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Cambodia Microfinance Association



OXFAM

Designing Green Finance Instruments in the Microfinance Sector

Cambodia Landscape Assessment Report (Phase 2)

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List of Acronyms

ABC	Association of Bankers Cambodia
ACX	Air Carbon Exchange
ADA	Appui au Developpement Autonome
ADB	Asian Development Gift
AMK	Angkor Mikroheranhvatho Kampuchea
ARDB	Agricultural and Rural Development Bank
ASEAN	Association of Southeast Asian Nations
BAU	Business as Usual
BFI	Business and Financial Institutes
CAGR	Compound Annual Growth Rate
CAP	Climate Accelerator Program
CCFF	Cambodia Climate Finance Facility
CCUS	Carbon Capture and Utilization Storage
CFPS	Climate Fund for the Private Sector
CGCC	Credit Garuntee Corporation of Cambodia
CMA	Cambodian Microfinance Association
COP	United Nation’s Conference of the Parties
CPI	Climate Policy Initiative
CREFA	Climate Resilience for All
CSA	Climate Smart Agriculture
CSBA	Cambodian Sustainable Bond Accelerator
CSES	Cambodia socio-economic survey
CSFP	Cambodian Sustainable Finance Principles
CSO	Civil Society Organization
CSX	Cambodian Securities Exchange
DFI	Development Financial Institutions
DNSH	Do No Significant Harm
DP	Development Partner
EDC	Electricité du Cambodge
EE	Energy Efficiency
EERF	Energy Efficiency Revolving Fund
ENSO	El Niño-Southern Oscillation
ESCAP	United Nations Economic and Social Commissions for Asia and the Pacific
ESCO	Energy Services Companies
ESG	Environment, Social and Governance
ESMS	Environment and social management systems
EV	Electric Vehicle
FAO	Food
FFC	Fair Finance Cambodia
FI	Financial Institute
FIAS	Facility for Investment Climate Advisory Services

GBP	Green Bond Principles
GCF	Green Climate Fund
GCPF	Global Climate Partnership Fund
GEF	Global Environment Fund
GFI	Green Finance instruments
GGGI	The Global Green Growth Institute
GHG	Green House Gas
GLP	Green Loan Principles
GSS	Green, social, and sustainability
HDI	Human Development Index
IEA	International Energy Agency
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IRENA	International Renewable Energy Agency
ISO	International Organization for Standardization
ISSB	International Sustainability Standards Board
KII	Key Informant Interviews
LDC	Least Developed Country
LFI	Local Financial Institutes
LTS4CN	Long-Term Strategy for Carbon Neutrality
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEF	Ministry of Economy and Finance
MFI	Microfinance Institute
MME	Ministry of Mines and Energy
MPWT	Ministry of Public Works and Transport
MSC	Mekong Strategic Capital
MSME	Micro, Small, and Medium Enterprises
MS	Minimum Safeguards
MW	Megawatts
NADP	National Agricultural Development Policy
NASA	National Aeronautics and Space Administration
NBC	National Bank of Cambodia
SDG	Sustainable Development Goals

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A. Executive Summary

Research Context - The Cambodian Microfinance Association (CMA), in partnership with Oxfam Cambodia’s “Climate Resilience for All” (CREFA) project and funding support from the Irish Embassy in Vietnam, has initiated research to design green finance instruments (GFI) for Cambodia’s microfinance sector. This Green Finance Landscape report relies on extensive literature research and key stakeholder interview data to share insightful research that will inform green financing instrument designs. These instruments will be tailored to meet the needs of local banking and microfinance institutions, supporting climate change adaptation and mitigation efforts throughout Cambodia.

Global Green Finance - Green finance mobilizes capital specifically towards climate mitigation and adaptation activities and practices. The concept of green finance gained momentum in the 1990s with the escalated urgency of addressing global temperatures and greenhouse gas emissions. The impact of climate change is not exclusively environmental but also carries heavy economic and social implications. The IMF estimated that losses could reach up to 10% of global GDP by 2100¹. Southeast Asia (SEA) is particularly vulnerable, with rising sea levels, increasing heat stress, and frequent storms threatening urbanized coastal areas like Jakarta and Manila². The region’s economic losses from climate change are exacerbated by pre-existing vulnerabilities such as poverty and social inequality³. The cost of average annual climate disaster-related losses is already enormous, but the future cost of current inaction is greater still⁴.

In 2023, the global green finance market was valued at \$4.18 trillion, and it expected to reach \$28.7 trillion by 2033⁵. Green finance is primarily driven by debt instruments such as green bonds, which made up 93.1% of all green finance between 2012 and 2021⁶. Beyond debt, private sector involvement in equity financing is increasing, with global green revenues for listed companies expected to surpass \$5 trillion by 2025⁷. Green equity investments are seeing growth in sectors such as energy and transportation. Blended finance is emerging as a key model to address risks associated with green investments, combining public and private capital to reduce barriers for investors, particularly in developing economies.

International frameworks like the Paris Agreement, UN Climate Change Conferences, and international regulations like the Green Bond Principles and Green Loan Principles, allow green finance to play a key role in mobilizing green finance resources to mitigate climate risks.

¹ IMF. (2024). [Global Financial Stability Report](#)

² BBC. (2018). [Jakarta, the fastest-sinking city in the world](#)

³ ESCAP. (2023). [Seizing the Moment: Asia-Pacific Disaster Report 2023](#)

⁴ ibid

⁵ GlobeNewswire. (2024, February). [Global Green Finance Market Size To Exceed USD 28.71](#)

⁶ Rediff.com. (2023, October). [Climate Adaptation Finance: Rich Nations Provide \\$32.4 Billion in 2022: Rediff Moneynews](#)

⁷ FTSE Russell. (2023). [Investing in the green economy 2023 - entering the next phase of growth](#)

Green Finance in Cambodia

Green Finance in Cambodia is rapidly developing with policies and instruments like green bonds, grants, blended finance partnerships, and concessional loans accelerating the sector's maturity and awareness. Notable initiatives in the market include the Cambodian Sustainable Bond Accelerator (CSBA)⁸, which aims to scale green finance through technical assistance, investment support, and credit enhancements, and the Cambodian Climate Financing Facility (CCFF)⁹, which offers concessional loans to support sustainable projects. The CCFF also facilitates capacity-building for financial institutions to assess and manage green finance opportunities. International development partners, including the ADB, UNDP, and World Bank, have been instrumental in providing technical assistance, concessional funding, and policy recommendations.

Specific financing opportunities for the electric vehicle and renewable energy sectors focus on product and technology-based financing. In contrast, opportunities for energy efficiency rely more heavily on services, such as the energy service company model (ESCO). In the agriculture sector, the financing opportunities exist in transitioning the agricultural value chain towards climate smart technologies and practices. Each sector comes with its own unique client challenges to accessing and scaling green finance which is further explored in this report.

Cambodia's green finance sector still face constraints in initiating green loans, offering incentive-based interest rates at a profit, accessing a pipeline of green projects, and monitoring and assessing the flow of green funds once in the market. The non-binding nature of some principles and the need for stronger incentives are pivotal in supporting the country's transition to a greener economy. The upcoming Cambodian sustainable finance taxonomy, and the updated Green, sustainable and social handbook, will help stabilize the sector and encourage domestic financial institution participation, as well as international investor trust. From the market-demand side, SMEs and clients of green finance also face challenges due to the absence of the national sustainable finance taxonomy, a nascent-stage market for green technology, lack of green financial knowledge, and high costs of green funds. Educating and incentivizing both consumers and market actors will strengthen Cambodia's financial sector and its role in climate change mitigation and adaptation.

By addressing gaps through policy updates, technical assistance, and capacity-building efforts, financial institutions can capitalize on sectoral financing opportunities and strengthen the green finance ecosystem. CMA members may utilize this report to support the development of green finance products, financial schemes, and initiatives in Cambodia and further position their portfolios to align with the Kingdom's national sustainable development goals.

⁸ GGGI. (2023). [GGGI, UNESCAP and SERC sign MOA and launch the Cambodia Sustainable Bond Accelerator Program – Global Green Growth Institute](#)

⁹ MSC. (2024). [CCFF approved by GCF Board | MSC](#)

B. Introduction

1. Purpose

To support Cambodia's Sustainable Development Goals (SDGs) and national climate adaptation and mitigation efforts, The Cambodian Microfinance Association (CMA) has initiated research to inform the design of green finance instruments (GFI) with a particular focus on the Agriculture, Renewable Energy (RE), Electric Vehicles (EV), and Energy Efficiency (EE) sectors. This research is in partnership with Oxfam Cambodia's "Climate Resilience for All" (CREFA) initiative, with additional funding support from the Irish Embassy in Vietnam. CREFA is an Oxfam led multiyear project that aims to reduce Cambodian vulnerability to climate change through specialized adaptation and mitigation responses such as climate-smart agriculture, renewable energy, climate resilience, and policy dialogue¹⁰. The CMA's research objectives encompass the following:

1. Determining the status, opportunities, and risks for green finance in Cambodia, with a particular focus on the renewable energy, electric vehicle, energy efficiency, and Agriculture sectors.
2. Identifying international case studies and best practices of green finance instrument models, and
3. Designing recommendations for green finance instrument and schemes in Cambodia, tailored to meet the needs of local banking and finance institutions (BFIs), institutional and private investors, and BFI clients seeking to finance their climate adaptation and mitigation initiatives.

2. Project Background and Context

Cambodia is listed as one of the most climate vulnerable countries in the world. The World Bank Group estimates that by 2050, climate change could reduce Cambodia's GDP by roughly 10 per cent¹¹. The increased risks of floods, droughts, and extreme weather events demand that both adaptation- and mitigation-focused financing solutions must be tailored to meet the challenges of a developing economy, fostering resilient growth across its emerging sectors as climate change impacts all industries and socio-economic sectors. A report put out by the World Bank – International Finance Corporation (IFC) estimates that Cambodia would need up to \$36 billion (Net Present Value, NPV) in additional investment from both public and private sectors over the next three decades to achieve its 2050 climate goal of carbon neutrality¹². Bringing this vision to life will require a comprehensive climate strategy and efficient mobilization of funds from domestic and international sources, in the form of mixed private, public, innovative, and traditional capital. To address these financing needs, the CMA has initiated this research that will specifically support Microfinance institutions and banking and financial institutions in developing their own green finance products and portfolios.

¹⁰ Oxfam (2024). [Climate Resilience for All \(CREFA\) | Oxfam in Cambodia](#)

¹¹ UN. (2021). [Information Note #16: Climate Change | United Nations in Cambodia](#)

¹² UN CCDR. (2023). [World Bank Document](#)

3. Scope of Assessment & Expected Outcomes

The purpose of this landscape report is to develop comprehensive, practical, and insightful research that will inform the creation of green finance instruments in Cambodia. This research is intended to identify institutional opportunities and market barriers for Cambodia's BFIs and key sectors seeking to access and scale green finance. To create targeted and practical solutions to BFIs in Cambodia, it is imperative to first fully understand the current landscape of green finance in Cambodia. Given the varied data sources presently available on sustainable, green, and climate finance progress in Cambodia, this report's research was conducted through the following research topics:

- Demand-side assessment of BFIs and SMEs demand for, knowledge level, and capacity level for green finance
- The supply of green finance activities, instruments, policies, and potential opportunities in Cambodia
- Perceived market barriers related to green finance in Cambodia

Data sourcing for this report combined a qualitative literature review with key informant interviews (KIIs). The literature review draws on international, regional, and domestic primary and secondary sources. The consultant team identified scholarly publications, organization databases, private sector markets studies, and public sector policies related to green finance in Cambodia.

Based on knowledge gaps identified in the desk research, Sevea conducted KIIs with local stakeholders in Cambodia's green finance and BFI sectors. These interviews integrate supply-side perspectives - from government institutions, Banking and Financial Institutions (BFIs) and relevant development partners (DP), and demand-side perspectives - from SMEs and industry associations representing the selected key sectors.

The KIIs were selected based on their past or current involvement in green finance, and/or their interest and prospective use for green finance in Cambodia. To assess 'prospective use of green finance', the Sevea team considered alignment between the organization's target client base and the pre-identified sectors with high potential for green finance (Agriculture, RE, EE, and EV). Supplier-side interviews focused on stakeholders that contribute to Cambodia's green finance ecosystem, instruments or activities, or general financial sector activity with interest in entering or facilitating the development green finance. Demand side interviews focused on better understanding green finance client behaviours, habits, specific risks, level of understanding, and willingness to borrow. Guiding discussion topics were developed to assess the interviewee's level of understanding of green finance, current and upcoming initiatives in green finance, and market appetite for using and scaling green finance. The consultant team met with 16 actors – 11 identified as suppliers of green finance, and 5 identified as green finance demanders or end-users. These interviewees included important regulatory players, BFIs, MFIs, Development partners (DP), civil society organizations (CSOs), industry associations, and non-governmental organizations (NGOs). Sevea's methodology and approach is further detailed below in section B.

The expected outcomes of this report are to provide insights into Cambodia's current state of green finance, including financial risk and opportunities, and strategic implications for green finance instrument design. The insights and landscape report is expected to act as a foundation for further development in designing and prototyping instruments for Cambodia's BFI sector.

The primary audience for this green finance research is Cambodian BFIs who are interested in launching green, innovative, client-centred financial instruments, with a particular focus on CMA member MFIs. While BFIs are the primary audience for this report, the encompassing scope of this research, can ultimately benefit all stakeholders currently active in or seeking understanding and participation in Cambodia's green finance sector. This includes other green finance stakeholders such as:

- Current and potential future green finance clients in the EE, RE, EV, and Agriculture sectors,
- Development partners (DP), development finance institutions (DFI), or civil society organizations (CSO) who have a focus on green finance in Cambodia.
- Other stakeholders that are potentially involved in the development of such products such as regulators and relevant industry associations (i.e., CGCC, ABC, NBC, ADA)

C. Methodology

4. Defining Green Finance

Like many global and rapidly evolving initiatives, green finance has no single definition recognized and accepted by all participants. Instead, various definitions and working criterion have been put forward from global and national financial systems, financial institutions, and development organizations. Depending on the organization's perspective (public, private, development, academic, etc) and national context, these definitions utilize varying measurements or terminology for focuses of green financing. Some prefer not to define green finance at all¹³, and instead use a very broad definition. For example, consider the following definitions from various organizations:

- **International Standardization Organization:** Green finance is “one of a number of terms used to describe activities related to the two-way interaction between the environment and finance and investment”¹⁴.
- The **United Nations Environmental Program's (UNEP):** states green finance as “increasing the level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities”¹⁵.
- The **World Economic Forum:** “Green finance is any structured financial activity – a product or service – that’s been created to ensure a better environmental outcome. It includes an array of loans, debt mechanisms and investments that are used to encourage the development of green projects or minimize the impact on the climate of more regular projects. Or a combination of both”¹⁶.
- The **G20 Green Finance Study Group** describes green finance as “the financing of investments that provide environmental benefits in the broader context of environmentally sustainable development”¹⁷.

The World Bank, in collaboration with the German Development Institute, has proposed that a green finance definition should consist of the following elements¹⁸:

- The financing of public and private green investments in the areas of environmental goods and services, prevention, minimization and compensation of damages to the environment and to the climate,
- The financing of public policies that encourage the implementation of environmental and environmental-damage mitigation or adaptation projects and initiatives; and
- Components of the financial system that deal specifically with green investments.

¹³ World bank. (2014). [Documents](#)

¹⁴ ISO. (2022). [ISO - Green and sustainable finance](#)

¹⁵ UNEP. (n.d.). [Green Financing | UNEP - UN Environment Programme](#)

¹⁶ World Economic Forum. (2020). [What is green finance and why is it important? | World Economic Forum](#)

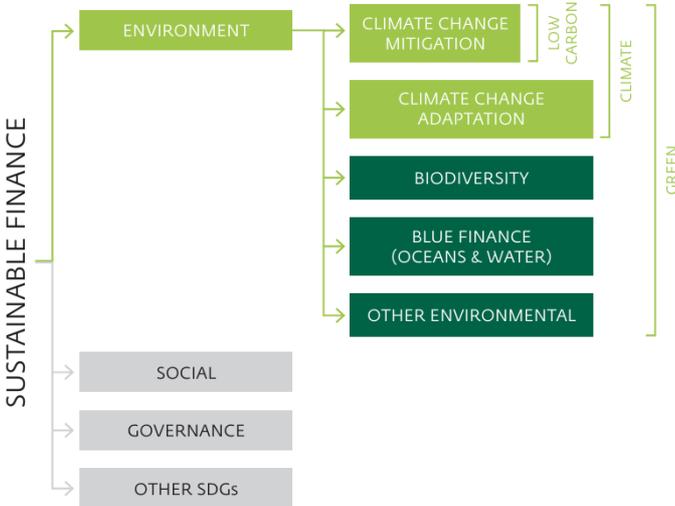
¹⁷ G20. (2016). [2016_Synthesis_Report_Full_EN.pdf](#)

¹⁸ German Development Institute. (2014). [MultiLink](#)

The lack of a unified definition of green finance is due to the diversity of global actors, sectoral priorities, and the evolving nature of environmental challenges. While there is a shared commitment to promoting environmental sustainability through financial means, the specific focus of these definitions—whether on climate, broader environmental concerns, or sustainable development—reflects different institutional priorities and interpretations of what constitutes “green”. For the purposes of this research assessment, what is important to consider is to use a definition that fits the unique context of Cambodia and its environmental and social challenges.

Although the above definitions of green finance contain differences, persistent commonalities exist that are fundamental to defining green finance regardless of the sector or stakeholder’s perspective. There also exists a broad agreement in the distinctions between green, climate and sustainable finance. Sometimes used interchangeably due to overlapping scopes, sustainable, climate, and green finance terms represents different focus areas for financing. According to the IFC and ISO, sustainable finance includes funding for social economic, and environmental factors. Green finance excludes social and economic considerations but includes climate finance plus other environment related subsectors. Climate finance falls under green finance as a subset focusing purely on climate mitigation and adaptation considerations ^{19/20}.

Figure 1: Sustainable Finance Taxonomy



Source: IFC, [ifc-green-finance-reference-guide-ifc-2023.pdf](https://www.ifc.org/~/media/for-external/2023/04/ifc-green-finance-reference-guide-2023.pdf)

In this document, green finance serves as our central focus. Throughout this report, the term "green finance" encompasses activities and concepts related to climate change mitigation and adaptation, biodiversity conservation, blue finance, and ESG financing. However, the key focus will revolve around key sectors as mentioned earlier (Agriculture, EE, RE and EV). Table 1 summarizes different terminologies relevant to green finance activities and scope.

¹⁹ ISO. (2022). [ISO - Green and sustainable finance](https://www.iso.org/standard/72431.html)

²⁰ ICF. (2023). [ifc-green-finance-reference-guide-ifc-2023.pdf](https://www.ifc.org/~/media/for-external/2023/04/ifc-green-finance-reference-guide-2023.pdf)

Table 1: Key Terms and Definitions

Term	Definition
Climate Mitigation	Efforts to reduce emissions and enhance 'sinks' to reduce the current concentration of carbon dioxide (CO ₂) ²¹
Climate Adaptation	Measures and actions that help reduce vulnerability to the current or expected impacts of climate change like weather extremes and hazards, sea-level rise, biodiversity loss, or food and water insecurity ²²
Blue Finance	A subset of green finance, dedicated specifically to ocean-friendly projects and water supply resources. Blue finance can include blue bonds, blue loans, and other water-focused investments ²³ .
ESG	A set of standards for measuring a business's impact on society and the environment, as well as its transparency and accountability ²⁴ .
Carbon Markets	Carbon markets are trading schemes that provide financial incentives for climate change mitigation. In these schemes, greenhouse gas emission reductions and/or removals are quantified into carbon credits that can be bought and sold ²⁵ .

5. Approach

The landscape assessment is a section of a multiphase approach that will systematically address the project's objectives and ensure a comprehensive analysis. The overall phase of the project includes 4 phases:

- Phase 1 – Inception
- Phase 2 – Cambodia Green Finance Landscape Assessment
- Phase 3 – Global Landscape and International Benchmarking
- Phase 4 – Designing/Prototyping Green Finance Instruments

In this study, we delve into the various dimensions of Cambodia's green finance landscape by engaging with a diverse range of stakeholders. Each group provides unique perspectives and contributions, as outlined below.

Regulatory Bodies

Regulatory bodies are fundamental to establishing the legal and policy frameworks that guide green finance practices. These entities define what qualifies as "green" and create incentives or requirements to encourage adoption. In Cambodia, key regulatory players include the National Bank of Cambodia (NBC), the Securities and Exchange Regulator of Cambodia

²¹ UNCC. (n.d.). [Introduction to Mitigation | UNFCCC](#)

²² UNDP. (2024). [What is climate change adaptation and why is it crucial? | UNDP Climate Promise](#)

²³ IFC. (n.d.). [Blue Finance: Financing the Ocean Economy - IFC Green Banking Academy in Europe](#)

²⁴ Cambridge University. (2023). [ESG | English meaning - Cambridge Dictionary](#)

²⁵ UNDP. (n.d.). [Carbon Markets | Climate Promise](#)

(SERC), and relevant government ministries, such as the Ministry of Environment and the Ministry of Economy and Finance. These institutions are instrumental in shaping the rules and frameworks that govern green finance initiatives, ensuring alignment with Cambodia's climate goals.

Banks and Financial Institutions

Banks and financial institutions (BFIs) are the primary providers of capital for green finance, playing a crucial role in funding sustainable projects. Their offerings, such as loans, green bonds, and sustainability-linked instruments, directly support green initiatives. This study explores their current involvement in green finance, examining the products they offer, their perception of risks and opportunities, and the challenges they face in integrating green finance into their portfolios.

Development Partners, CSOs, NGOs

Development partners, civil society organizations (CSOs), and non-governmental organizations (NGOs) contribute significantly to Cambodia's green finance ecosystem. These groups provide technical assistance, capacity building, and funding support, often bridging gaps in the market where traditional financial institutions may be reluctant to venture. Their advocacy efforts and collaboration with public and private stakeholders ensure that green finance initiatives remain inclusive and impactful, particularly for vulnerable and underserved communities.

Industry Associations

Industry associations act as intermediaries between the private sector and policymakers. They play a key role in advocating for sector-specific green finance needs and promoting adoption among their members. These associations are vital in identifying opportunities, aligning industry efforts with national goals, and supporting the development of tailored green finance solutions that address specific market gaps.

Private Sector

The private sector is the primary end-user of green finance, utilizing these funds to implement sustainable projects and practices. Businesses in sectors like renewable energy, sustainable agriculture, and energy efficiency rely on green finance to drive innovation and reduce environmental impacts. This study evaluates the private sector's demand for green finance, their understanding of available instruments, and the barriers they face in accessing these funds. These insights are critical to aligning financial products with market needs.

Lastly, other stakeholders, including investors, academia, and local communities, add depth to the green finance ecosystem. Investors bring critical capital and expertise, while academia contributes research and innovation to improve financial products and frameworks. Local communities, as beneficiaries of green finance, offer valuable perspectives on the social and environmental impacts of these initiatives. Understanding their roles ensures that green finance solutions are both inclusive and sustainable.

D. Snapshot of Global Green Finance

6. Context for Global Green Finance

Green finance began gaining widespread attention in the early 1990s with the establishment of the United Nations Energy Program Financial Initiative²⁶. In 1992, the UN Earth Summit brought together leaders from 178 nations who envisioned catalysing global finance as key to achieving sustainable development and mitigating climate change effects²⁷. Green finance continued to gain traction into the 21st century as countries responded to dramatic climate change impacts, repeated record-breaking temperatures, and intensifying weather-related catastrophes. Since the 1850's, global greenhouse gases (GHG) have been exponentially increasing, caused largely by industrialization, deforestation, agriculture, and other energy consumption around the globe. The average global temperature has increased by roughly 1.1 °C²⁸ since 1880, and the 10 warmest years on record have all occurred since 2014²⁹. According to the World Meteorological Organization, not only was 2023 the warmest year on record at 1.45 ± 0.12 °C above the pre-industrial average³⁰, but global mean sea levels also reached record highs. This report found that the “rate of sea-level rise in the past 10 years (2014–2023) has more than doubled since the first decade of the satellite record (1993–2002)”³¹. Climate change risk is not limited to the physical environment but directly impacts economies. The 2020 IMF Global Financial Stability Report estimated that global economic losses from climate change could reach between 7% and 10% of global GDP by 2100³². Climate change also disproportionately exacerbates vulnerable people-groups. The UN Environment Programme (UNEP) has identified vulnerable populations, particularly in low-income regions, as facing the highest risks from droughts, floods, and storms³³. Current insufficient adaptation financing and infrastructure leaves many countries underprepared for future climate-related socioeconomic impacts. The Food and Agricultural Organization (FAO) found that countries with limited access to financing face climate extremes that disrupt food production and supply chains, is a major driver of food insecurity and malnutrition. The FAO's most recent study on the state of Food Security and Nutrition in the World underscores how climate change has already significantly reduced agricultural yields and food availability in vulnerable regions like Sub-Saharan Africa and South Asia³⁴. The realities of climate change emphasizes the need for coordinated, coherent, and scalable financing solutions.

