



**សមាគមបម្រែបម្រួលវិញ្ញាបនបត្រកម្ពុជា**  
Cambodia Microfinance Association



**OXFAM**

# Designing Green Finance Instruments in the Microfinance Sector

## Final Report

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## Disclaimer

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# Executive Summary

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## Introduction

This report, Green Finance Instrument Design for Cambodia's Financial Sector, is the final deliverable of Sevea's collaboration with the Cambodia Microfinance Association (CMA), in partnership with Oxfam Cambodia's Climate Resilience for All (CREFA) project and with support from the Irish Embassy in Vietnam. It is the third document in a three-part assessment aimed at advancing green finance in Cambodia:

- Global Landscape and Case Studies in Green Finance – Insights from international best practices and successful green finance models.
- Cambodia Green Finance Landscape Assessment – A comprehensive analysis of Cambodia's current green finance ecosystem, opportunities, and barriers.
- Green Finance Instrument Design – Development of practical, sector-specific financing schemes to support the adoption of green financial instruments by Cambodian MFIs and BFIs.

**The executive summaries for “Global Landscape and Case Studies in Green Finance” and “Cambodia Green Finance Landscape Assessment” can be found in Appendix 1.**

## Objective of the Report

This report provides practical, sector-specific green financing schemes tailored for implementation by Cambodia's Banking and Financial Institutions (BFIs). It serves as:

- A comprehensive resource encapsulating key insights on the global and national green finance landscape.
- A strategic guide for structuring and implementing innovative green finance instruments that align with Cambodia's sustainability goals and national policies.

## Key Sectors Covered

The report focuses on four high-impact sectors where green finance can drive both economic growth and environmental resilience:

- Climate-Smart Agriculture (CSA) Value Chain Financing – Strengthens value chain financing to help smallholder farmers and agribusinesses adopt sustainable farming practices.
- Renewable Energy (RE) Pay-Go Model Financing – Expands access to off-grid solar energy solutions through flexible, pay-as-you-go financing models.
- Energy Efficiency (ESCO) Financing – Enables industrial and commercial clients to reduce energy consumption with performance-based financing structures.
- Electric Vehicle (EV) Three-Wheeler Financing – Supports the transition to e-tuk-tuks through concessional lending, risk-mitigation tools, and shared savings mechanisms.

Each financing scheme integrates blended finance, risk-sharing mechanisms, and targeted incentives to mobilize investment while ensuring financial viability for MFIs.

## Key Insights & Market Considerations

As one of the most climate-vulnerable countries, Cambodia's economic and social development depends on its ability to mobilize green finance. The country faces an estimated \$36 billion green finance gap through 2050 to achieve its carbon neutrality target. Microfinance Institutions (MFIs) play a critical role in bridging this gap by expanding financial access for green projects, yet they face challenges such as high capital costs, limited market

data, and a lack of regulatory guidance. The following key insights and considerations shape the adaptation of best practices and design of innovative green finance schemes:

- **Green Finance Market Readiness** – Cambodia’s green finance landscape is evolving, but BFIs need sector-specific solutions and risk-mitigation mechanisms to scale green lending. Besides, market demand for green lending remains nascent with minimal awareness between green lending products and traditional debt products.
- **Regulatory & Policy Landscape** – The absence of a national green finance taxonomy creates uncertainty for BFIs and investors. The upcoming NBC Green Taxonomy (2025) will play a key role in defining green lending criteria. However, the taxonomy is only part of the solution as the effective and efficient implementation and compliance to the policies and regulation can address uncertainty. Incentivizing prioritization of green finance is key in kick-starting the green evolution.
- **Opportunities for BFIs** – Green finance represents a \$3 billion market opportunity across CSA, RE, EE, and EV sectors. However, challenges such as high upfront costs, lack of financial literacy, and weak M&E frameworks must be addressed. Value proposition to ecosystem stakeholders need to be designed to attract sustained interest.

## Recommendations for Next Steps

To enable the successful deployment of green finance, the report recommends the following priority actions:

1. Support MFIs in developing sector-specific green finance products by providing technical assistance, guidelines for development of green finance products, training, and tailored risk strategies.
2. Conduct a deeper analysis of demand for green finance to identify key market gaps and opportunities across Cambodia’s priority sectors.
3. Develop an investment readiness program for MFIs to enhance their ability to access international green funds.
4. Strengthen Environmental & Social (E&S) impact measurement capabilities to ensure transparency and attract investors.
5. Create a centralized green fund to pool concessional financing sources and provide dedicated support for MFIs entering the green finance space.
6. Advocate for policy incentives such as tax exemptions, concessional funding, and risk-sharing mechanisms to accelerate green finance adoption.

## Conclusion

Green finance presents a strategic opportunity for BFIs in Cambodia to expand their market, attract international funding, and contribute to Cambodia’s sustainability agenda. By leveraging the financing schemes outlined in this report and adopting best practices, BFIs can position themselves as leaders in green finance while fostering a more inclusive, climate-resilient economy. The transition to a green financial system is both necessary and urgent—Cambodia’s BFIs must act now to capitalize on this momentum.

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## List of Acronyms

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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

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# Introduction

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## 1. Project Context and Purpose for this Report

### Project Context

This report, “Green Finance Instrument Design for Cambodia's Financial Sector,” is the final deliverable of SEVEA’s collaboration with the Cambodia Microfinance Association (CMA) under the Climate Resilience for All (CREFA) Project, implemented in partnership with Oxfam Cambodia and with funding support from the Irish Embassy in Vietnam. It builds upon a series of research initiatives aimed at strengthening Cambodia’s financial sector’s role in climate adaptation and mitigation by developing practical, sector-specific green financing schemes for Banking and Financial Institutions (BFIs).

As one of the most climate vulnerable countries in the world, Cambodia's economic and social development relies on how the country responds to climate change and fosters a financial ecosystem that effectively attracts and disburses sustainable green finance. The World Bank Group estimates that by 2050, climate change could reduce Cambodia’s GDP by roughly 10%<sup>1</sup>. Further, a report by the World Bank – International Finance Corporation (IFC) estimates that Cambodia will need up to \$36 billion (Net Present Value, NPV) in additional investment over the next three decades to achieve its 2050 climate goal of carbon neutrality<sup>2</sup>. This volume of funds will require a coordinated climate strategy and fund mobilization from both domestic and international sources.

However, BFIs in Cambodia face significant barriers in scaling green finance including:

- Cost constraints for developing new green financial products which is combined by unclear scalability of demand.
- The ability of BFIs to offer incentive-based debt instruments that are sustainable.
- Limited access to international green funding due to complex compliance requirements.
- Uncertain market demand for green lending, compounded by low financial literacy and the absence of clear national sustainable finance guidelines which impacts SMEs and potential clients.
- Challenges in pipeline development, project risk assessment and impact monitoring, and tracking green finance flows.

At the same time, BFIs play a pivotal role in bridging this financing gap by enabling SMEs, households, and key sectors to invest in sustainable and climate-resilient solutions. However, a lack of tailored financial instruments and risk-mitigation mechanisms has hindered green finance adoption at scale. By building on efforts, research, and successes already made in Cambodia and peer countries, CMA can utilize the outcomes of this project to ideate and strategize green finance products, schemes, and initiatives for the country’s BFI sector.

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<sup>1</sup> UN. (2021). [Information Note #16: Climate Change | United Nations in Cambodia](#)

<sup>2</sup> UN CCDR. (2023). [World Bank Document](#)

### Objectives and Outcomes

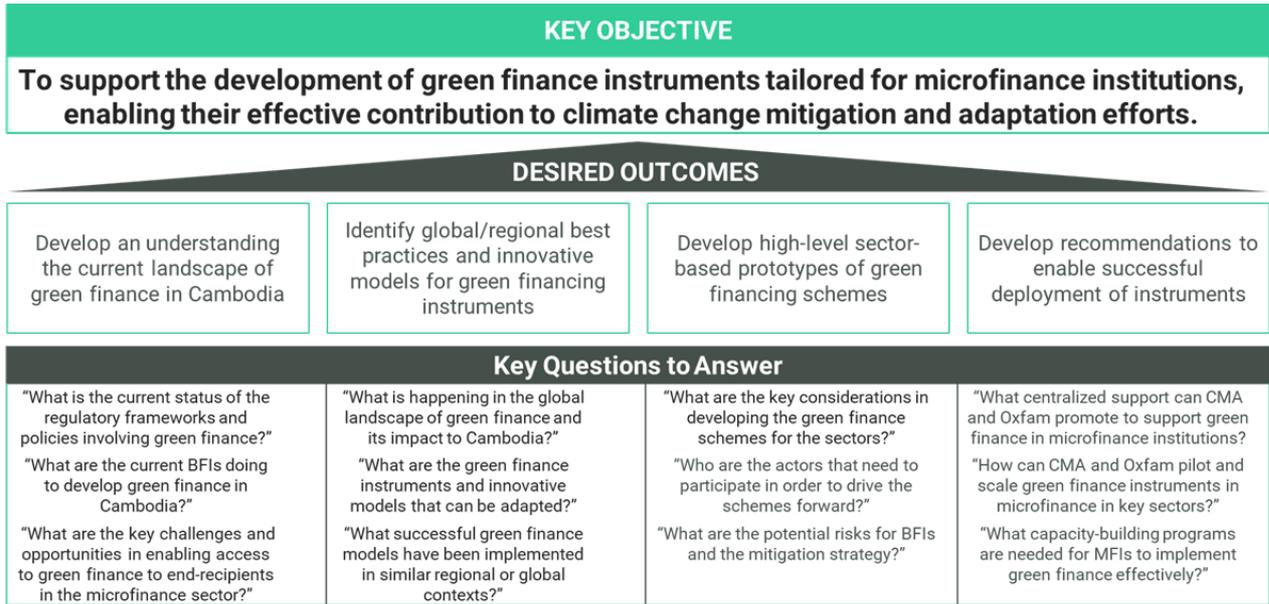
This report as illustrated in Figure 1 provides a strategic framework and innovative financing schemes to support Cambodian BFIs, institutional investors, and green finance clients in developing sector-specific financial instruments tailored to Cambodia’s market conditions and regulatory landscape. It aims to facilitate climate adaptation and mitigation financing across four high-impact sectors:

- **Climate-Smart Agriculture (CSA) Financing** – Supporting smallholder farmers and agribusinesses in adopting sustainable farming practices through value chain financing.
- **Renewable Energy (RE) Pay-Go Model Financing** – Expanding access to off-grid solar energy solutions with flexible, pay-as-you-go financing.
- **Energy Efficiency (ESCO) Financing** – Enabling industrial and commercial clients to reduce energy consumption through performance-based financing.
- **Electric Vehicle (EV) Three-Wheeler Financing** – Supporting the transition to e-tuk-tuks through concessional lending and shared savings mechanisms.

By leveraging international best practices, risk mitigation strategies, and blended finance approaches, this report serves as both:

- A practical guide for BFIs to structure and implement innovative green finance instruments.
- A knowledge-sharing resource to raise awareness and promote engagement in Cambodia’s green finance ecosystem.

*Figure 1: Key objectives and desired outcomes of the research*



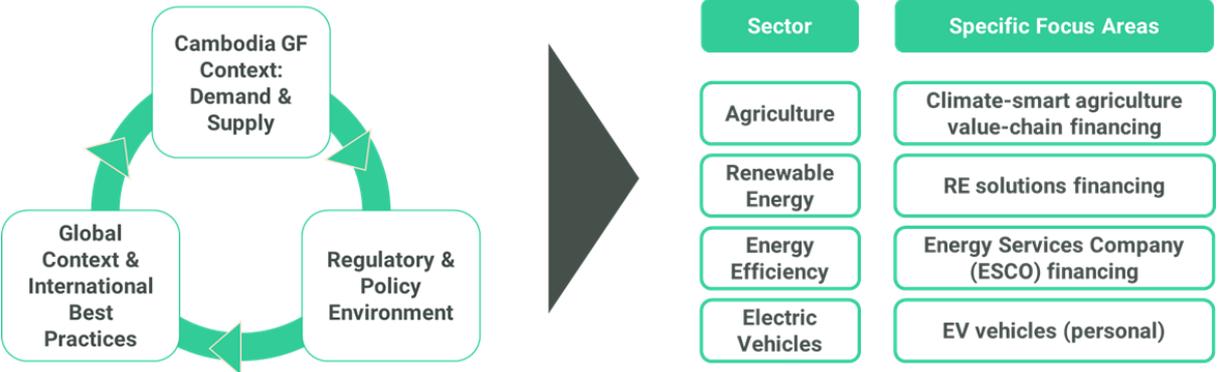
## 2. Scope of this Document & Expected Outcomes

Throughout this mission, Sevea's Green Finance Instrument Design research was implemented in five phases:

- Phase 1 – Inception
- Phase 2 – Assessment of the supply, demand, opportunities, and barriers of green finance in Cambodia
- Phase 3 – International Benchmarking
- Phase 4 – Green Finance Scheme Development
- Phase 5 – Stakeholder validation and final recommendations

Each phase was a key contributor to ensure the proposed financing schemes are viable, practical, and protective of BFIs and client interests. As such, this report draws on previous research phases which have identified Cambodia's supply, demand, opportunities, and risks for green finance, combined with assessing international case studies, best practices, and green financing models to inform instrument development in the local context.

*Phase 1, 2, 3 provides the basis for the development of the financial schemes for GF in Phase 4*



### Key Focus Area for Phase 4 and 5

This report presents the findings and outcomes of Phase 4 and Phase 5 of the research, focusing on the development of sector-specific green financing schemes for Agriculture, Electric Vehicles (EV), Energy Efficiency (EE), and Renewable Energy (RE) in Cambodia. It is designed to support Banking and Financial Institutions (BFIs) in overcoming key institutional and market barriers, expanding their green finance portfolios, and integrating scalable financial instruments tailored to climate-related investments.

The primary audience for this report includes Cambodian BFIs, particularly CMA member MFIs, seeking to develop and implement innovative green finance products. Additionally, the report provides valuable insights for key stakeholders, including:

- Green finance clients, both current and prospective, across the EE, RE, EV, and Agriculture sectors.
- Development partners (DPs), development finance institutions (DFIs), and civil society organizations (CSOs) supporting green finance initiatives.

