptation and mitigation priorities in Cambodia's NDC.

⁹ Ministry of Environment. 2023. Cambodia's Nationally Determined Contribution and Long-Term Strategy for Carbon Neutrality: Progress Report Year 2022. Phnom Penh.

¹⁰ Ministry of Economy and Finance. 2022. Cambodia Climate Public Expenditure Review 2021. Phnom Penh.

¹¹ ADB. 2022. [Green Bond Market Survey for Cambodia](#). Manila.

12. **Climate change adaptation.** The CPS will support the implementation of adaptation priorities in Cambodia's NDCs. ADB will support adaptation investment planning and related capacity building and develop a pipeline of investments focused on climate-smart agriculture, resilient water resource management and ecosystems, and climate-resilient urban infrastructure. Diagnostics focused on Northwestern provinces will help identify climate risks and associated adaptation options to strengthen food security and identify critical ecosystems and associated nature-based solutions. Downstream investments in the agriculture and natural resource management sectors will (i) bolster agriculture resilience and food security by investing in climate-resilient farming systems, (ii) promote climate-friendly agricultural value chains and agroecological approaches, (iii) strengthen river basin planning, integrated water resource management, and flood/drought risk management, (iv) enhance water resources and ecosystems resilience through nature-based solutions and ecosystem-based approaches, and (v) preserve ocean health and promote the sustainable use of coastal and marine resources. In the water and urban services sector, ADB will support sustainable management of water and sanitation in rural areas, and urban planning, community resilience and infrastructure.

13. **Climate change mitigation.** Although Cambodia is not a large emitter of global GHGs, its climate mitigation actions can contribute to building the competitiveness of the economy through co-benefits in increasing efficiency of resource use and reducing pollution. ADB will continue to support the transformation of Cambodia's energy system and the transition to net zero by promoting renewable energy and increasing energy efficiency and access. ADB will also promote green finance instruments and innovative mechanisms to spur investments in green technologies, support policies and regulations to catalyze private sector investment and build capacity to enable the transition. Key interventions under the CPS include the expansion of solar photovoltaic with battery storage, development of modern power grids, and support for new business models and emerging technologies including electric vehicle charging, energy performance contracting, and demand side management. ADB will also explore opportunities for the early retirement of coal-fired power plants under the Energy Transition Mechanism. Finally, ADB will explore PPP opportunities in waste-to-energy, floating solar, and wind power, as well as nonsovereign investment opportunities arising from Cambodia's new solar rooftop policy.

14. **Climate finance.** Climate finance is critical in enhancing the country's resilience by providing the necessary resources for adaptation and mitigation efforts and reducing vulnerability to climate and disaster risks. ADB will focus on (i) strengthening the government's capacity to become accredited and apply for international climate finance and to mobilize concessional climate finance, and (ii) supporting the development of a sustainable finance market, including issuances of sustainable bonds, and channeling concessional finance towards green projects and initiatives through financial institutions. ADB will also help strengthen key policy reforms, governance and institutions, and planning systems to enable greater flows of climate finance. Leveraging ADB's branding as the largest multilateral climate financier in Cambodia, ADB will continue to partner with key stakeholders, including global climate funds and bilateral development partners, to mobilize more concessional climate finance to help the country implement its NDCs.

15. **Areas of Collaboration with Partners.** ADB will build on and strengthen partnerships with development partners and knowledge partners to scale up its climate work. Financing partnerships with key climate financiers through ADB-administered programs, such as the Green Climate Fund supported ASEAN Catalytic Green Finance Facility and Community Resilience Partnership Facility, will be key in scaling up concessional financing. Policy dialogue on climate change will be coordinated with key partners like the Global Green Growth Institute (GGGI) and United Nations Development Programme (UNDP).

CLIMATE CHANGE INVESTMENT PLAN

	Accelerate private-sector-led economic diversification	Advance human development	Strengthen climate resilience
Upstream	<ul style="list-style-type: none"> • Support policy reforms to strengthen the enabling environment for PPPs, including for clean energy and climate-resilient urban development. • Strengthen capital markets policies for the issuance of green bonds. 	<ul style="list-style-type: none"> • Support policy reforms to roll-out climate-sensitive public financial management (green PFM) • Support policy reforms to strengthen education and skills development for low carbon transition 	<ul style="list-style-type: none"> • Support policy reforms (climate change mitigation) to scale up public and private investment in renewable energy, energy efficiency and electric mobility
Midstream	<ul style="list-style-type: none"> • Capacity building of financial institutions and MSMEs on green finance and building climate pipelines • Provide advisory support for issuances of green bonds. 	<ul style="list-style-type: none"> • Roll-out capacity building for project-based learning on climate change and disaster resilience 	<ul style="list-style-type: none"> • Strengthen adaptation investment planning in natural resources sectors. • Roll-out regional climate risk assessments to inform investment planning for adaptation. • Strengthen investment planning for solar power deployment through PPPs.
Downstream	<ul style="list-style-type: none"> • Investments to strengthen the electricity grid, including for renewable energy. • Investments to support MSMEs, including for green initiatives. 	<ul style="list-style-type: none"> • Climate-proofing of education facilities • Promotion of trainings for clean energy and green jobs, promotion of STEM education that will be more demand for green transition • Investments in resilient aquaculture and agriculture to promote food security and nutrition 	<ul style="list-style-type: none"> • Adaptation investments in climate-smart agriculture, integrated water resource management, sustainable use of coastal and marine resources, nature-based solutions • Mitigation investments to promote clean energy through waste-to-energy, floating solar, and wind power (sovereign, nonsovereign and PPPs) and deploy electric mobility

MSMEs = micro, small, and medium-sized enterprises; PFM = public financial management; PPP = public-private partnership; STEM = science, technology, engineering, and mathematics.

Source: Asian Development Bank.