²⁶ UNEPFI. (2022). [The Evolution of Sustainable Finance – United Nations Environment – Finance Initiative](#)

²⁷ *ibid*

²⁸ NASA. (n.d.). [World of Change: Global Temperatures](#)

²⁹ *ibid*

³⁰ World Meteorological Organization. (2023). [library.wmo.int/viewer/68835/download?file=1347_Global-statement-2023_en.pdf&type=pdf&navigator=1](#)

³¹ *ibid*

³² IMF. (2024). [Global Financial Stability Report](#)

³³ UNEP. (2022). [Adaptation Gap Report 2022 | UNEP - UN Environment Programme](#)

³⁴ WHO. (2023). [The state of food security and nutrition in the world 2023](#)

Climate Change in SEA

The fight against climate change is a significant factor characterizing Southeast Asia's (SEA) growth and development due to its proximity to the equator, numerous low-lying coastlines, and less developed socio-economies. Climate Tracker Asia estimates that by the end of the century, the number of days with dangerous heat stress—temperatures above 41 °C—is projected to increase by 100 days in some areas under a low emission scenario and by about 250 days under a business-as-usual scenario³⁵. The SEA region is also experiencing rising sea levels, heavier rainfall, and more destructive storms that pose a particular risk to SEA's many coastal cities. Urbanization has caused high population density in mega-cities such as Bangkok, Manila, Ho Chi Minh city, and Jakarta. According to the World Bank, over 77 million people are concentrated in SEA's coastal areas³⁶. Indonesia has already announced that it is relocating its capital city from Jakarta to Nusantara due to estimations that 95% of Jakarta will be submerged by 2050, making it the fastest sinking city in the world³⁷.

Just like on a global scale, in Southeast Asia, vulnerable populations are often the first to suffer damaging outcomes in terms of health, food, water, safety, and education. As a developing region, SEA has pre-existing vulnerabilities that make it challenging for these countries to prepare for and cope with natural hazards. The UN's Asia-Pacific Disaster Report states that "In the broader Asia-Pacific region, there is a strong intersection between risks from disasters, inequalities of income and poverty because the population is more highly exposed to disaster risk"³⁸. Climate disaster-related losses are already enormous, but the future cost of current inaction is greater still, with average annual losses increasing from \$924 billion to almost \$1 trillion, or from 2.9 to 3 per cent of the regional GDP in SEA³⁹. An active and efficient green financial system is imperative for Southeast Asia.

Paris Agreement

The Paris Agreement is an international treaty significant to the advancement of mobilizing green finance. This agreement implemented a measurable target for countries to limit global warming to 1.5°C or 2°C by 2030 via the reduction of Green House Gas emissions (GHG). Participant countries committed to reducing their GHG emissions are required to regularly submit climate action plans and report on their progress. Situated at the heart of the Paris Agreement are the Nationally Determined Contributions (NDCs) in which countries outline and communicate their post-2020 climate actions. To align with the NDC's, country's financial systems have evolved to mobilize funds towards such green activities. Furthermore, Article 9 of the Paris Agreement stipulates that developed countries "shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation...and...as part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels"⁴⁰. Within this

³⁵ Climate Tracker Asia. (2024). [Observed Climate Trends in Southeast Asia – Climate Tracker Asia](#)

³⁶ World Bank Group. (2021). [Open Knowledge Repository](#)

³⁷ BBC. (2018). [Jakarta, the fastest-sinking city in the world](#)

³⁸ ESCAP. (2023). [Seizing the Moment: Asia-Pacific Disaster Report 2023](#)

³⁹ *ibid*

⁴⁰ United Nations Framework Convention on Climate Change. (2015). [Climate Finance in the negotiations | UNFCCC](#)

context, the mechanism of green finance moves funds from high-income, more developed countries, to least developed or developing countries who are impacted by the effects of climate change but do not have the capital to mitigate or adapt to these effects.

International Headwinds Affecting the Future of Green Finance

In November of 2024, the United Nation's Conference of the Parties (COP) held their 29th annual change conference in Baku, Azerbaijan. COP is attended by countries that signed the United Nations Framework Convention on Climate Change (UNFCCC). These UN Climate Change Conferences are the world's highest decision-making body on climate issues. The most recent COP agenda had a specific focus on climate financing, which was the first time financing received centre-stage in 15 years. From this conference, the following outcomes and discussion topics were established which will be significant in shaping the future of global green finance⁴¹:

- **A \$300 billion climate finance target for developing countries by 2035 was agreed upon.** While this commitment is a step in the right direction for supporting the growth of green finance, UN Global Policy Model analysis suggests that external financing needs may grow to \$1.46 trillion annually by 2030⁴². This could prove indicative of the usefulness of private financing and blended financing in the future.
- **The Loss and Damage Fund was operationalized.** This fund will provide financial assistance to countries most vulnerable to the impacts of climate change, with disbursements set to begin in 2025⁴³. UNCTAD states that innovative financing and broader donor participation will be crucial to the fund's long-term success⁴⁴ as projections show that the current pledge of \$700 million falls short of the estimated \$150 billion needed annually⁴⁵.
- Advancing the credibility of **carbon market frameworks** was a key topic this year as well. Participant's questioned greenwashing and the true social impacts of green financing, calling for further transparency and reporting standards. COP29 saw progress in establishing a global carbon trading system managed by the UN.
- Implementing **climate adaptation** frameworks and tracking remain a priority for developing countries, with grant-based funding emerging as a critical component of these discussions. Another key focus is on ensuring finance is included as a measurement assessment for climate adaptation, reflecting the importance of external financial support.

COP29 gave climate and green finance renewed emphasis, commitments, and frameworks for nations to build upon as well as new challenges for nations to consider. COP29's discussions

⁴¹ UNTAD. (2024). [Key takeaways from COP29 and the road ahead for developing countries | UN Trade and Development \(UNCTAD\)](#)

⁴² UN Trade and Development. (2024). [A new climate finance goal is on the horizon. How can developing countries benefit? | UN Trade and Development \(UNCTAD\)](#)

⁴³ COP29. (2024). [Historic Decision in Baku: The Loss and Damage Fund fully operationalised](#)

⁴⁴ UNTAD. (2024). [Key takeaways from COP29 and the road ahead for developing countries | UN Trade and Development \(UNCTAD\)](#)

⁴⁵ ibid

took place against the backdrop of major international conflicts and rising tensions across Eastern Europe and the Middle East. This shifted international focus away from COP and raised the question of how global capital should be prioritized and mobilized given the current state of the world's needs. Leaders from some of the world's most significant economies were notably missing, including the European Union, the United States and Brazil. This could indicate headwinds for nations prioritizing sustainability and green finance within their domestic agendas.

Another significant factor shaping the trajectory of global green finance is the outcome of the 2024 United States presidential election. The re-election of Donald Trump raises concerns, as his previous administration withdrew the U.S. from the Paris Agreement⁴⁶. A similar decision could significantly impact global climate financing commitments and potentially influence other nations to deprioritize their green finance agendas.

7. Market Snapshot of Global Green Finance

In 2023, the global green finance market was valued at \$4.18 trillion with a CAGR of 21.3% to 2033, which will bring the expected market value up to 28.7 trillion^{47/48}. Just like traditional finance, green finance can take the form of various financing instruments. The most common instruments used to date have been grants, debt (concessional loans and bonds), and equity. A report published by the UNFCCC stated that in 2022, \$11.6 billion of international public green finance was provided as grants, \$17.2 billion as loans, and \$100 million was provided as equity⁴⁹.

7.1. Debt

Between 2012 and 2021, green bonds composed 93.1% of all green finance⁵⁰. As of the end of 2024, the climate bonds initiative recorded a cumulative volume of USD5.4tn of green, social, and sustainability linked (GSS+) debt⁵¹. Globally, the cumulative financing was USD \$2,795.8 billion between 2014 and 2023⁵². The republic of China, The US, Germany, and France have consistently been the largest green bond markets in the world. As of 2023, ASEAN alone accounted for 2% of global green debt finance with a standing green debt issuance of approximately \$58.16 billion since 2016⁵³.

⁴⁶ US Department of State. (2019). [On the U.S. Withdrawal from the Paris Agreement - United States Department of State](#)

⁴⁷ GlobeNewswire. (2024, February). [Global Green Finance Market Size To Exceed USD 28.71](#)

⁴⁸ Scope 3 Magazine. (2024). [Top 10: Green Finance Providers | Scope 3 Magazine](#)

⁴⁹ Rediff.com. (2023, October). [Climate Adaptation Finance: Rich Nations Provide \\$32.4 Billion in 2022: Rediff Moneynews](#)

⁵⁰ ibid

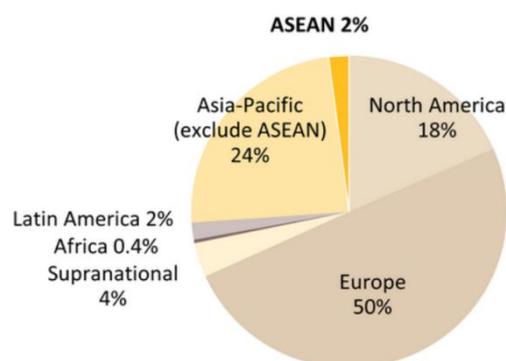
⁵¹ Climate Bond Initiative. (2024). [cbi_mr_q3_2024_01c.pdf](#)

⁵² Krungsri. (2024). [Green Finance in ASEAN: A Pathway to Future Opportunities and Challenges](#)

⁵³ ibid

Figure 2: Share of Green Debt Financing by Region

Globally, the cumulative financing was USD 2,795.8 billion from 2014 to 2023.



Source: Krungsri. (2024). [Green Finance in ASEAN: A Pathway to Future Opportunities and Challenges](#)

As of the beginning of 2023, green bonds have raised a global \$2.5 trillion to support green and sustainable projects⁵⁴. The green finance market is heavily dominated by debt financing for a couple of reasons. First, given the novelty and evolving nature of global green finance and green projects, debt financing is considered a less risky vehicle for investment, in addition to being a cheaper form of financing. Secondly, bonds are a simpler instrument to track the flow of cash to environmental-related projects and the performance of such money. Governments in developing contexts such as ASEAN⁵⁵, tend to have more structured understanding of frameworks and regulations around debt instruments compared to equity, thus enabling a more stable, conducive environment for the green debt market⁵⁶. Examples of international regulations include the international green bond principles and green loan principles.

The Green Bond Principles (GBP) were launched in 2014 and are recommended guidelines to promote transparency, disclosure and reporting, intended to be used by investors, banks, underwriters, placement agents. These principles are based on four core concepts: 1) Use of proceeds, 2) Process for project evaluation and selections, 3) Management of proceeds, and 4) Reporting. The GBP also list specific sectors that qualify for green bonds under the GBP such as renewable energy, clean transportation, green buildings, climate change adaptation⁵⁷. The Green Loan Principles⁵⁸, established in 2018, similarly recognises several categories of eligibility for green loans with the objective of addressing areas of environmental concern such as climate change, natural resources depletion, loss of biodiversity, and air, water and soil pollution⁵⁹. Both the GBP and GLP are voluntary frameworks.

⁵⁴ World Bank Group. (2023). [Climate Stories | Green Bonds](#)

⁵⁵ Krungsri. (2024). [Green Finance in ASEAN: A Pathway to Future Opportunities and Challenges](#)

⁵⁶ UNEP. (2023). [How to finance green investments? The role of public debt | Green Fiscal Policy Network](#)

⁵⁷ Sustainable Infrastructure Tool Navigator. (2018). [Green Bond Principles \(GBP\) - Infrastructure Tool Navigator](#)

⁵⁸ Loan Market Association. (2018). [LMAGreenLoanPrinciplesBooklet-270919.pdf](#)

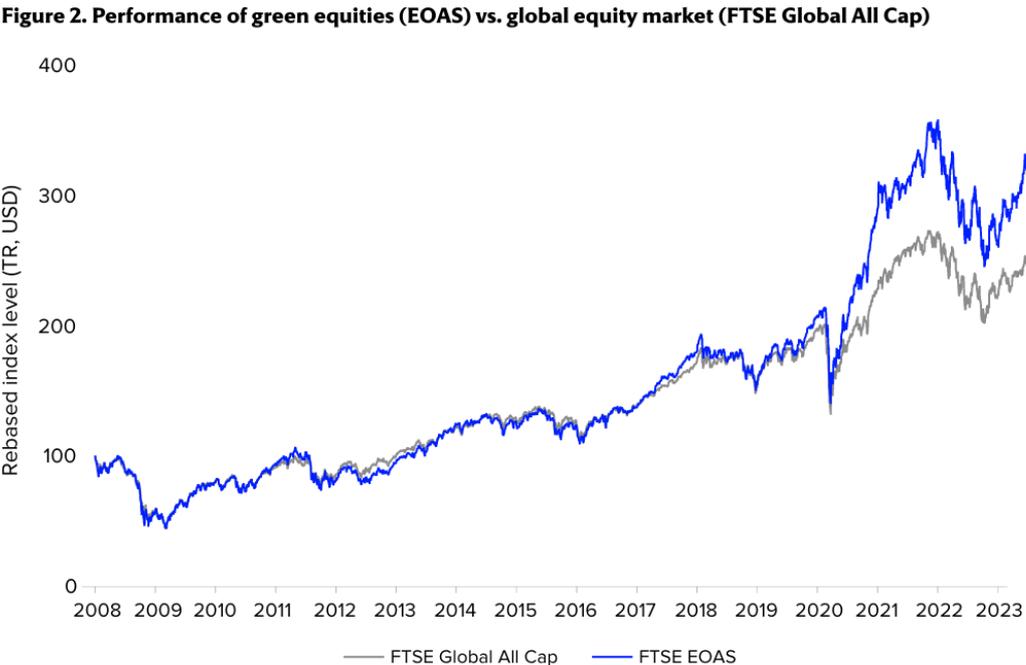
⁵⁹ Asia Pacific Loan Market Association. (2023). [GLP_Guidance_23_February_2023.pdf](#)

7.2. Equity

Although the public sector has historically been the driver of green funding, using grants and debt, an emerging opportunity exists in private sector and equity financing. Green equity has a slightly different approach than green debt. According to the World Federation of Exchanges (WFE), green equity’s objective is to “attract investors with a green agenda to invest in companies with a green business model”⁶⁰. The most common instruments used in equity green finance include venture capital, stocks, and equity funds⁶¹. One such example is Asia Climate Partners, a private equity fund for clean energy, resource efficiency, and environmental investments in Asia⁶². According to the WFE, green equity is granted to companies with over 50% of their revenues and investments assessed as green.

Green revenues for global listed companies are on track to exceed US \$5trillion by 2025, with market capitalisation of the green economy approaching 10% of the equity market.⁶³ Despite this, to shift the global economy onto a 1.5°C trajectory, this percentage would have to double to 20% by 2030⁶⁴. If considered its own sector, the green economy would be the fourth largest sector in the global equity markets with a combined market cap of 6.5 trillion⁶⁵.

Figure 3: Performance of Green Equities vs Global Equity Market (FTSE Global All Cap)



Source: FTSE Russell. (2023). [Investing in the green economy 2023 - entering the next phase of growth](#)

⁶⁰ WFE. (2023). [Green Equity: Supporting the Transition Towards Sustainable Business Models | The World Federation of Exchanges](#)

⁶¹ UNESCAP. (2018). [Central banks: Innovative Tools for Green finance](#)

⁶² ibid

⁶³ FTSE Russell. (2023). [Investing in the green economy 2023 - entering the next phase of growth](#)

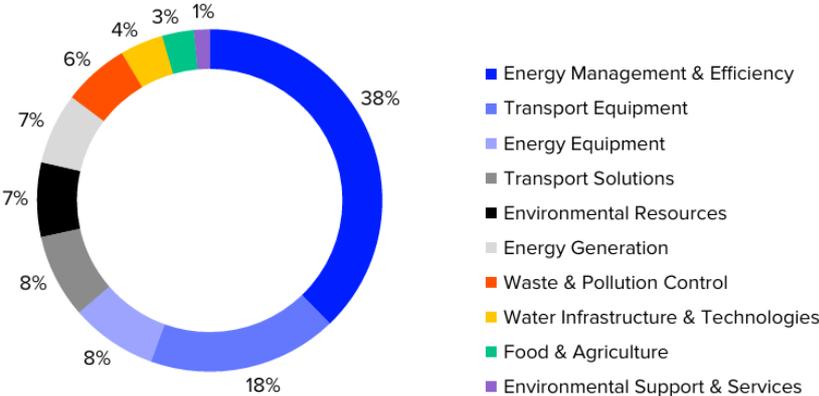
⁶⁴ ibid

⁶⁵ ibid

Furthermore, as of June 2023, the average market capitalisation of pure plays (companies with 100% green revenues) reached over US\$7 billion, which is more than a six-fold increase since 2016⁶⁶. In March 2023, the WFE published Green Equity Principles. These principles were the first global framework that can be used by individual exchanges to establish their own green offerings for listed equities. This framework aims to bring more clarity and transparency to green financing across global capital markets and helps to counter greenwashing risk⁶⁷.

What is needed for the equity market to capitalize on green financing opportunities is increased technological advancements for data analytics and sharing, increased uniformity in reporting and standards across industry, countries, and regions, and innovative solutions to address the high costs of initial investment. Investable supply for the green equity market has the greatest opportunity in the energy and transport sectors as pictured below.

Figure 4: Composition of the Green Economy by Green Sector



Source: FTSE Russell. (2023). [Investing in the green economy 2023 - entering the next phase of growth](#)

7.3. Blended Finance

As international green finance becomes increasingly diversified and sophisticated, and systemic risks with green finance more prevalent, the opportunity for innovating instruments and de-risking mechanisms is increasingly relevant to the future of green finance. Particularly in the face of international political headwinds mentioned above, blended finance will be an important model to the continuation of green finance and shift away from public financing. Stated by the Global Environment Facility (GEF), a multilateral fund that provides grants and blended finance for green projects, “blended finance combines the power of development finance and private capital to reduce risks and increase opportunities for private investors”⁶⁸. One key risk with green financing is the longer return timeline of investments, which makes

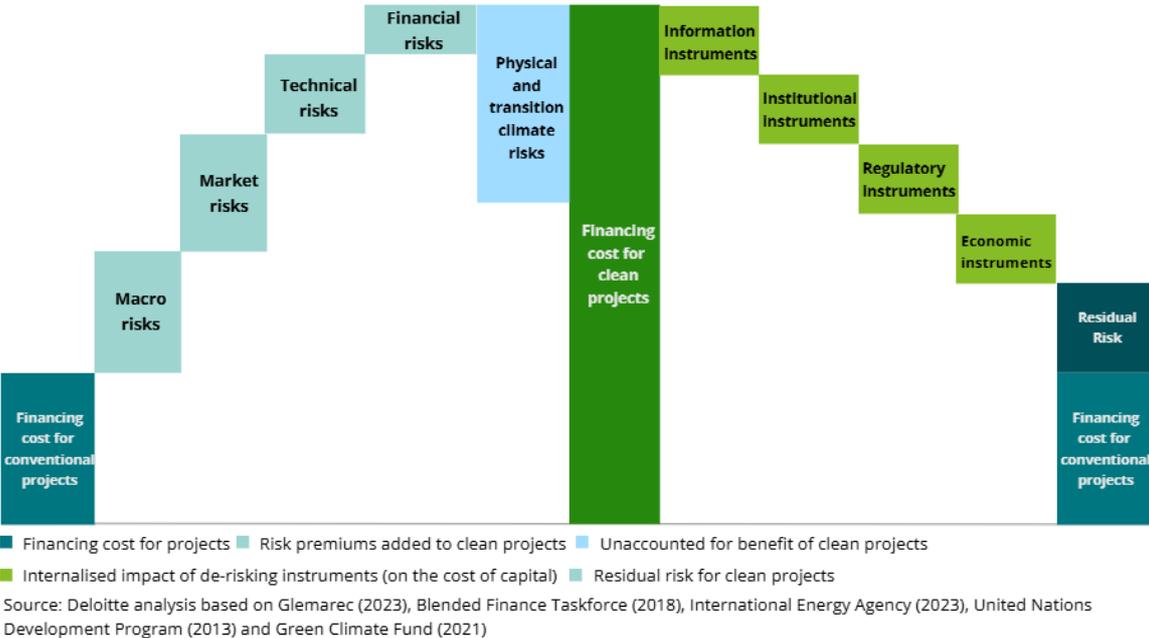
⁶⁶ ibid

⁶⁷ WFX. (2024). [Green Equities: Capital Markets as a Force for Good | The World Federation of Exchanges](#)

⁶⁸ GEF. (n.d.). [Blended Finance | GEF](#)

the risk sharing aspect of blended finance very attractive. One landmark principle shaping global blended finance was the OECD export credit agreement that will support projects eligible for longer repayment terms through export credits and tied aid⁶⁹. This agreement will allow repayment periods of up to 22 years and is especially important for investments in infrastructure and renewable energy where cashflows may be variable near the beginning of the project. This agreement presents opportunities for flexible and blended financing which will be needed to facilitate such investments. Within the climate mitigation space, many international funding institutions have successfully used blended financing models, particularly in the renewable energy, energy efficiency, urban transport, and other related fields. According to Deloitte research, refinancing green projects with both debt and equity could unlock as much as US \$10 trillion in savings⁷⁰. Deloitte writes that blended finance can be used to deal with "market information asymmetries and regulatory framework adjustments"⁷¹ to reduce the cost of capital and increase access and affordability to green finance, particularly for developing economies whose risk-return profiles likely do not meet investor's criteria. The shift to blended financing models will require the close collaboration of policymakers, investors, BFIs, and DPs, all while keeping green financing risk-return profiles as the centre focus.

Figure 5: De-risking Effect of Systemic Instruments on Financing Costs



Source: Deloitte. (2024). [Financing the green energy transition](#)

⁶⁹ OECD. (2024). [pdf](#)

⁷⁰ Deloitte. (2023). [Financing the green energy transition](#)

⁷¹ *ibid*

7.4. Transitional Carbon markets

International carbon markets can be traced back to the Kyoto Protocol which inaugurated three mechanisms to assist countries in reducing emissions: Emissions trading, clean development mechanism, and joint implementation^{72/73}. Carbon markets and carbon programs are types of transitional financing tools to help companies and governments monitor their carbon outputs. A carbon market is where management at organizations can buy and sell different types of instruments: carbon credits (also known as allowances) and carbon offsets on either the voluntary or compliance market. Should a management team wish to reduce emissions, they generally have two levers to pull – carbon tax or a trade and cap system.

By putting a price on emissions, carbon markets hope to reduce their GHGs. This system is grounded in the theory that, “as long as there is control over the total amount of emissions traded in the market, it doesn't matter to the atmosphere who buys or sells carbon credits”⁷⁴. to the World Bank’s annual State and Trends of Carbon Pricing 2024 report, carbon pricing revenues reached 1.4 billion with a listed 75 carbon pricing instruments worldwide⁷⁵. Critical challenges facing the carbon market today include data sharing, transparency and standardization in the market, making it difficult for companies to know if they are truly reducing their emissions. There does exist several initiatives seeking to address this challenge, such as the [Verified Carbon Standard](#) and [the Gold Standard](#). Both certifications are widely accepted across carbon markets.

The large-scale adoption and deployment of Carbon Capture and Utilization Storage (CCUS) technology is one trend in the developing carbon market. CCS is used to “capture CO2 emissions produced from burning fossil fuels for electricity generation, cement manufacturing, and biomass power plants, thereby preventing this gas from entering the atmosphere”⁷⁶. According to IEA, around 45 commercial facilities are already operating CCUS⁷⁷. Investors and companies can use green bonds and equity to finance the advancement of CCUS. CCUS projects often require significant upfront capital investment, which can be a barrier to their widespread implementation.

⁷² UNFCCC. (2022). [A Guide to UN Market-based Mechanisms | UNFCCC](#)

⁷³ GIZ. (2022). [Carbon Markets Assessment for the Benin Energy Plus project.pdf](#)

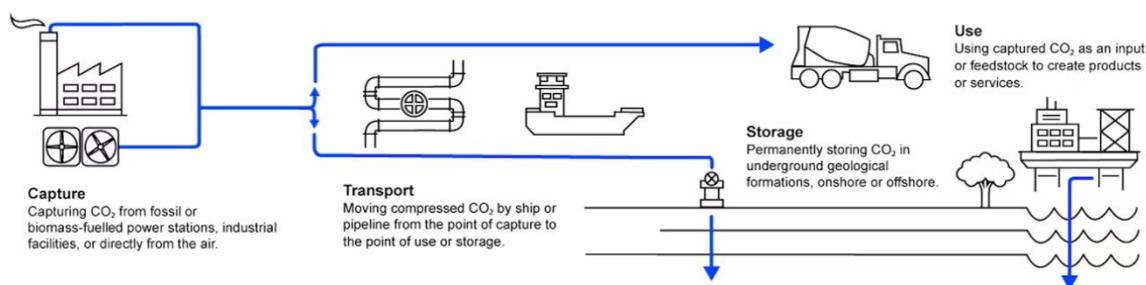
⁷⁴ Carbon Market Watch. (2024). [FAQ: Carbon markets explained - Carbon Market Watch](#)

⁷⁵ World Bank Group. (2024). [State and Trends of Carbon Pricing 2024](#)

⁷⁶ *ibid*

⁷⁷ IEA. (n.d.). [Carbon Capture, Utilisation and Storage - Energy System - IEA](#)

Table 2: Carbon Capture, Utilization, and Storage Chain



Source: IEA. (n.d.). [Carbon Capture, Utilisation and Storage - Energy System - IEA](#)

Among the numerous carbon credit exchanges available, listed below are four notable exchanges⁷⁸

- AirCarbon Exchange (ACX)
- Carbon Trade Exchange
- Toucan Protocol
- Xpansiv CBL

7.5. Sustainable Finance Market

In Zairis et al.'s systematic literature review of sustainable finance, they suggest that the importance of sustainable finance revolves around three interconnected concepts: sustainability, risk, and efficiency⁷⁹. In 2023, the sustainable finance market was estimated to be worth \$5.4 trillion with an expected CAGR of 22% between 2024 and 2032 which will bring the market value to 31.1 trillion at the end of that forecast period⁸⁰. In 2023, the global sustainable bond market alone was worth \$872 billion⁸¹. Over the next 5 years, North America is expected to lead the sustainable finance market in terms of market size, given the maturity and size of their financial systems, but Asia Pacific will experience the strongest growth⁸². The growth of this market is driven by countries in this region facing significant environmental issues leading to the prioritization of sustainability incorporated into business operations. Additionally, the rise of sustainable finance comes at a time of SEA's rapid economic growth and urbanisation, creating a demand for sustainable infrastructure and development projects.