- Regulatory bodies and industry associations (e.g., NBC, CGCC, CMA, ABC) who are involved (or are interested) in financial sector governance and policy formulation.

The desired outcomes of this report are for CMA members and other green finance actors to utilize the proposed financing schemes, key considerations, and the risk mitigation strategies to help design their own targeted green finance instruments. This report aims to serve as a strategic reference to inform the design, implementation, and scaling of green financial instruments by offering:

- Tailored financing schemes aligned with sector-specific needs.
- Risk mitigation frameworks to address financial and operational uncertainties.
- Key considerations for regulatory compliance, market readiness, and client protection.

By leveraging the insights and recommendations developed, BFIs and other financial stakeholders can enhance their green finance capabilities, strengthen private sector engagement, and contribute to Cambodia's long-term climate resilience and sustainable development goals.

## A. Key Considerations for Scheme Development

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In this section we explore the following selected five key considerations in developing a green finance scheme in Cambodia:

- Sector specific considerations for green finance schemes (Agriculture, RE, EE, EV)
- Upstream financing partnerships and risk strategies
- Ecosystem considerations
- Client protection
- Non-credit services

Green finance in Cambodia comes with unique challenges as the country grows. BFIs struggle to launch green loans, set competitive interest rates, find a steady flow of green projects, and track how green funds are used. On the market side, the lack of a national green finance framework, limited access to green technology, low awareness, and high transaction costs makes it harder for SMEs and individuals to secure green financing. While the current taxonomy emphasizes climate mitigation, the country's pressing need lies in financing climate adaptation and resilience, requiring a broader and more inclusive approach to green financial instruments. Given these challenges, BFIs need to carefully plan and design green finance instruments that fit Cambodia's needs.

### 3. Sector Specific Considerations for Green Finance Schemes

Key Consideration	Why this consideration is important on a sector level
Area of focus	<ul style="list-style-type: none"> <li>Green finance instruments must align sector specific needs and opportunities with the BFI’s competencies, client base, and risk-appetite.</li> <li>Ensure financing terms align with sector-specific cash flow dynamics, such as long-term loans for renewable energy projects, or seasonal term loans for agriculture.</li> <li>BFIs need to continually build the capacity to assess and structure sector-specific green finance solutions.</li> </ul>
Market readiness and gaps	<ul style="list-style-type: none"> <li>When BFIs strategize designing and integrating green finance instruments into their portfolios, they must consider and anticipate the market pipeline of available projects. Market demand for green finance projects may vary based on cyclicity (ie. crops), upstream funding, national regulation, incentives, and priorities, etc. BFIs must therefore design instruments to weather this risk and work</li> <li>BFIs can consider collaborating with industry associations and business chambers to promote private sector awareness and adoption of green finance and partnering with international development finance institutions to provide co-financing and technical expertise.</li> </ul>
National priorities and regulation	<ul style="list-style-type: none"> <li>Industries need regulation to stabilize and incentivize consumer adoption and investor confidence of green technologies and activities.</li> <li>CMA, BFIs, DPs, and industry associations can continue to lobby the RGC for frameworks and policies to guide incentives, technical assistance, and educate the public about green initiatives</li> </ul>
Customizing to address sector-specific barriers and enable financial inclusion	<ul style="list-style-type: none"> <li>BFIs need to know their target client's profiles, financial strengths, and financial barriers to design effective instruments. Products must be customizable to address the needs of these target groups.</li> </ul>
Financing and financial literacy needs	<p>Each sector has unique barriers and needs that require tailored investment vehicle and terms. The consideration for financing relies on understanding the financing opportunities. For example:</p> <ul style="list-style-type: none"> <li><b>RE:</b> Growth is tied to specific technologies</li> <li><b>EE</b> ESCO's performance-tied model allow BFI clients to pay for the project through the energy savings over time.</li> <li><b>EV:</b> Given this industry's novelty, BFIs must prepare to evolve traditional loans and fleet leasing instruments for green finance and to address uncertainty risk.</li> <li><b>Agriculture:</b> Opportunities to address profit-loss in the value chain with smart-climate technologies and practices.</li> </ul>

### 3.1. Agriculture Sector

Cambodia's agriculture sector employs over 30% of the labour force and contributes around 22% of GDP<sup>3</sup>. This sector is also highly vulnerable to climate change. Key crops such as rice, cassava, and cashew are under threat from increasing unpredictability of rainfall or water availability, rising and extreme temperatures, and soil degradation. Climate-smart agricultural practices such as agroforestry, water-efficient irrigation systems, drought-resistant seed varieties, and integrated pest management are critical for enhancing resilience and productivity. According to ADB, the financing opportunities in climate-smart agriculture, between now and 2030, amounts to \$80 million.

**Market readiness for green finance:** Not all agriculture businesses are automatically green businesses. Being "green" typically implies operating in an environmentally sustainable and eco-friendly manner. But agriculture businesses can have widely varying impacts on the environment, depending on their practices, resource use, and contribution to sustainability goals. Consider the following characteristics of a green agriculture business:

- Promotes environmental sustainability minimizes harm to ecosystems and biodiversity.
- Uses resources efficiently – optimizes water, energy, and inputs like fertilizers and pesticides.
- Reduces carbon footprint employs practices that sequester carbon or lower greenhouse gas emissions.
- Emphasizes soil health: practices crop rotation, organic farming, or conservation agriculture.
- Supports renewable energy uses solar, wind, or bioenergy in operations.
- Fosters circular economy principles minimizes waste through recycling, composting, or resource recovery.

**National regulation and priorities:** The National Agricultural Development Policy (NADP) was launched in 2022 by the Ministry of Agriculture, Forestry, and Fisheries (MAFF). The NADP focuses on enhancing the agricultural sector's productivity, resilience, and sustainability. This policy addresses challenges such as food security, rural poverty, and climate change while promoting climate-smart agricultural practices.

**Customization and inclusivity:** Financial literacy and practices are notably low among sustainable-agriculture clients. This lack of knowledge and skills in managing finances leaves clients of this sector vulnerable to poor financial decisions, such as taking on unsustainable debt or mismanaging loan repayments. Inadequate financial literacy often results in inefficient resource allocation, difficulty in navigating loan terms, and reduced ability to plan for long-term financial sustainability, ultimately undermining their economic resilience and future access to finance. For BFIs, this represents a significant challenge in ensuring responsible borrowing, as low financial literacy can contribute to higher default rates and increased operational risks.

There are two main ways that BFIs customize products to address this risk and increase financial inclusivity.

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<sup>3</sup> [Phnom Penh Post](#) (2024).

1. Implementing client protection principles, specifically “providing clients with clear, timely, and accurate information to make informed decisions” would mitigate this issue. These principles are explored further below.
2. Pairing the approval of financial instruments with client financial literacy and technical assistance on the financed green technology itself.

**Financing Needs:** Agricultural value chain finance (AVCF) is a financial approach and set of financial instruments that can be applied for agricultural and agribusiness financing. Value chain finance involves the financial services, products and support services flowing through a value chain to address all the needs and improve efficiency within that chain<sup>4</sup>. Green financing the agriculture value chain can improve quality and efficiency in financing agricultural chains by identifying the financing needed to strengthen the chain; tailoring financial products to suit the needs of the participants in the chain; reducing financial transaction costs through the direct discounting of loan payments at the time of product sale; and using value chain linkages and knowledge of the chain to mitigate risks to the chain and its partners.

AVCF can facilitate increased financial access and lower agricultural costs and financing risks in both internal and external forms of finance:

- Internal value chain finance is financing that takes place within the value chain (e.g., when a supplier provides credit to a farmer or when a lead firm advances funds to a market intermediary).
- External value chain finance is financing from outside the chain made possible by value chain relationships and mechanisms (e.g., when a BFI issues a loan to a farmer based on a contract with a trusted buyer).

### **Summary of Sustainable Agriculture Considerations**

- Sustainable agriculture and forestry have a \$80 million in financing opportunities by 2030. Climate-smart agriculture practices focus on financing the value chain such as water-efficient irrigation, drought-resistant seeds, and integrated pest management.
- Agricultural value chain finance (AVCF) can reduce financial transaction costs and risks through the direct discounting of loan payments at the time of product sale and using value chain linkage relationships
- Concessional rates range between 4-8% annually for smallholders, subsidized by donor funding or public-private partnerships.
- Loan Terms should consider a flexible repayment schedule aligned with crop cycles or harvest periods.
- Insurance: Bundled financing with crop or weather insurance to de-risk lending.

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<sup>4</sup> IFAD 2012, Agricultural Value Chain Finance Strategy and Design

## 3.2. Considerations for Energy Sector (EE and RE)

**Brief market introduction:** Cambodia's energy sector is a vital target for green finance, not only as it is a major source of greenhouse gas emissions but also since the sector is a cornerstone of economic growth. Beyond climate change risks, high electricity costs, rapid industrialization, and urbanization are factors driving demand for green investment and regulatory action. The potential financing gap to 2030 for renewable energy and energy efficiency is \$1 billion and \$500 million respectively.

**Market Readiness for Green Finance:** The target opportunities for EE mainly exist in providing energy efficiency upgrades/retrofits in commercial and industrial buildings via Energy Services Companies (ESCOs), Green Building development (housing, commercial, industrial buildings). Cambodia's industrial sector alone has an average energy savings potential of 20% by 2030. This sector's opportunities are largely service based. ESCO's performance-payment model is a catalyst in this sector and potential partner for BFIs. The ESCO market in Cambodia is in its nascent stages given limited adoption and awareness among industries and building operators.

Compared to the energy efficiency sector, the renewable energy sector is distinct in the actual production of energy. The opportunities for the RE sector focus on scaling Cambodia's solar production capacity and financing renewable technologies for the agriculture sector. 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. Cambodia's PV market has a projected CAGR of 6.78% (2024-2030)<sup>5</sup>. 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. Renewable energy adoption in agriculture includes solar-powered systems widely used for irrigation, water management, crop drying, milling, and cold storage, particularly in rural and off-grid areas.

**National Regulation and Priorities:** Cambodia's energy industry has experienced evolving and continually updating policies. The Power Development Plan (PDP) and the National Energy Efficiency Policy (NEEP) are two policies influencing this sector. The PDP sets ambitious renewable energy targets, aiming for a 70% renewable energy mix by 2030 and 3,155 MW of solar capacity by 2040. The 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. How the government handles international foreign trade and regulation is also a large determinant of Cambodia's EE and RE market. One KII quoted that direct imports are hampering the competitiveness of the market as local SMEs must now fight with the foreign companies. Furthermore, tenders are becoming very expensive.

**Customization and inclusivity to address barriers:** As Cambodia's energy industry matures and competition enters the market, Cambodia is experiencing the prices for solar panels

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<sup>5</sup> 6WResearch. (2023). [Cambodia Photovoltaic Market \(2025-2031\) | Companies & Value](#)

continuing to drop while costs for SMEs remain steady, thinning margins for solar businesses. SMEs have found that customers are negotiating for lower downpayments and preferring to use monthly payments from energy savings. Customers are receiving loans for solar panels between 11-15% which is considered very high as BFIs view the risk of solar as high. Loans are typically collateral based. On the residential side, the main barriers are high upfront cost, little education of the importance of solar, and physical components such as no rooftop space in PP. For this reason, green finance solutions should be designed in a way that allows the instrument to be flexible and customizable to client needs – both retail and industrial. BFIs could consider engaging blended finance models with development partners to empower them to offer concessional loans and favourable terms. They can also explore alternative financing models like income-based loans or Pay-As-You-Save (PAYS) Models which will increase inclusivity for underserved clients with less financing capacity such as targeting rural electrification.

**Financing Needs:** Financing the RE sector is characterized by high initial investment costs and long term pay-back periods due to the nature of the technology being built and implemented. Concessional green financing for this sector addresses CAPEX financing for the initial investment of infrastructure. By example, green capital might be used for industrial technology conversions or upgrades or building solar farms.

In contrast, the EE sector typically has shorter loan terms and pay-back periods of 5-7 years. Table 1 lists Listed below are potential partnership opportunities for ESCO financing or lending for BFIs:

**Table 1: Types of Energy Performance Contracts**

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	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

	<p>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.</p>
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### Summary of Energy Sector Considerations

- Cambodia’s energy sector has \$1 billion financing gap for RE and \$500 million for EE by 2030.
- Financing the RE sector focuses on scaling industrial solar production
  - Long Tenor Loans: Renewable energy projects, such as solar farms or hydropower, require long-term financing (10–15 years) due to high upfront costs.
  - Competitive interest rates of 6–8% annually can be subsidized through government-backed guarantees or international funds.
- The EE sector utilizes different types of energy performance contracting.
  - 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.
  - Competitive rates of 5–7% annually could be subsidized through development partner contributions

### 3.3. Considerations for Electric Vehicle Sector

In 2023, Cambodia was the 48th most air polluted country in the world<sup>6</sup>. The need for sustainable transportation and air pollution in Phnom Penh is increasingly a topic of concern for the nation. Electric cars, motorbikes, commercial fleet conversions, and electric three-wheelers are expected to be a game changer in Cambodia’s transportation. Over 13 charging stations have been established in Cambodia across Siem Reap, Phnom Penh, Battambang, and Sihanoukville. Four of these stations are at public works ministry headquarters and six at private locations<sup>7</sup>.

**Market readiness for green finance:** The EV market in Cambodia is in very early stages, with high expected market-value potential but also a higher level of uncertainty compared to other sectors. Investment in this sector must be considered in BFIs risk appetite and green finance strategy. According to ADB, the potential financing gap to 2030 for the e-mobility sector is over \$1.5 billion. This includes financing e-scooters, electric three-wheelers, charging stations, and sustainable producers of EVs such as green factories.

