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Cambodia Microfinance Association



**OXFAM**

ADVANCING SUSTAINABLE FINANCE IN CAMBODIA

# GREEN LOAN

## P L A Y B O O K

A practical guide for designing,  
piloting, and scaling green loan  
products

Funded By:



**Government  
of Ireland**  
International  
Development  
Programme

An initiative under the Climate Resilience for All (CREFA)  
project implemented by Oxfam in Cambodia in partnership  
with The Cambodia Microfinance Association and funded by  
the Government of Ireland.

## **Disclaimer**

*This Green Loan Playbook was developed under Oxfam’s Climate Resilience for All (CREFA) project in partnership with the Cambodia Microfinance Association (CMA), funded by the Government of Ireland under the International Development Programme. The author(s) do not guarantee the accuracy, reliability or completeness of the content included in this work, or for the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The findings, interpretations, views, and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the Irish Aid policy.*

*The Playbook was prepared by Sevea, who led the overall structure, technical content development, and adaptation of international green finance principles to the Cambodian microfinance context.*

*The development process benefited from the valuable inputs of CMA member institutions, sector practitioners, and technical advisors who contributed through consultations and validation workshops. Their practical insights helped ensure that the guidance reflects operational realities and supports responsible, client-centered green lending.*

*The author(s) would like to extend sincere appreciation to all stakeholders who contributed to this guideline, and especially to the Cambodia Microfinance Association (CMA) members, Project Advisors from Oxfam in Cambodia, the co-authors and technical contributors, banking and financial experts, and other sector stakeholders who had kindly provided support and insights in the development of this document.*

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# Table of contents

<b>GLOSSARY OF KEY TERMS</b> .....	<b>4</b>
<b>ABOUT THIS PLAYBOOK</b> .....	<b>6</b>
<b>HOW TO USE THIS PLAYBOOK</b> .....	<b>7</b>
What is this playbook for? .....	8
Who This Playbook Is For .....	9
What You Do <i>Not</i> Need Before You Start.....	10
How this playbook is structured .....	11
Institutional Green Finance Maturity Scale .....	12
<b>CHAPTER 1: CLIMATE CHANGE, GREEN FINANCE, AND THE END GOAL</b> .....	<b>15</b>
1.1. Why Green Finance Matters in Practise .....	16
1.2. Green Finance as a Credit Discipline .....	16
1.3. Snapshot of Cambodia’s Green Finance Landscape .....	17
1.4. Your Positioning as an MFI and What to Watch Out For.....	18
<b>CHAPTER 2: DEFINING “GREEN” IN THE CAMBODIAN MICROFINANCE CONTEXT</b> .....	<b>22</b>
2.1. Establishing a Common Understanding of “Green” .....	22
2.2. Core Principles for Green Loan Design .....	25
2.3. Safeguarding: Applying the “Do No Significant Harm” Principle.....	28
2.4. Identifying Opportunities for Green Investments .....	30
<b>CHAPTER 3: BUILDING INSTITUTIONAL READINESS</b> .....	<b>34</b>
3.1. Establishing a Clear Green Strategy .....	34
3.2. Green Coordination and Accountability .....	35
3.3. Defining Your Green Credit Appraisal and Risk Assessment Standards .....	38
3.4. Aligning Green Finance with CERISE+SPTF Universal Standards for Social and Environmental Performance Management (USSEPM).....	41
3.5. Embedding Green Finance Across the Credit Lifecycle .....	45
<b>CHAPTER 4: DESIGNING, PILOTING AND IMPLEMENTING GREEN LOAN PRODUCTS</b> .....	<b>51</b>
4.1. Designing your product .....	51
4.2. Pilot Testing and Evaluation .....	60
4.3. Product Launch.....	65
4.4. Monitoring Green Loans in Practice .....	68
4.5. Turning monitoring into better decisions .....	76
<b>ANNEX</b> .....	<b>81</b>
Annex 1. Key Resources and Links .....	81
Annex 2. Indicative List of Eligible Green Activities .....	81
Annex 3. Example Positive List (Whitelist) for Green Lending (Mitigation and Adaptation Solutions) .....	83
Annex 4. ESS and DNSH Safeguarding Checklist for Green Loans .....	86

Annex 5. Adherence to Environmental, Social and Governance Principles and Clients Protection Principles.....	88
Annex 6. Various Templates.....	90
Annex 7. First 6-month Green Loan Roadmap.....	93

## Glossary of Key Terms

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**Approved Vendor List (Whitelist of Vendors).** A list of suppliers or installers that meet minimum quality and service standards. Used to reduce equipment failure and repayment risk.

**Asset Performance Risk.** The risk that a financed green asset does not generate the expected savings or income (e.g., solar underperformance, pump failure).

**Cash-Flow Impact Assessment.** Evaluation of how the green investment affects the borrower's income and expenses, including timing of benefits.

**Climate Exposure.** The degree to which a client's livelihood is vulnerable to floods, droughts, heat stress, or storms.

**Climate Adaptation Investments.** Investments that help clients adjust to climate risks such as floods, droughts, heat, or unpredictable weather. In lending terms, adaptation improves income stability or asset protection in climate-exposed sectors.

**Climate Mitigation.** Investments that reduce greenhouse gas emissions or fossil fuel use, such as solar energy or energy-efficient equipment.

**Climate-Smart Agriculture (CSA).** Farming practices that improve productivity while increasing resilience to climate shocks (e.g., drip irrigation, resilient seeds, net houses).

**Collections with Diagnostic Lens.** Reviewing arrears to determine whether repayment stress is behavioural or linked to asset failure, climate shock, or unrealistic assumptions.

**Do No Significant Harm (DNSH).** A principle ensuring that a green loan does not unintentionally cause environmental or social harm (e.g., financing illegal land clearing or groundwater depletion).

**Debt Service Coverage Ratio (DSCR).** A measure of a borrower's ability to repay a loan from available cash flow. For green loans, assumptions should be conservative.

**Eligibility Criteria (Green Eligibility).** Clear rules that define which assets or activities qualify as green under the institution's approved whitelist.

**Exclusion List.** A list of activities that must not be financed, regardless of other factors (e.g., illegal logging, harmful water extraction, fossil fuel expansion).