As discussed above, the proliferation of sustainable finance products, also raises concern for greenwashing. This is partly due to the lack of specific product standards for sustainable funds⁸³. For sustainable markets to maintain investor and stakeholder trust, it's essential to establish well-defined rules. In June 2023, the first part of the International Financial Reporting Standards (IFRS) Sustainability Disclosure standards (also known as the international

⁷⁸ Carbon Credits.com. (2024). [The Top 4 Carbon Exchanges for 2024](#)

⁷⁹ MDPI, Research Gate. (2024). [\(PDF\) Sustainable Finance and ESG Importance: A Systematic Literature Review and Research Agenda](#)

⁸⁰ Global Market Insights. (2024). [Sustainable Finance Market Size & Share, Growth Outlook 2032](#)

⁸¹ ibid

⁸² Fairfield. (2023). [Sustainable Finance Market Size, Growth, Trends | 2030](#)

⁸³ UNCTAD. (2024). [World Investment Report 2024: Chapter III - Sustainable finance trends](#)

standards for sustainable finance) by the ISSB was launched⁸⁴. These standards provide a global baseline for the disclosure of sustainability related risks and opportunities. An increasing number of jurisdictions have already adopted or are adopting the ISSB standards with varying degrees of amendments made to the global base guidelines. The UNCTAD recognizes that these alterations, “may result in inconsistencies in the information reported by complying entities”⁸⁵. Other complementary guidance and frameworks in the sustainable space include the [Climate Transition Finance Handbook](#), the [Harmonized Framework for Impact Reporting, Guidelines for External Reviews](#), and [Sustainability Bond Guidelines, Social Bond Principles](#).

The effects of international and regional frameworks extend beyond formal jurisdictions and spillover into supply and investment chains. In many developing countries, companies are working towards modernizing their reporting systems by aligning them more closely with international best practices⁸⁶. Encouraging the private market to buy-into sustainable finance is closely related to the international awareness of the whole sustainability agenda, with a specific focus on environmental, social, and governance (ESG) related factors. When paired with the financial industry, ESG criteria acts as the framework for assessing and managing risks and opportunities in the context of long-term sustainability, while sustainable finance ensures that investments, financial products, and services are directed towards achieving these objectives. In the marketplace, companies implement and use ESG standards to both drive and comply with sustainable finance. ESG criteria help investors and stakeholders identify and assess the risks and opportunities associated with sustainability-related issues. Investors increasingly incorporate ESG factors into their investment decisions to manage risks like regulatory risks or environmental damages, and capture opportunities, such as clean energy or socially responsible businesses. Businesses in turn respond to this demand by implementing their own ESG metrics and reporting processes which enables the in-flow of sustainable finance.

7.6. Climate Finance Market

Under green finance, the climate finance market includes projects and initiatives related to climate change mitigation and adaptation. Average annual climate finance flows reached almost USD 1.3 trillion in 2021/2022 which is near double from the year previous⁸⁷. Like with green finance, development organizations from developed economies continue to mobilize the most climate financing. According to the Climate Policy Initiative, East Asia and the Pacific, the US and Canada, and Western Europe account for a combined 84% of total climate finance⁸⁸. More than 17% of public finance going to ‘Least Developed Economies’ (LDCs) is in the form of market-rate debt⁸⁹.

⁸⁴ IFRS. (2023). [IFRS - Introduction to ISSB and IFRS Sustainability Disclosure Standards](#)

⁸⁵ ibid

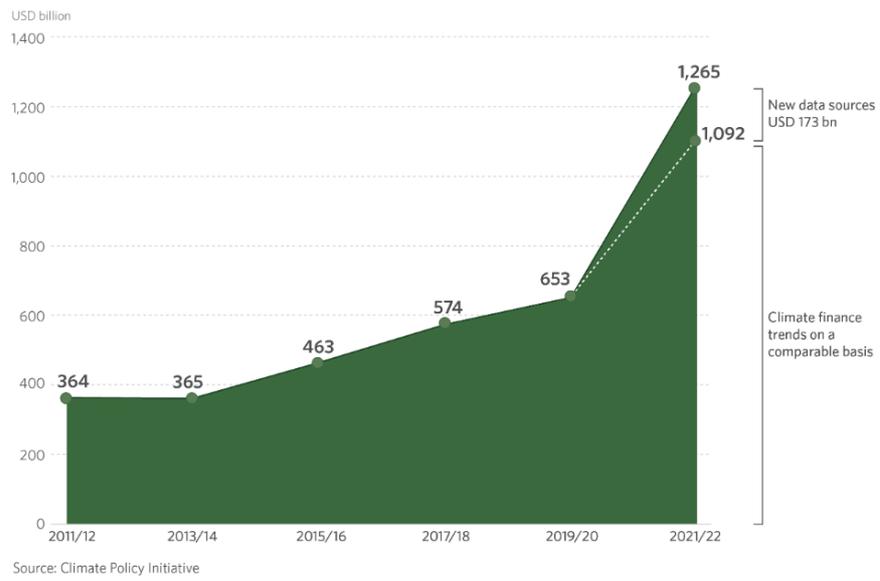
⁸⁶ ibid

⁸⁷ Climate Policy Initiative. (2023). [Global Landscape of Climate Finance 2023 - CPI](#)

⁸⁸ ibid

⁸⁹ ibid

Figure 6: Size of Global Climate Finance 2011-2022, biennial averages (USD)



Source: CPI. (2023). [Global Landscape of Climate Finance 2023 - CPI](#)

E. Green Finance in Cambodia

8. Cambodia: Economic and Political Overview

This section examines Cambodia’s green finance landscape from economic, political, environmental, and socio-economic perspectives. By exploring market dynamics, policy frameworks, climate vulnerabilities, and community impacts, this multi-faceted approach provides a comprehensive understanding of the opportunities and challenges shaping green finance development in Cambodia.

8.1. Economic

Over the past few decades, Cambodia has experienced remarkable economic growth, transitioning to lower-middle-income status in 2015. The nation aspires to achieve upper-middle-income status by 2030 and high-income status by 2050. To achieve these ambitious goals, the Cambodian government has outlined a clear vision, with a focus on economic diversification, digital transformation, and green development.

Pentagonal Strategy Phase 1 (2023-2028)

In 2023, The Royal Government of Cambodia (RGC) launched the Pentagonal Strategy Phase I, a five-year socio-economic framework designed to guide the country’s development while addressing key challenges. The strategy emphasizes long-term sustainable development and resilience, structured around five interconnected pillars as outlined in Table 3.

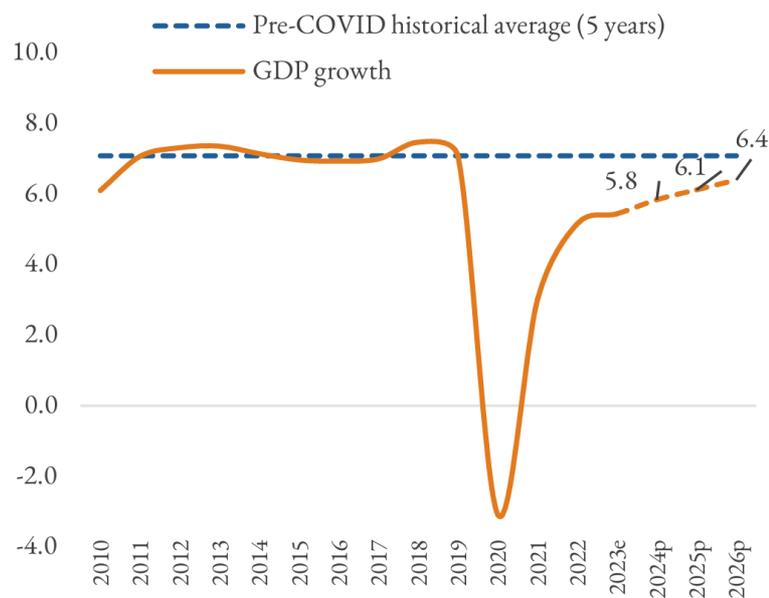
Table 3: Pentagonal Strategy Phase 1 – Economic Development

Pillar	Priorities
Human Resource Development	<ul style="list-style-type: none"> • Prioritize education, health, and skill development. • Aim to build a high-quality workforce to meet modern economic demands. • Focus on improving public health and social welfare systems.
Economic Diversification	<ul style="list-style-type: none"> • Reduce dependency on traditional sectors like garment manufacturing. • Promote growth in agriculture, tourism, technology, and green industries. • Encourage digital transformation and innovation.
Private Sector Development and Employment	<ul style="list-style-type: none"> • Enhance the business environment to attract domestic and foreign investment. • Support small and medium enterprises (SMEs) and startups. • Create more jobs and improve labour market conditions.
Inclusive and Sustainable Development	<ul style="list-style-type: none"> • Strive for equitable access to opportunities across urban and rural areas. • Emphasize environmental sustainability and climate resilience.

	<ul style="list-style-type: none"> Invest in infrastructure development, including clean energy and water systems.
State Institutions and Governance	<ul style="list-style-type: none"> Strengthen good governance, transparency, and accountability. Reform public administration and enhances rule of law. Promote digital government services for efficiency.

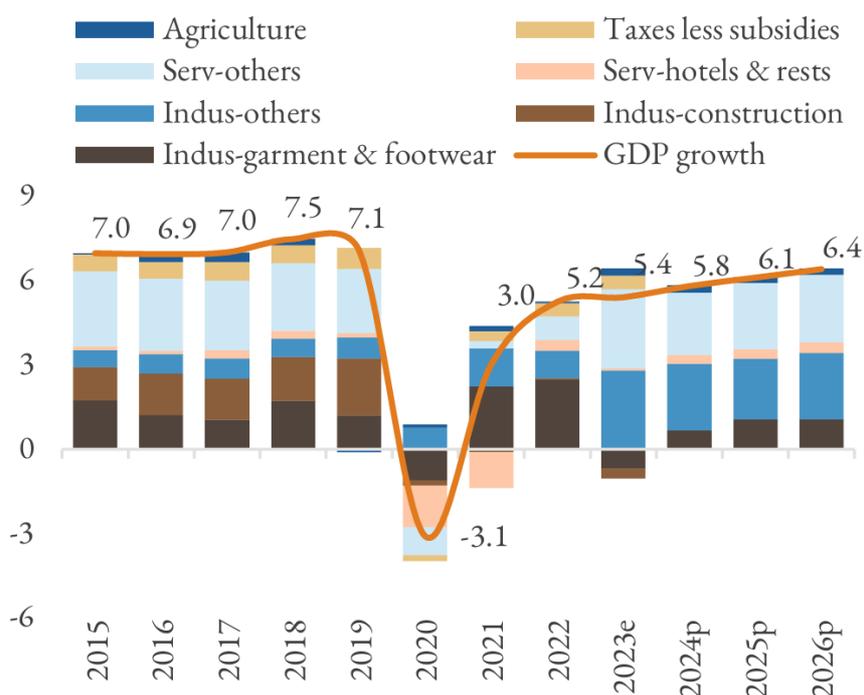
After suffering lows in GDP growth during the pandemic, Cambodia's economic recovery has slowly gained momentum, primarily driven by the service and industry sectors. In 2024, international tourist arrivals surged by 22.9%, reaching 6.7 million, while domestic tourism grew by 18.5% to 22 million visitors. The manufacturing sector showed a robust recovery, growing by 9.7% in 2024 compared to just 3.6% in 2023. Other sectors, including agriculture, construction, and real estate, also recorded modest improvements, contributing to the overall economic resurgence.

Figure 7: Cambodia's GDP Growth, 2011-2026p



Source: Cambodia's Export Revival and Trade Shifts Jun 2024 Publication - World Bank

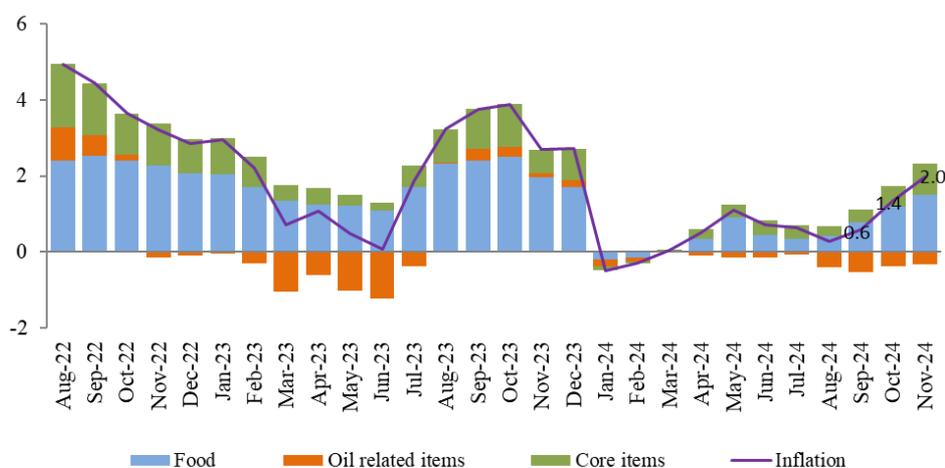
Figure 8: Contribution to Real GDP Growth



Source: Cambodian authorities and World Bank staff projection estimate and projection

Cambodia's inflation remains low and stable within a manageable band that is suitable for developing country. The main contribution to the headline inflation is food followed by core inflation and oil related items. In November 2024, the headline inflation registered at 2% of which food price increased 1.5%, core inflation 0.8%, and oil related items declined 0.34%. Since early 2024, international oil price dropped, coupled with the government intervention policy.

Figure 9: Cambodia's Headline Inflation



Source: National Bank of Cambodia

The RGC has prioritized transportation and logistics, energy, and public services such as clean water supply and waste management as key sectors for public-private partnerships (PPPs)

from 2025 to 2035. Among these, the energy sector holds a critical role in the development of a green economy. It is both a significant contributor to greenhouse gas emissions and a pivotal enabler of sustainable development, capable of addressing climate change while bolstering economic resilience. However, the energy sector faces notable challenges, including high upfront investment costs, technology gaps, and inadequate policy support. These challenges must be addressed to unlock its full potential for sustainable growth.

8.2. Political

Phase 1 of Cambodia's Pentagonal Strategy establishes the foundational elements for sustainable and inclusive development, charting the country's course to become an upper-middle-income nation by 2030 and a high-income nation by 2050. This framework emphasizes post-pandemic recovery, resilience building, and long-term socio-economic transformation. Designed as a comprehensive blueprint for growth, the strategy integrates objectives that align with and support sustainable finance, underscoring its role in fostering resilience, inclusivity, and environmental sustainability. The Pentagonal Strategy specifically contributes to the advancement of sustainable finance in several ways:

- **Inclusive Economic Growth** – The strategy promotes diversified economic growth across sectors such as agriculture, tourism, and industry. By encouraging investments in green industries and eco-tourism, it paves the way for environmentally responsible projects. These initiatives support sustainable financial practices, enhancing Cambodia's capacity to attract and utilize green financing.
- **Sustainable Infrastructure Development** – Investments in resilient and sustainable infrastructure, such as renewable energy and climate-adaptive systems, align with global Environmental, Social, and Governance (ESG) principles. These efforts not only address climate goals but also attract green financing, enabling Cambodia to meet both economic and environmental targets.
- **Governance and Institutional Reform** – Strengthened governance frameworks ensure transparency and accountability within the financial ecosystem. Reforms aim to build investor confidence by fostering a robust and reliable environment for international financial institutions and stakeholders to engage in Cambodia's sustainable projects.

Cambodia has made further progress in setting climate change initiatives, as seen in the following policies:

- **The Cambodia Climate Change Strategic Plan 2014-2023** was the first comprehensive national policy document responding to climate change.
- **The National Monitoring and Evaluation (M&E) Framework for the response to Climate Change** has been developed and regular climate public expenditure reviews undertaken.
- Cambodia has submitted their first **Nationally Determined Contribution (NDC)** in 2015 (27% reduction) and updated it in 2020 (41.7% reduction).
- Cambodia's first **Biennial Update Report (BUR)** was submitted in 2020, and the **Third National Communication (TNC)** in 2022.
- **The Long-Term Strategy for Carbon Neutrality** was released in December 2021 with 2050 carbon neutral target and net zero emission.

Regulations Driving Demand for Green Finance in Key Sectors

The agriculture and energy sectors offer significant opportunities to drive sustainable development and are key target areas for green finance investment in Cambodia. The regulations shaping these sectors are critical for fostering an environment conducive to green investment.

Agriculture – Smallholder farmers form the backbone of Cambodia’s agricultural sector but often face barriers with limited financial literacy and access to affordable credit due to the variability and low-margin nature of the agriculture sector. The **National Agricultural Development Policy (NADP)**, launched in 2022 by the Ministry of Agriculture, Forestry, and Fisheries (MAFF), aims to bridge these gaps by encouraging public and private financial institutions to offer affordable financing and green investment options. This policy addresses challenges such as food security, rural poverty, and climate change resilience while promoting climate-smart agricultural practices in water-efficient irrigation systems, crop diversification and agroforestry, and soil conservation techniques.

Renewable Energy & Energy Efficiency – Cambodia’s energy sector is another target for green finance, not only as a major source of greenhouse gas emissions but also as a cornerstone of economic growth. Beyond climate change risks, high electricity costs, rapid industrialization, and urbanization drive the demand for regulatory action and green investment. Key policies influencing this sector include:

- **Master Power Development Plan (PDP)** – Sets ambitious renewable energy targets, aiming for a 70% renewable energy mix by 2030 and 3,155 MW of solar capacity by 2040. And,
- **National Energy Efficiency Policy (NEEP)** – Introduces demand-side measures to enhance energy efficiency across industries, residential areas, and public infrastructure, targeting a reduction in total energy consumption by at least 19% by 2030.

The relevance and impact that these policies have on green finance are summarized in table 4 below.

Table 4: Relevant RGC Policies to Green Financing

Issuer/Policy	Description	Impact on Green Finance in Cambodia
<p>The Ministry of Mines & Energy (MME): Master Power Development Plan (2022-2040) (PDP)</p>	<p>The PDP lays out Cambodia’s supply-side strategy for energy efficiency to 2040, including a national target to achieve 70% renewable energy mix by 2030.</p> <p>As of 2021, renewable energy contributed just 35% of the nation’s total energy production. Although, A national statement issued in 2023 stated that Cambodia had</p>	<p>Given the ambitious future targets in the PDP, energy efficiency and renewable energy are high-opportunity sectors for green finance investment. This sector in Cambodia is further explored below.</p>

	achieved 62% renewable energy capacity ¹⁸	
The National Committee on Energy Efficiency: The National Energy Efficiency Policy (NEEP)	The NEEP sets out the demand-side plans for Cambodia’s energy sector, focusing on how to develop the energy sector in a balanced, sustainable, and efficient way. The NEEP sets a national target for reduction of total energy consumption of at least 19% by the year 2030 (BAU scenario). Specific targets to reduce energy consumption by 2030 include: 1) 20% in the industrial sector, from 38,600 GWh to 30,880 GWh, 2) 34% in the residential sector, from 17,981 GWh to 11,826 GWh, 3) 25% in the commercial buildings, from 8,552 GWh to 6,431 GWh, 4) 29% in the public services, from 42 GWh to 30 GWh, and 5) 5% in the transport sector from 24,662 GWh to 23,383 GWh.	The NEEP addresses barriers to scaling energy efficiency on political, technical, educational, and financial levels. Specific barriers listed in the financial space include, 1) high upfront costs and capital investment and risks associated with returns and investment payback, 2) Lack of access to affordable finance for investment in energy efficiency projects, and 3) Lack of expertise among financial institutions to appraise energy efficiency projects. Besides encouraging a pipeline of green projects in the market for BFIs to capitalize on, by outlining market risks, the NEEP provides an opportunity for innovative green finance to address and mitigate these barriers.
The MoE and National Council for Sustainable Development: Long-Term Strategy for Carbon Neutrality (2021) (LTS4CN)	The LTS4CN is a national strategic document that outlines Cambodia’s vision and path toward achieving carbon neutrality by 2050. It specifically outlines priority mitigation actions for sectors such as the forest and land use, decarbonizing the power sector, and energy efficiency, climate-smart agriculture, industry, and waste management. This strategy is closely aligned with Cambodia’s NDCs and SDGs.	Economic analysis in the LTS4CN shows that investments to be made under this strategy have the potential to create 449,000 additional jobs and deliver an additional 2.8% of annual GDP growth by 2050. Furthermore, projections to attain this financing expect a requirement of \$632 million just by 2030, and almost \$3.6 billion by 2050 of combined public and private financing (See Appendix).
The Ministry of Public Works and Transportation: National Policy on the Development of	According to the Ministry of Public Works and Transportation, on June 25, 2024 there were 3000 EVs registered in Cambodia ⁹⁰ . The NPDEV lays out time-bound measures and mechanisms for the growth of the EV sector in	This policy document highlights the global rapid growth of the EV sector. It states that “global EV sales surged from 3.2 million units in 2020 to 10 million in 2022, with the market reaching a value of US\$205.6 billion” ⁹¹ . The

⁹⁰ Construction and Property. (2024). [Cambodia Launches Ambitious Electric Vehicle Development Policy with Nearly 3,000 Vehicles Registered - Construction & Property News](#)

⁹¹ Investing Cambodia. (2024). [Cambodia Aims for 800,000 Electric Vehicles on Roads by 2030 - Investing Cambodia](#)

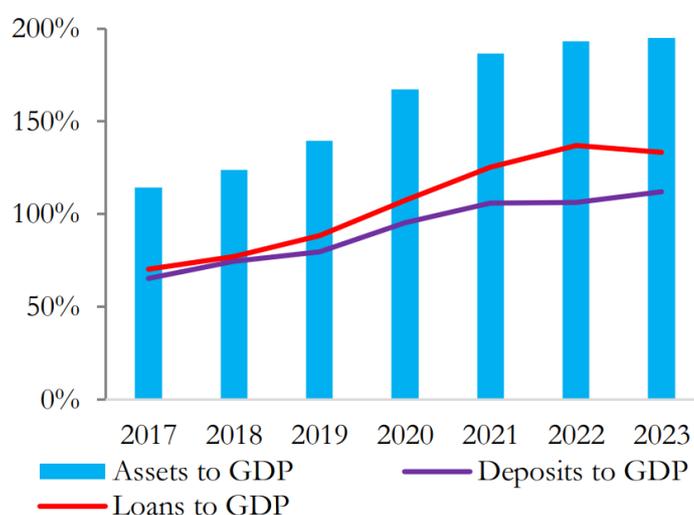
Electric Vehicles Cambodia 2024-2030 (NPDEV)	Cambodia. This policy aims to have 800,000 EVs on the road by 2030.	introduction of this policy is the first of its kind in Cambodia’s EV sector. It is a significant step in promoting not only the reduction of environmental pollution but also building a pipeline of investable projects for green finance in Cambodia.
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9. Cambodia: Financial Sector Overview

Banking sector

Cambodia’s banking sector is sizeable in terms of GDP. The assets in banking sector accounts for almost 195% of the nominal GDP in 2023 which is 31.7 billion USD. Total loans and deposits of banking sectors are respectively 133% and 112% of the nominal GDP. Growing financial intermediation, digitalization and expansion of banks’ branch networks have helped to improve financial inclusion. Still, only roughly 67% of Cambodians currently have access to official financial services. Over the years, MFIs and rural credit institutions have played a crucial role in providing financial services to rural households as well as to micro, small, and medium enterprises (MSMEs) in the agriculture sector.

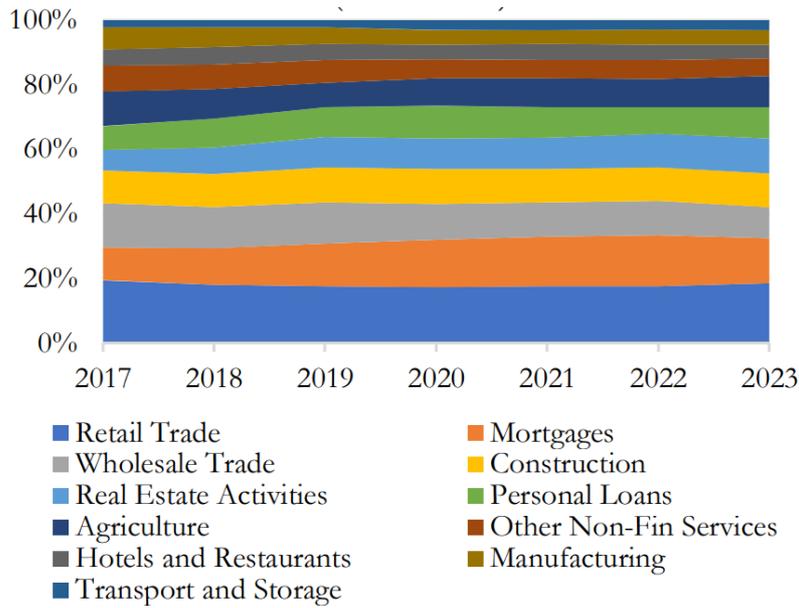
Figure 10: Banking System in Cambodia



Source: National Bank of Cambodia

Growth in commercial bank credit to private sector remains double digits yet it has slowed down from 18.3% in 2022 to 14.9% in 2023 due to global economic downturn and the pandemic. However, credit growth in the banking sector dropped significantly from 19% in 2022 to one-digit, 4.2% in 2023 as higher interest rates, elevated debt levels and banks’ cautious lending have weighed on credit off-take. Credit allocation is diversified across sectors. Retail trade sector accounted for 17.6% of total bank credit in 2023 followed by mortgage loans by households (13.4%) and real estates (10.5%).