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<sup>6</sup> Camness. (2023). [Electric Tuk Tuk Sales Fail to Soar | Cambodianess](#)

<sup>7</sup> Phnom Penh Post. (2023). [Chanthol urges jump in EV charging stations | Phnom Penh Post](#)

**National regulation and priorities:** Given the industry's novelty, BFIs must prepare to evolve traditional loans and financing instruments to accommodate green finance opportunities. They must also be prepared for the impact that evolving regulation and policies will have on the assessing, monitoring, and evaluation process of their GF portfolio. NBC's Green Taxonomy is scheduled to be released in 2025 with the first phase focusing on the transportation sector.

- The RGC's ambitions for scaling EV in Cambodia in the Long-Term Strategy for Carbon Neutrality (LTS4CN) aims to electrify 40% of all cars and urban buses and 70% of all motorbikes by 2050. According to Cambodia Investment Review, EV registrations have doubled over the past two years, as fuelled by increased environmental awareness and government incentives that promote green technology<sup>8</sup>. Scaling Cambodia's electric vehicle ecosystem requires coordinated efforts from all stakeholders, but the most fundamental is clear guidance and support from the national level. In addition to the LTS4CN, the RGC has quoted that it aims to register 770,000 EVs by 2030<sup>9</sup>. Government agencies also play an important role in the EV ecosystem in implementing supportive policies, tax incentives, and subsidies to promote EV adoption and green financing.

**Customization and inclusivity to address barriers:** Several challenges and barriers still face the EV market in Cambodia including range anxiety outside of Phnom Pehn, charging infrastructure keeping pace with EV adoption, the availability and cost of technical maintenance, and basic awareness raising to change consumer behaviour. In addition to these barriers, the initial costs of EVs put-off many investors and potential drivers. For this reason, green finance solutions should be designed in a way that allows the instrument to be flexible and customizable to client needs. This is key to increasing financial inclusivity and is especially true for Cambodia's electric three-wheeler drivers whose livelihoods depend on their vehicles.

**Financing needs:** The financing needs of this sector are characterized by high initial investment costs and long term pay-back periods due to the nature of the technology to be built and implemented. Concessional green financing for the EV sector would address CAPEX financing for the initial investment of vehicles or infrastructure. This capital would be used for concessional vehicle loans, commercial leasing financing, concessional financing for EV infrastructure and manufacturing. Recommended financing terms needed for commercial fleet clients consist of a rate of 5-6% with a tenure of 5-10 years.

**Summary of EV Sector Considerations**

- The potential financing gap for Cambodia's e-mobility sector through 2030 is over \$1.5 billion. Finance opportunities are characterized by high initial investment costs and long-term pay-back periods.

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<sup>8</sup> Cambodia Investment Review. (2025). [ABA Bank and Charge+ Cambodia Join Forces to Simplify EV Payments and Boost Charging Network Growth - Cambodia Investment Review](#)

<sup>9</sup> *ibid*

- Concessional green funds would address CAPEX financing for vehicle loans, commercial leasing financing, for EV infrastructure and manufacturing.
- Loan Terms: Medium-tenor loans (5–10 years) at a rate of 5-6% for businesses and municipalities purchasing EV fleets
- The EV sector faces challenges in range anxiety, charging infrastructure, maintenance costs, and high initial investment, requiring flexible, concessional green financing to support adoption.

## 4. Ecosystem Partnerships and Risk Strategies

*Note: Please refer to “Cambodia Green Finance Landscape Assessment” report for more information.*

Developing Cambodia’s green finance sector requires a coordinated effort from key stakeholders—including government agencies, financial institutions, development partners, private sector businesses, CSOs, and NGOs. Collaboration is essential to provide technical support, design effective financial instruments, and implement risk-mitigation strategies that drive investment while ensuring social, economic, and environmental sustainability.

**Table 2: Partnerships, Funds, Risks and Mitigation**

Sector	Potential Partnerships	Funds to Leverage (non-exhaustive)
Climate Smart Agriculture	<ul style="list-style-type: none"> <li>• Government: MAFF, CGCC</li> <li>• Dev. Partners &amp; Donors: FAO, SNV, IFAD, SIDA</li> <li>• Others: Input Suppliers, CSOs and NGOs, Agriculture Cooperatives</li> </ul>	<ul style="list-style-type: none"> <li>• Adaption Fund – Supporting climate adaptation projects for vulnerable communities in developing countries</li> <li>• FAO’s Green Agriculture Fund – Support for sustainable farming practices and supply chain resilience.</li> <li>• Cambodian Climate Financing Facility (CCFF)</li> <li>• The Dutch Fund for Climate and Development (DFCD)</li> </ul>
	<p><b>Risks for BFIs</b></p> <ul style="list-style-type: none"> <li>• Climate Volatility – Unpredictable weather events, such as floods or droughts, can reduce agricultural yields, impacting farmers’ ability to repay loans.</li> <li>• Low Financial Literacy – Smallholder farmers may lack the knowledge to effectively utilize financing, increasing the likelihood of loan defaults.</li> <li>• Thin Margins – The low profitability of small-scale agriculture creates challenges in offering affordable tailored green financing products.</li> </ul> <p><b>Potential Mitigation Strategies</b></p> <ul style="list-style-type: none"> <li>• Bundle loans with agricultural insurance to cover weather-related losses.</li> <li>• Partner with development organizations to provide financial literacy training for farmers.</li> <li>• Leverage concessional funding from Dev. Sector programs to offer low-cost credit for an interim period.</li> </ul>	
Renewable Energy	<ul style="list-style-type: none"> <li>• Government: MME, EDC, EAC</li> <li>• Dev. Partners &amp; Donors: GGGI, World Bank, IFC, UNDP</li> <li>• Others: RE Tech Providers, RE Experts, Cooperatives</li> </ul>	<ul style="list-style-type: none"> <li>• CCFF</li> <li>• Clean Energy Revolving Fund (CERF)</li> </ul>

	<p><b>Risks for BFIs</b></p> <ul style="list-style-type: none"> <li>• High Capital Requirements: Renewable energy projects involve large upfront costs and long payback periods, tying up capital for extended durations.</li> <li>• Regulatory Uncertainty: Inconsistent energy policies or delays in regulatory approvals can increase project risks.</li> <li>• Technology Risks: Dependence on imported technology may pose operational risks, including maintenance and performance uncertainty.</li> </ul> <p><b>Potential Mitigation Strategies</b></p> <ul style="list-style-type: none"> <li>• Collaborate with international partners like the GCF or IFC to share financial risks.</li> <li>• Include loan guarantees or insurance mechanisms to cover potential defaults.</li> <li>• Partner with local energy providers to ensure smoother project execution</li> </ul>	
Energy Efficiency	<ul style="list-style-type: none"> <li>• Government: MME</li> <li>• Dev. Partners &amp; Donors: GGGI, ADB, World Bank, UNDP (incl. IFC)</li> <li>• Others: EE Tech providers, ESCOs, Energy Audit firms, M&amp;V 3<sup>rd</sup> party firms</li> </ul>	<ul style="list-style-type: none"> <li>• IFC</li> <li>• CCFF</li> <li>• ADB Energy efficiency revolving fund (EERF)</li> <li>• ASEAN Catalytic Green Financing Facility (ADB)</li> </ul>
	<p><b>Risks for BFIs</b></p> <ul style="list-style-type: none"> <li>• Unpredictable Savings: Energy savings can vary due to project design, usage patterns, or equipment inefficiencies, making repayment uncertain.</li> <li>• Limited Borrower Awareness: Many businesses lack understanding of energy efficiency benefits, leading to low demand for EE financing.</li> </ul> <p>Small Market Size: The relatively limited size of Cambodia’s industrial and commercial sectors can restrict the scale of EE financing opportunities.</p> <p><b>Potential Mitigation Strategies</b></p> <ul style="list-style-type: none"> <li>• Partner with industry associations for awareness campaigns on EE benefits.</li> <li>• Bundle financing with performance guarantees from equipment providers.</li> </ul> <p>Use technical assistance grants to build borrower capacity and ensure project success.</p>	
Electric Vehicle / Low Emission	<ul style="list-style-type: none"> <li>• Government: MME, MPWT, MEF</li> <li>• Dev. Partners &amp; Donors: GGGI, UNDP</li> <li>• Others: EV distributors (2-, 3- and 4-wheelers), Ride hailing firms, charging infrastructure providers, Logistics firms</li> </ul>	<ul style="list-style-type: none"> <li>• CCFF</li> <li>• ASEAN Catalytic Green Financing Facility (ADB)</li> <li>• UNEP’s Electric Mobility Programme</li> <li>• ADB’s Sustainable Transport Program</li> </ul>
	<p><b>Risks for BFIs</b></p> <ul style="list-style-type: none"> <li>• Market Immaturity: Cambodia’s EV sector is nascent, with limited infrastructure and demand, creating uncertainty in market potential.</li> <li>• High Initial Costs: Financing EV fleets or charging infrastructure involves significant upfront investments, with uncertain returns.</li> <li>• Technology Obsolescence: Rapid advancements in EV technology may render existing assets outdated, reducing their residual value.</li> </ul> <p><b>Potential Mitigation Strategies</b></p>	

- 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.

*Note: Funds to leverage listed is not meant to be exhaustive; Please refer to Global Landscape and Case Studies report for more details on funds available.*

**Table 3: Type of stakeholder and their role in green finance design**

Stakeholders	Why they are important to green finance design
Upstream Finance	Comes in the form of green funds, sovereign funds, impact and institutional investors, development banks, private funds. Concessional funding from upstream finance plays a crucial role in reducing the overall cost of providing finances for BFIs. <ul style="list-style-type: none"> <li>• ADB, IFC, IFAD, GCF</li> </ul>
Green Finance Facilities	Blends public/private funds for affordable wholesale financing to BFIs, cooperatives, projects. Green Financing Facilities are key to facilitating blended finance models which are becoming increasingly attractive in developing economies to risk share and adapt the local finance sector. <ul style="list-style-type: none"> <li>• CCF, GCPF, DFCD</li> </ul>
Credit Guarantee Funds	A de-risking mechanism that covers loan defaults to finance smallholders, cooperatives, technology providers, BFI or business that implements investment or upfront costs for green finance projects. These funds act as a safety net to incentivize BFIs and businesses to engage in financing green projects. <ul style="list-style-type: none"> <li>• GGCC, GuarantCo</li> </ul>
Development Partners and donors	Provide grants, technical assistance, and capacity-building initiatives to facilitate, support, or to incentivize BFIs and businesses to engage in financing green projects. <ul style="list-style-type: none"> <li>• UNDP, World Bank, ADB, CAPRED</li> </ul>
Government Agencies	Government agencies strengthen enforcement mechanisms to ensure adherence to green finance principles and reduce greenwashing risks. Agencies set the national priorities, roadmaps, and targets related to fighting climate change, and introduce supportive policies, tax incentives, and subsidies. <ul style="list-style-type: none"> <li>• MAFF, MEF, PDAFF, MME, EAC, REA, REE, MPWT</li> </ul>
Local Authorities & Commune Heads, CSOs, NGOs	Facilitate awareness campaigns and information sharing. Plays a key role in reinforcing social accountability and continual adoption of green finance projects and solutions and offer on-the-ground insight concerning client and community needs. <ul style="list-style-type: none"> <li>• OXFAM, provincial and local government office including commune council members and chiefs, sangkat chiefs, etc.</li> </ul>
BFIs	Offer tailored loans to industries, SMEs and retail consumers for green technology and activities.
Cooperatives and Associations	Aggregate individual businesses and farmers, facilitate access to finance, and coordinate shared practices. For the agriculture sector, this structure is currently the most efficient way to consolidate support to farmers. <ul style="list-style-type: none"> <li>• CFAP, Heifer, CAC, CPSA</li> </ul>
Input Suppliers	Supply the physical green financed technology or supply chain components for the technology such as such as LED lighting, efficient

	<p>HVAC systems. In some cases, these suppliers might partner with financing companies or institutions to facilitate green credit access for businesses.</p> <ul style="list-style-type: none"> <li>• SOGE, EGE, ATEC, Khmer Green Charcoal (KGC), Siemens, LG, Comin Khmere, Angkor Green, Angkor Harvest, EGE, SOGE, Equipment leasing firms, Onion Mobility</li> </ul>
Crop/Equipment Insurance	<p>Mitigate risk by covering equipment damage, theft, or malfunction, or for the agriculture sector, protects farmers from climate risks like floods and droughts, improving loan repayment capacity, and providing a de-risking mechanism to improve access to finance for farmers.</p> <ul style="list-style-type: none"> <li>• Forte, Infinity General Insurance</li> </ul>
ESCOs	<p>Specialized businesses that provide energy solution designing, retrofitting, and implementing energy efficiency projects.</p>
Ride Hailing Companies	<p>Ensure market access and monitor demand for three-wheelers services, largely using mobile apps to match drivers and consumers at real-time prices. These companies are service providers positioned in the supply chain to facilitate and encourage the adoption of electric vehicles.</p> <ul style="list-style-type: none"> <li>• TADA, Grab</li> </ul>

## 5. Client Protection

Addressing BFI client’s financial vulnerabilities through client protection principles—such as ensuring fair loan terms, transparent information, and financial literacy training—is crucial to fostering responsible borrowing, reducing default rates, and empowering funding recipients to sustain long-term economic resilience.

### Why is Client Protection Important?

Client protection is critical when working with green finance target sector clients, particularly those with low financial literacy, as it ensures that they can access financing without being exposed to unfair practices or risks. It promotes transparency, enabling clients to understand financial products fully, including fees, interest calculations, and repayment terms. This empowerment helps them make informed decisions about whether to take loans and how to finance their green finance projects.

From our key informant interview data, it was observed that green finance customers face barriers in high interest rates, low financial literacy, being assessed as uncreditworthy, and inability to monitor and assess green project activity data. To properly address these vulnerabilities, BFIs must adhere to the client protection principles. If left unaddressed, this situation could escalate into credit defaults, aggressive debt collection practices, and greenwashing risk resulting in increased credit and reputational risks for the BFIs. For clients, loan defaults and the burden of dealing with harsh debt collection efforts translate into severe financial distress, loss of productive assets, reduced creditworthiness, and, in extreme cases, the risk of falling deeper into poverty.