**Escalation Trigger (Red Flag).** A condition that requires review by Credit or Risk before approval (e.g., unknown vendor, no warranty, unrealistic yield projection).

**ESG (Environmental, Social, and Governance).** Factors that may affect repayment risk or client well-being, such as environmental exposure, social safeguards, or vendor reliability.

**ESG Materiality.** Focusing only on ESG risks that could realistically affect repayment, asset performance, or client livelihood, rather than assessing everything.

**Green Loan.** A loan that finances an eligible green activity, such as renewable energy, climate-resilient agriculture, or water solutions, in line with the institution's approved definition.

**Greenwashing.** Misclassifying a conventional loan as green without meeting defined eligibility or safeguards.

**Grace Period.** A period where principal repayment is delayed, often used when green investments require time before generating savings or income.

**Grace Period Misuse.** Repeated use of grace periods indicating structural mismatch between loan structure and income cycle.

**Installation Verification.** Basic confirmation during monitoring that the financed asset is installed and being used.

**Loan Tagging (Green Tagging).** Coding loans in the MIS to track green portfolio performance.

**Monitoring (Green Monitoring).** Routine follow-up to confirm the loan was used for its intended green purpose and to detect recurring risks early.

**Performance-Based Adjustment.** Changes to loan conditions (e.g., tenor, monitoring frequency) based on observed repayment or asset performance patterns.

**Positive List (Whitelist).** An approved list of eligible green technologies or activities that Loan Officers can reference directly.

**Portfolio-at-Risk (PAR).** The percentage of loans overdue beyond a defined period (e.g., 30 days). For green loans, repayment patterns beyond PAR are also important signals.

**Repayment Pattern Analysis.** Reviewing repayment behaviour (e.g., repeated grace use, partial payments) to detect structural stress, not just arrears.

**Resilience.** The ability of clients to maintain income and repay loans despite climate shocks or environmental stress.

**Semi-RAS (Recirculating Aquaculture System).** Water-efficient fish farming system that improves productivity and reduces climate exposure.

**Cambodia Sustainable Finance Taxonomy.** A national classification framework that defines which activities are environmentally sustainable in Cambodia.

**Tenor.** The length of time over which the loan is repaid. For green loans, tenor should reflect the asset's payback period and income cycle.

**Transition Risk.** The risk that clients adopting new technology face temporary income instability before benefits materialize.

**Vendor/Installer Vetting.** Basic checks to ensure suppliers have a track record, warranty, and after-sales service to reduce repayment risk.

**Vendor Risk Concentration.** High exposure to a single supplier whose failure could affect multiple borrowers.

**Important:** Green finance does not require technical environmental expertise. It requires disciplined credit practices, clear eligibility rules, vendor management and consistent monitoring of repayment and asset performance.

## About This Playbook

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The **Green Loan Playbook** has been developed by the Cambodia Microfinance Association (CMA), in collaboration with Oxfam in Cambodia and with support from the Government of Ireland through the Climate Resilience for All (CREFA) project. It is designed to help Cambodian MFIs and RCIs design, pilot, and manage green loan products in a way that is practical, proportionate, and aligned with everyday lending operations.

For MFIs in Cambodia, climate change is no longer a distant environmental issue. Changes in rainfall patterns, floods, droughts, rising energy costs, and environmental degradation are already affecting agriculture, small businesses, and household livelihoods. When clients' incomes become unstable, credit risk increases and portfolios become more vulnerable. Green finance provides MFIs with a structured way to respond proactively, by financing investments that reduce costs, improve productivity, and strengthen client resilience, rather than reacting only after shocks occur.

This Green Loan Playbook treats green finance as a credit and risk management issue, not a marketing label. It recognises that clients rarely ask for “green loans”; they care about affordability, repayment terms, and whether an investment makes economic sense. As a result, green lending must be embedded into existing credit processes, from origination and appraisal to disbursement, monitoring, and collections, without creating parallel systems or unnecessary complexity.

The Playbook provides step-by-step guidance to help MFIs:

- Define what “green” means internally in simple, consistent terms
- Identify priority green investment areas aligned with client demand
- Integrate green eligibility, exclusions, and basic safeguards into appraisal processes
- Manage risks linked to green technologies, assets, and vendors
- Pilot green loan products in a controlled, learn-by-doing manner
- Track and monitor green loans using simple portfolio-level indicators
- Strengthen product design over time based on field experience and repayment performance.

**The guidance is intentionally proportionate.** MFIs are not expected to conduct technical environmental assessments, quantify carbon impacts, or guarantee technology performance. Instead, the focus is on realistic cash-flow assumptions, client suitability, investment relevance, and early identification of risks that could affect repayment or client well-being. The Playbook also emphasises client protection and the application of a “Do No Significant Harm” principle to avoid financing activities that may unintentionally harm clients, communities, or the institution.

Recognising that institutions operate at different levels of readiness, the Playbook introduces a Green Finance Maturity Scale. MFIs are encouraged to start small, often with one or two familiar sectors such as solar energy, water and sanitation, climate-smart agriculture, or energy-efficient assets, and build confidence before scaling. Institutions can use the Playbook selectively, depending on whether they are exploring green finance, piloting products, or refining existing portfolios.

The Green Loan Playbook is intended to be a working guide, not a one-time reference. MFIs are encouraged to adapt it to their institutional context, document lessons learned, and revisit sections as their green lending evolves. By grounding green finance in sound credit discipline and practical implementation, the Playbook aims to help MFIs strengthen portfolio quality, protect clients, and gradually build resilient green finance portfolios that make economic sense in Cambodia.

# How to Use This Playbook

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This **Green Loan Playbook** is designed as a practical guide to help you and your MFI to develop, pilot, and scale green loan products in a way that is financially sound, operationally feasible, and appropriate to local client and climate resilience realities.

The playbook is intentionally practical and action oriented. It is designed as a reference for MFIs at different stages of green finance readiness.

It is not a technical manual, regulatory document, or certification guide. You do not need prior experience in green finance, dedicated ESG staff, or sophisticated systems to begin using this playbook.

Each chapter can be applied progressively, starting with small pilots and basic controls. MFIs are encouraged to adopt what is feasible today and strengthen practices over time - taking a long-term approach to integrating.

This playbook does not attempt to analyse every aspect of green finance in detail. Instead, it focuses on what you and your institution need to decide, design, and implement in practice. It is written with the assumption that you will work within existing structures, systems, and capacity, adapting what you already have rather than building everything from scratch.