Figure 11: Bank Credit by Key Sectors

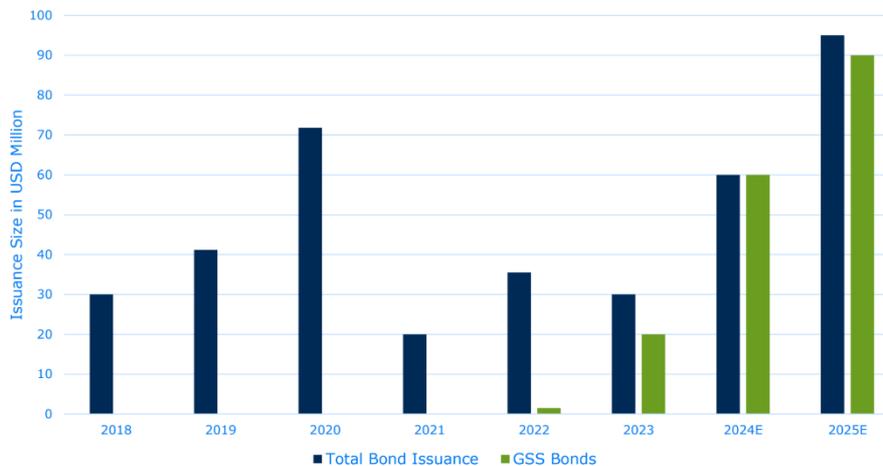


Source: National Bank of Cambodia

Non-banking sector

The non-banking financial sector in Cambodia is steadily growing, encompassing key areas such as capital markets, insurance, and pension funds. This sector plays an increasingly significant role in diversifying financial services and supporting economic growth. Cambodia's capital market, comprised of stock and bond markets, has shown promising development. As of 2024, the total size of the bond market is estimated to reach USD 60 million, with all issuances categorized as Green, Social, and Sustainability (GSS) bonds. This reflects a strong commitment to aligning financial growth with environmental and social objectives, positioning Cambodia as a regional leader in sustainable finance initiatives.

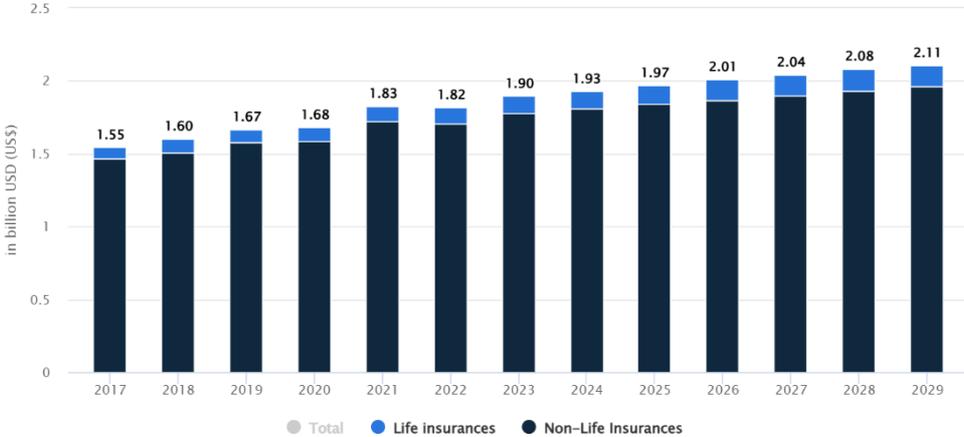
Figure 12: Cambodia's Bond Market



Source: SERC

The insurance sector in Cambodia is increasingly utilizing green finance, playing a pivotal role in managing risks, funding sustainable initiatives, and fostering environmental resilience. By providing tailored products, such as weather-indexed insurance for agriculture or coverage for renewable energy infrastructure, the sector contributes to climate adaptation and mitigation efforts. The Cambodian insurance market is projected to reach USD 1.93 billion in 2024, with non-life insurance dominating the market, accounting for an estimated USD 1.81 billion of the total volume. This growth reflects expanding economic activities and rising awareness of risk management among businesses and individuals. Non-life insurance products, such as property, motor, and health insurance, are seeking to be aligned with sustainability goals by incorporating ESG (Environmental, Social, and Governance) criteria.

Figure 13: Cambodia's Insurance Market



Source: Statista Market Insights

According to Cambodia Agricultural Survey (CAS) in 2020, 57% of households are involved in agricultural production mostly engage with rice cultivation followed by growing maize, cassava, sweet potato, and soybeans. In this context, crop insurance is important.

The Cambodian government’s Weather Indexed Crop Insurance (WICI) scheme was first started as a pilot project of an insurance company in 2015 in Cambodia. This scheme insures 120,000 hectares on the climate-resilient agriculture, according to the Project Management Office of MoEF and now has more than 54,800 farmers enrolled. This index was designed to address the challenges with rice commercialization, support planned use of commune land use and boost economic and livelihood opportunities.

10. Green finance in Cambodia

Through a collection of actors and initiatives, Cambodia is making strides in developing its green finance ecosystem. Initiatives such as the Cambodian Sustainable Finance Principles (CSFP) and Green, Social, and Sustainable Bond Guidelines provide a foundation for the sector. However, enforceability, incentives, and market alignment remain significant gaps, limiting the effectiveness of these frameworks. With support from development partners, Cambodia's regulators and BFIs are becoming involved in green finance products, partnerships, and capacity building programs. Detailed below are a few significant programs and activities that are currently contributing and will continue to contribute to Cambodia's green finance landscape.

10.1. Overview of Green Finance Policy in Cambodia: Key Frameworks

10.1.1. The Cambodian Sustainable Finance Principles (CSFP)

In 2019, the Cambodian Sustainable Finance Principles and Implementation Guidelines were published by the ABC and endorsed by the NBC and MoE. The CSFP's sets out 9 principles that seek to "emphasize the important role of the private sector in ensuring a sustainable future for Cambodia by assessing, managing, mitigating, offsetting, or avoiding potential risks or negative impacts that may arise from clients' business activities, standards, or practices"⁹². The main objectives of the CSFP are as follows⁹³:

- Properly establish and implement environmental and social risk management
- Sustainably develop and promote business opportunities
- Integrate sustainability into the banking business
- Collaborate with all stakeholders, including governments, authorities, investors and international partners
- Provide capacity development and knowledge sharing.

Since 2019, 48 Cambodian banks have voluntarily adopted the SFPs⁹⁴. However, these principles are non-binding, indicating interest and intentions of BFIs to engage with green finance but simultaneously leaving opportunity for greenwashing and under-served commitments.

10.1.2. Green Social and Sustainable (GSS) Bond Guidelines

In 2022, the Social exchange Regulators of Cambodia (SERC), supported by ADB, issued a Green Social and Sustainable (GSS) Bond Guidelines handbook. This document was issued in preparation for Cambodia's first green bond issuance which occurred in March 2023.

1. Use of Proceeds

⁹² Oxfam & Fair Finance Cambodia. (2022). [Policy Tracker on Sustainable Finance and ESG Policy in Cambodia](#).

⁹³ ReGlobal. (2024). [Green Financing Policies in Cambodia - REGlobal - Finance](#)

⁹⁴ ABC. (2021). [2nd Sustainable Finance Forum touched on Green Credit Guidelines for Cambodia – The Association of Banks In Cambodia](#)

2. Process for project evaluation and selection
3. Management of proceeds
4. Allocation and Impact reporting

According to SERC, “any person who wishes to issue green, social, or sustainable bonds, shall submit (1) a green, social, or sustainable bond framework and (2) an external review report by an independent reviewer, along with the application requirements for the issuance of bond... The external review report by an independent reviewer can be in accordance with the ASEAN Green Bond, Social Bond, and Sustainable Bond Standards or with other international standards in force for the issuance of such bonds.”⁹⁵.

From the study’s key informant interview data, SERC has confirmed that it is currently updating these GSS guidelines with expected publication in 2025. In addition to this update, the SERC is also encouraging the private issuance of green bonds through a tax incentive which was endorsed on February 24th, 2024. This sub-decree stipulates that “eligible companies which issue debt securities representing more than 20% of total assets on a local stock exchange – currently only the CSX – will receive a 50% cut in corporate income tax or eight billion riel (\$2 million USD) until February 23, 2025, whichever is less”⁹⁶.

10.1.3. International Financial Reporting Standards S1 & S2

Climate and sustainability reporting in Cambodia remains relatively limited in both the BFI and industry sectors. According to Flore’s *Sustainable Reporting on Cambodia* study, only a few companies release sustainability reports, and furthermore, comprehensive research on the challenges and prospects of SR in Cambodia is scarce⁹⁷. However, sustainability reporting is essential to corporate responsibility, particularly when engaging with green and climate finance. Sustainable and climate related disclosing and reporting not only allows an organization to share its environmental, social, and governance (ESG) impacts, but it also increases investor attraction, enables informed decision making, and improves products and services to global stakeholders⁹⁸.

The International Sustainability Standards Board (ISSB) established the International Financial Reporting Standards (IFRS) S1 and S2 in June of 2023⁹⁹. This is a significant development in sustainable and climate reporting as the standards create a common language for companies to disclose the effects of climate related risks and opportunities on a company’s prospects. IFRS S1 consists of a set of disclosure requirements that will enable companies to communicate to investors about the sustainability-related risks and opportunities they face

⁹⁵ Sithisak. (2023). [Legal Brief: Issuance of Green Bond, Social Bond, and Sustainable Bond in Cambodia – Sithisak Law Office](#)

⁹⁶ Viet. (2024). [SERC issues green-bond issuance guidelines in Khmer-language book | Vietstock](#)

⁹⁷ Journal of Accounting, Finance, Economics, and Social Sciences. (2023). [2_Sustainability-Reporting-in-Cambodia-Challenges-and-Prospect.pdf](#)

⁹⁸ Uwuigbe. (2018). [\(PDF\) Sustainability reporting and firm performance: A bi-directional approach](#)

⁹⁹ IFRS. (2023). [IFRS - ISSB issues inaugural global sustainability disclosure standards](#)

over the short, medium and long term. IFRS S2 is designed to be used with IFRS S1 and sets out specific climate-related disclosures.

The IFRS S1 and S2 are voluntary to adopt and jurisdictions are encouraged to “consider incorporating or building upon this global baseline as part of their mandatory reporting requirements as appropriate and consistent with their domestic legal frameworks”¹⁰⁰, Given the intention of these reporting standards to act as a global baseline of investor-focused sustainability reporting and ensure efficient capital markets, it is in the best interests of Cambodian businesses and jurisdictions to adopt the IFRS S1 and S2 as a way to align with global stakeholders and open opportunities for green financing. To address the varying levels of market readiness and available quantitative data, the ISSB has included ‘proportionality mechanisms’ for organizations to apply for¹⁰¹. This is extremely applicable for first time reporters operating in a context with limited resources such as Cambodian organizations may be facing. As of October 2024, jurisdictions that have adopted ISSB-aligned disclosure regulations include Bangladesh, Brazil, Costa Rica, Turkey, and Nigeria¹⁰².

10.1.4. Cambodia's Green Finance Taxonomy

A Green taxonomy is a tool that ensures the flow of capital to green and sustainable projects is aligned with environmental goals. Taxonomies provide common language and framework for identifying and classifying environmentally sustainable activities and assets. This enables actors, like central banks and governments, to regulate investment in providing transparency and accountability in green investments. A taxonomy also helps companies and investors make informed economic choices and actions that align with SDGs by assisting investors to identify and track the environmental impact of their assets. Finally, clear definitions and criteria in taxonomies can help to create security and reduce uncertainty for investors by providing standards for identification and classification prevents greenwashing.

¹⁰⁰ IFRS. (2023). [adoption-guide-overview.pdf](#)
¹⁰¹ Social, Environmental Context. (2024). [Adopting IFRS S1 and S2 on a voluntary basis: where to start? - Context](#)
¹⁰² *ibid*

Figure 14: Uses and Users of NBC Green Finance Taxonomy



Figure 15: Uses of Taxonomies Across ASEAN

Taxonomy	Uses
ASEAN Taxonomy for Sustainable Finance	For Governments, Regulators, Financial Institutions (FIs), providers of capital, rating agencies and real economy business to use in: <ul style="list-style-type: none"> • Capital allocation and orientation. • Risk management. • Supporting national sustainability initiatives. • Businesses to chart their sustainability journey.
Malaysia’s Climate Change Principle-based Taxonomy	<ul style="list-style-type: none"> • Guide for FIs supervised by BNM to assess and categorise economic activities according to the extent to which the activities meet climate objectives. • Guide in investment and asset selection decisions for other financial sector stakeholders such as capital market players and intermediaries. • Guide for policy formulation and prioritisation as well as funds allocation for the public sector.
Malaysia’s Principles-Based Sustainable and Responsible Investment Taxonomy	Provide clarity and guidance to capital market constituents (e.g. capital market intermediaries, issuers, corporates, asset owners, investors) and a wider range of users (e.g. analysts, rating agencies, public sector) in identifying and classifying economic activities in alignment with the environmental, social and sustainability considerations.
Indonesian Taxonomy for Sustainable Finance	For regulators, companies, financial services institutions and rating agencies, or other interested parties to use but not limited to: <ul style="list-style-type: none"> • Capital allocation and sustainable financing. • Issuance of sustainability-related bond/sukuk and identifying sustainable investees/debtors. • Developing sustainable products and sustainability benchmarks/indices. • Sustainability reporting (e.g. as a consideration in developing regulations on sustainable risk management).
Thailand Taxonomy Phase 1	<ul style="list-style-type: none"> • Guide in issuing green finance instruments. • Guide in financing and refinancing of green projects and properly reporting their share.

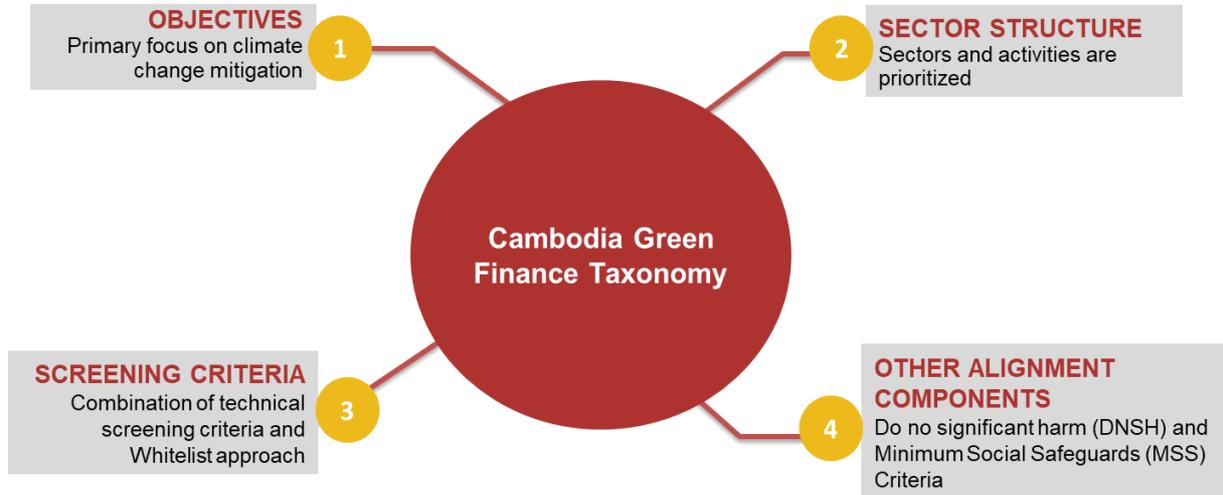
	<ul style="list-style-type: none"> • Facilitating reporting and disclosures by financial market participants. • Companies can use Taxonomy criteria as an input into environmental and sustainability transition strategies and plans. • Guide for insurance companies to align its products and funds with green activities. • Guide for regulations and structuring of upcoming green incentives and support measures for market participants.
Singapore-Asia Taxonomy	<ul style="list-style-type: none"> • Guide Singapore-based FIs and financial service providers in identifying activities that can be considered green or transitioning towards green. • Align national policies and financial flows at an economic level towards green activities and meeting national environmental objectives. • Align company development plans and investment priorities towards green and transition activities and associated financing opportunities. • Assess and report companies' activities and disclosures against Taxonomy criteria and long-term business alignment.
Philippine Sustainable Finance Taxonomy Guidelines	<p>For Government, financial regulators, financial institutions, providers of capital, green/sustainability bond issuers (including certifiers/verifiers), non-financial enterprises (including MSMEs) to use in:</p> <ul style="list-style-type: none"> • Directing and increasing capital flows to economic activities that further sustainability objectives. • Identifying eligible activities that can contribute to the taxonomy objectives. • Creating, structuring, tracking, and labelling taxonomy-aligned financial products. • Promoting transparency through disclosures minimizing greenwashing risks

National Bank of Cambodia and International Finance Cooperation signed a Cooperation Agreement on the Development of the Cambodia Green Finance Taxonomy and Market on December 19, 2023. This cooperation agreement aims to address climate change impacts in Cambodia and accelerate the country's transition to a green economy. In addition, this partnership will help develop a national taxonomy for green assets, improve capacity for financial institutions, and create a supportive financial ecosystem for green investment to promote sustainable development for Cambodia.

Meanwhile, the RGC is preparing the Cambodia Sustainable Finance Board in which members are from inter-ministries aiming to steer the development of sustainable finance development in Cambodia toward green economy. This initiative is also in line with the pentagonal strategy of the government. The approach of Cambodian green finance taxonomy includes

- (i) Focus on primary objective, which is climate change mitigation,
- (ii) Identifying priority sectors – energy, transportation, building and/or agriculture,
- (iii) Setting screening criteria for green businesses, and
- (iv) Ensuring other alignment components such as Do No Significant Harm (DNSH) and Minimum Safeguards (MS) criteria.

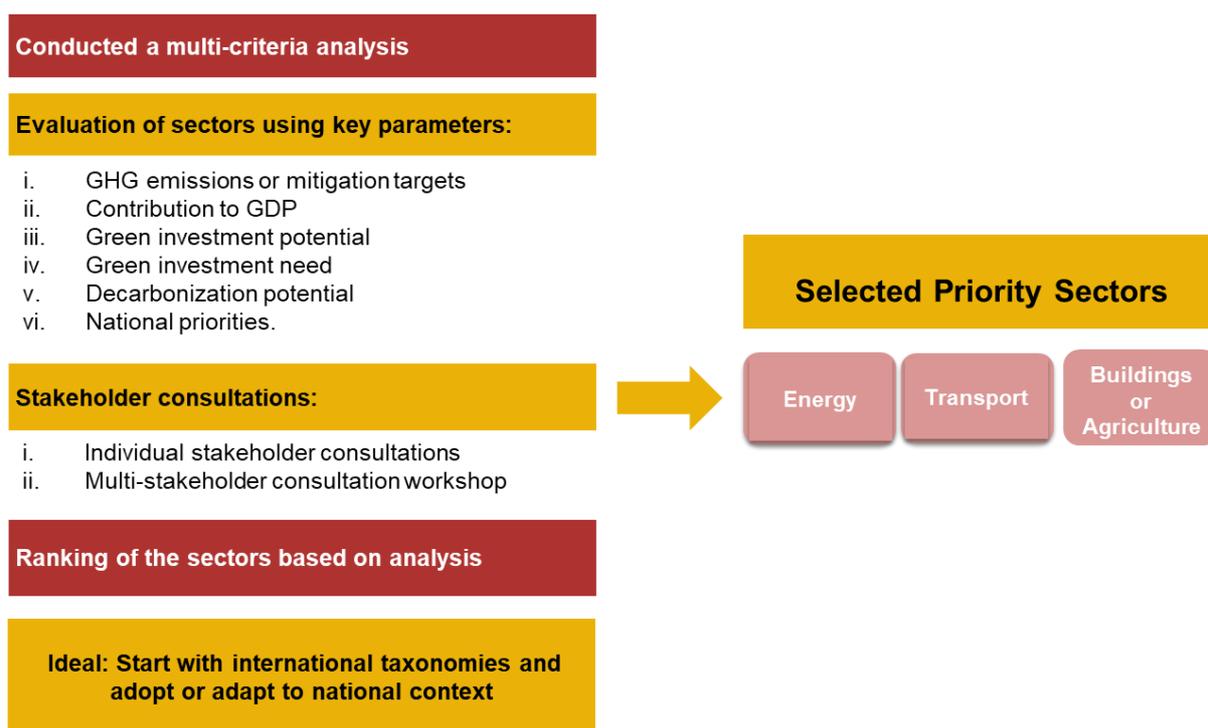
Figure 16: Cambodia's Green Finance Taxonomy Approach



Source: National Bank of Cambodia

Energy, transportation, building or agriculture sector are identified as the priority sectors in Cambodians green finance taxonomy. Key parameters used to evaluate those sectors are GHG emissions or mitigation targets, contribution to GDP, green investment potential, green investment need, decarbonization potential, and national priorities. The Cambodian green finance taxonomy is aligned with international taxonomies practices and adapt to the national context. Hence, these sectors are ranked according to analysis and actual needs. The sector analysis papers were developed in August 2024, followed by a draft of the taxonomy in October 2024. January 2025 is expected to hold stakeholder consultation on the taxonomy.

Figure 17: Sector Structure: Priority Sectors for Phase One



Source: National Bank of Cambodia

Figure 18: High-level Timeline of National Taxonomy Development



Source: National Bank of Cambodia

Conclusion to Green Finance Policies

While the non-binding nature of some principles and the need for stronger government incentives pose challenges to Cambodia’s proliferation of green finance, the anticipated issuance of the national green finance taxonomy, SERC’s updated GSS handbook, and public document of CGCC’s criteria in providing loans directly to green business and BFIs will stabilize Cambodia’s growing green finance sector. This will stimulate domestic BFI engagement and compliance with green finance, as well as make Cambodia more attractive for external development partners and potential impact investors. Educating, incentivizing, and regulating Cambodia’s BFIs and market actors on green finance and its implications will enable a stronger financial sector aligned with the kingdom’s NDCs and new opportunities to engage in climate change mitigation and adaptation efforts.

10.2. Context for Green Finance Demand and Sectoral Opportunities

10.2.1. Impact of Climate on Cambodia’s Socio-Economic Development

The socioeconomic effects of climate change in Cambodia are far-reaching, with livelihoods, infrastructure, and agricultural productivity at significant risk to the increasing frequency and intensity of extreme weather events. Key impacts include:

- **Economic Impacts:** Reduced agricultural productivity, rising costs from natural disasters, higher energy costs, and losses in insurance and property assets.
- **Social Impacts:** Increased health risks, forced migration, and displacement due to sea-level rise and extreme weather, disproportionately affecting poorer communities with fewer resources.
- **Employment and Livelihoods:** Job losses in agriculture, fishing, and tourism—sectors directly vulnerable to climate change—resulting in economic instability and reduced income security.
- **Food and Water Security:** Altered rainfall patterns and higher evaporation rates reduce water availability, affecting both household consumption and agricultural irrigation, leading to food insecurity and resource scarcity.

The Cambodian Socio-economic survey (CSES) 2021/22 serves as important statistical evidence for effective decision-making to improve Cambodian’s living standards. In this report, the number of Cambodians living in urban area is half the number of those living in rural areas. Yet this trend is increasing overtime (Table 5). The figure shows a huge change in 2019. Male accounts for 48.8% and the sex-ratio is 95.2%. The number of urban households is growing at an annual rate of about 3% in 2021 over year 2019/20 while the rate for rural households is around 2%.

Table 5: Measurement of population by urban and rural areas. In thousands and in percent.

Residence	CSES 2015	CSES 2016	CSES 2017	CSES 2019/20	CSES 2021
Cambodia	15,405	15,626	15,848	15,954	16,592
Urban	3,541	3,670	3,801	6,293	6,518
Rural	11,865	11,956	12,047	9,661	10,074
Urban	23%	23.5%	24%	39.4%	39.3%
Rural	77%	76.5%	76%	60.6%	60.7%

Source: CSES report 2021/22

In 2022, Cambodia achieved a Human Development Index (HDI) score of 0.6, ranking 154 out of 204 countries, placing it in the medium human development category¹⁰³. Phnom Penh's HDI of 0.731 is significantly higher than the provincial average of 0.58, underscoring a

¹⁰³ UNDP, [Data Futures Exchange](#)

developmental imbalance between urban and rural areas¹⁰⁴. Energy access is one magnifier of the stability and affordability discrepancy between urbanized and rural Cambodia. Electricity prices in Cambodia, at USD \$0.137 per kWh, ranking among the highest in the region. This places a significant burden on businesses and households, hindering economic growth and development. Without more affordable and reliable electricity access, many will face challenges in improving their economic prospects and sustaining livelihoods. From a residential perspective, the two main sources of lighting used by households in Cambodia were publicly provided electricity/city power and solar power, at 91% and 7%, respectively. Other sources^[1] of lighting were used by less than 2% of Cambodian households. The percentage of Cambodian households using the publicly provided electricity/city power had highly increased from 14% in 2004 to 26% in 2009 and from 58% in 2014 to 91% in 2021. Regarding energy sourced for cooking, about 50% of the household's country-wide used firewood for cooking, 43% used Liquefied petroleum gas (LPG) and 7% used charcoal.