### Universal Standards for Social and Environmental Performance Management (USSEPM)

The Universal Standards for Social and Environmental Performance Management (USSEPM) provides a comprehensive framework to guide financial service providers (FSPs) in prioritizing social and environmental goals within their operations. These standards ensure the alignment of business practices with the welfare of clients and environmental sustainability. USSEPM was developed by two leading organizations in the field of social and environmental performance management: Cerise and the Social Performance Task Force (SPTF) (CERISE+SPTF). This partnership is focused on improving the social and environmental impact of financial service providers (FSPs), particularly those that aim to serve low-income clients and communities. The organizations develop and update the USSEPM. The framework encompasses seven dimensions, which serve as pillars to strengthen institutions' social and environmental performance. The following picture illustrates the seven dimensions around the standard.

**Figure 7. Universal Standards for Social and Environmental Performance Management**



Source: cerise-SPTF.org

The framework provides a comprehensive and detailed guide, and one might wonder, "Where should I start?" There is no single correct starting point. A common approach is to begin with "low-hanging fruits" or to focus on areas where immediate improvements are needed. Alternatively, a financial service provider may choose to start by assessing its current practices across all dimensions. Ultimately, the starting point will depend on its specific priorities, available resources, and the current state of its practices. Whether choosing to focus on one, a few, or all dimensions, enhancing social and environmental performance generally follows four key stages.

**Figure 8. Four key stages for implementing USSEPM**



This is an ongoing process. A financial service provider will find itself repeating this journey, as its own resources and priorities evolves, as CERISE+SPTF collectively improves its understanding of best practices, and as the world around us changes.

## 6. Non-Credit Services

### Capacity development/TA for BFIs

The success of GFI design largely depends on the BFI's internal technical capacity and integration of green finance portfolio into the overall business strategy. These two factors will help inform the instrument's level of complexity and depth of implementation. Green finance is currently project and initiative based, dependent on funding, however this must transition to be incorporated from a top management level and integrated into the BFI's overall strategy. BFI's must identify their internal business gaps such as specific technical and capacity needed to effectively offer their GF product.

International development partners and multi-lateral banks play an important role in Cambodia's green finance landscape in several ways<sup>10</sup>:

- Pioneering and market testing new methods and instruments of green and climate finance,
- Mobilizing and rechannelling private and institutional green finance, and
- Providing education awareness raising, and policy reform recommendations to regulators

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. BFIs should consider engaging in strategic partnerships to leverage concessional funding, knowledge sharing, blended finance, or technical assistance.

### Monitoring and evaluation capabilities

Accessing upstream green financing from domestic or international sources will require BFIs to utilize a robust monitoring and evaluation (M&E) framework. This 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.

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<sup>10</sup> German Development Institute. (2016). [BP\\_23.2016.pdf](#)

In designing green finance instruments, BFI's must consider aligning M&E systems with international frameworks, such as the Green Bond Principles or ASEAN sustainability standards. Other potential strategies for BFIs to upscale its M&E capabilities include implementing digital tools for real-time monitoring of green finance activities and impacts or engaging third-party auditors to validate the use of funds and environmental outcomes.

## B. Green Finance Instrument Schemes

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Green finance plays a crucial role in accelerating Cambodia's transition towards a more resilient, low-carbon economy. To drive this shift, MFIs can develop tailored financial products that enable businesses, farmers, and households to adopt sustainable technologies. This section outlines sector-specific green finance schemes highlighting financing pathways, key stakeholders, and implementation steps to help MFIs design and scale impactful green finance instruments.

- Climate-Smart Agriculture Value Chain Financing
- Renewable Energy Technology (Pay-Go) Model Financing
- Energy Efficiency (ESCO) Financing
- Electric Vehicles (EV Three-Wheelers) Financing

## 7. Agriculture – Climate Smart Agriculture Value Chain Financing

### Sector Overview

The financing scheme developed for this sector is designed to promote climate-smart agriculture (CSA) in agriculture value-chain financing (AVCF) and integrates green finance elements to make CSA practices accessible to smallholder farmers and value chain actors, while aligning to BFI objectives to expand their green finance portfolios.

Climate-Smart Agriculture (CSA) is crucial for building resilience, enhancing productivity, and reducing emissions in Cambodia's agricultural sector. The CSA Value Chain Financing Scheme enables smallholder farmers, agricultural cooperatives, and agribusinesses to invest in and adopt sustainable farming practices, efficient irrigation systems, and climate-resilient inputs through tailored financing models.

Figure 2 illustrates the CSA Green Financing Scheme, mapping out the key stakeholders and their interconnections. This framework highlights how financial institutions, development partners, government agencies, and market actors collaborate to ensure the feasibility, accessibility, and scalability of green finance solutions for sustainable agriculture.

### Scheme Objectives

- Increase farmer access to affordable financing for CSA adoption.
- Strengthen agricultural cooperatives to facilitate market linkages and risk-sharing.

- Promote bundled financing models with technical assistance to reduce default risks (i.e., derisking mechanisms).

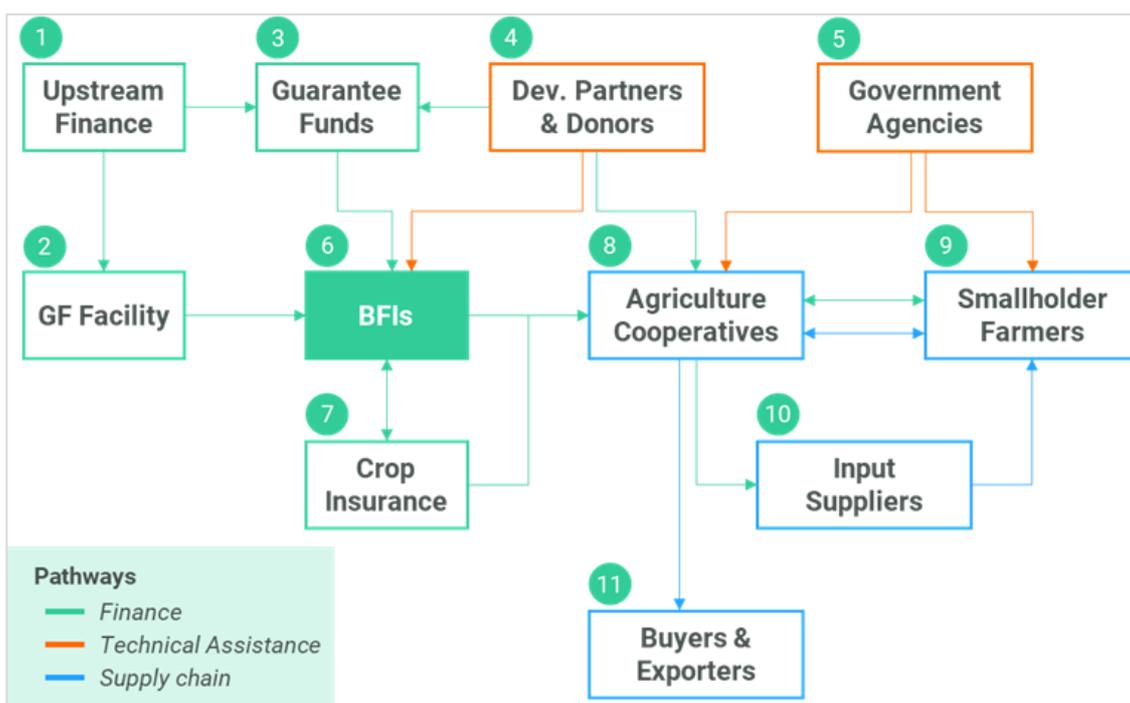
### Key Features of the Scheme

- **MFIs-Development Partner Collaboration.** MFIs collaborate with development partners to offer loan bundling with technical assistance, ensuring financing is linked to CSA practices while providing farmers with essential training and support.
- **Risk-Sharing Mechanisms.** Establishment of guarantee funds and crop insurance by development partners to reduce financial risks for MFIs and encourage lending to smallholder farmers adopting CSA practices.
- **Value Chain Ecosystem Financing.** Financing is tailored across the entire agricultural value chain, integrating social capital and reducing information asymmetry to enhance financial accessibility.
- **Market-Driven Financing.** Green finance supports organic and sustainable agriculture transitions, linking farmers to premium markets, increasing investment viability for CSA adoption.

*Table 4: Highlights of Features for the Scheme (CSA VCF)*

Features	Description
Target Beneficiaries / Borrowers	Smallholder farmers, agricultural cooperatives, agribusinesses.
Loan Structures	Concessional loans, blended finance, and input financing models.
Risk Mitigation	Guarantee funds, crop insurance, and risk-sharing with donors.
Bundled Services	Climate-resilient input supply, technical assistance, and domestic and export market linkages.
Technology Focus	Climate-resilient seeds, precision irrigation, agroforestry, post-harvest storage. (Not exhaustive, please refer to Cambodia landscape report)

Figure 2: Potential Stakeholders in the CSA Value Chain Financing Scheme



### How the Scheme Works

- **Upstream financing** – Green funds, DFIs, and impact investors contribute to the Green Finance Facility
- **BFIs receive funding** – MFIs distribute CSA loans bundled with technical support.
- **Farmers, cooperatives, input suppliers receive financing** – They invest in availability and adoption of CSA technologies and sustainable farming.
- **Market access facilitation** – Farmers sell produce to buyers/exporters for premium prices.
- **Repayment & impact tracking** – Loan repayments feed back into the system, ensuring sustainability of funds.

### Key stakeholders and Roles

Table 5: CSA Value Chain – Key Stakeholder and Roles

Stakeholders	Roles in Financing Scheme	Specific Examples (not exhaustive)
1/ Upstream Finance	Concessional funding includes Green Funds, Sovereign Funds, Impact and Institutional Investors, Development Banks, Private Funds.	GCF, Incoffin, ADB, IFC, IFAD, GGGI
2/ Green Finance (GF) Facility	Aggregates and blends public/private funds for affordable wholesale financing for lending.	CCFF, <u>GCPE</u> , <u>DFCD</u> ,
3/ Guarantee Funds	De-risking mechanism to cover loan defaults to finance smallholders and cooperatives.	CGCC, GuarantCo

4/ DPs & Donors	Provide grants, technical assistance, and capacity building to enhance CSA adoption and financial literacy. In some cases, provides guarantee funding and financing through specific GF facilities.	OXFAM, UNDP, USAID, FAO, IFAD, SNV, Swisscontact, HEKS/EPER
5/ Gov. Agencies	Implement supportive policies, tax incentives, and subsidies to promote CSA and green financing. In some cases, providing grants and capacity development to smallholder farmers.	MAFF, MEF, PDAFF
6/ BFIs	Provide CSA loans with embedded technical support	Microfinance Institutions and Banks
7/ Crop Insurance	Protect farmers from climate risks like floods and droughts, improving loan repayment capacity, and providing a de-risking mechanism to improve access to finance for farmers.	Forte
8/9/ Cooperatives/ Associations and Farmers	Aggregate smallholder farmers, facilitate access to finance, and coordinate shared CSA practices. This structure is currently the most efficient way to consolidate support to farmers.	CFAP, Heifer, CAC, CPSA, other farmer cooperatives
10/ Input Suppliers	Provide CSA technologies and resources adapted to local farming needs.	Angkor Green, Angkor Harvest, EGE, SOGE, Equipment leasing firms

**Table 6: Categories of financial instruments commonly used in AVCFs**

Category	Instrument
Product financing	<ul style="list-style-type: none"> <li>• Trade credit</li> <li>• Input-supplier finance</li> <li>• Marketing and wholesale company finance</li> <li>• Lead-firm financing</li> </ul>
Receivables financing	<ul style="list-style-type: none"> <li>• Trade-receivables finance</li> <li>• Factoring</li> <li>• Forfaiting</li> </ul>
Physical-asset collateralization	<ul style="list-style-type: none"> <li>• Warehouse receipts finance</li> <li>• Repurchase agreement (repos)</li> <li>• Financial leasing (lease-purchase)</li> </ul>
Risk mitigation products	<ul style="list-style-type: none"> <li>• Insurance</li> <li>• Forward contracts</li> <li>• Futures</li> </ul>
Financial enhancements	<ul style="list-style-type: none"> <li>• Securitization instruments</li> <li>• Loan guarantees</li> <li>• Joint-venture finance</li> </ul>

Source: IFAD 2012, Agricultural Value Chain Finance Strategy and Design

**Table 7: Risk matrix in AVCF**

<b>Risks</b>	<b>Definition</b>	<b>Examples</b>	<b>Mitigation</b>
Credit risk	The risk that borrowers fail to repay loans or meet financial obligations.	<ul style="list-style-type: none"> <li>• Crop failures due to weather or pests.</li> <li>• Market price fluctuations leading to reduced income.</li> <li>• Poor financial literacy among borrowers.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of credit scoring models</li> <li>• Loan guarantees or insurance.</li> </ul>
Operational risk	Risks arising from internal processes, people, or systems within the value chain.	<ul style="list-style-type: none"> <li>• Delays in input supply or distribution.</li> <li>• Mismanagement by cooperatives or aggregators.</li> </ul>	<ul style="list-style-type: none"> <li>• Improve logistics and supply chain management.</li> <li>• Training for stakeholders.</li> </ul>
Market risk	Risks related to change in market conditions that affect prices, demand, and supply.	<ul style="list-style-type: none"> <li>• Price volatility for agricultural commodities.</li> <li>• Sudden changes in consumer preferences.</li> </ul>	<ul style="list-style-type: none"> <li>• Forward contracts or futures to stabilize prices.</li> <li>• Market diversification.</li> </ul>
Production risk	Risks linked to agricultural production activities.	<ul style="list-style-type: none"> <li>• Weather-related events like droughts or floods.</li> <li>• Pest outbreaks or crop diseases.</li> <li>• Input shortages or quality issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Crop insurance.</li> <li>• Adoption of climate-resilient farming practices.</li> </ul>
Political and regulatory risk	Risks arising from government policies, regulations, or political instability.	<ul style="list-style-type: none"> <li>• Sudden changes in subsidies or import/export policies.</li> <li>• Land tenure conflicts or political unrest.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy advocacy and lobbying.</li> <li>• Diversifying operations geographically.</li> </ul>
Financial risk	Risks arising from fluctuations in interest rates, currency exchange rates, or liquidity issues.	<ul style="list-style-type: none"> <li>• High interest rates for farmers.</li> <li>• Currency devaluation impacting import/export transactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Hedging against currency risks.</li> <li>• Access to low-interest financing.</li> </ul>
Supply chain risk	Risks linked to disruptions in the flow of goods or services along the value chain.	<ul style="list-style-type: none"> <li>• Transportation delays or breakdowns.</li> <li>• Quality deterioration during storage or transit.</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in cold storage and logistics.</li> <li>• Digitalization for better supply chain visibility.</li> </ul>
Relationship risk	Risks associated with breakdowns in trust or cooperation between value chain partners.	<ul style="list-style-type: none"> <li>• Contract breaches by buyers or suppliers.</li> <li>• Farmers selling produce outside agreed channels.</li> </ul>	<ul style="list-style-type: none"> <li>• Transparent contracts and agreements.</li> <li>• Strengthened partnerships through regular communication.</li> </ul>