Where useful, links to tools and frameworks are provided for further reference for each chapter.

## Applying Guidance Proportionately

Throughout the playbook, the principle of **proportionality** is central. This means:

- Applying lighter requirements for smaller loans or lower-risk investments
- Focusing on the most material risks rather than all possible risks
- Increasing structure and formality only as green lending scales

MFIs should always prioritise **credit discipline, client protection, and operational feasibility** over complexity.

### ***Principle of Proportionality***

The Green Loan Playbook is designed to be applied progressively. MFIs are not expected to implement all tools at full depth from the start. Each key requirement can be applied at **entry level** (start small) or **advanced level** (best practice), depending on institutional capacity, loan size, risk exposure and green finance integration maturity.

## What is this playbook for?

This playbook is intended to help you build a clear and shared understanding of what constitutes a green loan in the Cambodian microfinance context, guide you step by step from readiness assessment through product design, piloting, monitoring, and improvement, and integrate risk management, environmental and social considerations, and basic monitoring into your green lending practices without adding unnecessary complexity.

This playbook is developed as a **sector-level reference** for Cambodian MFIs. It recognises that institutions differ in size, risk appetite, and operational capacity. In this context, the Cambodia Microfinance Association (CMA) encourages its members to:

- Embed client protection as a core lens to product development
- Adapt guidance proportionately
- Share lessons learned during piloting and implementation
- Avoid rushing scale at the expense of portfolio quality

### ***A Practical Working Guideline***

Think of this playbook as a **working guide and practical reference**, something you can return to at different stages of your green finance journey, not something to read merely once from cover to cover. You are encouraged to adapt the guidance to your own institutional context, scale and risk appetite.

**Important:** You are encouraged to start small, test ideas through pilots, and strengthen your approach progressively over time.

### ***Tip Box: What this Playbook is - and What it is Not***

#### **This Playbook is**

- A practical guide to help MFIs and RCIs in Cambodia design, pilot, and manage green loan products. It is a tool to help align management, product, credit, risk, and branch teams around a shared approach to green lending.
- A reference that can be used over time as green finance activities evolve.
- A starting point for institutions that want to explore green finance in a structured but proportionate way.

#### **This Playbook is Not**

- A regulatory or compliance manual
- A requirement to implement everything at once
- A checklist for donor reporting
- A one-size-fits-all product blueprint

## Who This Playbook Is For

**This playbook focuses on retail- and MSME-scale green lending**, which is most relevant to MFIs/RCIs exploring the integration of green finance into their loan portfolios. It is intended for:

- Institutions that are new to green finance and want a clear starting point,
- Institutions that have piloted green or climate-related loans but want more structure,
- Institutions seeking to integrate green finance into core credit operations rather than treat it as a donor-driven initiative.

**It is written primarily with the aim of supporting consistent implementation across the institution.** It does not cover large-scale project finance, turnkey financing arrangements, or complex climate resilient infrastructure investments.

**Different parts of the playbook will be relevant to different roles** within your institution:



**Board members and senior management** can use this playbook to understand the strategic rationale for green finance, its implications for portfolio risk and resilience, and the governance considerations involved.



**Product development and business teams** can use it to design, pilot, and refine green loan products that respond to real client demand.



**Credit, risk, and compliance teams** can use it to integrate green eligibility criteria, safeguards, and risk considerations into existing appraisal and approval processes.



**Branch managers, loan officers, and internal trainers** can use it as a practical reference for implementation, client communication, and basic monitoring.

## What You Do *Not* Need Before You Start

MFIs often delay green finance because they believe they must first establish new teams, systems, or expertise. This playbook is designed to work within existing institutional structures and shows how green finance can be introduced incrementally, using systems and processes MFIs already have in place.

You do **NOT** need to:

- A dedicated green finance department,
- Complex ESG or impact measurement systems,
- Technical expertise in renewable energy or climate technologies,
- Full alignment with national or regional taxonomies,
- New approval committees or parallel credit processes.

A practical place to start your institutions green finance journey is to review **Chapter 1** with your management or product team and discuss whether climate risks are already affecting your clients' livelihoods and your institution's loan portfolio. This shared understanding will help guide the design and prioritisation of green loan products in later stages.

### ***Tip Box: Start Small and Build Over Time***

Green finance does not need to be perfect at the outset. In fact, trying to implement everything at once often leads to confusion, inconsistent application, or poor portfolio outcomes.

If green finance is new for your institution, do not try to do everything at once. Green finance works best when it is built gradually, based on real client needs and operational experience, not when it is rolled out all at once.

A practical approach for most MFIs is to:

- Define what “green” means for your institution and apply basic exclusions.
- Pilot one green product (and selected technologies) in a limited number of branches (e.g. solar, water, or climate-smart agriculture).
- Monitor what actually happens, focusing on use of funds, repayment behaviour, and client understanding.
- Using early experience to learn, adjust, and improve the product and processes before expanding.

## How this playbook is structured

The playbook follows the typical way MFIs already operate, moving from understanding and definition, to institutional readiness, to product design and implementation, and finally to monitoring and learning.

Each chapter builds on the previous one, but MFIs are not expected to complete all chapters before taking action. Most MFIs will use it in stages, depending on their level of readiness and experience with green finance.

### Chapter 1: Climate Change, Green Finance, and the End Goal

Explains **why** green finance matters for MFIs in Cambodia, framing climate change as a credit and portfolio risk issue rather than an environmental obligation. This chapter sets the strategic rationale but does not require immediate action.

### Chapter 2: Defining “Green” In the Cambodian Microfinance Context

Provides clear, practical guidance on **what qualifies as green**, drawing on international principles and Cambodia’s evolving policy context. This chapter helps MFIs avoid greenwashing and set basic boundaries before designing products.

### Chapter 3: Building Institutional Readiness

Shows how to align **strategy, governance, people, and credit processes** for green finance using existing structures. This chapter focuses on clarity of roles and proportionate safeguards, not new departments or complex systems.

### Chapter 4: Designing, Piloting, and Implementing Green Loan Products

Walks through the **green loan lifecycle** in practice: product design, pilot testing, launch, monitoring, and continuous improvement. The emphasis is on starting small, learning from real cases, and scaling responsibly.