Cambodia's socio-economic landscape highlights an urgent need for green finance to address critical challenges in climate mitigation, adaptation, and resilience to climate impacts.

10.2.2. Climate Trends in Cambodia

Climate risks significantly exacerbate the existing rural-urban development gaps, amplifying Cambodia's vulnerability to floods, droughts, and extreme weather events. Projections from the Ministry of Environment indicate that, without swift and decisive action, climate change could reduce Cambodia's GDP by 2.5% by 2030 and up to 9.8% by 2050, highlighting the urgent need for mitigation and adaptation strategies¹⁰⁵.

Temperature Change

The country has experienced notable climatic shifts over recent decades. From 2000 to 2020, Cambodia's annual mean temperature increased from 27.1°C to 27.9°C, with a historical trend of warming at 0.23°C per decade since 1950, particularly pronounced during the dry season. Data from the FAO and WE5E analyses reveal a significant rise in temperature extremes: between 1980 and 2016, the number of very hot days (above 33°C) increased by 7 to 14 days annually. This trend has heightened evapotranspiration rates, intensifying water stress for crops during warmer months and particularly throughout the dry season. Figure 21 highlights the trends in temperature by season over the period 1960-2000.

Climate projections suggests that Cambodia's dry season temperatures could rise by 1.7°C under RCP4.5 and 3.1°C under RCP8.5 by the 2090s, compared to baseline levels observed between 1986 and 2005. The country is already among the most heatwave-prone globally, enduring approximately 64 days annually with maximum temperatures exceeding 35°C, further compounding climate-related challenges¹⁰⁶.

¹⁰⁴ UNDP, <https://www.undp.org/cambodia/press-releases/cambodias-2019-human-development-report-says-sustaining-natural-resources-vital-progress>

¹⁰⁵ Khmer times, [Cambodia faces increasing vulnerability to climate change](#)

¹⁰⁶ The World Bank Group, 2021

Figure 19: Maximum temperature increase forecast in Cambodia for the period 2011-2040 under RCP4.5

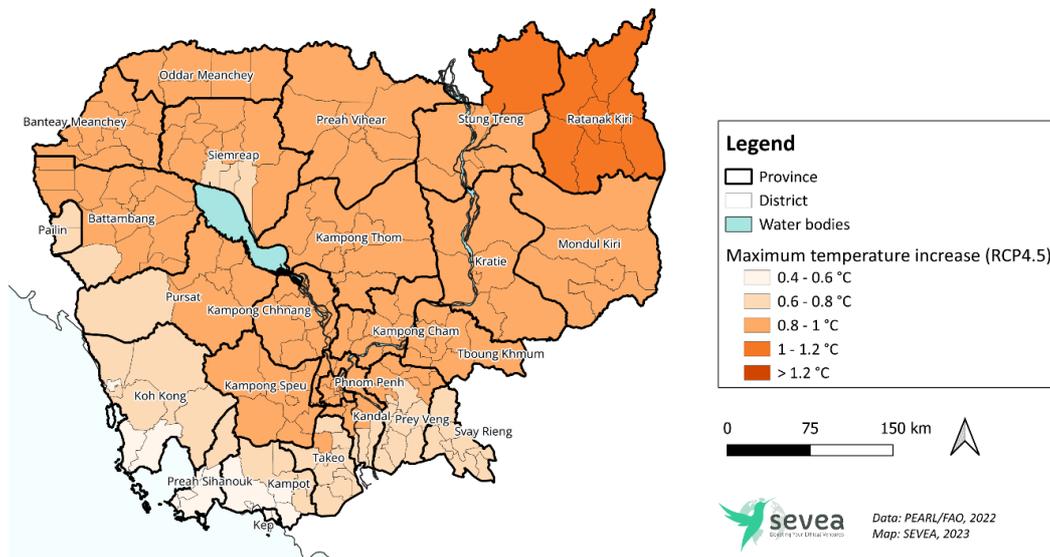
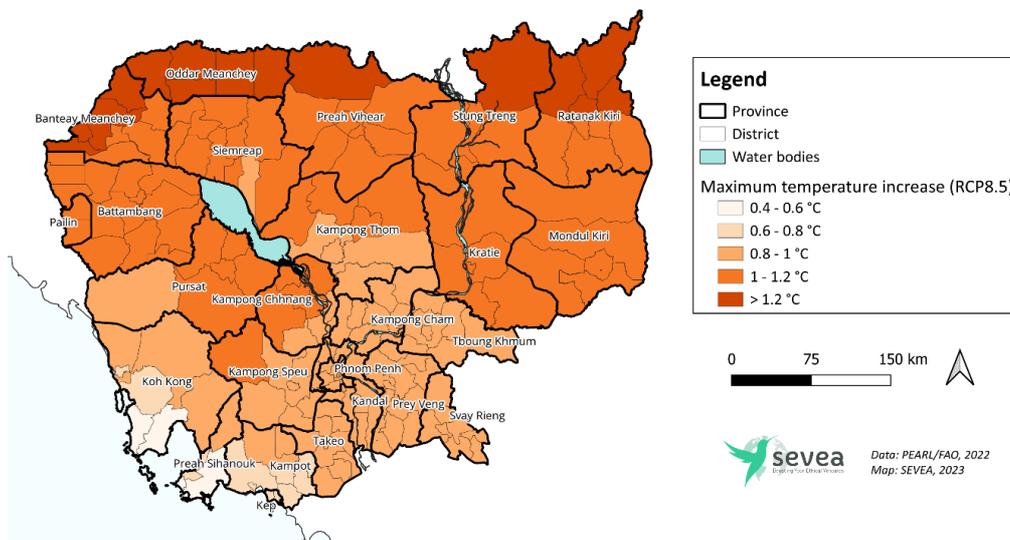
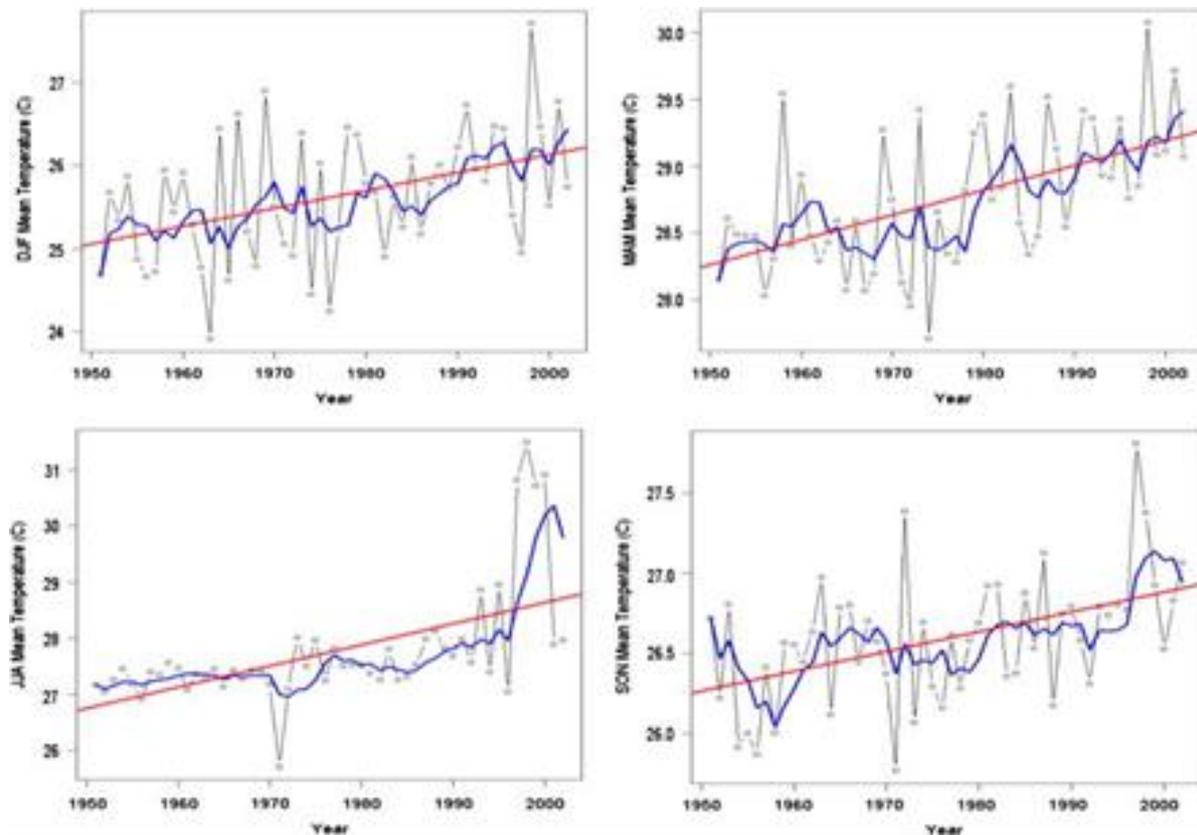


Figure 20: Maximum temperature increase forecast in Cambodia for the period 2011-2040 under RCP8.5



These changes directly threaten agriculture, a cornerstone of Cambodia’s economy, and increase the vulnerability of rural populations who depend on subsistence farming. Without proactive measures to mitigate these impacts, Cambodia faces escalating challenges to food security, economic stability, and rural livelihoods.

Figure 21: Historical mean temperature change over the period 1960-2000 by season December-February (top left), March-May (top left), July through August (bottom left) and September-November (bottom right).



Source: Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood in Northern Tonle Sap Basin (PEARL), FAO, 2022

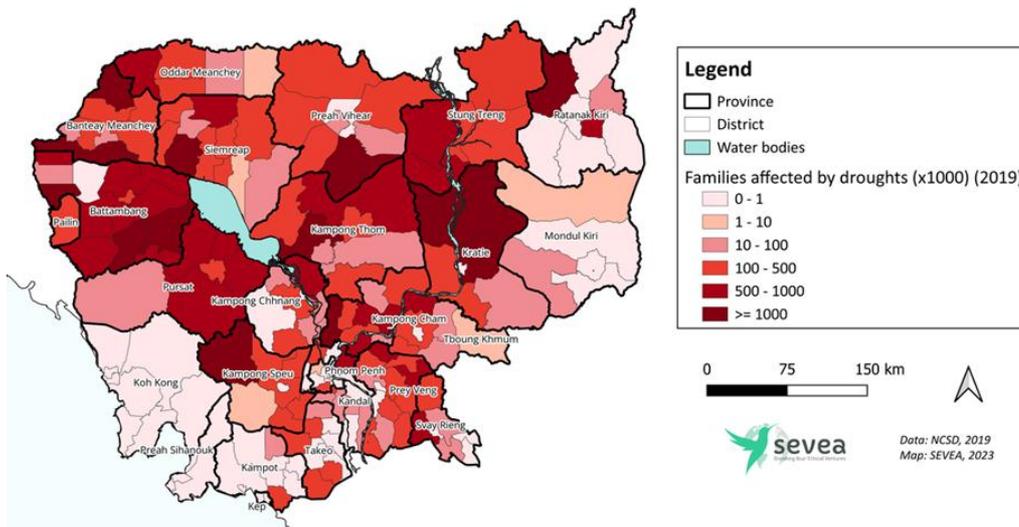
Rainfall, Drought, and Floods

Historical data reveals a gradual decline in rainfall since 1960, characterized by substantial year-to-year variations, primarily observed during the rainy season¹⁰⁷. The most significant reduction in precipitation occurs during the months of September to November.

Drought is a recurring issue in Cambodia, influenced by extended dry periods and fluctuations in water resources across terrestrial water bodies. The frequency and intensity of droughts are significantly shaped by ocean-atmospheric processes such as El Niño-Southern Oscillation (ENSO) and localized climatic variability. The impact also varies geographically, with provinces like Battambang and Kratie identified as the most vulnerable. Data from the National Council for Sustainable Development highlights the number of families affected by droughts per commune in 2019, illustrating the uneven distribution of drought exposure across the country (refer to Figure 22).

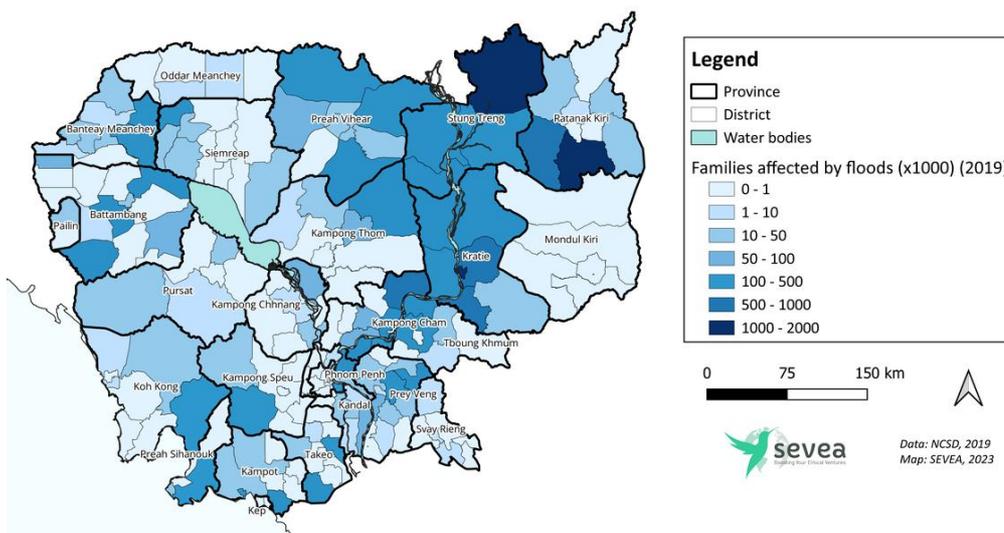
¹⁰⁷ Thoenu, 2015

Figure 22: Families affected by droughts in Cambodia at district level



Since 1990, the frequency of severe floods in Cambodia has increased, with major events recorded in 1991, 1996, 2000, 2001, 2002, and 2011¹⁰⁸. More recent flooding incidents occurred in 2018, 2019, and particularly in 2020, causing widespread disruption¹⁰⁹. These floods are not solely the result of heavy rainfall but are often driven by rising water levels in the Mekong River and Tonle Sap Lake, typically peaking between early July and early October¹¹⁰. Provinces such as Preah Vihear, Stung Treng, Kratie, and southern Ratanakiri are among the most flood-prone regions. Data from the National Council for Sustainable Development in 2019 highlights the number of families affected by floods per commune, illustrating the concentrated exposure in these areas (refer to Figure 23).

Figure 23: Families affected by floods in Cambodia at district level



¹⁰⁸ FAO, 2022

¹⁰⁹ Rom Phy et al., 2022

¹¹⁰ FAO, 2022

The World Bank estimates that Cambodia faces annual contingent liabilities of USD 74 million from floods alone¹¹¹. Despite current investments in climate adaptation, the Royal Government of Cambodia (RGC) is likely to face substantial disaster-related financial burdens from flooding. These liabilities, whether explicit or implicit, stem from the need to fund emergency response and recovery efforts following climate and disaster events. Key expenses include emergency operations, restoration of critical public services, reconstruction of essential infrastructure, and assistance to vulnerable populations, including rebuilding residential assets for the poor and cost-sharing with provincial governments. Flood modelling for Cambodia indicates that a flood with a five-year return period could result in damages of approximately USD 700 million to uninsured residential and industrial assets. With the country's insurance market penetration at less than 1%, the government may need to shoulder a significant portion of these costs, particularly to support the poor, vulnerable, and at-risk households, as illustrated in Table 6.

Table 6: Annual expected losses from floods at different return periods by type of asset (in USD, million)

Return Period	Annual Average	1 in 5 years	1 in 10 years	1 in 20 years	1 in 50 years	1 in 100 years	1 in 200 years
Residential	301	680	1,250	1,650	12,170	2,640	3,220
Commercial	71	30	90	140	190	230	280
Industrial	28	20	40	50	60	70	90

Source: World Bank Group's Disaster Risk Finance and Insurance Program Analysis using JBA's Flood Risk Profile for Cambodia.

Cambodia faces a growing risk of more frequent and severe floods and droughts due to projected temperature and precipitation trends under RCP4.5 and RCP8.5 scenarios. A predicted decline in average annual rainfall is expected to exacerbate drought conditions, while rising temperatures will further aggravate the situation by accelerating the evaporation of water from soils, rivers, and reservoirs. These combined factors will reduce water availability, disproportionately impacting provinces already under significant water stress, such as Oddar Meanchey, Preah Vihear, Stung Treng, and Ratanakiri, along with vulnerable districts in other regions. On the other hand, intensified heavy rainfall poses a contrasting challenge, overwhelming Cambodia's drainage infrastructure and increasing the risk of flash floods and river flooding. The expected rise in extreme precipitation events will likely lead to more frequent and severe floods, particularly in northern and western provinces, with Preah Vihear identified as the most vulnerable.

Cambodia faces a dual and escalating threat of worsening droughts and floods, which underscores the urgent need for integrated water resource management, climate-resilient infrastructure, and targeted adaptation strategies. These measures are critical to mitigating the severe impacts on the country's communities, ecosystems, and economy.

¹¹¹ The World Bank Group, [Country Climate and Development Report Sept 2023](#)

10.2.3. Sectorial Opportunities for Green Finance

Green finance emerges as an essential tool to address the vulnerabilities, enabling the funding of critical adaptation, mitigation and resilience projects. Targeted or tailored solutions will not only mitigate the impacts of climate change but also ensure a more sustainable and inclusive economic trajectory. Table 7 indicates green sector investment or financing opportunities of up to USD 3 billion by 2030 in Cambodia.

Table 7: Green Financing Opportunities by Sector

Sector	Potential Financing Gap by 2030 (USD)	Potential Opportunities
Climate Smart Agriculture and Forestry	\$80 million	Deforestation-free agriculture, no-till farming, organic produce, climate-smart supply chains, agriculture inputs and technologies, agricultural cold-chain storage facilities, agroforestry plantations
Renewable Energy (RE)	\$1 billion	Utility scale solar (i.e., solar farms), solar tech for agriculture
Energy Efficiency (EE)	\$500 million	Energy efficient upgrades/retrofitting in commercial and industrial buildings via Energy Services Companies (ESCOs), Green Buildings / Development (housing, commercial, industrial buildings)
Clean Transport / Electric Vehicles	\$1.5 billion	Electric vehicles (2-, 3- and 4-wheelers), EV charging infrastructure, EV fleets, Sustainable EV manufacturing and assembly (green factories)
Water Infrastructure	\$180 million	Piped water and sanitation

Sources: ADB

Climate Smart Agriculture (CSA) and Forestry

Cambodia's agriculture sector employs about 30% of the labour force and contributes around 22% of GDP¹¹², and is highly vulnerable to climate change. The sector faces increasing risks from erratic rainfall patterns, prolonged droughts, and frequent floods, which disrupt agricultural productivity and threaten food security. Smallholder farmers, who account for most of the agricultural activity, are particularly exposed due to limited access to finance, climate-resilient inputs, and adaptive technologies. Key crops such as rice, cassava, and cashew are under threat from reduced water availability, rising temperatures, and soil degradation. Climate-smart agricultural practices—such as water-efficient irrigation systems, drought-resistant seed varieties, and integrated pest management—are critical for enhancing

¹¹² [Phnom Penh Post](#) (2024).

resilience and productivity. However, the adoption of these practices is hindered by a lack of financial resources, technical expertise, and supportive infrastructure.

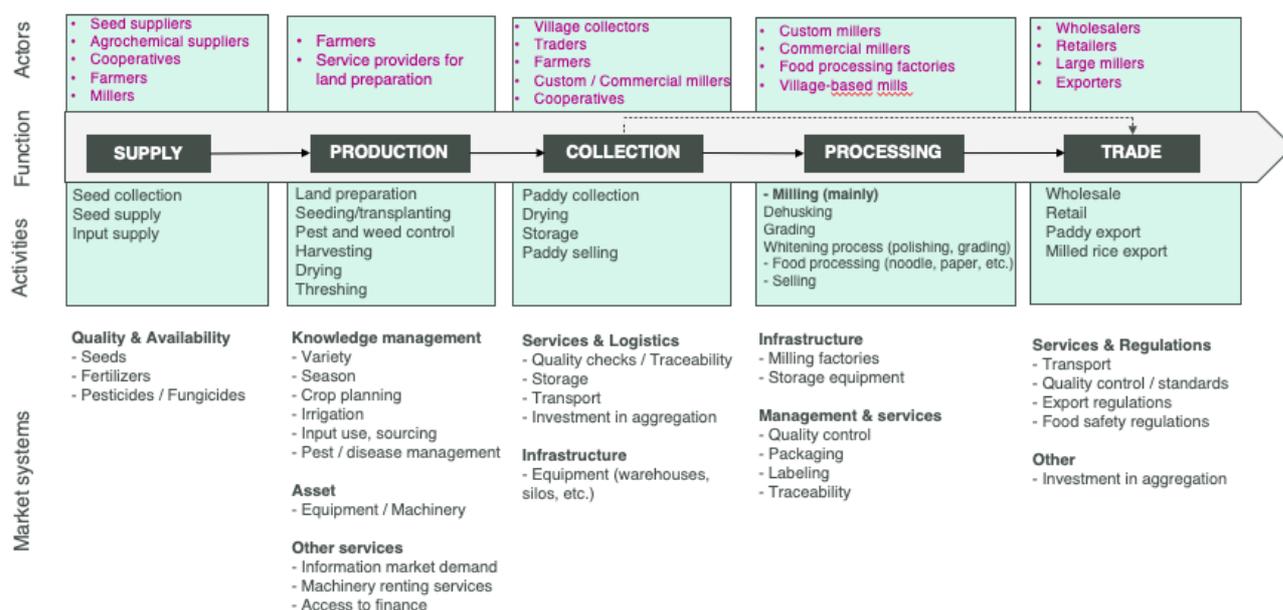
Cashew – Cashew farming in Cambodia faces significant climate-related risks, particularly from rising temperatures, droughts, and floods, with key production areas including Kampong Thom, Ratanakiri, Kratie, Kampong Cham, Stung Treng, Preah Vihear, and Siem Reap. These provinces, already vulnerable to climate variability, are projected to experience temperature increases of 1°C to 1.2°C under RCP4.5 and more than 1.2°C under RCP8.5 by 2040, exacerbating heat stress during critical growth periods. While cashew trees exhibit drought tolerance, prolonged dry spells can damage flowers and immature fruit, reducing yields, whereas floods, though less frequent, pose risks of waterlogging and nutrient absorption issues. The sector benefits from improved varieties like M-23, which offer faster flowering cycles and better resilience, yet widespread reliance on less resilient local varieties, limited access to water infrastructure, and a lack of weather forecasting tools hinder adaptive capacity. Addressing these challenges requires investments in irrigation systems, climate-smart farming practices, and post-harvest facilities to ensure the sector’s sustainability and resilience.

Table 8: Opportunities and Challenges for Cashew Farming

Climate Challenges	Financing Opportunities
<ul style="list-style-type: none"> • Cashew production thrives in warm temperatures (20°C to 35°C), but rising temperatures beyond this range, common in key growing regions, significantly reduce yields. • Prolonged droughts damage flowers and cause immature fruit abortion, lowering productivity. • While relatively flood-resistant, cashew trees are vulnerable to waterlogging, leading to root damage and nutrient absorption issues. 	<ul style="list-style-type: none"> • High-value export crop with Cambodia as one of the largest producers of raw cashews in the world. • Loans for climate resilience practice including drought-resistant cashew varieties and sustainable orchard management. • Financing new processing infrastructure for raw cashews, and short-term credit for current processing operations. • Long-term loans for orchard development with good agricultural practices (GAP).

Rice – Rice cultivation spans 3.4 million hectares in Cambodia, producing 11.62 million tonnes in 2022, making it a cornerstone of the country’s agriculture. However, the sector faces critical climate risks, including rising temperatures, erratic rainfall, droughts, and frequent floods. Key production areas such as Battambang, Kampong Thom, and Prey Veng are particularly vulnerable. Between 2015 and 2019, droughts affected over 1 million hectares of rainy-season rice fields, with 201,490 hectares fully destroyed, leading to a loss of 624,262 tonnes of rice valued at approximately USD 100 million. Similarly, floods in 2019 damaged up to 5% of paddies. Droughts disrupt planting schedules and reduce yields, while monsoon floods damage crops and deplete soil nutrients. Although flood-tolerant rice varieties and improved irrigation systems have been introduced, widespread reliance on traditional farming practices and limited access to climate-resilient technologies significantly hinder adaptation efforts. Investments in climate-smart agriculture, better water management, and modern farming techniques are essential for ensuring the resilience and sustainability of Cambodia’s rice sector.