Environmental and climate risk	Risks due to environmental degradation or climate change.	<ul style="list-style-type: none"> <li>• Soil erosion reducing productivity.</li> <li>• Rising temperatures affecting crop viability.</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable farming practices.</li> <li>• Diversification into climate-resilient crops.</li> </ul>
Reputation risk	Risks associated with negative perceptions of value chain stakeholders.	<ul style="list-style-type: none"> <li>• Exploitation of smallholder's farmers.</li> <li>• Use of unsustainable practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Adherence to ethical and sustainable standards.</li> <li>• Certification programs (e.g. Fair trade)</li> </ul>

## 8. Renewable Energy – Pay-Go Model Financing

### Sector Overview

The financing scheme developed for this sector is designed to focusing on increasing adoption of RE technologies. The scheme aims to provide accessible loans to households, SMEs and businesses adopting RE technologies. Cambodia's electrification rate has improved, but rural areas still face energy access challenges. Pay-As-You-Go (Pay-Go) solar financing enables households and small businesses to access renewable energy technologies without high upfront costs. The Pay-go financing scheme supports the acquisition of solar home systems (SHS), mini-grids, and off-grid energy and technology solutions for rural communities. Figure 3 illustrates the Pay-Go Financing Scheme, mapping out the key stakeholders and their interconnections.

### Scheme Objectives

- Provide SMEs with affordable financing for RE technology adoption.
- Reduce dependency on fossil fuels through decentralized energy solutions.
- Promote RE adoption among low-income households and SMEs.
- Support MFIs in financing Pay-Go solar providers.

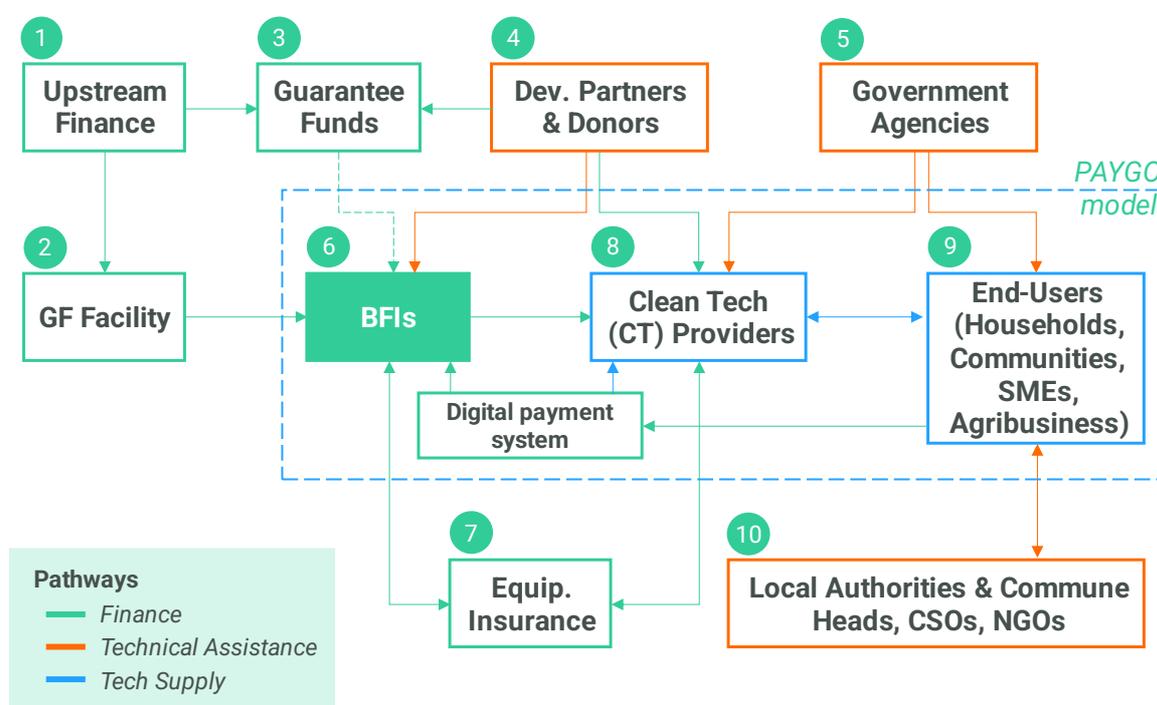
### Key Features of the Scheme

- **Blended finance structure.** Combines concessional funds to enable lower interest rates and credit guarantees to de-risk loans by MFIs offering clean energy tech loans.
- **Pay-as-you-Go (PAYGO) models.** Enabling low-income households (HH), SMEs and Agribusinesses access RE systems with minimal upfront costs with payments structured incrementally and linked to energy savings or income generation. Customers gain ownership in transition. Customers make small upfront payments and repay the balance in installments through mobile money or digital payment applications (i.e., banking apps).
- **Incentives and subsidies.** Subsidies for initial system costs and tax exemptions with performance-based grants for achieving emission reduction targets.
- **Drive awareness and reinforce continued adoption.** Local authorities, CSOs, NGOs based in rural regions facilitate awareness campaigns and information sharing.

**Table 8: Highlights of Features for the Scheme (Pay-Go)**

Features	Description
Target Beneficiaries / Borrowers	Low-income households, SMEs, rural businesses.
Loan Structures	Consumer loans, micro-leasing, asset-backed financing.
Risk Mitigation	Guarantee funds, Digital credit scoring, mobile repayments, remote monitoring of Pay-Go solar units.
Bundled Services	Solar technology and solutions supply, after-sales support, digital payment solutions.
Technology Focus	Solar home systems including clean cooking stoves, solar mini-grids, battery storage solutions.

**Figure 3: Potential Stakeholders in the Pay-Go Financing Scheme**



### How the Scheme Works

- **Upstream financing** – Green funds, DFIs, and impact investors contribute to the Green Finance Facility
- **MFIs & Solar Providers** – Provide instalment-based solar financing to end-users.
- **End-Users** – Households & SMEs purchase solar with low upfront costs, repaying via mobile or digital app-based payments.
- **Monitoring & Verification** – Digital tracking of payments and energy usage.

## Key stakeholders and Roles

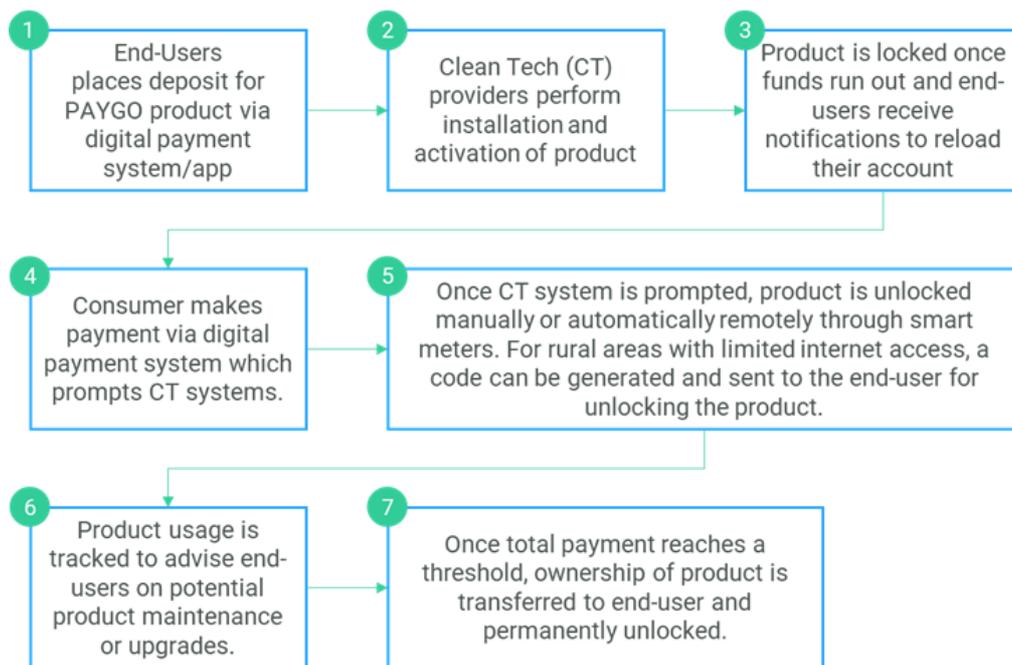
**Table 9: RE – Key Stakeholder and Roles**

Stakeholders	Roles in Financing Scheme	Specific Examples (not exhaustive)
1/ Upstream Finance	Concessional funding includes Green Funds, Sovereign Funds, Impact and Institutional Investors, Development Banks, Private Funds.	GCF, IFC, GGGI
2/ Green Finance (GF) Facility	Blends public/private funds for affordable wholesale financing to BFIs, Clean Technology Providers, Rural Clean Energy Projects.	CCFF, GCPF, DFCD
3/ Guarantee Funds	De-risking mechanism to cover loan defaults to finance Technology Providers for upfront costs in providing clean energy solutions.	N/A
4/ DPs & Donors	Offer technical assistance, capacity building, and initial funding for the scheme.	OXFAM, UNDP, World Bank, ADB
5/ Gov. Agencies	Implement supportive policies, tax incentives, and subsidies to promote clean energy solutions transitions.	MME, EAC, REA, REE
6/ BFIs	Key stakeholder in PAYGO model. Offer tailored loans for clean energy solutions to households, SMEs, and agribusiness	Microfinance Institutions
7/ Equipment Insurance	Develop RE-specific insurance products to mitigate risks associated with system failures or natural disasters.	N/A
8/9/ RE Tech providers and end-users	Key stakeholder in PAYGO model. Supply and install clean energy solutions such as but not limited to high-quality solar systems and offer maintenance services and clean cooking. End-users adopt RE technology solutions.	SOGE, EGE, ATEC, Khmer Green Charcoal (KGC)
10/ Local Authorities & Commune Heads, CSOs, NGOs	Facilitate awareness campaigns and information sharing. Plays a key role in reinforcing social accountability and continual adoption and payment for clean energy solutions.	OXFAM, provincial and local government office including commune council members and chiefs, sangkat chiefs, etc.

**Table 10: Risk matrix in Pay-go Model**

Risks	Definition	Examples	Mitigation
Credit Risk	Risk of default.	End-users fail to complete payments.	Remote tracking, flexible repayments.
Operational Risk	Technology failure or fraud.	Defective solar units, Pay-Go fraud.	Quality assurance, digital monitoring.
Market Risk	Low adoption rate.	High unit costs deter consumers.	Awareness campaigns, financial incentives.

**Figure 4: Pay-Go Operating Model**



## 9. Energy Efficiency – ESCO Model

### Sector Overview

The financing scheme developed for this sector is focused on Energy Services Company financing structures. Cambodia's energy-intensive industries and commercial buildings face high electricity costs. ESCOs help businesses reduce energy consumption through efficiency upgrades. The purpose of the financing is to enable businesses to adopt energy-saving technologies with minimal or shared upfront costs. Figure 5 illustrates the ESCO Financing Scheme, mapping out the key stakeholders and their interconnections.

### Scheme Objectives

- Reduce energy costs through efficiency retrofits.
- Support MFIs in financing ESCOs.
- Improve sustainability in industrial and commercial sectors.

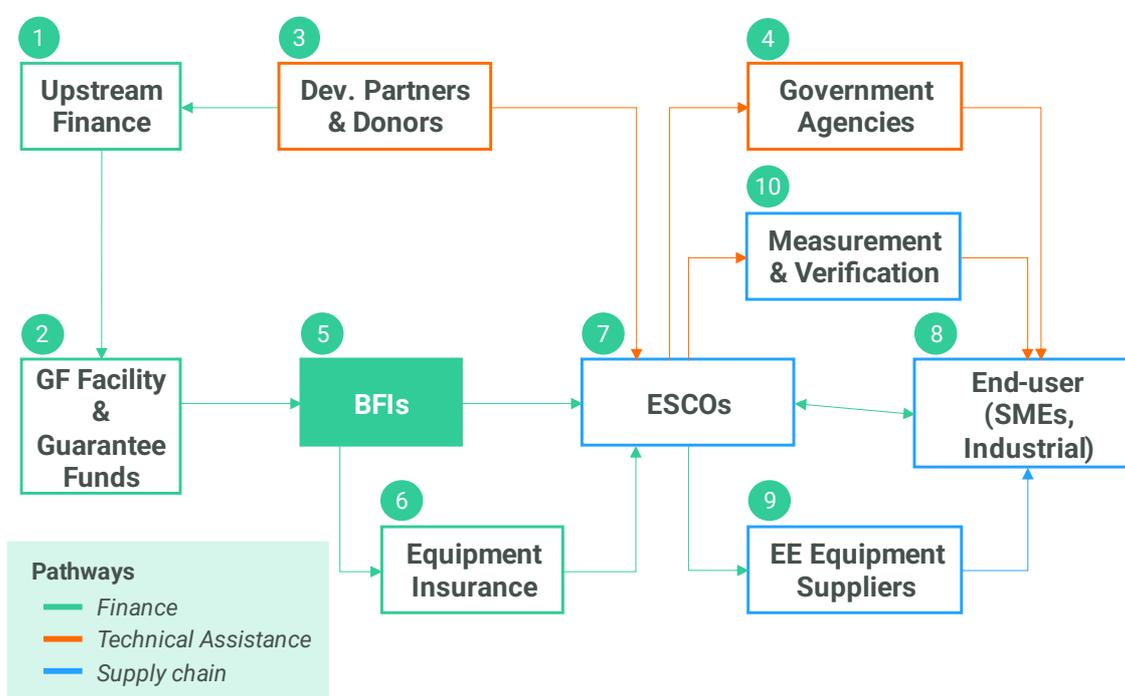
### Key Features of the Scheme

- **Performance or savings-based model.** ESCO guarantees energy savings and assumes risks, ensuring trust between all parties.
- **Incorporating blended finance.** Incorporates funding from development banks, green funds, and private investors to de-risk financing from MFIs and reduce interest rates and improve loan tenure.
- **Support Mechanisms.** Provides technical assistance, training, and policy alignment to encourage uptake of energy-efficient solutions.