#### ***Tip Box: You Do Not Have to Read This Playbook Linearly / Chronologically***

Institutions can use this playbook non-linearly, depending on their starting point and priorities.

- MFIs at an early stage may focus first on **Chapter 1** and **Chapter 2** to clarify why and what.
- MFIs planning a pilot may move directly to **Chapter 4**, using Chapter 2 and 3 as reference.
- MFIs with existing green products may focus on **Chapter 4.4** and **4.5** to strengthen monitoring and learning.

The playbook is designed to support **progressive adoption**, not a one-time transformation.

# Institutional Green Finance Maturity Scale

## A Practical Guide to Green Loan Design at Different Starting Points

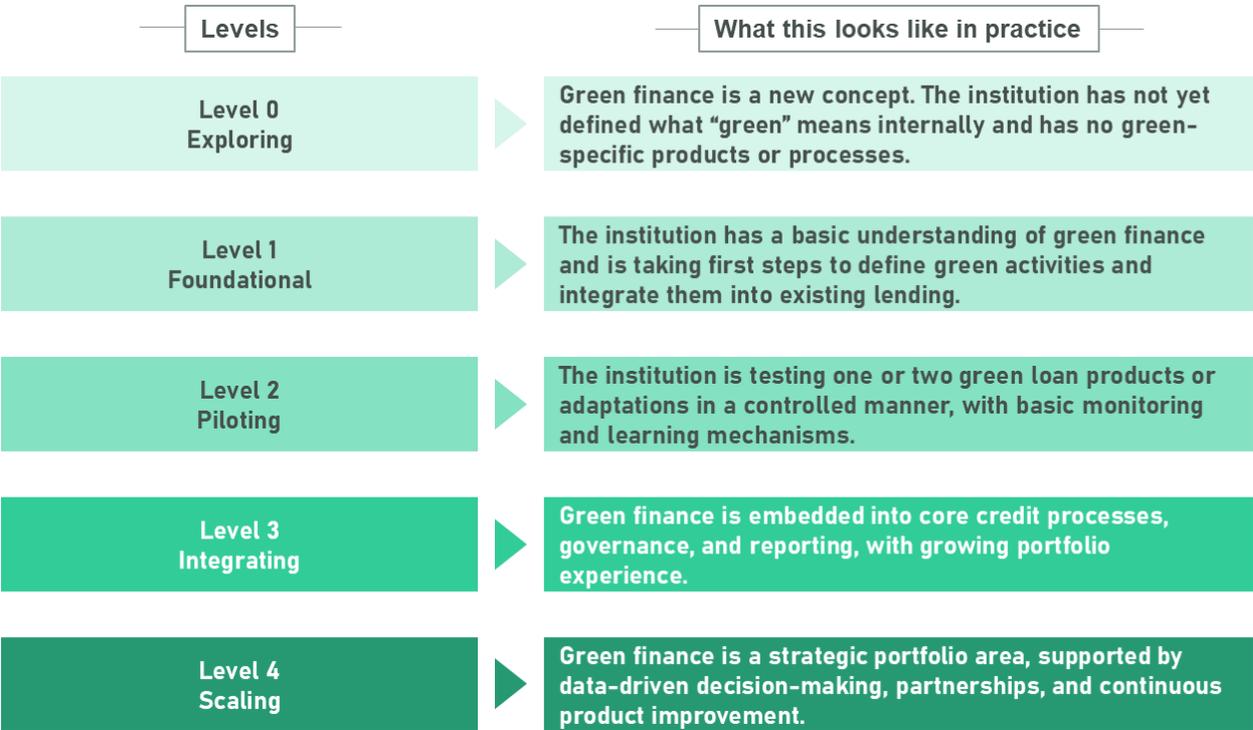
This playbook is designed to help MFIs design, adapt, pilot, and refine green loan products in a way that fits their institutional capacity and client realities. Green loan design does not mean the same thing for every institution or at every stage. For many MFIs, effective green finance starts by adapting existing loan products, not by creating entirely new ones.

This maturity scale is designed to help you:

- Understand where your institution currently stands
- Identify which parts of this playbook are most relevant to you
- Progress incrementally without over-engineering systems

The scale is **not a ranking tool** and **not an assessment**. It is a practical guide to support realistic and proportionate action.

### Overview of Maturity Levels



**Tip Box: How to Use This Maturity Scale**

- Read the descriptions for each level.
- Identify the level that best reflects your institution today, not where you want to be.
- Focus only on the recommended priorities for your level.
- Use the referenced chapters of this playbook as needed – you do not need to read everything at once.

**Progression is iterative, not linear. Institutions may sit between levels or progress unevenly across areas.**

## What Each Maturity Level Means (A Self Diagnostic)

### Level 0 - Exploring

At this level, your institution does not have any green finance products, and green finance is not yet part of day-to-day lending decisions.

#### Typical Signs you are at this level:

- You have no green loan products and no internal definition of what qualifies as “green”.
- Loans that could be considered green (e.g. solar, water systems, agriculture inputs) are financed incidentally, without being identified or managed as green.
- Staff and management may have heard of green finance, but there is no shared understanding of what it means in practice in the institution.
- There are no green-specific considerations in the processes, tracking, or reporting.
- Interest in green finance is often driven by external partners or impact funds/donors, not internal strategy.

#### What to expect at this stage:

At this stage, expecting product design, ESG analysis, or dedicated teams would be unrealistic.

#### What this stage usually looks like in practice:

You are not “behind.” Most BFIs start here.

### Level 1 - Foundational

At this level, your institution still does not have formal green loan products, but you are starting to build clarity and intent.

#### Typical Signs you are at this level:

- You are discussing green finance internally and trying to define what counts as green
- Management recognises that climate and environmental risks affect clients and portfolio quality
- You are reviewing existing loan products to see which ones could be adapted for green purposes
- One or two staff members act as informal green finance focal points
- Green lending is being explored conceptually, but not yet implemented in a structured way

#### What to expect at this stage:

At this stage, the focus is on definition, alignment, and readiness, not launching products.

#### What this stage usually looks like in practice:

You are preparing the ground, so you minimize risk of future green loans failing.

### Level 2 - Piloting

At this level, your institution has started offering green loans, usually in a limited and controlled way.