Figure 24: Rice Production and Market Systems



Source: Sevea

Table 9: Opportunities and Challenges for Rice Cultivation

Climate Challenges	Financing Opportunities
<ul style="list-style-type: none"> Projected temperature increases, along with more frequent and intense heatwaves, pose significant threats to rice yields by exacerbating heat stress during critical growth stages. Erratic rainfall patterns disrupt planting schedules, affecting both germination and harvest timelines. Prolonged dry periods and sudden heavy downpours result in uneven crop maturity, reducing overall productivity and complicating farm management. The increasing variability in rainfall patterns contributes to the heightened occurrence of severe droughts and floods. Extended droughts deplete water availability, limiting irrigation options and intensifying dependence on rain-fed farming, particularly in vulnerable provinces. 	<ul style="list-style-type: none"> Financing the development, adoption, and distribution of flood-tolerant and drought-resistant rice varieties. Funding irrigation systems such as drip irrigation or community-managed canals to reduce dependence on rainfall. Introducing subsidized insurance schemes to protect farmers against losses from floods and droughts. Providing concessional loans to farmers for adopting climate-smart practices such as System of Rice Intensification (SRI), No-till farming and direct seeding. Financing modern storage facilities and rice mills to reduce post-harvest losses caused by unexpected weather events. Investing in mobile-based weather forecasting tools to provide farmers with timely climate information. Supporting agroforestry models that integrate rice farming with trees to improve soil health and reduce water evaporation.

Vegetable – Vegetable production in Cambodia faces significant challenges, including pronounced seasonal fluctuations and an insufficient domestic supply to meet growing demand. The rainy season, from May to October, provides essential moisture for crop

growth¹¹³, but the absence of adequate irrigation systems severely limits production during the dry season, further intensifying seasonality. Moreover, high fertilizer usage, estimated at 200-300 kg per hectare, raises environmental concerns, including soil degradation and water pollution, highlighting the need for more sustainable cultivation practices¹¹⁴. Addressing these issues through investments in modern irrigation infrastructure, climate-smart farming techniques, and sustainable inputs is vital to ensuring a consistent vegetable supply, enhancing food security, and fostering environmentally sustainable agriculture in Cambodia.

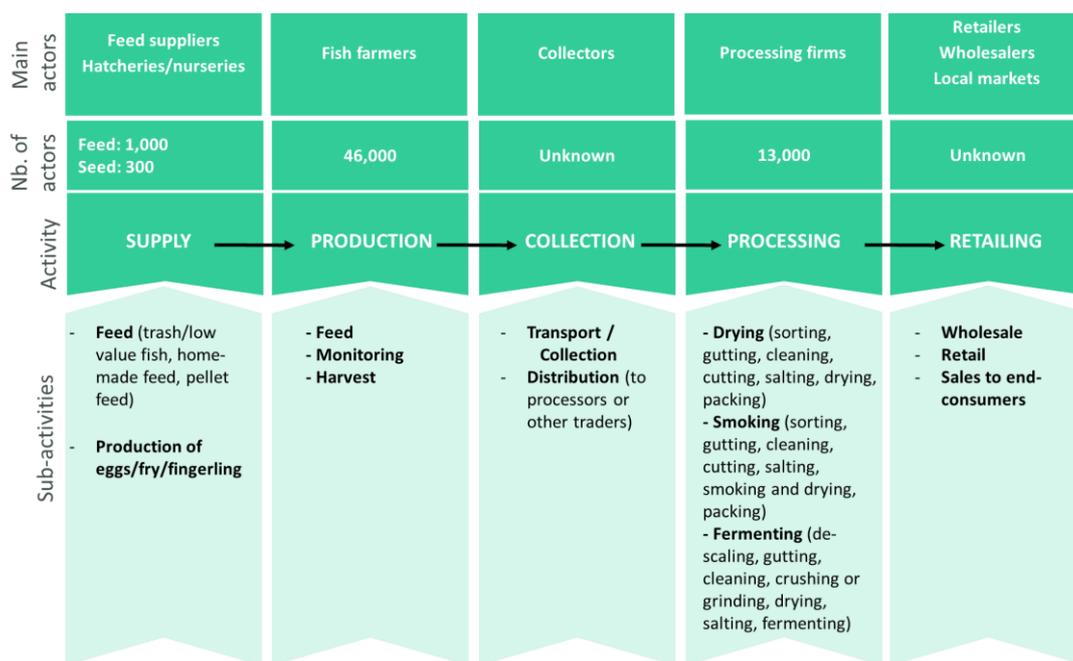
Table 10: Opportunities and Challenges for Vegetable Farming

Climate Challenges	Financing Opportunities
<ul style="list-style-type: none"> Vegetable growth is severely impacted by heat stress, causing yellowing leaves, higher plant mortality, and increased susceptibility to diseases¹¹⁵. Extreme temperatures, often reaching 40°C, have been particularly detrimental, with crops such as tomatoes and leafy vegetables requiring lower temperatures to thrive. In contrast, heat-tolerant varieties like pak choi and yard-long beans perform better¹¹⁶. With most vegetable farming in Cambodia reliant on rain-fed systems, prolonged droughts significantly reduce yields. Beyond lower productivity, drought conditions also degrade the nutrient quality of vegetables, impacting overall marketability and food security. Flood events damage vegetable crops by waterlogging soils, which leaches nutrients and causes root damage. Additionally, floods often spread diseases and pests, compounding the risks to production. 	<ul style="list-style-type: none"> Financing water-efficient irrigation systems, such as drip irrigation, to mitigate the effects of irregular rainfall. Offering concessional loans for the adoption of climate-smart technologies, such as protected agriculture (greenhouses and net houses). Financing for the construction of drainage systems and raised beds to manage waterlogging and improve resilience. Funding and technical assistance programs for farmer training on sustainable vegetable farming techniques and soil management practices. Investing in cold storage facilities and supply chain infrastructure to reduce post-harvest losses.

Aquaculture – Aquaculture plays a vital role in Cambodia's food security and economy, contributing significantly to the livelihoods of rural communities and smallholder farmers. With over 80% of Cambodia's population relying on fish as a primary protein source, the sector has expanded rapidly over the past decade.

¹¹³ CEIC, 2020
¹¹⁴ IFPRI, 2014
¹¹⁵ Alvar-Beltrán et al., 2022
¹¹⁶ MAFF, 2023

Figure 25 Key activities and actors in the Aquaculture Value Chain



Source: Sevea

Figure 26: Assessment of financial gaps in the Aquaculture sector, 2022

Needs	Working Capital		Investment Capital
Timing	< 3 months	3-12 months	1-5 years
Magnitude of the needs as of Q4 2022	High for farmers, processors, intermediaries		High for nurseries, hatcheries, processors Moderate for farmers and collectors
Predominant products on the market	<ul style="list-style-type: none"> • Informal loans (often < \$1k) • Term and agriculture loans 		<ul style="list-style-type: none"> • Agriculture loans • Term loans
Main limitations of predominant products	<ul style="list-style-type: none"> • Not tracked • High interest rates 		<ul style="list-style-type: none"> • Request for collateral • Exclusion of land acquisition • High interest rates
Existing or potential solutions to develop formal financing	Value Chain Financing		
	Trade loans		
	Group loans		
	Credit lines		
	Revolving loans		
	Digital loans		
Guarantee mechanism (CGCC)			
Financing facility (ARDB, JICA)			
			Blended finance (CaPFish, CAST)
Main challenges associated	<ul style="list-style-type: none"> - Secure business links - Implement control/trust mechanisms - Digital literacy 		<ul style="list-style-type: none"> - CGCC: costly fees and unsuitable delays of approval - Lack of integration between different development programs
LEGEND	<ul style="list-style-type: none"> Well developed in aquaculture Developing in Cambodia but poorly used in aquaculture Not developed in Cambodia 		

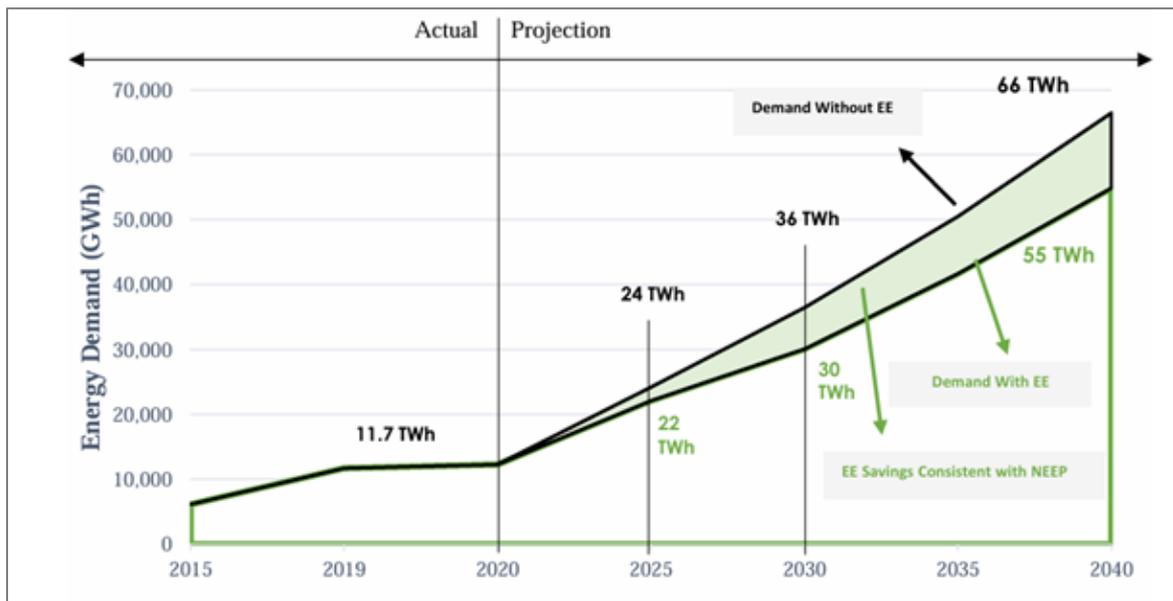
Renewable Energy and Energy Efficiency

Solar PV – Cambodia's solar photovoltaic (PV) market is experiencing rapid growth, underpinned by favourable policies, ambitious renewable energy targets, and the country's drive for cleaner, more affordable energy solutions. As of 2023, the total installed capacity of solar PV stands at 456 MW, with targets set to reach 1,005 MW by 2030 and 3,155 MW by 2040. Solar energy is crucial during the summer months, when hydropower production is at its lowest and solar potential peaks. The revised Power Development Plan (PDP) of 2023 highlights the government's commitment to achieving 70% renewable energy in the energy mix by 2030 and expanding solar's share to 30% of national power supply by 2040. The cost of solar energy, at \$2.7/kWh, is the lowest in ASEAN, further boosting the sector's attractiveness for investment. Policies such as the "Principles for Permitting the Use of Rooftop Solar Systems (RTS)" issued in 2023 aim to streamline the adoption of solar technologies, paving the way for greater private sector involvement.

This renewable energy section focuses specifically on solar, given its high growth potential and critical role in Cambodia's energy transition. Despite its growth trajectory, the solar market remains highly concentrated among a few dominant players, as indicated by the 2023 Herfindahl Index assessment. However, this market structure is transitioning, presenting opportunities for new entrants, particularly in regions like the Mekong Lowlands and Cardamom & Elephant (C&E) areas, which offer high solar potential. With evolving regulations, declining costs, and an emphasis on national emissions reductions, private companies have a significant opportunity to shape the sector. Strategic engagement with the Royal Government of Cambodia (RGC) and targeted investments in underdeveloped regions could position new players as key contributors to Cambodia's clean energy future.

Private market demand for solar technologies in Cambodia is driven by rapid industrial growth, urbanization, and the need for grid modernization. The Cambodia PV market is projected to grow at a CAGR of 6.78% from 2024 to 2030, according to 6Wresearch. With GDP expected to grow annually by 6.18% and energy demand projected to triple to 66 TWh by 2040, solar energy is poised to play a key role in meeting the country's rising energy needs. As energy consumption surges, solar technologies offer cost-effective, scalable solutions to bridge the supply-demand gap while advancing Cambodia's clean energy transition. Investments in solar PV, especially in high-irradiance regions, are crucial to supporting the country's economic growth and environmental goals.

Figure 27: Energy Demand Forecast 2021-2040



Source: PDP 2023, RGC

RE/EE in Agribusiness – Renewable energy adoption for the retail market in Cambodia is significantly driven by the agribusiness sector, where solar-powered systems are widely used for irrigation, water management, crop drying, milling, and cold storage, particularly in rural and off-grid areas. This focus stems from agribusiness's critical role in Cambodia's economy and its high energy demands. However, renewable energy is not limited to agribusiness. Residential adoption of rooftop solar systems is increasing in urban and peri-urban areas due to declining costs and supportive policies like the 2023 Principles for Permitting the Use of RTS. Additionally, small and medium enterprises (SMEs) in retail, hospitality, and manufacturing, as well as larger commercial and industrial users, particularly in the garment and textile sectors, are incorporating renewable energy to reduce costs and meet sustainability goals. Broader adoption is encouraged by government initiatives, such as the revised Power Development Plan (PDP), and the need for grid-stable solutions in areas with unreliable electricity supply, making renewable energy a growing trend across multiple sectors in Cambodia.

Figure 28: Simplified Agribusiness Value Chain



Table 11: Examples of Promising RE / EE technologies in Agribusiness

Promising RE/EE technologies*	Description
Solar water pump	Solar water pumping is a mature and reliable technology that significantly reduces carbon emissions and saves money for users. The system consists of a photovoltaic power supply and an electric pump. The size of systems varies from low-power mobile solutions (100-300W) to fixed installations of over 5kW. These devices are used to irrigate crops, especially rice fields, and water for all types of farming.
Drip irrigation	Drip irrigation efficiently delivers water directly to crop roots, reducing water use by 50% and increasing yields by 20%. Suitable for both small-scale and large-scale farming, it supports sustainable resource management and poverty reduction. In Cambodia, while drip irrigation systems are widely available, low-quality materials dominate the market, leading to frequent replacements. Equipment costs approximately \$250 for 1,000 square meters.
Solar home systems and rooftop solar	Solar Home Systems (SHS) deliver photovoltaic electricity to off-grid areas, providing power for small appliances like lamps, fans, radios, and TVs. These systems, consisting of solar panels, an inverter, and battery storage, are widely used in remote homes where connecting to the grid is costly or impractical, often replacing diesel generators. Rooftop solar, designed for higher energy needs, can power entire buildings at peak productivity. Pairing with battery systems (BESS) maximizes energy usage, but high costs and restrictive regulations have deterred SMEs from investing. Anticipated regulatory reforms aim to enhance the

	viability of this technology. Both SHS and rooftop solar reduce carbon emissions by replacing grid electricity and diesel generators.
Solar dryers	Solar drying offers a valuable solution for preserving food, providing significant benefits over traditional methods like electric or open-air drying. Solar dryers enhance hygiene, allow year-round drying (even during the rainy season), and improve the quality of output, making them attractive for farmers, aggregators, and processors seeking to grow their businesses. Available in various designs—direct, indirect, or mixed-mode—solar dryers can operate with passive or active airflow and may include gas heating systems for nighttime use. Capacities range from 10kg to 1,500kg, accommodating diverse needs. However, solar dryers remain underutilized in Cambodia, with limited availability and reliance on imports or custom-made solutions.
Net house and green houses	<p>Net houses and greenhouses offer significant benefits for vegetable farming by providing shelter that reduces crop damage from extreme weather, insect infestations, and diseases. These structures enhance water and energy efficiency by maintaining high humidity, reducing irrigation needs, and lowering overall energy consumption. Additionally, they improve yields by shortening production cycles and increasing crop density. Greenhouses, covered with waterproof polymer materials, provide greater benefits compared to net houses, which are covered with netting, though at a significantly higher cost. These shelters also facilitate organic farming, reducing the need for fertilizers and pesticides, thereby lowering nitrous oxide emissions, a potent greenhouse gas.</p> <p>Despite their advantages, net houses and greenhouses have yet to gain large-scale adoption in Cambodia. The market is fragmented, offering both inexpensive, low-quality products available online and higher-quality options from specialized suppliers. Key barriers to adoption include limited farmer training and awareness, high upfront costs, and uncertain returns on investment. Overcoming these challenges will require targeted financing solutions, capacity-building programs, and demonstration projects to showcase the long-term benefits of these technologies.</p>

Note: *Not exhaustive

Energy Services Companies (ESCOs) – ESCOs are specialized businesses that provide comprehensive energy solutions, including designing, retrofitting, and implementing energy efficiency projects. Their process typically begins with conducting detailed energy audits of existing facilities to identify opportunities for energy savings. Beyond implementation, ESCOs play a crucial role in arranging or providing funding for these projects, ensuring seamless execution even for resource-constrained facility owners. Their services often extend to energy infrastructure outsourcing, power generation, and energy supply management.

A distinctive feature of ESCOs is their performance-based approach, offering guarantees on energy savings as seen in Table 12. They assume the risks associated with project implementation and utilize robust Measurement and Verification (M&V) protocols to accurately determine actual energy savings post-implementation.

The ESCO market in Cambodia is still in its nascent stages, with limited adoption and awareness among industries and building operators. Table 13 provides some potential opportunities for financing or lending for BFIs. While there is growing interest in energy efficiency solutions, especially in the commercial and industrial sectors, the market is constrained by several barriers:

- **Awareness and Understanding:** Many businesses lack awareness of ESCO models and their potential to deliver energy savings without upfront capital expenditure.
- **Regulatory and Policy Support:** Cambodia lacks a dedicated regulatory framework to promote and incentivize ESCO adoption, which is crucial for scaling the market.
- **Access to Financing:** Limited access to low-cost financing and de-risking mechanisms for ESCOs and their clients hampers large-scale adoption.
- **Technical Expertise:** The ESCO market is constrained by a shortage of local expertise in designing, implementing, and verifying energy efficiency projects.

Table 12: Different types of Energy Performance Contracting (EPC)

Types of Energy Performance Contracting		Description
Guaranteed Savings Model		The ESCO commits to achieving a minimum level of cost savings. The client typically secures a bank loan or uses its equity to fund the project and pays predetermined fees to both the ESCO and the financing institution. Any savings beyond the guaranteed level are distributed based on the contract terms—either absorbed entirely by the customer in "fixed payment" agreements or shared with the ESCO under "percentage of savings" arrangements. This model is particularly advantageous when the client can access financing at lower costs, maximizing the economic benefits of energy efficiency improvements.
Shared Savings Model		Under this model, the ESCO finances the implementation of energy conservation measures at the customer's facilities. Both the client and the ESCO share the cost savings achieved, as specified in the contract terms. The percentage of savings allocated to the ESCO depends on factors such as project duration and associated risks. This approach is particularly advantageous for customers who prefer not to assume the financial burden of the project while benefiting from energy efficiency improvements.
Energy-as-a-Service (EaaS)		In this model, customers pay for an energy service without upfront capital investment. The fee is calculated based on the client's current energy bill, minus a guaranteed percentage saving. Clients benefit from immediate cost reductions or enhanced energy services for the same expenditure, while the ESCO assumes responsibility for delivering the agreed level of service efficiently. This approach incentivizes ESCOs to optimize service delivery. The global EaaS market, valued at approximately \$82.68 billion in 2020, is projected to grow at a robust CAGR of 13.44% (2021-2027), driven by distributed electricity generation, storage technologies, and the proliferation of smart devices enabling innovative energy services.

Source: UNDP

Figure 29: ESCO Financing mechanisms



Source: UNDP

Table 13: Potential Financing Opportunities for BFIs in the ESCO market

Opportunity	Description	Potential Application
Project Financing for EPCs	Provide loans or credit lines for Energy Performance Contracts (EPCs) under guaranteed savings, shared savings, or Energy-as-a-Service (EaaS) models.	Financing retrofits for industrial facilities, commercial buildings, and public infrastructure through EPC agreements.
Green Bonds and Sustainability Loans	Structure and issue green bonds or sustainability-linked loans to raise capital for ESCOs.	Supporting ESCOs in securing large-scale financing for energy efficiency and renewable energy projects.
Risk Mitigation Products	Offer loan guarantees and insurance products to de-risk ESCO projects, ensuring financial viability.	Encouraging private-sector investment in ESCO-led energy efficiency projects by reducing perceived risks.
Smart Technology Financing	Fund deployment of IoT-enabled energy management systems, smart meters, and automated control technologies for ESCO projects.	Enhancing energy efficiency through real-time energy monitoring and automation in manufacturing and commercial sectors.
Distributed Energy Solutions	Finance distributed energy resources such as rooftop solar and microgrids integrated into ESCO offerings.	Supporting ESCO-driven solar rooftop installations and microgrids in rural and underserved urban areas.
SME-Focused Energy Programs	Develop concessional credit lines targeting SMEs to adopt energy efficiency retrofits through ESCOs.	Encouraging SME collaboration with ESCOs in manufacturing, agriculture, and hospitality for energy efficiency upgrades.
Capacity Building Grants	Partner with development agencies to manage grants or concessional financing	Facilitating training programs and technical assistance for ESCOs to enhance market

	schemes for ESCO capacity building.	readiness and project implementation.
Carbon Market Participation	Assist ESCOs in monetizing carbon savings through voluntary or compliance carbon markets by financing certification and market entry costs.	Leveraging carbon credits generated by ESCO projects to attract additional revenue streams for clients and investors.
Structured Finance Models	Aggregate multiple small-scale ESCO projects into structured finance offerings to diversify risk and attract institutional investors.	Bundling smaller energy efficiency projects in urban and rural Cambodia for better financing terms and broader reach.
Partnerships with Development Partners	Collaborate with agencies like ADB or IFC for concessional funding, blended finance, or technical assistance.	Accessing international funding to co-finance ESCO projects and lower borrowing costs for clients.

Tailored Solutions Are Essential to Leverage on Sectorial Opportunities – Cambodia’s priority sectors—renewable energy (RE), energy efficiency (EE), sustainable agriculture, and electric vehicles (EV)—offer significant opportunities for green finance but require tailored instruments. In addition, drawing lessons from Malaysia’s Green Technology Financing Scheme and Thailand’s Green Bond initiatives can help refine Cambodia’s sector-specific solutions.

- Renewable Energy (RE) – Long-tenor loans and concessional financing are critical. The Asian Development Bank (ADB) has funded solar energy projects, demonstrating how concessional finance can catalyse infrastructure development.
- Energy Efficiency (EE) – Financing tied to measurable energy savings, such as the UNIDO-supported energy efficiency programs in Cambodian factories, incentivizes adoption.
- Sustainable Agriculture – Microfinance institutions, such as but not limited to LOLC, AMK and PRASAC, provide smallholder farmers with accessible loans for adopting climate-smart practices, supported by technical assistance from development partners like IFAD.
- Electric Vehicles (EV) – Partnerships between the private sector and government under the National Policy on Electric Vehicle Development (2024-2030) aim to establish EV charging networks, with organizations like GGGI supporting pilot projects.

10.3. Perspectives from Supply of Green Finance

The landscape of green finance in Cambodia is rapidly evolving, with a growing emphasis on the role of the private sector to drive climate mitigation and adaptation efforts. Private companies and BFIs are exploring and embracing green finance initiatives, such as green bonds and concessional loans, to fund projects aimed at addressing climate change. Pioneering milestones like the Cambodian Sustainable Bond Accelerator (CSBA), are setting the stage for the future of green finance. The Cambodian Climate Financing Facility (CCFF) has likewise emerged as a crucial mechanism for supporting private sector projects with

concessional loans, further stimulating market growth and readiness for green finance. Tying the private and public sectors together are regulators as discussed above, and international development partners who are pioneers and educators in Cambodia’s green finance growth.

10.3.1. The Private Sector as a Key Driver of Green Finance in Cambodia

Pioneering Green Bond Issuance

To bolster private sector green bond issuance in Cambodia, the Global Green Growth Institute (GGGI), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and the Securities and Exchange Regulator of Cambodia (SERC) jointly launched the Cambodian Sustainable Bond Accelerator (CSBA) in early 2023. The CSBA aims to support and scale the issuance of thematic bonds, including green, social, and sustainability-linked bonds, by fostering private sector participation¹¹⁷. The program provides technical assistance, investment support, and credit enhancements while organizing roadshows to attract investors and build market confidence. This collaborative effort is pivotal in developing a robust green bond market in Cambodia, aligning with the nation’s sustainability goals and regional aspirations. There are 4 priority sectors under the CBSA initiative which are energy, smart agriculture, clean transportation, and green buildings. The overall objective of initiative is to enable a flow of financing towards green, sustainable and net-zero projects in Cambodia to support the country in meetings its climate priorities. The CBSA also enhances issuer's ability to meet international thematic and sustainability-linked bond standards; promote climate-related investments in Cambodia and combat greenwashing, increase the ability and interest of issuers in Cambodia to move from traditional bond issuance to thematic and sustainability-lined issuance; and lower the cost of issuance and support the growth of a strong debt market in Cambodia.

In June 2023, three private sector bond issuers, Amret Plc., Golden Tree Ltd., and Royal Group Phnom Penh SEZ, were selected to be supported by the CSBA. Amret and Phnom Penh SEZ gained assistance in preparing to issue a US\$ 50 million and \$ 20 million sustainability bond, respectively¹¹⁸. In 2024, SchneiTech energy company, LOLC Plc., and Wing Bank were selected for the 2024 phase of the CSBA program with a total aggregate investment of USD \$140 million for projects to 2025¹¹⁹. SchneiTech’s issuance size was USD \$50 million Green Project Bond to fund a solar PV power plant. LOLC’s issuance size was a \$50 million sustainability bond, \$10 million of which was to be allocated for green projects and \$40 million for social projects. Wing Bank has planned to issue a \$40 million in social bonds, dedicated to loans for female entrepreneurs, SMEs, and low-income families¹²⁰.