**Table 11: Highlights of Features for the Scheme (ESCO)**

Features	Description
Target Beneficiaries / Borrowers	Industrial firms, commercial buildings, SMEs.
Loan Structures	Performance-based financing, shared savings models.
Risk Mitigation	M&V (Measurement & Verification) to track energy savings, performance guarantees.
Bundled Services	Energy audits (part of M&V), efficiency retrofits, equipment maintenance.
Technology Focus	LED lighting, smart-cooling systems and HVAC upgrades, smart energy meters, automation systems.

**Figure 5: Potential Stakeholders in the ESCO Financing Scheme**



### How the Scheme Works

- Upstream Finance – Development banks, green funds finance MFIs & ESCOs.
- MFIs & ESCOs – MFIs provide capital, ESCOs retrofit buildings with efficiency measures.
- End-Users – Businesses repay loans through energy cost savings.
- Measurement & Verification – ESCOs track performance through contracts.

## Key stakeholders and Roles

**Table 12: ESCO – Key stakeholders and Roles**

Stakeholders	Roles in Financing Scheme	Specific Examples (not exhaustive)
1/ Upstream Finance	Concessional funding including Green Funds, Sovereign Funds, Impact and Institutional Investors, Development Banks, Private Funds.	GCF, ADB, IFC, GGGI, EU
2/ Green Finance (GF) Facility	Blends public/private funds for affordable wholesale financing to BFIs, cooperatives, projects.	CCFF, GCPE, DFCD, EERF
3/ DPs & Donors	Provide grants, technical assistance, and capacity-building initiatives to facilitate the development of ESCO models and EE adoption..	UNDP, World Bank, ADB, CAPRED
4/ Gov. Agencies	Set regulatory frameworks, offer incentives (e.g., tax exemptions), and promote EE through policies and strategies.	MME
5/ BFIs	Offer tailored financing products to SMEs and industries to fund ESCO projects especially on working capital loans or CAPEX loans.	Microfinance Institutions
6/ Equipment Insurance	Mitigate risk for financiers and end-users by covering equipment damage, theft, or malfunction.	Forte, Infinity General Insurance
7/ ESCOs	Implement energy efficiency (EE) projects, manage risks, and guarantee energy savings for end-users through EPC models.	Becis, Comin Khmère, Lotus Green Team, Soma Energy
8/ End-user	Beneficiaries of EE projects, such as SMEs, industrial facilities, and commercial building operators who adopt EE technologies.	GFT factories, SMEs in manufacturing, SEZs
9/ EE Equipment Suppliers	Supply energy-efficient technologies such as LED lighting, efficient HVAC systems, or automated energy control systems.	Siemens, LG, Comin Khmère
10/ Measurement & Verification	Ensure project transparency and accountability by validating energy savings and performance against agreed targets. This includes energy audits.	M&V firms, Sevea, Comin Khmère

**Table 13: Risk matrix in ESCO Financing**

Risks	Definition	Examples	Mitigation
Credit Risk	Risk of loan default.	Businesses unable to achieve projected savings.	Strict M&V, performance guarantees.
Operational Risk	Poor ESCO implementation.	Faulty equipment, delays.	Due diligence on ESCOs, training.
Market Risk	Low demand for EE.	High costs deter adoption.	Awareness campaigns, incentives.

## 10. Electric Vehicles – EV Three-Wheelers

### Sector Overview

This financing scheme focuses on electric three-wheeler financing, improving financial inclusivity, accessibility, and affordability for three-wheeler drivers transitioning to electric vehicles. It also encourages ride-hailing platforms to prioritize electric three-wheelers over traditional ones. To address financing barriers, the scheme:

- Stabilizes driver income variability using a shared savings model.
- Improves financial literacy & inclusivity, enabling drivers to secure loans at better terms.
- Incentivizes ride-hailing businesses to promote the electric three-wheeler adoption.

This positions Cambodia's BFIs to tap into a growing EV market, support national green mobility goals, and mitigate loan risks for drivers. Cambodia's EV sector is still nascent, particularly for three-wheelers. Onion Mobility, the country's sole electric three-wheeler provider, introduced the T1 model in 2022 with 300 initial units, yet adoption has been slower than anticipated. Key challenges for drivers include:

- Income variability, making monthly loan payments difficult.
- Lack of financial literacy, collateral, or credit history.
- High financing costs:
- Loan size: \$4,000–\$4,500
- Interest rates: 10–18%
- Down payment: ~20%
- Loan tenure: Typically 4 years, often unaffordable.

Figure 6 illustrates the Electric Three-wheeler Financing Scheme, mapping out the key stakeholders and their interconnections.

### Scheme Objectives

- Reduce energy costs through efficiency retrofits.
- Support MFIs in financing ESCOs.
- Improve sustainability in industrial and commercial sectors.

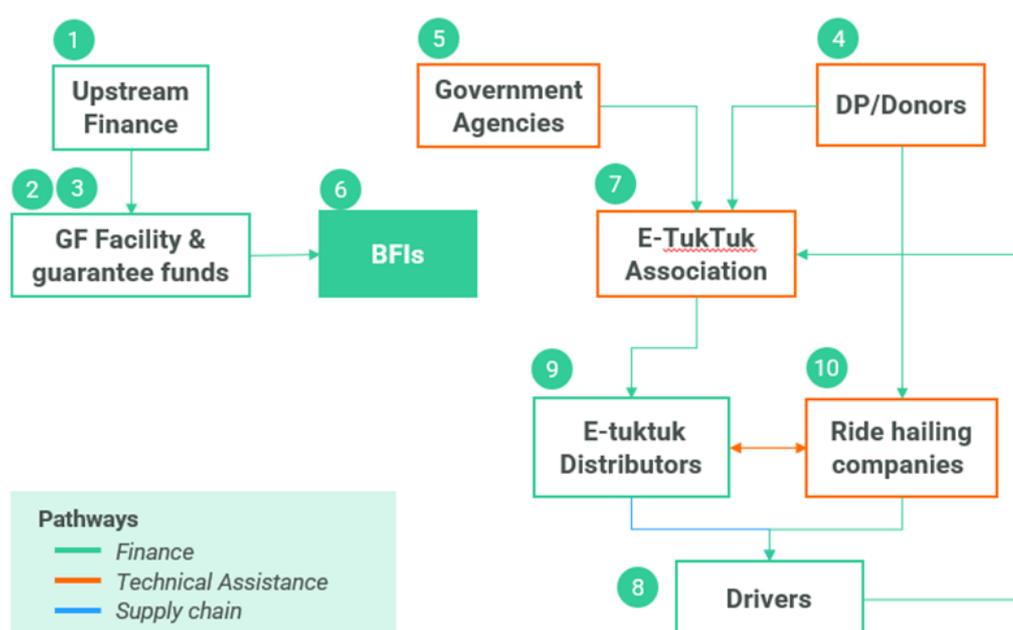
### Key Features of the Scheme

- **Performance or savings-based model.** ESCO guarantees energy savings and assumes risks, ensuring trust between all parties.
- **Incorporating blended finance.** Incorporates funding from development banks, green funds, and private investors to de-risk financing from MFIs and reduce interest rates and improve loan tenure.
- **Support Mechanisms.** Provides technical assistance, training, and policy alignment to encourage uptake of energy-efficient solutions.

**Table 14: Highlights of Features for the Scheme (EV Tuktuks)**

Features	Description
Target Beneficiaries / Borrowers	Industrial firms, commercial buildings, SMEs.
Loan Structures	Performance-based financing, shared savings models.
Risk Mitigation	M&V (Measurement & Verification) to track energy savings, performance guarantees.
Bundled Services	Energy audits (part of M&V), efficiency retrofits, equipment maintenance.
Technology Focus	LED lighting, smart-cooling systems and HVAC upgrades, smart energy meters, automation systems.

**Figure 6: Potential Stakeholders in the EV Three-Wheeler Financing Scheme**



## How the Scheme Works

This scheme leverages three mechanisms to mobilize green finance and drive electric three-wheeler adoption:

- Blended finance to reduce risk for BFs.
- Shared savings scheme managed by an electric three-wheeler association.
- Incentives/subsidies for ride-hailing services to promote electric three-wheelers

### 1. Upstream Financing & Fund Flow

- Sources: International public & private funds (e.g., GCF, GEF, ADB, IFC).
- Channels: Funds flow through a Green Finance (GF) facility and/or guarantee fund (e.g., CCFF).
- Beneficiaries:
  - BFs: Lower interest rates & monthly payments for electric three-wheeler loans.
  - Electric Three-Wheeler Association: Manages shared savings & driver support.

## 2. BFI Lending & Vehicle Acquisition

- BFIs provide loans to electric three-wheeler drivers with lower rates & better terms.
- Drivers use loans to purchase electric three-wheelers from SME suppliers like Onion Mobility.

## 3. Electric three-wheeler Association & Shared Savings Scheme

- Mandatory membership for drivers securing green loans.
- Drivers contribute a small fixed amount monthly to a shared savings pool.
- Funds supplemented by government & donor support.
- Purpose:
  - Provides 0% emergency loans for drivers struggling with repayments.
  - Financial literacy & management training.
  - Technical assistance for monitoring & reporting electric three-wheeler data.

## 4. Stimulating EV Demand via Ride-Hailing Incentives

- Objective: Boost electric three-wheelers ridership, creating demand & BFI opportunities.
- Funds flow from development partners & government agencies (e.g., MME, MEF, MPWT) to ride-hailing companies.
- Main ride-hailing companies: TADA, PassApp, Grab.
- Subsidy mechanism:
  - Allows electric three-wheeler rides to be priced slightly lower than traditional three-wheelers.
  - Upstream funds cover revenue loss for companies & drivers.
  - Encourages customers to choose electric over fuel three-wheelers, reinforcing Cambodia's green transition.

## Key stakeholders and Roles

**Table 15: EV – Key stakeholders and Roles**

Stakeholders	Description	Specific Examples (not exhaustive)
1/ Upstream Finance	Concessional funding including Green Funds, Sovereign Funds, Impact and Institutional Investors, Development Banks, Private Funds.	GCF, Incoffin, ADB, IFC, IFAD, GGGI
2/ Green Finance (GF) Facility	Blends public/private funds for affordable wholesale financing to BFIs, cooperatives, projects.	CCFF, <a href="#">GCPE</a> , <a href="#">DFCD</a> ,
3/ Guarantee Funds	De-risking mechanism to cover loan defaults to finance drivers and cooperatives.	CGCC
4/ DPs & Donors	Provide grants, technical assistance, and capacity building to enhance EV adoption and financial literacy. In some cases, provides guarantee funding and financing through specific GF facilities.	OXFAM, UNDP, USAID, Swisscontact, GGGI
5/ Gov. Agencies	Implement supportive policies, tax incentives, and subsidies to promote EV adoption and	MME, MEF, MPWT

	green financing. Sets the national targets for EVs on the road.	
6/ BFIs	Offer tailored loans for EV technology such as E-motos, E-Tuktuks, electric cars, and electric charging infrastructure	Microfinance Institutions
7/ Electric three-wheeler Cooperatives and Associations	Aggregate three-wheeler drivers, facilitate access to finance, provide technical assistance to monitor and report emission reduction, and coordinate shared saving schemes.	N/A
8/ Three-wheeler Drivers	Individuals who drive three-wheelers and use the three-wheeler to either partially or fully contribute to their income	N/A
9/ electric three-wheeler Distributors	Provides the electric three-wheeler vehicles and parts	Onion Mobility
10/ Ride Hailing Services	Ensure market access and monitor demand for three-wheeler services, largely using mobile apps to match drivers and consumers at real-time prices.	TADA, Grab

**Table 16: Risk matrix in Electric Three-Wheeler Financing**

Risks	Definition	Examples	Mitigation
Credit Risk	Risk of loan default.	Consumers unable to repay.	Flexible repayment models.
Operational Risk	Charging infrastructure gaps.	Few charging stations available.	Public-private partnerships.
Market Risk	High initial costs.	Consumers reluctant to switch to EVs.	Leasing models, tax incentives.

## C. Recommendations for Next Steps

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Expanding green finance in Cambodia requires targeted interventions to address key challenges such as limited financial literacy, high upfront costs, and the absence of standardized guidelines. To support BFIs, especially MFIs, in developing effective green finance products, the following recommendations focus on building capacity, improving accessibility, and ensuring financial sustainability.

Summary of Recommendations:

1. **Recommendation 1:** Develop guidelines or manuals for MFIs to create Sector-Specific Green Finance Products
2. **Recommendation 2:** Conduct a Targeted Analysis of Green Finance Demand and Market Opportunities
3. **Recommendation 3:** Establish a Green Financing Readiness Program for BFIs
4. **Recommendation 4:** Strengthen Awareness and Capacity-Building for Green Finance Adoption
5. **Recommendation 5:** Strengthen ESG Integration in MFI Lending Practices
6. **Recommendation 6:** Strengthen E&S Assessment Capabilities
7. **Recommendation 7:** Create a Centralized Green Fund for MFIs

**Refer to the following pages for the detailed recommendations.**

## Recommendation 1: Develop guidelines or manuals for MFIs to create Sector-Specific Green Finance Products

### Why this Matters

Many MFIs in Cambodia lack the expertise and structured approach to design effective green finance products tailored to key sectors like renewable energy, energy efficiency, sustainable agriculture, and electric vehicles. Without clear guidelines, MFIs face difficulties in assessing risk, structuring loans, and ensuring financial viability, limiting their ability to scale green finance and align with Cambodia’s sustainability goals. Standardized frameworks and technical support will provide MFIs with the knowledge and tools to create practical, accessible, and profitable green finance products.