#### Typical Signs you are at this level:

- You have one or two green loan products, or green adaptations of existing products
- Green lending is limited to selected branches, client segments, or technologies
- Loan officers are applying basic green eligibility rules, even if inconsistently
- Green loans are identified manually or through simple system tags
- Early repayment behaviour, client feedback, and operational challenges are being observed

#### What to expect at this stage:

Green finance at this level is still experimental. Mistakes are expected and valuable.

#### What this stage usually looks like in practice:

You are learning what works in your context before scaling.

### Level 3 - Integrating

At this level, green finance is part of normal lending operations, not a special initiative.

#### Typical Signs you are at this level:

- Green eligibility, exclusions, and safeguards are embedded into credit policies
- Loan officers, credit teams, and risk staff have clear guidance on how to handle green loans
- Monitoring of green loans happens as part of routine servicing and collections
- Management reviews portfolio-level green performance, not just individual cases
- Product features are adjusted based on evidence from repayment and risk patterns

#### What to expect at this stage:

At this stage, green finance decisions are now systematic, not dependent on individual champions.

#### What this stage usually looks like in practice:

Green finance is no longer optional; it is managed like any other portfolio risk and opportunity.

### Level 4 - Scaling

At this level, green finance is a strategic and growing part of the institution's portfolio.

#### Typical Signs you are at this level:

- Green finance is reflected in business plans, portfolio targets, and reporting
- Multiple green products or segments are offered across branches
- Vendor partnerships, guarantees, or insurance mechanisms support scale
- Data from monitoring actively shapes product design and risk management
- The institution can confidently engage investors or partners on green finance performance

#### What to expect at this stage:

At this stage, green finance is no longer "new", it is continuously improved and expanded.

#### What this stage usually looks like in practice:

Scale is driven by evidence, not pressure.

# Chapter 1: Climate Change, Green Finance, and the End Goal

### Maturity Scale Prioritization:

Level 0	Level 1	Level 2	Level 3	Level 4
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### How This Applies for all Maturity Levels:

- **Exploring:** Build awareness of climate-related portfolio risks and understand what “green finance” means. No structural changes required.
- **Foundational:** Define what green means for your institution and identify 1–2 potential priority sectors.
- **Piloting:** Align pilot product ideas with a clear internal green definition.
- **Integrating:** Embed green objectives into business planning and portfolio discussions.
- **Scaling:** Position green finance strategically for investor alignment and long-term portfolio resilience.

For your institution, climate change is not only an environmental issue, it is also a rising credit and portfolio risk issue. In Cambodia, climate-influenced events such as floods, droughts, heat stress, and changing rainfall patterns directly affect your clients’ livelihoods, operating costs, and income stability. When clients are affected, repayment capacity is affected as well. Green finance gives you a way to respond proactively by financing solutions, not just managing losses. In practice, green finance supports investments that help your clients reduce climate risks, lower long-term costs, and improve productivity.

When designed well, green finance creates shared value for both your institution and your clients. This chapter sets the context for why green finance matters for your institution and your clients. It does not prescribe solutions or products. Instead, it establishes the **practical rationale** for integrating green finance into core lending activities, which the following chapters translate into concrete design, risk management, and implementation guidance.

For **your institution**, well-designed green loan products can:

- Diversify your loan portfolio
- Strengthen risk management and resilience
- Enhance reputation and alignment with ESG expectations
- Improve access to green or climate-aligned capital

For **your clients**, green loans can:

- Reduce operating and energy costs
- Improve resilience to climate shocks
- Increase productivity and income stability
- Deliver health and quality-of-life benefits

*The end goal of green finance is not environmental impact alone; it is to finance activities that make economic sense for your clients while strengthening your portfolio over time.*

## 1.1. Why Green Finance Matters in Practise

For Cambodian MFIs, green finance is not primarily an environmental agenda, **it is a portfolio risk and resilience issue**. Many MFI clients operate in sectors directly exposed to climate variability, energy costs, water stress, and environmental degradation. These factors increasingly affect:

- Client cash flows and repayment capacity
- Asset performance and productivity
- Portfolio concentration risks

Poorly designed green lending can introduce new risks, including technology failure, vendor dependency, unrealistic cash-flow assumptions, and client misunderstanding. **Well-designed green loan products can help clients to:**

- Reduce operating costs
- Improve resilience to climate and market shocks
- Stabilise income over time

*This playbook treats green finance as a credit discipline, rather than a marketing label*

## 1.2. Green Finance as a Credit Discipline

This playbook approaches green finance as a credit discipline, not an impact reporting exercise. While green finance may contribute to positive environmental outcomes, MFIs are not environmental auditors or technology specialists.

### Your key focus or responsibility should be to:

- Assess repayment capacity
- Manage portfolio risk
- Protect clients from unsuitable financing
- Maintain institutional sustainability

### Accordingly, this playbook emphasises:

- Realistic cash-flow assumptions
- Proportional safeguards
- Early risk detection through monitoring
- Continuous learning and adjustment

*Environmental benefits are a result of sound financing decisions, not a substitute for them.*

### What Green Finance Means for MFIs

In the context of this playbook, green finance refers to credit products and financing decisions that support investments reducing environmental risks, resource inefficiency, or climate vulnerability, while remaining financially viable for both the client and the institution.

For MFIs, green finance is not a separate product category or a branding exercise. It is an extension of prudent credit practice that:

- Considers how environmental and climate factors affect client repayment capacity
- Finances assets or practices that improve long-term resilience or efficiency
- Manages new risks introduced by green technologies and vendors

Green finance does not require MFIs to guarantee environmental outcomes or technology performance. It requires MFIs to **make informed financing decisions**, grounded in realistic assumptions and proportional safeguards.

## 1.3. Snapshot of Cambodia's Green Finance Landscape

Cambodia's green finance landscape is evolving rapidly, supported by emerging policies, financing instruments, and strong engagement from development partners. Initiatives such as the Cambodian Sustainable Bond Accelerator and the Cambodian Climate Financing Facility are helping to expand green finance through concessional loans, technical assistance, credit enhancements, and capacity building for financial institutions. International partners, including ADB, UNDP, and the World Bank (IFC), continue to play a key role in strengthening the enabling environment and raising awareness of green finance opportunities.