¹¹⁷ GGGI. (2023). [GGGI, UNESCAP and SERC sign MOA and launch the Cambodia Sustainable Bond Accelerator Program – Global Green Growth Institute](#)

¹¹⁸ ESCAP.(2023). [UN, GGGI and Government of Cambodia announce support to green bond issuers | ESCAP](#)

¹¹⁹ B2B Cambodia. (2024). [Cambodia Sustainable Bond Accelerator Program Selects Three Local Companies For 2024 Phase I B2B](#)

¹²⁰ *ibid*

Opportunity for Private Sector Concessional Loans with the Cambodian Climate Financing Facility (CCFF).

In 2024, the Cambodian green finance sector witnessed another key private sector catalyst with the approval of the Cambodian Climate Financing Facility (CCFF). This facility is designed by Mekong Strategic Capital (MSC) and received approval from the Global Climate Fund¹²¹ for a \$100 million loan facility that will provide long term concessional funding to private market actors in sustainable projects and wholesale funding to financial institutions in Cambodia's green economy.

As the first green loan facility dedicated to providing financing for Cambodian businesses' green projects, the CCFF is integral in developing a pipeline of green finance market opportunities for BFIs. According to the CCFF, green projects will be able to receive an interest rate between 5-8%, with a tenor of up to 12 years, and up to two-year grace period. The total loan sizes offered is between \$250k and \$10 million. Eligible financing for CCFF climate mitigation and adaptation projects are prioritized in the following five key sectors: renewable energy, energy efficiency, sustainable agriculture and forestry, water, and low-emission transportation. To be eligible for the CCFF's concessional loans, green projects must meet the following criterion:

- Have measurable climate change mitigation or adaptation impact
- Be a private sector, Cambodian registered entity
- Must contribute to Cambodia's sustainable development goals, through bringing an environmental, economic, or social co-benefit.
- Demonstrate a better bankable/financial sustainability because of CCFF support. This may come in the form of an improved risk/return profile or increased ease of access to financing.
- Aim to attract and mobilize climate co-financing for longer term sustainability.

The wholesale side of the CCFF will provide concessional loans for local financial institutions (LFIs) to develop and grow their green loan portfolios. The wholesale lending rate is expected to be between 3-4%, with loan sizes reaching up to \$15 million. Like the direct to green projects funding, wholesale loans will receive a tenor of up to 12 years and possible grace period of up to two years. Financial institution's applications for the CCFF's wholesale funding must follow the below application steps:

1. **Preliminary Assessment:** LFIs submit a proposal detailing their interest in accessing CCFF wholesale funding, including expected pipeline of potential green projects.
2. **Project Eligibility Check:** Eligible Sectors RENEWABLE ENERGY LFIs demonstrate an identified pipeline of green projects. The CCFF team will assist the LFIs in assessing the identified pipeline against CCFF Eligibility Criteria.
3. **LFI Eligibility Check:** Participating LFIs will be evaluated based on their current and potential capacity to comply with the CCFF ESMS and Gender Policy.

¹²¹ MSC. (2024). [CCFF approved by GCF Board | MSC](#)

4. **Disbursement and Monitoring:** Funds are disbursed based on loan demand and project approvals, with continuous monitoring to ensure compliance with E&S standards.

The CCFF will not only support businesses through loans, but this inflow of funds is expected to generate technical understanding, increased demand, and capacity building for the market, thus benefiting the entire green finance ecosystem in Cambodia. The CCFF is currently in the pre-implementation phase and once in operation, it will be co-managed by ARDB and MSC.

Microfinance Leading the Way

Microfinance institutions are demonstrating significant progress in advancing green finance including but not limited to:

- **AMK Microfinance Institution Plc** – In April 2023, AMK secured a USD 7.5 million green loan arranged by Symbiotics Investments¹²². This funding supports clean transportation projects, such as electric three-wheelers and motorbikes, as well as expand investments into energy efficiency projects, such as “solar energy loans for water irrigation and biogas electricity installation loans for waste management projects”¹²³. These initiatives align environmental objectives with financial and social goals, targeting low-income households and empowering women entrepreneurs.
- **LOLC (Cambodia) Plc** – Recognized by the Global Climate Partnership Fund (GCPF) for its commitment to green lending, LOLC offers financial products that promote renewable energy and energy efficiency which significantly contribute to Cambodia's sustainable development goals. This MFI was also a participant to have received support from the CSBA program in CSBA's second year of operations. LOLC is expected to be supported through an issuance size of a \$50 million sustainability bond; \$10 million which will be for green projects and \$40 million dedicated to social projects¹²⁴. LOLC's current green finance activities are mainly focused on the EV sector, with disparate initiatives with different development partners. They are in the development phase of their own green finance product offerings and unifying their different green finance projects.
- **Amret Microfinance institution** - One of the first green and sustainable private-sector bond issuers selected under the CSBA program¹²⁵, Amret currently has a small green bond portfolio in which solar and EV projects take the sector focus for prioritization.
- **Chamroeun Microfinance** – Currently partnering with Swisscontact to develop tailored financial products to facilitate the adoption of sustainable agricultural practices, this collaboration extends to micro-insurance solutions to tackle the distinctive sectoral challenges. In late, 2021, Chamroeun MFI also signed a credit guarantee agreement with CGCC to “expand supports to Agri-SMEs in Cambodia who lack collateral in

¹²² AMK. (2023). [Symbiotics Investments issued a USD 7.5 million green loan with AMK Microfinance Institution Plc in Cambodia - AMK MFI Plc.](#)

¹²³ Next Billion. (2023). [AMK of Cambodia Borrowing \\$7.5 Million for Green Microfinance via Bond Issue From British Based BII, and Swiss Based Symbiotics - NextBillion](#)

¹²⁴ *ibid*

¹²⁵ B2B Cambodia. (2023). [Three Cambodian Private Green Bond Issuers Selected For 2023 | B2B](#)

accessing formal loans for their businesses”¹²⁶. Chamroeun has further been recently initiated into a blended finance agreement, from international donors, Oikocredit and Aqua For All, to help increase private capital and accelerate access to water and sanitation in Cambodia’s low-income communities. Under the tripartite agreement, Oikocredit will provide Chamroeun with liquidity, while ‘Aqua for All’ is expected to provide technical assistance, first-loss capital and performance-based incentives¹²⁷. As a result, Chamroeun has developed two loan products for private water operators to expand or upgrade operations as well as quick access to funds for emergency repairs to pipe networks¹²⁸. This agreement is a public, large-scale, blended finance initiative that demonstrates a future direction for green finance solutions.

- **Microfinance Sector-Level Advocacy and Capacity Building** – CMA as the national umbrella for the microfinance sector, plays a critical role in promoting sustainable finance practices. Through collaborations with organizations like Oxfam and Water.org, CMA advances initiatives in green finance and Water, Sanitation, and Hygiene (WASH), helping to foster environmental sustainability and resilience across Cambodia. The CMA has also been proactive in advancing green finance through training sessions aimed at building member institutions’ capacity to develop and deliver green finance products. CMA has committed to continually crafting targeted support mechanisms to enable its members to better design and implement green finance instruments. This includes current and future initiatives in addressing technical challenges, aligning with international standards, and ensuring that green finance initiatives are accessible to underserved communities.

Addressing the challenges of Cambodian BFIs

While these are encouraging initiatives and opportunities for Cambodia’s finance industry, BFIs face challenges such as limited technical capacity, high-risk perception, and market readiness of green finance projects. Addressing knowledge gaps across Cambodia’s financial sector requires targeted capacity-building initiatives which consistently reinforce the ecosystem’s understanding of green finance. As such, The Association of Banks in Cambodia (ABC) has hosted workshops on environmental and social risk management under the Cambodian Sustainable Finance Principles (CSFP). By incorporating the private sector, mechanisms to de-risk investments—such as guarantees, co-financing models, or blended finance structures—can reduce barriers for both lenders and borrowers. The Cambodia Climate Financing Facility (CCFF) discussed above is a promising initiative that will provide concessional loans and de-risking mechanisms to private financial institutions for climate mitigation and adaptation projects. This financing facility comes with a technical assistance grant to help provide assessment of projects or concessional finance requests. Additionally, various international development partners and banks, such as ADB and the World Bank - IFC, works with Cambodian banks to enhance capacity for assessing green finance projects, demonstrating the importance of technical support and risk-sharing mechanisms.

¹²⁶ CGCC. (2021). [Signing ceremony between CGCC and Chamroeun MFI to support SMEs in Rural Area](#)

¹²⁷ Oiko Credit. (2023). [New partnership improves finance for water and sanitation in Cambodia - Oikocredit International](#)

¹²⁸ *ibid*

Development Partner and International Green Finance Funding in Cambodia - Building Knowledge and Capacity Across the Sector

International development partners and multi-lateral banks play an important role in Cambodia's green finance landscape in three specific ways¹²⁹:

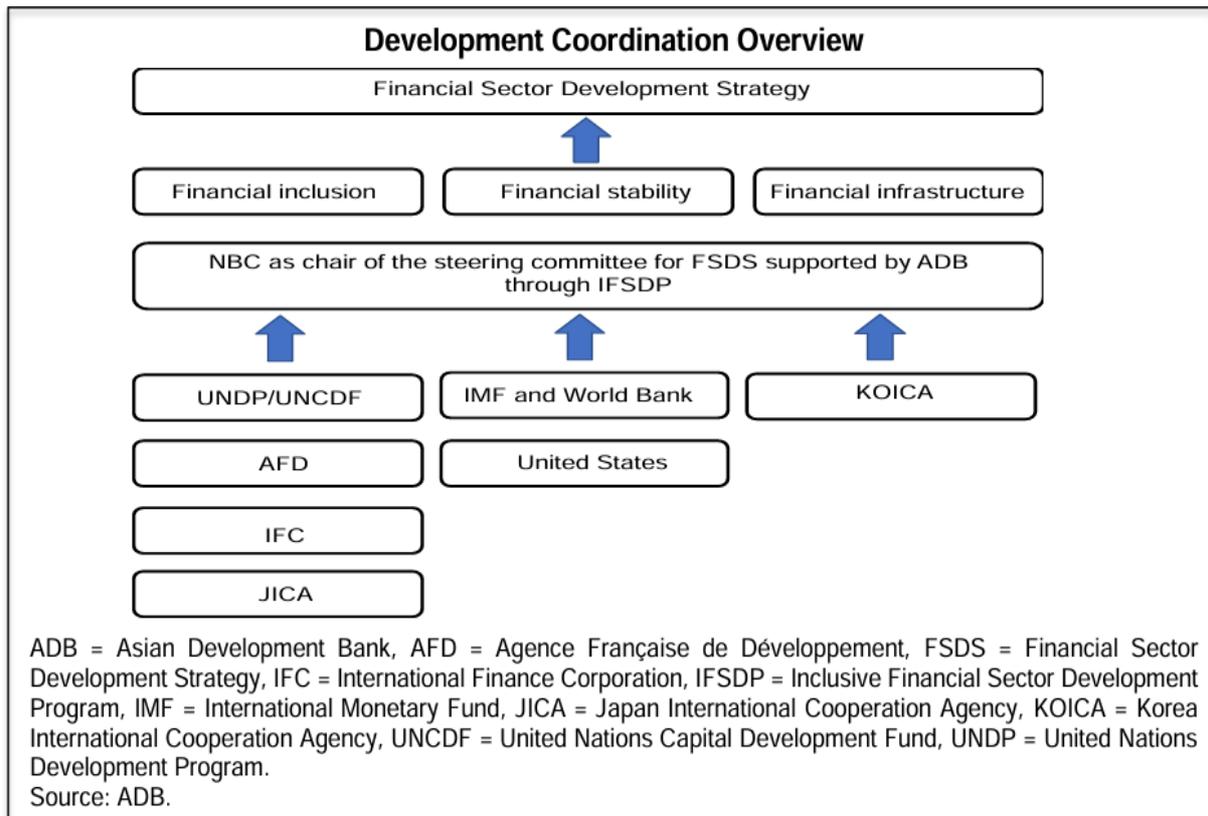
1. Pioneering and market testing new methods and instruments of green and climate finance,
2. Mobilizing and rechanneling private and institutional green finance, and
3. Providing education awareness raising, and policy reform recommendations to regulators

Development partners such as but not limited to UNDP, IFAD, and ADB have also played pivotal roles in promoting inclusion within Cambodia's green finance landscape. Some notable funds developed by international partners and active in Cambodia include the Global Climate Fund, Global Climate Facility, and ASEAN Catalytic Green Finance Facility. Their initiatives have supported technical assistance, concessional funding, and capacity-building programs aimed at empowering communities and improving access to climate-smart financing solutions. These international funds leverage various financial instruments such as grants, concessional loans, equity investments, and guarantees to finance initiatives across multiple sectors. Within Cambodia, development partner coordination is anchored by the NBC's financial sector development strategy, 2016-2025¹³⁰.

¹²⁹ German Development Institute. (2016). [BP_23.2016.pdf](#)

¹³⁰ ADB. (2021). [Inclusive Financial Sector Development Program, Subprogram 3: Development Coordination](#)

Figure 30: NBC's Development Partner Coordination Overview



Source: NBC. (2016). Financial Sector Development Strategy 2016-2025

Mainly through NBC, the IMF supports the RGC's efforts in banking supervision and financial stability, monetary policy and foreign exchange operations, de-dollarization, and the strengthening of anti-money laundering/combating the financing of terrorism measures¹³¹.

Development partners such as ADB have provided technical assistance to Cambodia's financial industry, helping them design and implement green finance solutions.

- In the past, ADB collaborated with the World Bank and the IMF while designing and structuring the credit guarantee scheme for the Credit Guarantee Corporation of Cambodia (CGCC).
- More recently, ADB has been active in Cambodia with programs such as the ADB Frontier Fund, and The ASEAN Catalytic Green Financing Facility. The ADB Frontier Fund is a multi-donor funding facility, with attached Technical Assistance, to support and invest in private companies. This facility uses a revenue-based loan repayment system, and the criterion for this funding is that an SME project must have at least a 50% impact on climate change related activities, with the goal to simply increase SMEs engagement in green finance.
- Currently in the pipeline, ADB is in the preparation and operationalizing phase of the Climate Accelerator Program (CAP) for BFIs, the Frontier Financing Partnership Facility (ADB Frontier), the Community Resilience Partnership Program, and the Energy

¹³¹ *ibid*

Efficiency Revolving Fund (EERF) for SMEs. CAP is scheduled to launch in 2025 and will provide the technical assistance to Cambodian banks to integrate green finance into their portfolios by providing technical expertise and capacity-building programs. The EERF, also expected to launch in 2025, will seek to help SMEs access between \$50k and \$1 million, potentially through the channels of the Ministry of Economy and Finance and select local banks.

In addition to ADB, Fair Finance Cambodia (FFC), an initiative by Oxfam, has been instrumental in promoting sustainable finance practices with a strong focus on Environmental, Social, and Governance (ESG) criteria. FFC works to enhance financial institutions' accountability and transparency in integrating ESG considerations into their operations. Through research, advocacy, and capacity-building workshops, Fair Finance Cambodia helps align the financial sector with sustainability goals, ensuring that ESG principles are embedded across lending and investment decisions.

In conclusion, Cambodia's green finance sector is experiencing increasing participation from private sector, public regulators, and international development partners. The combination of innovative financial products, such as green bonds and concessional loans, along with capacity-building initiatives, is strengthening the country's ability to finance its SDGs. While challenges remain in terms of technical capacity and market readiness, the growing commitment to green finance in Cambodia coupled with the support of international funds and global investors, positions Cambodia's BFIs to participate in a financing a more sustainable future.

10.4. Assessment of Challenges and Strategies for Green Finance

10.4.1. Challenges

An Urgent Need for a Robust Green Taxonomy

A critical step for green finance in Cambodia is the rapid and continuous development of a national green taxonomy that clearly defines eligible green activities while evolving to align with environmental challenges and global best practices. Regulatory bodies like the National Bank of Cambodia (NBC) and the Securities and Exchange Regulator of Cambodia (SERC) play a critical role in embedding this taxonomy into Cambodia's existing financial system and aligning it with regional initiatives such as the ASEAN Taxonomy for Sustainable Finance. Such alignment is essential to bolster investor confidence and position Cambodia competitively in the regional green finance ecosystem. As discussed above, the national taxonomy is expected to be released in phases based on sectors. The 1st phase is for early 2025 and will be a road mapping assessment on building, transportation, and energy sectors, involving industry and stakeholder consultations.

Building a Robust Pipeline of Green Projects to Meet the Climate Funds Supply

The market demand side of green finance projects is a major factor impeding the attractiveness for BFI's participation in green finance. Considering their global and regional perspectives,

several development partners have expressed that a core issue in the private sector is limitations in green finance knowledge, capacity to access green finance, and demand for climate adaptation and mitigation, therefore limiting the number of market ready projects for BFIs to invest in. There needs to be more incentives for SMEs and businesses to engage in green finance, due diligence, and E&S assessment. This may come as a regulatory push through the enforcement of operating principles such as the CSFP discussed above. Or alternatively a pull strategy via tax incentives, subsidies, and educational training to help the private sector understand and prioritize climate change mitigation and adaptation practices. A combination of both push and pull mechanisms to incentivize green finance will help the industry reframe its mindset from climate projects being 'impact/NGO focused' to 'this is making my business stronger and more resilient'.

BFIs are reluctant to engage in green finance due to bottom-line cost concerns and high-risk perception

Market readiness remains a critical concern for BFIs when evaluating their engagement in green finance and determining its prioritization. A significant risk factor is the extended return on investment (ROI) timelines typically associated with green projects, such as renewable energy infrastructure or energy-efficient transitions. These projects often require substantial upfront capital investments, posing a considerable challenge in a least-developed country (LDC) context, where financial institutions may already face capital shortages. The extended ROI periods, which can span years or even decades, add to the perceived risks, particularly when compared to the quicker returns from traditional non-green finance activities.

BFIs in developing economies also grapple with the lack of reliable credit risk assessments, which compounds the risk of green finance investments. These challenges are heightened when financing innovative green technologies or business models, which may lack proven track records, further elevating credit risks. Additionally, economic instability and underdeveloped financial infrastructures increase the likelihood of borrower defaults, adding another layer of uncertainty for BFIs. These combined factors underscore the need for targeted risk mitigation strategies and supportive policy frameworks to encourage BFI participation in green finance.

Finally, smaller BFIs and some MFIs particularly perceive green finance as non-cost-viable given the flat resourcing and HR expense for training, accessing, and offering green finance, yet the small products/services that their FI has the capacity to offer.

Ensuring accountability and transparency

Finally, a robust monitoring and evaluation (M&E) framework is necessary to track the performance and impact of green finance instruments. Clear metrics, aligned with Cambodia's environmental goals and regional standards, will ensure transparency and accountability while attracting further investment. SERC's bond guidelines mandate reporting on the allocation and impact of green bond proceeds, setting a precedent for transparency. Leveraging partnerships with ASEAN and global financial networks can attract cross-border funding and ensure Cambodia's green finance ecosystem is both credible and scalable, addressing the dual challenges of economic development and environmental sustainability.

10.4.2. Opportunities

Tailored Financial Instruments for Sustainability

To motivate private sector players to adopt sustainable practices, tailored financial products such as performance-based incentives and sustainability-linked loans are essential. These instruments ensure both environmental impact and financial returns, making green finance more attractive to businesses. Outside of the sector-specific opportunities discussed above, Cambodia as a nation is in a rapid expansion and development, thus with a unique opportunity to leverage green finance and tailor its financial system, industry infrastructure, and economy for climate-focused priorities.

Inclusion and Accessibility must remain as a key focus in Green Finance

As an LDC, equitable green finance must prioritize underserved communities, including rural farmers, women entrepreneurs, and small businesses in Cambodia. Microfinance institutions like AMRET and LOLC have been at the forefront of inclusive lending programs, offering financial products tailored to low-income households and smallholder farmers. These programs emphasize accessible financing for sustainable agricultural practices and renewable energy adoption, helping vulnerable groups transition to more climate-resilient livelihoods.

Other BFIs including ACLEDA Bank¹³² and Canadia Bank¹³³ have started exploring green financial products, including loans for renewable energy installations and energy-efficient technologies, which benefit small businesses and individuals. Aligning these efforts with Cambodia's socio-economic goals, such as gender equality and poverty alleviation, ensures that green finance delivers broad and meaningful impacts while building a more inclusive and sustainable economy.

Blended Finance

Blended finance seeks to reduce the risks and challenges of financing green projects by sharing the risk-burden across parties and sectors, and innovating financing models to tailor solutions to the challenges faced in the specific market. Cambodia is becoming increasingly open to blended finance as viable agreements are seen across various initiatives. In 2022, Cambodia agreed to sell 15 million tonnes of REDD+ carbon credits to private corporations in its efforts to reduce national deforestation and forest degradation¹³⁴. Cambodia's solar power industry is another example of a blended finance agreement that was tailored to a sector-specific need and enabled the launch of high impact project. In 2016, ADB and Singapore-based Sunseap Asset Co. Ltd, financed the construction and operation of Cambodia's first utility-scale solar project: A 10 MW solar plant. ADB provided a senior loan of approximately \$4 million, and this was supplemented by a \$4 million concessional loan from the Canadian Climate Fund for the Private Sector in Asia (CFPS)¹³⁵. More recently, Chamroeun MFI has engaged in a blended finance agreement from international donors, Oikocredit and Aqua For All, to help increase private capital and accelerate access to water and sanitation in

¹³² ACLEDA, https://www.acledabank.com.kh/kh/eng/bp_sustainabilityreport

¹³³ Canadia Bank, <https://www.canadiabank.com.kh/business/sme-green-financing>

¹³⁴ Carbon Credits.com. (2022). [Cambodia to Sell 15 Million Tonnes of REDD+ Carbon Credits](#)

¹³⁵ Convergence. (2024). [State of Blended Finance 2024 Climate Edition Draft 4B_reduced.pdf](#)

Cambodia's low-income communities. Under the tripartite agreement, Oikocredit will provide Chamroeun with liquidity, while 'Aqua for All' is expected to provide technical assistance, first-loss capital and performance-based incentives¹³⁶. Impact investors, such as Aqua and Oikocredit, are typically the managers of blended finance funds. Globally, since 2018, philanthropic investors have contributed \$400 million to climate blended finance initiatives According to Convergence's State of Blended Finance report¹³⁷. This study also reports that since 2018, impact investors have contributed a total of \$700 million to climate blended finance transactions, primarily through senior equity (51%) and senior debt (36%) positions¹³⁸.

While still relatively new to Cambodia, blended finance cannot be ignored when discussing the future of green finance, especially in developing countries where heavy reliance on public and donor-based funding still exists. Cambodian regulators and BFIs are presented with a powerful opportunity to use blended green finance to share the risk burden, tap into private investment capital, and kick-start innovative and targeted investments.

¹³⁶ Oiko Credit. (2023). [New partnership improves finance for water and sanitation in Cambodia - Oikocredit International](#)

¹³⁷ Convergence. (2024). [State of Blended Finance 2024 Climate Edition Draft 4B reduced.pdf](#)

¹³⁸ *ibid*

F. Country-specific Considerations for Green Finance Instruments in Cambodia

The design of green finance instruments in Cambodia must address specific challenges within its local market while capitalizing on the opportunities for advancing sustainable development. Drawing insights from the landscape assessment (Phase 2) and international benchmarking (Phase 3), the following factors summarised below are critical for developing effective, context-specific green financing solutions.

Table 14: Cambodian Considerations for Instrument Design

Key Factors to Consider	Necessary Considerations
Regulatory Alignment and Support	<ul style="list-style-type: none"> Establish a national green taxonomy with regular updates to reflect evolving environmental and market needs. Strengthen enforcement mechanisms to ensure adherence to green finance principles and reduce greenwashing risks. Introduce fiscal incentives, such as tax rebates, for financial institutions offering green finance products.
Customization for Sector-Specific Needs	<ul style="list-style-type: none"> Develop more risk mitigation features, such as guarantees and insurance products, to address the unique risks of priority sectors. Ensure financing terms align with sector-specific cash flow dynamics, such as long-term loans for renewable energy projects. Build capacity among BFIs to assess and structure sector-specific green finance solutions.
Addressing Market Gaps	<ul style="list-style-type: none"> Establish standardized impact metrics and tracking systems aligned with Cambodia’s latest Nationally Determined Contributions (NDCs). Partner with international development finance institutions (DFIs) to provide co-financing and technical expertise. Create centralized platforms for green finance impact reporting to enhance transparency and reduce administrative burdens.
Capacity Building and Knowledge Sharing	<ul style="list-style-type: none"> Launch national green finance training programs targeting financial institutions, policymakers, and SMEs. Create platforms for knowledge sharing to disseminate best practices and foster collaboration. Develop sector-specific guides to help institutions and businesses navigate green finance processes.
Inclusion and Accessibility	<ul style="list-style-type: none"> Design microfinance products tailored to rural populations and climate-vulnerable groups. Include gender-sensitive financing instruments that prioritize women entrepreneurs in green sectors. Provide subsidized credit for low-income households adopting renewable energy solutions or energy-efficient technologies.