### What this Involves

- **Developing sector-specific guidelines/manuals** to help MFIs design and implement green financial products with clear eligibility criteria (focusing on climate mitigation, adaptation and resilience), risk mitigation strategies, and monitoring frameworks.
- **Providing capacity-building support** through workshops, training and mentoring, and research to strengthen MFIs’ ability to assess green projects, integrate blended finance, and structure innovative lending mechanisms.
- **Regularly reviewing and updating green finance policies** to align with evolving regulations, market needs, and technological advancements in the targeted sectors.
- **Creating practical tools and templates** that MFIs can use to evaluate project viability, assess borrower risk, and monitor green finance impact

### Examples of Initiatives/Steps

- **Develop and distribute a Green Finance Product Development Guide** outlining key principles, product structures, risk frameworks, and success case studies.
- **Organize capacity-building workshops and on-demand advisory support** to equip MFIs with the skills to design, pilot, and refine sector-specific green financial products.
- **Conduct and facilitate periodic green policy and portfolio reviews** to ensure green finance offerings remain relevant and commercially viable.
- **Establish a Green Finance Knowledge Hub** within CMA to facilitate peer learning, case study sharing, and ongoing technical support.

**Lead:** CMA, NBC, Development Partners

**Support:** Private sector advisory firms, Business and Industrial Associations, Chambers of Commerce,

**Beneficiaries:** Microfinance institutions and their clients

## Recommendation 2: Conduct a Targeted Analysis of Green Finance Demand and Market Opportunities

### Why this Matters

Despite growing interest in green finance, existing studies provide only high-level insights, lacking granular data on sector-specific demand, financing barriers, and end-user behavior. Without this information, MFIs struggle to develop tailored financial products, assess market viability, and allocate resources effectively. A deeper, data-driven analysis will help MFIs prioritize green finance products that align with actual market needs and ensure long-term sustainability.

### What this Involves

- **Comprehensive Market Research:** Conduct an in-depth study to map sector-specific green finance demand across agriculture, renewable energy, energy efficiency, and electric vehicles.
- **Segmentation & Demand Personas:** Identify distinct borrower profiles, financing needs, and investment barriers across regions and industries to help MFIs design targeted lending solutions.
- **Competitor & Best Practice Benchmarking:** Analyse existing green finance products by banking institutions, both locally and internationally, to identify gaps and opportunities for Cambodian BFIs.

### Examples of Initiatives/Steps

- Stakeholder Consultation & Ideation Workshops – Engage MFIs, regulators, and industry players to define key market gaps and research priorities.
- Surveys & Focus Group Discussions – Conduct structured engagements with MSMEs, farmers, and businesses to understand financing needs and challenges.
- Key Informant Interviews (KIIs) – Gather insights from financial institutions, green technology providers, and policymakers on market demand dynamics.
- Quantitative/Qualitative Market Sizing & Data Analysis – Use primary and secondary data to estimate market potential, funding gaps, and investment opportunities.
- Develop a Green Finance Demand Report – Publish findings and recommendations to guide MFIs in structuring sector-specific green finance products.

**Lead:** CMA, Development Partners

**Support:** Private sector

**Beneficiaries:** BFIs including MFIs and other financial sector actors.

### Recommendation 3: Establish a Green Financing Readiness Program for BFIs

#### Why this Matters

Many MFIs in Cambodia face challenges in securing green funding due to a lack of capacity in meeting international funders' requirements. Without structured support, MFIs struggle with proposal development, ESG compliance, risk assessment, and impact measurement—hindering their ability to access green finance opportunities. A readiness program will equip MFIs with the technical expertise and strategic tools needed to successfully apply for and deploy green funds.

#### What this Involves

- **Building Institutional Capacity:** Provide structured training on green finance application processes, proposal writing, and fund management.
- **Enhancing ESG Compliance & Risk Management:** Develop standardized ESG strategies, risk frameworks, and Environmental & Social (E&S) assessments tailored for MFIs.
- **Facilitating Green Fund Access:** Support MFIs in identifying suitable green finance sources (e.g., ADB, GCF, CCFF) and structuring competitive funding proposals.
- **Customizing Green Finance Implementation Plans:** Assist BFIs in integrating green finance into their business models through phased advisory support and operational guidance.

#### Examples of Initiatives/Steps

- Launch a Green Finance Readiness Program – Develop a structured curriculum covering fund applications, risk management, ESG strategy, and financial modelling.
- Build Strategic Partnerships with Development Finance Institutions (DFIs) – Facilitate collaboration between MFIs and international green funding bodies.
- Develop Tailored Advisory & Application Support – Provide hands-on assistance to MFIs in structuring fund applications, identifying eligible projects, and aligning with donor criteria.
- Create ESG & E&S Assessment Toolkits – Develop templates, checklists, and reporting guidelines to help MFIs integrate sustainability considerations into their lending operations.
- Pilot & Scale the Readiness Program – Implement a phased rollout, starting with a few MFIs, refining the approach, and expanding based on best practices.

**Lead:** Advisory firms, Development Partners, CMA

**Support:** NBC, MEF, Green funds (ADB, CGCC, etc), Investors and BFIs, Oxfam and other Dev. Partners

**Beneficiaries:** BFIs including MFIs

## Recommendation 4: Strengthen Awareness and Capacity-Building for Green Finance Adoption

### Why this Matters

Limited awareness and technical knowledge among MFIs, end-users, and key stakeholders remain a major barrier to scaling green finance in Cambodia. Many financial institutions lack the expertise to develop and assess green finance products, while businesses and consumers are often unaware of the benefits, eligibility criteria, and opportunities for green financing. Addressing this knowledge gap is essential to increase market demand, encourage financial innovation, and drive broader adoption of sustainable financing solutions.

### What this Involves

- Raising Market Awareness: Launch targeted public campaigns to educate businesses, MFIs, and consumers on the benefits of green finance.
- Providing Technical Training: Organize workshops and training programs for MFIs and financial professionals on structuring and managing green finance products.
- Integrating Green Finance into Education: Develop training modules for universities, trade schools, and vocational institutions to equip future professionals with green finance knowledge.
- Collaborating with Development Partners: Work with NGOs, donors, and private sector stakeholders to provide technical assistance, advisory services, and sector-specific training.

### Examples of Initiatives/Steps

- Public Awareness Campaigns – Develop outreach initiatives (webinars, digital content, roadshows) targeting businesses and financial institutions to increase green finance adoption.
- MFI-Focused Training Programs – Provide capacity-building sessions on assessing green projects, managing risk, and integrating ESG frameworks into lending.
- Green Finance Education in Schools & Universities – Introduce curriculum content on sustainable finance, climate investment, and project assessment.
- Sector-Specific Technical Workshops – Train financial and industry professionals on financing models tailored to renewable energy, energy efficiency, agriculture, and electric mobility.
- Industry Collaboration & Knowledge-Sharing – Establish learning platforms and peer-exchange forums where MFIs, SMEs, and policymakers can share best practices.

**Lead:** CMA, Development Partners, CSOs

**Support:** Private sector associations

**Beneficiaries:** Civil society, industry markets, businesses, students

## Recommendation 5: Strengthen ESG Integration in MFI Lending Practices

### Why this Matters

Environmental, Social, and Governance (ESG) standards are increasingly important for securing international funding and ensuring the long-term viability of green finance projects. By integrating ESG principles into lending operations, MFIs can enhance risk management, attract investment, and improve the sustainability and impact of their loan portfolios. However, many MFIs in Cambodia lack clear ESG guidelines, technical expertise, and alignment with emerging national and international sustainability frameworks.

### What this Involves

- **Developing ESG Guidelines:** Establish standardized ESG criteria for lending practices, aligned with Cambodia’s green finance taxonomy and international best practices.
- **Capacity Building & Training:** Provide training programs to help MFIs assess and implement ESG principles in loan origination, monitoring, and reporting.
- **Stakeholder Collaboration:** Engage with regulatory bodies, green funds, and investors to align ESG frameworks with Cambodia’s evolving financial regulations and market conditions.
- **Incorporating ESG in Risk Management:** Equip MFIs with tools to evaluate social and environmental risks associated with their lending activities and ensure compliance with sustainability objectives.

### Examples of Initiatives/Steps

- **Align ESG Standards with Cambodia’s Sustainable Finance Framework** – Work with the National Bank of Cambodia (NBC), ABC, and relevant stakeholders to ensure consistency between ESG guidelines and the national green finance taxonomy.
- **Develop and Publish ESG Implementation Guidelines for MFI sector** – Provide practical frameworks, case studies, and tools for integrating ESG principles into lending processes.
- **Training and Capacity-Building Programs** – Organize workshops to equip MFIs with skills to assess ESG risks, integrate impact metrics, and adopt best practices.
- **Establish ESG Reporting and Compliance Mechanisms** – Support MFIs in implementing ESG reporting structures that align with investor and regulatory requirements.
- **Create an ESG Integration Roadmap for MFIs** – Outline phased implementation strategies to gradually incorporate ESG standards into different types of financial products.

**Lead:** CMA, Development Partners, Advisory Firms

**Beneficiaries:** BFIs including MFIs

**Support:** NBC, Green Funds and Facilities

## Recommendation 6: Strengthen E&S Assessment Capabilities

### Why this Matters

Investors and green finance stakeholders increasingly require robust Environmental & Social (E&S) safeguards to ensure that financed projects contribute positively to sustainability goals while mitigating risks. Without strong E&S assessment capabilities, MFIs may struggle to attract green investment, meet regulatory requirements, and ensure the long-term viability of their projects. Strengthening E&S integration in lending operations will enhance transparency, accountability, and risk management for green finance initiatives.

### What this Involves

- Developing a Standardized E&S Assessment Framework – Establish a clear methodology for MFIs to assess environmental and social risks and benefits in their lending processes.
- Creating Practical Tools for E&S Impact Monitoring – Design checklists, templates, and digital tools for MFIs to track, measure, and report the environmental and social performance of funded projects.
- Capacity Building & Training – Equip MFI staff with the knowledge and technical skills needed to implement E&S assessments effectively.
- Piloting & Refining the Framework – Test the developed framework with select MFIs, collect feedback, and refine the tools for broader adoption.

### Examples of Initiatives/Steps

- Develop & Distribute an E&S Monitoring Toolkit – Provide MFIs with structured tools, including risk assessment templates, impact measurement guidelines, and reporting frameworks.
- Organize Capacity-Building Workshops – Train MFI staff, stakeholders, and loan officers on best practices in E&S due diligence and risk assessment.
- Launch a Pilot Program for Select MFIs – Implement the framework within a controlled group of MFIs to refine tools based on real-world challenges and feedback.
- Facilitate Third-Party E&S Audits – Collaborate with external experts to conduct periodic reviews and provide recommendations for continuous improvement.
- Integrate E&S Assessment into MFI Loan Decision Processes – Ensure that environmental and social risks are systematically evaluated as part of loan origination and approval workflows.

**Lead:** Development Partners, Advisory Firms, NBC

**Support:** Private sector, ESG and Sustainability Experts

**Beneficiaries:** BFIs including MFIs

## Recommendation 7: Create a Centralized Green Fund for MFIs

### Why this Matters

Many MFIs in Cambodia lack the capital and financial resources to independently scale green finance offerings. A centralized green fund can mobilize concessional financing, enabling MFIs to offer more affordable green loans while de-risking their investments. By pooling resources from development partners, international organizations, government agencies, and private investors, this fund can serve as a catalyst for accelerating Cambodia's green finance sector.

### What this Involves

- Creating a Multi-Donor Green Finance Facility – Establish a centralized fund that aggregates financing from multiple sources to provide concessional loans, guarantees, or grants for MFIs.
- Designing Transparent Access Criteria – Develop clear eligibility requirements, funding structures, and application processes for MFIs to access the fund.
- Building Technical Assistance Support – Provide MFIs with guidance on structuring proposals, improving project bankability, and aligning with green finance standards.
- Implementing a Robust Monitoring & Evaluation (M&E) Framework – Track fund utilization, impact metrics, and loan performance to ensure accountability and scalability.

### Examples of Initiatives/Steps

- Engage Key Funders & Stakeholders – Identify and secure commitments from international development organizations, government agencies, private investors, and green finance facilities.
- Define Fund Objectives & Eligibility Criteria – Establish priority sectors, financing mechanisms (loans, guarantees, grants), and risk-sharing provisions.
- Develop fund structure
- Launch a Pilot Funding Round – Test the fund's accessibility, application process, and financial impact on early MFI adopters.
- Develop Capacity-Building Support for MFIs – Offer training and advisory services to help MFIs meet fund requirements and optimize loan structuring.
- Monitor & Evaluate Fund Performance – Establish key performance indicators (KPIs) to assess environmental and social impact, repayment rates, and market uptake.

**Lead:** Development Partners, NBC

**Support:** CCFF, Green Funds and Facilities

**Beneficiaries:** BFIs including MFIs and their clients

## D. Concluding Remarks

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As Cambodia advances its economic and sustainable development goals, green finance has become a critical enabler of resilience, inclusivity, and long-term growth. Climate change and environmental challenges pose increasing risks to key sectors such as agriculture, energy, and transport, while at the same time, the transition to a green economy presents significant opportunities for innovation, investment, and financial inclusion. In this context, Microfinance Institutions (MFIs) play a crucial role in mobilizing capital for underserved communities, smallholder farmers, and small and medium enterprises (SMEs) to adopt sustainable solutions.