Sector-specific opportunities are emerging across renewable energy, electric vehicles, energy efficiency, and climate-smart agriculture, although each sector involves distinct financing models and client-level challenges. At the same time, MFIs and other financial institutions face constraints related to the availability of viable green project pipelines, the ability to offer incentive-based pricing in a financially sustainable manner, and limited systems for tracking and verifying the use of green funds. Market demand is further constrained by low levels of green finance literacy, high upfront costs of green technologies, and the early-stage development of the green technology market. The forthcoming sustainable finance taxonomy and updated green finance guidance are expected to improve clarity, strengthen investor confidence, and encourage broader participation. By addressing these gaps through policy alignment, technical assistance, and capacity-building efforts, the sector can scale affordable, client-centric access to green financing. MFIs are well positioned to play a critical role in scaling green finance and aligning their portfolios with Cambodia's national climate and sustainable development goals.

*For MFIs, this evolving landscape presents both opportunity and responsibility. Access to green capital and technical assistance is increasing, but so are expectations around credibility, risk management, and the proper use of funds. This makes it essential for MFIs to **adopt clear internal definitions, proportionate safeguards, and practical monitoring approaches before scaling green lending.***

### What This Means for MFIs in Cambodia

Green finance in Cambodia's microfinance sector is still at an early stage, but momentum is growing. MFIs have already started piloting green-related loan products, most commonly linked to solar energy, agriculture, housing improvements, and water solutions. In most cases, these initiatives remain small and are not yet fully integrated into core product strategies.

From your clients' perspective, demand for green solutions exists, but green loans are rarely seen as a distinct product category. Clients tend to focus on interest rates, repayment terms, and cash flow. This means that "green" branding alone is not enough. For green finance to work in practice, product design, pricing, and communication must clearly reflect client needs and affordability. For most MFIs, the most practical entry points into green finance are:

- Renewable energy solutions
- Climate-smart agriculture, including aquaculture
- Energy-efficient household or productive assets
- Water and WASH-related investments

While these entry points are practical and aligned with typical MFI lending models, **they are not risk-free**. Each involves technology performance risk, vendor reliability considerations, and client understanding challenges. Successful green lending therefore depends not only on product availability, but on how well these risks are **assessed, communicated, and monitored in practice**. In practice, MFIs are not expected to validate agronomic or technical performance at loan level. The primary responsibility of the FI is vendor and partner due diligence, ensuring that financed assets come from reliable and approved suppliers.

## 1.4. Your Positioning as an MFI and What to Watch Out For

You are well positioned to engage in green finance because of your close relationships with clients, established lending infrastructure, and development-oriented mandate. At the same time, majority of MFIs in Cambodia face common constraints, including limited technical knowledge of green technologies, limited systems for tracking environmental or social outcomes, and low client awareness of green concepts and value.

Opportunities are expanding as demand for climate-resilient solutions grows and investors and partners show increasing interest in green microfinance. However, risks remain. Unclear definitions of “green” or weak monitoring can lead to greenwashing, unreliable technologies can affect repayment and increase costs to both FIs and clients, and climate shocks may still disrupt income even when green assets are financed.

This assessment is not meant to discourage action. Rather, it highlights where MFIs need **clarity, structure, and safeguards** to engage in green finance responsibly. This playbook is designed to support MFIs in translating high-level frameworks and concepts into **workable definitions, risk controls, and product design choices** that fit day-to-day lending operations.

This playbook is designed to help you translate these frameworks or concepts into workable definitions, risk controls, and design ideas for green loan products that fit your institution.

*This chapter does not require immediate action. Its purpose is to establish why green finance matters for your institution. Practical steps, tools, and phased approaches are introduced in later chapters.*

## ***From Restructuring Pressure to Preventive Lending***

### ***Case Study 1A: Managing Agricultural PAR Through Solar Irrigation***

An agricultural-focused Cambodian MFI began seeing repeated rescheduling requests in certain rural branches. Farmers cited higher diesel costs for irrigation and lower yields during irregular rainfall seasons.

Branch-level data showed:

- Increased use of grace periods
- Rising short-term PAR in irrigation-dependent areas
- More frequent restructuring after dry seasons

Management recognised this was not a collections problem alone — it was a structural cost issue affecting borrower cash flow.

Instead of tightening collections, the institution explored financing solar irrigation pumps for existing agricultural clients. The objective was to reduce fuel dependency and stabilise operating costs.

The discussion shifted internally from:

*“Why are clients falling behind in repayments / how do we increase repayment efficiency?”*

To

*“What is driving recurring cash-flow stress?”*

### **Key Lesson**

Green lending can be a preventive credit strategy to reduce recurring portfolio stress, not just a sustainability initiative.

### **Global Insight**

MFIs in climate-exposed agricultural markets have found that financing cost-reducing assets (such as renewable energy or efficient irrigation) can reduce recurring restructuring cycles when properly underwritten.

## **Managing Seasonal PAR Through Flood-Resilient Housing Lending**

### **Case Study 1B: Managing Seasonal PAR Through Flood-Resilient Housing Lending**

A Cambodian MFI operating in low-lying provinces observed recurring repayment stress during annual flood seasons. Branch reports showed that households in flood-prone communes frequently requested short-term restructuring following heavy rainfall events.

Loan officers reported:

- Damage to flooring and walls
- Loss of small household inventory
- Temporary business interruption for home-based enterprises
- Increased emergency borrowing

### **Institutional Reflection**

Management concluded that this was not primarily a credit discipline issue. It was an exposure issue. The MFI recognised that:

- Annual floods were partly predictable
- A significant portion of its housing and microenterprise clients were vulnerable
- Repeated restructuring cycles weakened branch performance metrics

### **Response**

Rather than reacting only through collections, the institution introduced a housing improvement loan targeted at:

- Raised flooring
- Improved drainage channels
- Stronger roofing materials
- Elevated storage areas

The product was positioned internally as: *“Reducing recurring shock-related portfolio stress.”*

No complex environmental metrics were introduced. The focus remained on protecting client assets and income continuity.

### **Outcome**

Branches reported:

- Fewer restructuring requests in upgraded households
- Improved repayment stability in flood-exposed areas
- Better alignment between product design and local risk realities

### **Key Credit Insight**

Adaptation lending can reduce predictable seasonal PAR spikes when exposure risks are well understood.