<p>Incentivizing Private Sector Participation</p>	<ul style="list-style-type: none"> • Offer performance-linked incentives such as lower interest rates for achieving sustainability targets. • Collaborate with industry associations and business chambers to promote private sector awareness and adoption of green finance. • Design financial products specifically tailored to the operational needs of SMEs and corporates in green sectors.
<p>Integration of Monitoring and Evaluation (M&E)</p>	<ul style="list-style-type: none"> • Implement digital tools for real-time monitoring of green finance activities and impacts. • Engage third-party auditors to validate the use of funds and environmental outcomes. • Align M&E systems with international frameworks, such as the Green Bond Principles or ASEAN sustainability standards.
<p>Leveraging Regional and Global Synergies</p>	<ul style="list-style-type: none"> • Align green finance instruments with ASEAN standards to enhance regional competitiveness. • Actively engage in regional initiatives to showcase Cambodia’s green finance potential to international investors. • Leverage cross-border partnerships for knowledge sharing and funding access.

G.Sector-Specific Considerations for Green Finance Instrument Development

Sustainable Agriculture			
Key Considerations	Suggested Partnerships	Funds to Leverage	Specific Instruments
<ul style="list-style-type: none"> • Microfinance Solutions: Tailored products for smallholder farmers adopting climate-smart practices, such as drought-resistant crops or drip irrigation. • Interest Rates: Concessional rates of 4-8% annually for smallholders, subsidized by donor funding or public-private partnerships. • Loan Terms: Flexible repayment schedules aligned with crop cycles or harvest periods. • Insurance: Bundled financing with crop or weather insurance to de-risk lending. 	<ul style="list-style-type: none"> • In-Country: Collaborate with the Ministry of Agriculture, Forestry, and Fisheries (MAFF) to align with the National Agricultural Development Policy. • International: Partner with the Food and Agriculture Organization (FAO), GCF, and the International Fund for Agricultural Development (IFAD). 	<ul style="list-style-type: none"> • IFAD: Concessional loans for smallholder farmers adopting climate-smart technologies. • FAO's Green Agriculture Fund: Support for sustainable farming practices and supply chain resilience. • GCF: Funding for large-scale adaptation projects, such as agroforestry systems. 	<ul style="list-style-type: none"> • Sustainability-linked loans for agribusinesses meeting carbon reduction or biodiversity preservation targets. • Value chain financing models for cooperatives integrating climate-resilient crops.
<p>Risks for BFIs</p> <ul style="list-style-type: none"> • Climate Volatility: Unpredictable weather events, such as floods or droughts, can reduce agricultural yields, impacting farmers' ability to repay loans. • Low Financial Literacy: Smallholder farmers may lack the knowledge to effectively utilize financing, increasing the likelihood of loan defaults. • Thin Margins: The low profitability of small-scale agriculture creates challenges in offering affordable tailored green financing products. 			
<p>Potential Mitigation Strategies</p> <ul style="list-style-type: none"> • Bundle loans with agricultural insurance to cover weather-related losses. • Partner with development organizations to provide financial literacy training for farmers. • Leverage concessional funding from IFAD or FAO to offer low-cost credit for an interim period. 			

Renewable Energy (RE)			
Key Considerations	Suggested Partnerships	Funds to Leverage	Specific Instruments
<ul style="list-style-type: none"> • Long Tenor Loans: Renewable energy projects, such as solar farms or hydropower, require long-term financing (10–15 years) due to high upfront costs. • Blended Finance: Use concessional loans or co-financing with development finance institutions (DFIs) to de-risk investments. • Interest Rates: Offer competitive interest rates of 6–8% annually, subsidized through government-backed guarantees or international funds. • Policy Support: Align instruments with Cambodia’s Power Development Plan (PDP) and national targets of 70% renewable energy by 2030. 	<ul style="list-style-type: none"> • In-Country: Partner with Electricité du Cambodge (EDC) for project implementation and regulatory approvals. • International: Collaborate with the Green Climate Fund (GCF), the International Renewable Energy Agency (IRENA), and the Global Environment Facility (GEF). 	<ul style="list-style-type: none"> • GCF: Provide concessional loans for solar and wind energy projects. • GEF: Offer grant-based funding for project preparation and feasibility studies. • Cambodian Climate Financing Facility (CCFF): Leverage long-term concessional funding for renewable energy projects. 	<ul style="list-style-type: none"> • Green bonds issued through the Securities and Exchange Regulator of Cambodia (SERC) targeting RE infrastructure. • Performance-linked grants for achieving capacity milestones (e.g., MW installed).
<p>Risks for BFIs</p> <ul style="list-style-type: none"> • High Capital Requirements: Renewable energy projects involve large upfront costs and long payback periods, tying up capital for extended durations. • Regulatory Uncertainty: Inconsistent energy policies or delays in regulatory approvals can increase project risks. • Technology Risks: Dependence on imported technology may pose operational risks, including maintenance and performance uncertainty. 			
<p>Potential Mitigation Strategies</p> <ul style="list-style-type: none"> • Collaborate with international partners like the GCF or IFC to share financial risks. • Include loan guarantees or insurance mechanisms to cover potential defaults. • Partner with local energy providers to ensure smoother project execution 			

Energy Efficiency (EE)			
Key Considerations	Suggested Partnerships	Funds to Leverage	Specific Instruments
<ul style="list-style-type: none"> • Shorter Loan Terms: Energy efficiency retrofits typically require shorter payback periods (5–7 years). • Pay-As-You-Save (PAYS) Models: Financing tied to energy savings allows for loan repayment through cost reductions. • Interest Rates: Competitive rates of 5–7% annually, subsidized through development partner contributions. • Technical Support: Build financial institutions' capacity to evaluate EE projects, especially in manufacturing and commercial buildings. 	<ul style="list-style-type: none"> • In-Country: Collaborate with the Ministry of Mines and Energy (MME) and industry associations like the Cambodian Garment Association. • International: Partner with the International Finance Corporation (IFC) and the Asian Development Bank (ADB) for technical assistance and funding. 	<ul style="list-style-type: none"> • IFC's Sustainable Energy Financing Program: Provides risk-sharing facilities for financial institutions offering EE loans. • UNIDO: Support for small-scale industrial EE retrofits. • ADB's Energy Transition Mechanism: Co-financing for industrial energy efficiency upgrades. 	<ul style="list-style-type: none"> • EE-specific green bonds with funds earmarked for retrofitting factories and commercial buildings. • Leasing models for energy-efficient equipment such as industrial chillers or boilers.
<p>Risks for BFIs</p> <ul style="list-style-type: none"> • Unpredictable Savings: Energy savings can vary due to project design, usage patterns, or equipment inefficiencies, making repayment uncertain. • Limited Borrower Awareness: Many businesses lack understanding of energy efficiency benefits, leading to low demand for EE financing. • Small Market Size: The relatively limited size of Cambodia's industrial and commercial sectors can restrict the scale of EE financing opportunities. 			
<p>Potential Mitigation Strategies</p> <ul style="list-style-type: none"> • Partner with industry associations for awareness campaigns on EE benefits. • Bundle financing with performance guarantees from equipment providers. • Use technical assistance grants to build borrower capacity and ensure project success. 			

Electric Vehicles (EV)			
Key Considerations	Suggested Partnerships	Funds to Leverage	Specific Instruments
<ul style="list-style-type: none"> • Charging Infrastructure: Finance development of EV charging stations alongside vehicle financing. • Interest Rates: Low-interest loans of 5–6% annually, supported by tax incentives for early adopters. • Loan Terms: Medium-tenor loans (5–10 years) for businesses and municipalities purchasing EV fleets. • Consumer Awareness: Build consumer confidence through financing bundled with warranties and service agreements. 	<ul style="list-style-type: none"> • In-Country: Work with MPWT, MME and MEF to implement Cambodia’s EV Policy (2024–2030). • International: Collaborate with UNEP’s Electric Mobility Programme, the Clean Energy Ministerial, and the ADB. 	<ul style="list-style-type: none"> • GCF: Fund infrastructure for EV charging networks. • ADB’s Sustainable Transport Program: Co-financing for municipal EV bus fleets. • Private Sector: Engage companies like BYD or Tesla for pilot projects. 	<ul style="list-style-type: none"> • Performance-based subsidies for businesses deploying EV fleets, tied to emissions reductions. • Loan guarantees to reduce risk for financial institutions offering EV loans.
<p>Risks for BFIs</p> <ul style="list-style-type: none"> • Market Immaturity: Cambodia’s EV sector is nascent, with limited infrastructure and demand, creating uncertainty in market potential. • High Initial Costs: Financing EV fleets or charging infrastructure involves significant upfront investments, with uncertain returns. • Technology Obsolescence: Rapid advancements in EV technology may render existing assets outdated, reducing their residual value. 			
<p>Potential Mitigation Strategies</p> <ul style="list-style-type: none"> • Work with government agencies to ensure alignment with Cambodia’s policies related to EV and EV infrastructure. • Structure financing to include phased disbursements tied to infrastructure milestones. • Engage with international EV manufacturers/distributors to provide co-financing or guarantees. 			

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Appendices

Appendix 1. Key Informant Interview Participants

Table 15: Key Informant Interview Participants

Sector	Organization
Agriculture	Heifer Cambodia
Agriculture	The Cambodian Farmer Federation Association of Agricultural Producers
Agriculture	Cashew nut Association of Cambodia
Banking/Financial Institute	Agricultural and Rural Development Bank
Banking/Financial Institute	Amret Plc.
Banking/Financial Institute	AMK Microfinance Institution Plc.
Banking/Financial Institute	CAMMA Microfinance Ltd.
Banking/Financial Institute	LOLC (Cambodia) Plc.
Banking/Financial Institute	Mekong Strategic Capital
Banking/Financial Institute	Wing Bank (Cambodia) Plc.
Development Partner	Asian Development Bank
Development Partner	Credit Guarantee Corporation of Cambodia
Development Partner	Oxfam Cambodia
Electric Vehicle	Onion Mobility
Government/Regulator	National Bank of Cambodia
Government/Regulator	Securities Exchange Regulators of Cambodia
Solar Energy	EGE Energy solutions

Appendix 2. Cambodian Climate Financing Facility (CCFF): Program Overview



Cambodia Climate Finance Facility

\$100 MILLION LOAN FACILITY TO SUPPORT CAMBODIA'S SUSTAINABLE DEVELOPMENT

About CCFF

The Cambodia Climate Finance Facility (CCFF) is the first national lending facility designed to address market challenges in the financial sector by providing long-term concessional loans to Cambodian businesses and wholesale funding to local financial institutions (LFIs) to de-risk climate projects and support Cambodia's sustainable development.

The CCFF's mandate is to mobilize climate finance for the local financial sector by incentivizing LFIs to increase their lending to green projects, promoting a systemic shift towards green lending in Cambodia.

To achieve this, the CCFF offers financing through two channels:

- 1 **CCFF Green Loans:** Direct loans to Cambodian-registered businesses structured to provide flexible financing solutions for new or expanding green projects that demonstrate positive climate impact.
- 2 **CCFF Wholesale Funding:** Wholesale concessional funding for LFIs to enable them to scale up their lending to green projects, thereby expanding the impact of climate finance across the financial sector.

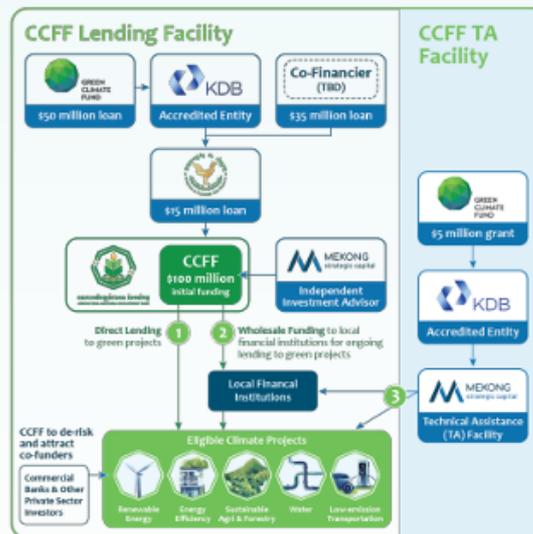
The CCFF will be supported by a Technical Assistance Facility to facilitate access to financing:

- 3 **Technical Assistance (TA) Facility:** TA support for businesses and LFIs for capacity building and investment readiness to ensure they are well-equipped to access CCFF financing and implement green initiatives.

Program Structure

Co-managed by the Agricultural and Rural Development Bank (ARDB) and Mekong Strategic Capital (MSC), the CCFF is Asia's first national climate financing facility for private sector capitalized by the Green Climate Fund (GCF).

The CCFF will launch with initial funding of \$100 million, secured in a ring-fenced account jointly operated by ARDB and MSC. As Cambodia's national policy bank, ARDB is strategically positioned to collaborate with LFIs, attracting international climate finance flows and mobilizing resources within the financial sector to support Cambodia's green growth objectives.



Cambodia Climate Finance Facility

\$100 MILLION LOAN FACILITY TO SUPPORT CAMBODIA'S SUSTAINABLE DEVELOPMENT



Climate Impact

The CCFF supports both climate change mitigation and adaptation initiatives, prioritizing financing across five key sectors to drive Cambodia's sustainable development. Eligible sectors include renewable energy, energy efficiency, sustainable agriculture and forestry, water infrastructure and low-emission transportation.



Addressing Market Challenges

The CCFF is designed to address market gaps and enable green lending for climate projects through innovative and suitably structured financing solutions. With an appropriate risk appetite, the CCFF is committed to supporting high-impact climate initiatives that might otherwise struggle to secure funding through traditional channels.

By offering long-term, flexible debt products, the CCFF tailors its financing specifically to the needs of Cambodia-based businesses and LFI that are pursuing climate-positive projects. This approach enables the development and scaling of businesses and aims to unlock the full potential of Cambodia's green economy.



Contact Us

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CCFF IS CO-MANAGED BY:



FUNDED AND SUPPORTED BY:



CCFF DESIGN AND DEVELOPMENT HAS BEEN SUPPORTED BY:



Appendix 3. CCFF: Eligibility Guide

Source: Mekong Strategic Capital. (2024). [CCFF Eligibility Guide_Oct2024.pdf](#)

Eligibility Criteria

To qualify for CCFF Green Loans, projects must meet the following key criteria:

- **CLIMATE IMPACT**
Projects must have a measurable climate change mitigation or adaptation impact. The use of loan proceeds should align with CCFF-eligible climate change mitigation or adaptation activities.
- **CAMBODIAN-REGISTERED BUSINESS**
Borrowers must be private sector entities registered and operating in Cambodia.



Eligibility Criteria (cont'd)

Additionally, projects should meet the following guidelines:

- **SUSTAINABLE DEVELOPMENT**
Projects must contribute to Cambodia's sustainable development goals, through bringing an environmental, economic, or social co-benefit.
 - Environmental sustainability: contribute to improved air, water, or land quality, enhanced resource efficiency, or sustainable management of natural resources.
 - Economic sustainability: contribute to job creation, poverty reduction, or improved financial inclusion. Or contribute to the development of sustainable infrastructure.
 - Social sustainability: improve health, safety, and access to essential services such as energy, water, or sanitation, and promote gender equality.
- **BANKABILITY AND FINANCIAL SUSTAINABILITY**
Projects should demonstrate enhanced financial sustainability through a better risk/return profile or improved access to financing as a result of CCFF support.
- **MOBILIZING CLIMATE FINANCE**
Projects should aim to attract co-financing for long-term sustainability.



Climate Impact Assessment Framework

The Climate Impact Assessment Framework guides the evaluation of projects by assessing their climate impact. Eligible activities are categorized as either climate change mitigation or adaptation efforts.

	CLIMATE CHANGE MITIGATION	CLIMATE CHANGE ADAPTATION
Description	Mitigation projects aim to avoid, reduce, or remove greenhouse gas (GHG) emissions.	Adaptation projects address the current and future impacts of climate change, focusing on building resilience to climate risks.
Eligibility	<ol style="list-style-type: none"> 1. Represent a CCFF-eligible sector and propose one or more eligible mitigation activities for funding as per pages 8-11 2. Demonstrate a net reduction in GHG emissions against a baseline scenario 	<ol style="list-style-type: none"> 1. Represent a CCFF-eligible sector and propose one or more eligible adaptation activities for funding as per pages 12-14 2. Demonstrate an improvement in resilience (of people, systems, or ecosystems), or a reduction in exposure and/or vulnerability to the adverse impacts of climate change
Key Performance Indicators (KPIs)	Primary mitigation KPIs: <ul style="list-style-type: none"> • Tons of CO₂ equivalent (tCO₂e) reduced over the project lifetime • Cost per ton of CO₂e reduced (\$/tCO₂e) 	Primary adaptation KPIs: <ul style="list-style-type: none"> • Number of beneficiaries (direct and indirect) Additional KPIs, as relevant: <ul style="list-style-type: none"> • Value of assets made more resilient to climate change (Renewable Energy) • Hectares of land brought under climate-resilient management practices (Sustainable Agriculture and Forestry)
Impact Measurement Methods	<p>The proposed project should indicate the impact measurement methodology used to calculate mitigation impact for primary KPIs. The following best practice methodologies are eligible:</p> <ul style="list-style-type: none"> • Framework for a Harmonized Approach to Greenhouse Gas Accounting • UNFCCC Methodologies in relation to the Clean Development Mechanism • Verra's Verified Carbon Standard (VCS) • UK Government Green Books 	<p>The proposed project should describe the adaptation impact assessment process. At a minimum, the following information should be provided:</p> <ul style="list-style-type: none"> • Context of climate change risks, vulnerabilities and impacts related to climate variability • Intent to address the identified risks, vulnerabilities and impacts, and • Direct link between the identified risks, vulnerabilities, and impacts, and financed activities. <p>See also adaptation principles in Annex 1 for additional guidance.</p>



Climate Impact Criteria

CCFF Green Loans support projects in five sectors: renewable energy, energy efficiency, sustainable agriculture and forestry, water, and transportation. Each sector has specific mitigation and adaptation activities eligible for financing. Pages 8-14 provide a non-exhaustive list of activities in each sector.

MITIGATION SECTORS

Climate change mitigation projects focus on reducing, avoiding or removing greenhouse gas emissions to limit global warming and its impacts. These activities help drive significant reductions in carbon emissions and promote a sustainable, low-carbon future.

RENEWABLE ENERGY

ENERGY EFFICIENCY

SUSTAINABLE AGRICULTURE
AND FORESTRY

LOW-EMISSION TRANSPORTATION

ADAPTATION SECTORS

Climate change adaptation involves projects designed to enhance resilience in response to the impacts of climate change. These activities improve infrastructure, manage natural resources, and modify practices to withstand and recover from climate-related stresses. These investments aim to reduce vulnerability, protect communities and ecosystems, and ensure long-term resilience to changing climate conditions.

RENEWABLE ENERGY

SUSTAINABLE AGRICULTURE
AND FORESTRY

WATER



Appendix 4. CCFF: Green Loans Factsheet

Source: Mekong Strategic Capital. (2024). [CCFF_Green_Loans_Factsheet_Oct_2024.pdf](#)




Green Loans

FLEXIBLE FINANCING FOR GREEN PROJECTS ACROSS CAMBODIA

About CCFF

The Cambodia Climate Finance Facility (CCFF) is the first dedicated green loan facility providing financing for new or growing green projects to support Cambodian businesses in generating positive climate impacts.

Co-managed by the Agricultural and Rural Development Bank (ARDB) and Mekong Strategic Capital (MSC), the CCFF offers flexible financing options, including term loans and revolving credit facilities with diverse collateral options, and technical assistance.

Key Benefits for Green Projects

<p>INTEREST RATE</p> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 50%; width: 60px; margin: 0 auto;"> <p>5-8%</p> <p>Fixed Rate</p> </div>	<p>LOAN SIZE</p> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 50%; width: 60px; margin: 0 auto;"> <p>\$250k- \$10m</p> </div>
<p>TENOR</p> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 50%; width: 60px; margin: 0 auto;"> <p>Up to 12 years</p> </div>	<p>GRACE PERIOD</p> <div style="background-color: #0070C0; color: white; padding: 10px; border-radius: 50%; width: 60px; margin: 0 auto;"> <p>Up to 2 years</p> </div>

Eligible Sectors

RENEWABLE ENERGY

Electricity Generation – solar PV & wind power
Supporting Infrastructure – transmission and distribution systems, energy storage
Other RE Applications – solar PV water pumps



ENERGY EFFICIENCY

Green Buildings
Brownfield – industrial energy efficiency retrofits with at least 20% reduction in energy use
Energy Service Companies (ESCOs)



SUSTAINABLE AGRICULTURE & FORESTRY

Sustainable Farming – conservation and regenerative agriculture, deforestation-free value chains
Sustainable Forestry – afforestation and reforestation
Climate-Resilient Supply Chains – cold storage



WATER INFRASTRUCTURE

Piped Water – greenfield and/or expansion of piped water systems in rural areas, adoption of smart water management technology



LOW-EMISSION TRANSPORTATION

Electric Vehicles – commercial fleets and retail use
Charging Infrastructure – charging stations, battery swapping



Refer to CCFF Green Loan Eligibility Guide for more details



Green Loans

FLEXIBLE FINANCING FOR GREEN PROJECTS ACROSS CAMBODIA



How it Works

- 1 EXPRESS INTEREST**
If you are a Cambodian-registered business with a green project in one of the five CCFF-eligible sectors, contact us to schedule a meeting for further discussion.
- 2 ELIGIBILITY CHECK**
We will assess your project against the CCFF Eligibility Criteria by requesting relevant information. Projects must demonstrate climate change mitigation or adaptation benefits to qualify.
- 3 APPLICATION**
Eligible projects move forward to the CCFF Green Loan application stage. Technical assistance is available for businesses that require support with financial or climate assessments.
- 4 FUNDING**
Approved applicants who meet all drawdown conditions will receive CCFF Green Loan funds, which must be used exclusively for eligible green loan activities.
- 5 MONITORING & REPORTING**
Borrowers are required to regularly report on the use of funds and progress of their green projects to the CCFF. Technical assistance is also available for monitoring and reporting support.

Contact Us

Contact us to explore how CCFF Green Loans can help meet your business's green project needs.

MEKONG STRATEGIC CAPITAL

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CCFF IS CO-MANAGED BY:



FUNDED AND SUPPORTED BY:



Appendix 5. CCFF: Wholesale Funding Factsheet

Source: Mekong Strategic Capital. (2024). [CCFF_Wholesale_Loan_Factsheet_Oct_2024.pdf](#)

The graphic features the CCFF logo (Cambodia Climate Finance Facility) and the Mekong Strategic Capital logo at the top. A blue banner reads "Wholesale Funding" and a green banner below it says "WHOLESALE GREEN LOANS FOR FINANCIAL INSTITUTIONS IN CAMBODIA".

About CCFF

The Cambodia Climate Finance Facility (CCFF) is the first **dedicated green loan facility** designed to support local financial institutions (LFIs) in developing and growing their green loan portfolios.

Co-managed by the Agricultural and Rural Development Bank (ARDB) and Mekong Strategic Capital (MSC), the CCFF offers long-term concessional wholesale funding to LFIs to finance green projects that generate positive climate impact.

Key Benefits for LFIs

<p>WHOLESALE LENDING RATE</p> <p>3-4% Fixed Rate</p>	<p>WHOLESALE LOAN SIZE</p> <p>Up to \$15m</p>
<p>TENOR</p> <p>Up to 12 years</p>	<p>GRACE PERIOD</p> <p>Up to 2 years</p>

Key Features

ACCESS TO LOWER-COST FUNDING
Concessional wholesale funding provides a competitive edge, allowing banks to offer green loans at attractive rates while maintaining profitability.

ELIGIBLE USE OF FUNDS
CCFF Wholesale Funding must be on-lent to support projects that meet the CCFF Green Loan Eligibility Criteria.

NEW MARKET OPPORTUNITIES
Supports the development of green financial products and strengthens the LFI's role in financing sustainable projects, enhancing their reputation in a growing market.

PROGRAM OR INDIVIDUAL PROJECT LENDING
LFIs must demonstrate a clear pipeline, either by identifying a program for lending to a group of similar activities or one large project.

FUNDING STRUCTURE
CCFF Wholesale Funding will be matched with actual green loan demand from LFI's clients. Funding will be disbursed when green projects are identified and approved.

TECHNICAL ASSISTANCE (TA)
Access to TA to strengthen the LFI's capabilities in assessing and managing green project risks and opportunities.

Wholesale Funding

WHOLESALE GREEN LOANS FOR FINANCIAL INSTITUTIONS IN CAMBODIA



Application Process

- 1. PRELIMINARY ASSESSMENT**
LFIs submit a proposal detailing their interest in accessing CCFF wholesale funding, including expected pipeline of potential green projects.
- 2. PROJECT ELIGIBILITY CHECK**
LFIs demonstrate an identified pipeline of green projects. CCFF team will assist the LFI in assessing the identified pipeline against CCFF Eligibility Criteria.
- 3. LFI ELIGIBILITY CHECK**
Participating LFIs will be evaluated based on their current and potential capacity to comply with the CCFF ESMS and Gender Policy.
- 4. DISBURSEMENT & MONITORING**
Funds are disbursed based on loan demand and project approvals, with continuous monitoring to ensure compliance to E&S standards.

Compliance Considerations

ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM (ESMS) & GENDER POLICY

All participating LFIs are required to adopt relevant policies that comply with CCFF ESMS & Gender Policy and to ensure proper implementation of the policies in assessing and managing on-lending to green projects using wholesale funding from CCFF.

TA is available to support LFIs in adopting relevant policies and delivering monitoring and reporting requirements.

Eligible Sectors



Refer to CCFF Green Loan Eligibility Guide for more details

Contact Us

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