This report provides MFIs and financial stakeholders with a strategic framework to integrate green finance into their portfolios, outlining key market opportunities, financing schemes, risk mitigation strategies, and enabling conditions necessary to scale green financial products. By leveraging blended finance models, risk-sharing mechanisms, and innovative loan structures, MFIs can enhance financial access to climate-smart agriculture, renewable energy, energy efficiency, and electric vehicle solutions while ensuring financial sustainability.

To fully realize the potential of green finance, MFIs must continue to strengthen their institutional capacities, develop sector-specific financial products, and collaborate with development partners, donors, and government agencies. Capacity-building initiatives, regulatory support, and investment readiness programs will be key to unlocking additional green funding and improving MFIs' ability to assess and finance sustainable projects.

The path forward requires proactive engagement from MFIs, policymakers, and financial stakeholders to accelerate the adoption of green finance instruments. By doing so, MFIs will not only strengthen their market positioning but also contribute to Cambodia's broader sustainability agenda—driving economic resilience, environmental protection, and inclusive growth. The transition to a green financial system is both an opportunity and an imperative, and the time to act is now.

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## Appendices

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### Appendix 1. Executive Summary: Global Landscape and Case Studies in Green Finance

Phase Three of CMA's Green Finance Study: "International Benchmarking Green Finance Instruments", provides a comprehensive analysis of the global green finance landscape, focusing on its applicability to Cambodia. This report examines various green finance instruments (GFIs) that can be leveraged to accelerate sustainable development in 4 key sectors.

#### The Global Green Finance Market

The global green finance market has seen significant growth, valued at \$4.18 trillion in 2023 and expected to reach \$28.71 trillion by 2033. The ASEAN region accounts for 2% of global green debt financing with ASEAN's green finance market having issued approximately \$58.16 billion in green debt instruments from 2016 to 2023. This growth is driven by increased awareness of climate change and the urgent need for sustainable development. Countries worldwide have responded by introducing innovative financial instruments and elaborate policies. International forums such as COP29 and the G20 Summit have increased global scrutiny on green and climate finance.

The global Green, Social and Sustainability and Sustainability-Linked (GSS+) bond market stood at \$5.4 trillion in Q3 2024, of which green bonds accounted for over 60% of the volume. Cumulative green bond issuances reached \$3.3 trillion in Q3 2024, with China, the USA, and Europe being the biggest issuers of green bonds. Although the public sector has traditionally been the source for funding green and net-zero objectives, this booming space represents an emerging opportunity for both the private sector investment and project developers.

#### Risks and Challenges

However, challenges to the global green finance market persist. A meaningful climate transition demands a massive financial commitment, with annual climate investment gap standing at \$2.7 trillion. Of this, annual investments \$2.4 trillion and \$400 billion are required for climate mitigation and adaptation respectively. This shortfall, representing 1.8% of global GDP, poses a significant challenge, particularly for developing and emerging economies that face heightened climate risks, underscoring the urgency of robust green finance instruments. Additionally, several risks hinder the mobilisation of further capital flows, particularly the high-risk perception of these segments.

Other key risks, especially seen in emerging and developing markets, include time horizon mismatches, lack of project finance, high transaction costs, and difficulties in quantifying impact and translating this to financial metrics. Given these challenges faced by private investors and project developers for sustainability or green projects, various financial instruments and mechanisms have been developed and deployed to address these barriers and de-risk investments.

**Green Finance Instruments**

The report identifies 4 main types of GFIs that have shown promise in various markets and could be adapted for Cambodia:



**Thematic bonds**

Fixed-income securities issued by governments, municipalities or companies, designed to channel investment into specific sectors or themes that address environmental, social or sustainability challenges

Allow targeting of specific SDGs, and benefit investors in balancing portfolio risk and ensure greater investor diversification for issuers by allowing access to new pools of funds, whilst gaining environmental and social credentials

Include green bonds, social bonds, sustainability bonds, blue bonds, yellow bonds, gender bonds, transition bonds etc.,

**Applicability for Cambodia:**

Growing investor appetite for green and solar bonds, supported by developments like GSS+ bond guidelines issued by the Securities and Exchange Regulator of Cambodia (SERC) and the Green Bond Issuance Handbook support. The Cambodia Sustainable Bond Accelerator Program can aid in expanding the development of the bond market, with the RE and EE sectors’ potential being recognised for green bonds.

**Case studies**

Renewable energy	Energy efficiency	Electric vehicles	Agriculture:
AC Energy bond in Vietnam and Philippines for solar and wind projects	Indonesian’s Green Bond and Green Sukuk Initiative	Mufin Green Finance’s \$7 million green bond	100% Agricultural Green Bond in India

**Green/climate funds**

Green or climate funds are financial mechanisms established to support projects aimed at funding green, climate or sustainability interventions.

Typically created by international organisations, governments, or coalitions of countries, these funds mobilise resources from various sources, including public budgets, private sector investments, and international donations.

They leverage various financial instruments such as grants, concessional loans, equity investments, and guarantees to finance initiatives across multiple sectors. By providing targeted funding, risk-

sharing and de-risking mechanisms, green/climate funds aim to facilitate the transition to low-carbon economies and enhance resilience against climate impacts in vulnerable communities.

**Applicability for Cambodia:**

Cambodia’s successful engagement with the GCF through the Cambodia Climate Financing Facility (CCFF) for supporting RE, EE, EV and agriculture holds precedence for the country to deepen its reach with other multilateral and sector-specific funds. The country’s supportive policy environment and targeted pilot projects provide a foundation for leveraging these funds.

Case studies			
Renewable energy	Energy efficiency	Electric vehicles	Agriculture:
Renewable Energy Asia Fund II	Thailand Energy Efficiency Fund	ADB Ventures Investment Fund	Agri-Business Capital Fund (ABC Fund)

**Blended finance**

Blended finance utilises public and philanthropic funding to draw in private sector investments for sustainability and climate initiatives.

This approach enables financial institutions with varying objectives to engage in sustainability projects by reducing associated risks and enhancing their appeal to private investors.

Risk reduction is accomplished through various mechanisms, including concessional capital, guarantees, risk insurance, technical support, and grants for project design, with concessional debt or equity being the most frequently employed tools.

**Applicability for Cambodia:**

Blended finance has emerged as a powerful tool for enabling green investments in Cambodia with examples in the solar power and forestry sectors. This instrument has been stated as a key solution to expedite the clean energy transition to address the issue of lack of funding and limited capacity.

Case studies			
Renewable energy	Energy efficiency	Electric vehicles	Agriculture:
Zimbabwe Gender-Responsive Clean Energy Facility	China Utility-Based Energy Efficiency Blended Finance Facility (CHUEE)	World Bank & SIDBI EVOLVE Blended Finance Facility	YES Bank & SEWA Rann of Kutch Blended Finance Facility

**Outcome-based finance**

Outcome-based financing (OBF) instruments are innovative financial instruments that link payments to the achievement of predefined environmental or social outcomes.

By transferring some performance risk to the implementing parties or investors, these tools provide risk sharing mechanisms aligning interests closely with desired outcomes. By creating potential financial returns for projects that might not otherwise generate them, OBF can attract private investment to conservation and sustainability efforts.

**Applicability for Cambodia:**

OBF instruments, although at early stages, shows promising potential with the Cambodia Sustainable Bond Accelerator aiming to accelerate the GSS+ bond market, including SLLs and SLBs. The key features of OBF instruments provide solutions to bridge the climate finance gap in the nation

#### Case studies

Renewable energy	Energy efficiency	Electric vehicles	Agriculture:
Sembcorp's SGD 675 million SLB	Tata Capital's \$50 million SLB	Orient Corporation's SLL	Uzbekistan Indorama Agro's \$15 Million SLL

### Recommendations

After analysing sector-specific case studies and evaluating the success factors for various green finance instruments in sectors such as RE, EE, EV and agriculture, key considerations for each instrument were developed. These key considerations were selected to ensure the success of green finance instruments ranging from policy/regulatory-level, financial sector-level to industry-level interventions. Key considerations included:

#### Thematic bonds

- Ensuring clean and ambitious targets to avoid greenwashing concerns
- Implementing robust monitoring, reporting and verification systems
- Developing standardised methodologies for measuring impacts
- Promoting certification to enhance investor confidence
- Establishing clear guidelines and standards

#### Green/climate funds and blended finance

##### Accessing capital from funds/facilities:

- Ensuring understanding of capital providers' priorities and any restrictions/criteria for sector-specificity and debt/equity-specificity
- Ensuring preparedness for compliance (ability towards deployment, structuring, sectoral or regional knowledge, and bearing any potential associated compliance costs)

##### Structuring funds/facilities:

- Effective and tailored risk mitigation that addresses specific market barriers or failures
- Effective deployment of catalytic capital to strategically enhance the risk-return profile of investments (enabling risk diversification through risk pooling or tranching to attract different private capital sources)
- Bringing in meaningful additionality: structure enables projects that would not otherwise attract private investment

#### Outcome-based financing

- Mitigating greenwashing concerns by avoiding ambiguous language and claims
- Ensuring adequate monitoring, reporting and verification systems, especially through third-party verification to confirm compliance
- Providing details on annual reports and fund allocation

- Implementing transparent revenue-sharing models and adhering to emerging standards to ensure transparent mechanisms

### **Conclusion**

While challenges persist, the green finance market demonstrates remarkable resilience and potential. By being aware of and addressing risks such as high transaction costs, project finance limitations, and impact quantification, stakeholders can unlock transformative sustainable investments across renewable energy, energy efficiency, electric vehicles, and agriculture sectors. The path forward demands collaborative efforts from governments, private sector entities, and international organisations to bridge the investment gap and accelerate the global transition to a low-carbon, climate-resilient future.

***Note: Kindly refer to “Global Green Finance Landscape and Benchmarking (Phase 3)” for full details and insights.***

## Appendix 2. Executive Summary: Cambodia Green Finance Landscape Assessment

This report is intended to be read with a foundational understanding of Cambodia's current status of green finance as detailed in Sevea's landscaping report: *Cambodia Green Finance Landscape Assessment*. The landscaping report provides BFI's green finance instrument development an assessment of green finance from a global perspective, the Cambodian context, and sector-specific opportunities and risks.

### Current Green Finance in Cambodia

Cambodia's cross-sectoral sustainable development is led by the national pentagonal strategy. Cambodia has additionally mobilized various climate change policies and targets that guide green finance growth:

- Cambodia Climate Change Strategic Plan 2014-2023
- The National Monitoring and Evaluation (M&E) Framework for the response to Climate Change
- Nationally Determined Contribution (NDC) 2020 Biennial Update Report (BUR) was submitted in 2020 with the Third National Communication (TNC) in 2022.
- Long-Term Strategy for Carbon Neutrality (LTS4CN) submitted in 2021 with a 2050 carbon neutral target and net zero emission.
- The National Energy Efficiency Policy and the Power Development Plan (PDP), approved in 2022.

Regulatory guidance is key to integrating green finance into Cambodia's banking and financial (BFI) sector. Since 2019, the Cambodian Sustainable Finance Principles have been the guiding light for green finance in Cambodia with 48 banks voluntarily adopting these principles. Cambodia's capital markets are led by the Green Sustainable and Social Bond Guidelines which are expected to be updated in 2025 by the SERC. One critical piece of regulation impeding green finance in Cambodia is a national, green/sustainable taxonomy. A taxonomy is important for identifying environmentally sustainable activities and assets, increasing investor confidence, and to reduce greenwashing risk. The National Bank of Cambodia (NBC) and IFC is expected to phase-release the taxonomy in 2025, focusing on the energy and transportation sector.

Activity in green finance in Cambodia remains relatively fractured among ecosystem players and project based. National bodies and international development partners focus efforts on technical assistance, funding support through grants, loans and guarantees, and thematic education/awareness raising. These actors include but are not limited to Oxfam, UNDP, IFAD and ADB, CGCC, and NBC. The Cambodian Bond Accelerator Program is one partnership initiative that supports the private sector in issuing green bonds. Local beneficiaries of this program include Amret Plc., Golden Tree Ltd., and Royal Group Phnom Penh SEZ for 2023, and SchneiTech, LOLC MFI, and Wing Bank in 2024<sup>11</sup>. The supply of green finance is expected to

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<sup>11</sup> B2B Cambodia. (2024). [Cambodia Sustainable Bond Accelerator Program Selects Three Local Companies For 2024 Phase I B2B](#)

significantly increase as the Cambodian Climate Financing Facility (CCFF) is implemented. The CCFF will set up a \$100 million loan facility to provide long term concessional funding to the private market in sustainable projects and wholesale funding to financial institutions in Cambodia's green economy.

MFIs play a crucial role in the development and supply of green finance. Their proximity to rural and developing communities allows them access to green funding and are equipped with the knowledge to tailor their services to the needs of their clients. Over the past few years, microfinance institutions have demonstrated significant progress in advancing green finance through credit guarantee agreements<sup>12</sup>, CBSA participation, blended finance agreements<sup>13</sup>, and other international funding agreements.

### Opportunities and Barriers for Green Finance in Cambodia

Cambodia faces several barriers in scaling green finance domestically and accessing green finance internationally: There is a need for a robust green taxonomy, lowering bottom-line-loss perceptions of green finance projects, building realistic data and M&E processes and expectations for Cambodian businesses, and stabilizing the green finance market pipeline.

Despite these challenges, profit-opportunities for BFI exist across four key sectors: RE, EE, Agri, and EV. In each of the sectors, the Asian development Bank and IFC has identified the financing gap and potential green finance opportunities for BFIs. The market opportunity for green finance in climate smart agriculture is \$80 million, EE is \$500 million, RE is \$1 billion, and the EV market is \$1.5 billion<sup>14</sup>. These sectors are each characterised by unique demand factors, market risk, regulatory policies, and client financing needs which are detailed in the scheme considerations below.

**Note: Kindly refer to “Cambodia Landscape Assessment Report (Phase 2)” for full details and insights.**

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<sup>12</sup> CGCC. (2021). [Signing ceremony between CGCC and Chamroeun MFI to support SMEs in Rural Area](#)

<sup>13</sup> 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](#)

<sup>14</sup> ADB. (2024). Cambodia's Potential Financing Gap to 2030.