### **Global Insight**

Financial institutions operating in climate-exposed regions increasingly finance resilient housing upgrades to reduce recurring shock-related repayment volatility.

## From Guidance to Action

### *Chapter 1: Climate Change, Green Finance, and the End Goal*

#### What This Chapter Helps You Do

Understand why green lending is not about marketing. It is about protecting your portfolio and helping clients manage climate risks.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Ask your credit team: “Where have floods, droughts, or heat already affected repayments?”
- List 2–3 sectors in your portfolio that are climate-exposed.
- Agree internally that green finance should reduce risk, not just grow volume.

##### Foundational (Level 1)

- Write a simple internal note defining what “green” means for your institution.
- Select 2–3 green sectors that fit your current clients (e.g., solar, CSA, WASH).
- Decide whether you want to test one green product in the next 6–12 months

##### Piloting (Level 2)

- Make sure your pilot product clearly fits your green definition.
- Communicate internally why you are testing it.
- Set a small, realistic pilot volume target.

##### Integrating (Level 3)

- Include green portfolio performance in monthly management meetings.
- Review whether green loans reduce repayment stress in climate-exposed areas.

##### Scaling (Level 4)

- Set a simple green portfolio target.
- Align green lending with investor or ESG positioning.

#### Expected Outcomes

- You avoid launching green loans without a clear purpose.
- Leadership understands why green lending matters.
- Product design decisions become more disciplined.

# Chapter 2: Defining “Green” in the Cambodian Microfinance Context

### Maturity Scale Prioritization:



### How This Applies for all Maturity Levels:

- **Exploring:** Understand core green categories and principles conceptually. No formal taxonomy alignment required.
- **Foundational:** Define internal green eligibility criteria, basic exclusions, and simple safeguarding checks.
- **Piloting:** Apply green eligibility and repayment-relevant ESG considerations in selected pilot loans.
- **Integrating:** Standardise eligibility screening, tagging, and safeguards across branches.
- **Scaling:** Align green classification and reporting with national taxonomy, ASEAN guidance, or investor expectations.

Before designing or piloting any green loan product, you need clarity on what “green” means for your institution. Clear definitions help ensure consistency across product development, credit appraisal, monitoring, and reporting, and reduce the risk of greenwashing.

This chapter sets out the foundational principles and decision logic MFIs need to design and manage green loan products in practice.

Its purpose is not to define green finance in technical or regulatory terms, but to help MFIs establish **clear internal boundaries** around what qualifies as green lending within their portfolios, and under what conditions.

These foundations support consistency in credit appraisal, reduce greenwashing risk, and provide a shared reference point for staff, management, and external partners.

## 2.1. Establishing a Common Understanding of “Green”

For the purpose of this playbook, green finance refers **to loans that finance assets, activities, or practices that reduce environmental risks, improve resource efficiency, or strengthen climate resilience, while remaining financially viable for the client and the institution.**

This definition is intentionally practical. It allows you or your institution to:

- **Apply professional credit judgement**
- **Adapt to local market conditions**
- **Update eligible activities over time as technologies and client needs evolve**

**National and regional frameworks**, such as the Cambodia’s Sustainable Finance Taxonomy, the ASEAN Taxonomy, and selected regional taxonomies such as those from Malaysia or Singapore, should be used as reference points, not rulebooks. Their role is to help you align with broader expectations while keeping your internal definition simple enough for daily use. You can use them to:

- Guide how you categorise green activities within your institution
- Ensure consistency with national and regional expectations
- Build credibility with regulators, investors, and partners

At the **Exploring level (level 0)**, you do not need to formally align with the taxonomy. Use it only as a reference to understand what activities are considered green nationally.

## Operationalising the Green Definition

On a practical level, defining green finance does not mean financing every environmentally friendly idea. It means **making deliberate and consistent choices** about which activities your institution will recognise as green. A clear internal definition ensures that loan officers, credit teams, and management make consistent decisions, even as green lending expands. This internal definition can be based on:

- Your typical client segments and loan sizes
- Your repayment structures and cashflow realities
- Your ability to assess and monitor loan use

For day-to-day lending, MFIs should translate this definition into a Positive List (Whitelist) of eligible assets or activities. Loan Officers should apply this list rather than interpret abstract environmental concepts. Refer to Annex 3 for a illustrative whitelist of mitigation and adaptation solutions.

### Tip Box: Overview Cambodia Sustainable Finance Taxonomy and the ASEAN Taxonomy

The **Cambodia Sustainable Finance Taxonomy**, led by the National Bank of Cambodia, provides a national classification framework to identify environmentally sustainable and transition economic activities aligned with Cambodia's climate mitigation and adaptation priorities. It focuses on key sectors such as renewable energy, energy efficiency, climate-smart agriculture, and water and WASH, and adopts a traffic-light approach to support financial institutions in determining eligibility and transition pathways.

While the taxonomy is still in continuous development as of the writing of this playbook, it represents an important step toward improving clarity, comparability, and consistency in green finance across Cambodia's financial sector. As the taxonomy evolves, it is expected to inform regulatory guidance, investor expectations, and reporting practices over time.

The **ASEAN Taxonomy for Sustainable Finance** is a regionally harmonized, principles-based framework designed to accommodate different levels of market maturity across ASEAN member states. It emphasizes inclusiveness, usability, and transition pathways, allowing financial institutions to progressively align financing activities with sustainability objectives. The ASEAN Taxonomy serves as an overarching regional reference and complements national taxonomies such as Cambodia's.

### Positioning for MFIs using this Playbook

For MFIs, both taxonomies should be viewed as reference frameworks rather than prescriptive tools for day-to-day lending decisions. This playbook does not require MFIs to fully classify or score individual loans against taxonomy criteria. Instead, it uses the taxonomies to:

- Inform high-level eligibility logic and sector focus
- Align green loan products with emerging national and regional expectations
- Reduce the risk of misalignment with future regulatory or investor requirements

MFIs are encouraged to apply taxonomy concepts **proportionately and pragmatically**, taking into account **institutional capacity, product size, and risk exposure**. Detailed taxonomy alignment and reporting can be developed progressively as internal systems, regulatory guidance and compliance requirements, and market practices mature.



### **Actions for Your Institution**

- **Agree on an internal definition of “green”** that is relevant to your client base and lending model.
- **Identify a short list of eligible green activity categories** your institution will recognise and tag - and integrate.
- **Translate taxonomy language into MFI-friendly loan purposes** that loan officers can apply.
- **Ensure alignment across management, product, credit, and risk teams** on this definition.
- **Document the definition clearly** for consistent application.

### **Expected Outcomes**

A shared, documented definition of “green” and a shortlist of eligible green loan purposes.

## 2.2. Core Principles for Green Loan Design

Internationally, green loans are commonly guided by the **Green Loan Principles (GLP)** developed by the Loan Market Association (LMA) and its partners. The GLP provide a credible and widely recognised reference framework for defining and managing green loans, while allowing flexibility across markets and institution types.

**How This Applies for all Maturity Levels:**

- **Exploring:** Define eligible green categories and document them clearly.
- **Piloting:** Integrate green eligibility checks into existing appraisal templates.
- **Integrating:** Align internal processes and reporting with core green loan principles.
- **Scaling:** Use principles to structure investor and regulatory reporting.

### Applying the Green Loan Principles in Practice

The GLP are voluntary guidelines, not compliance requirements. For MFIs, their value lies in providing a clear decision structure that can be adapted to local realities and institutional capacity. This playbook applies the spirit of the GLP by:

- Keeping definitions clear and practical,
- Embedding green criteria into existing systems,
- Encouraging gradual improvement rather than perfection.

For MFIs in Cambodia, the value of the GLP is not in applying them in full technical detail, but in using their core logic to ensure that green loans are **credible, consistent, traceable** and **well governed**. At their core, the GLP are built around four components, which can be adapted proportionately to the MFI context: *Use of Funds, Process for Project Evaluation and Selection, Management of Proceeds, Reporting*

The four GLP components below are applied in this playbook in a simplified and proportionate manner. MFIs are not expected to conduct technical environmental assessments, quantify impact, or create parallel approval systems.

Component	Rationale
<p><b>Use of Proceeds</b> <i>What the Loan Finances</i></p>	<p>The defining feature of a green loan is how the loan proceeds are used. A green loan should be used exclusively to finance or refinance eligible green activities that deliver clear environmental or climate-related benefits.</p> <p>For MFIs, this means that:</p> <ul style="list-style-type: none"> <li>• The loan purpose must clearly match an eligible green activity (e.g. solar systems, climate-smart agriculture inputs, energy-efficient equipment, WASH improvements).</li> <li>• The green purpose should be clearly stated in loan documentation and understood by both staff and clients. MFIs must decide whether to allow multiple green purposes in one loan, or restrict to a single purpose to simplify oversight and traceability. If multiple purposes are allowed, systems must record the breakdown of proceeds.</li> <li>• To identify efficient or preferred control mechanisms such as direct payment to approved suppliers (as a focal point) which may be most practical form of green control rather than post-disbursement verification on individual borrowers.</li> </ul> <p>You do not need to quantify environmental impacts at this stage, but you should be able to clearly explain why the loan is considered green.</p>

<p><b>Process for Project Evaluation and Selection</b> <i>How You Decide What Is Green</i></p>	<p>The GLP emphasise that borrowers should have a clear process for deciding which activities qualify as green and how related risks are managed.</p> <p>For MFIs, this does not require a new approval system. Instead, it means embedding green considerations into existing credit appraisal processes, including:</p> <ul style="list-style-type: none"> <li>• Eligibility screening against green criteria,</li> <li>• Application of exclusion lists,</li> <li>• Basic environmental, social (ESS), and “Do No Harm” checks.</li> </ul> <p>This credit appraisal process should be consistent across branches and loan officers.</p> <p>In addition, the overall lending process should be tailored to reflect the MFI's current state of technological capacity and outreach. You may need to adopt methods that are practical, streamlined, and cost-effective, provided that green criteria are applied rigorously.</p>
<p><b>Management of Proceeds</b> <i>How You Track Green Loans</i></p>	<p>The GLP require that green loan proceeds are tracked or managed in a way that maintains transparency and integrity.</p> <p>For MFIs, this does not mean opening separate bank accounts. A proportionate approach may include:</p> <ul style="list-style-type: none"> <li>• Flagging green loans within the core banking system,</li> <li>• Using product codes or tags to identify green loans,</li> <li>• Maintaining a simple internal register of green loans by category,</li> <li>• Ensuring core systems can capture comprehensive records that safeguard portfolio integrity, data accuracy, and accountability, while providing a transparent audit trail for how proceeds of green loans are being allocated and managed.</li> </ul> <p>The objective is to ensure that green loans can be identified, tracked, and reviewed over time.</p>
<p><b>Reporting</b> <i>How You Demonstrate Credibility</i></p>	<p>The GLP encourage borrowers to make information available on the use of proceeds and, where feasible, the expected environmental impact.</p> <p>For MFIs, reporting should be simple, proportionate, and fit-for-purpose. At a minimum, this may include:</p> <ul style="list-style-type: none"> <li>• Internal reporting on green loan volumes by category,</li> <li>• High-level descriptions of financed green activities,</li> <li>• Basic qualitative indicators (e.g. number of solar systems financed).</li> </ul> <p>Quantitative impact reporting based on key technical attributions (i.e., CO2 emission reductions, equipment specifications, or energy efficiency levels) can be introduced gradually as institutional capacity improves to strengthen monitoring and data tracking process.</p> <p>Use of proxy impact reporting where simple output indicators such as numbers of units financed by asset/investment type (e.g., 2 solar water pumps). Where carbon or environmental reporting is required, standard conversion factors through the simple output indicators may be applied by investors, donors, or industry bodies, relieving MFIs of technical calculations.</p>

*Table: Overview of GLP and What it means for MFIs in Cambodia*

### Tip Box: Minimum Entry Application for New MFIs

At early stages, MFIs can apply green finance principles by doing just three things:

- Clearly define what loan purposes are considered green.
- Apply a short exclusion list to avoid harmful activities.
- Ensure green loans are identifiable in the system.

More advanced practices can be introduced later.



## Actions for Your Institution

### Use of Proceeds

- **Define which loan purposes qualify as green** (using the eligibility categories in this playbook).
- **Ensure the green purpose is clearly recorded** in loan application and approval documents.
- **Differentiate green loans from conventional loans** based on use of proceeds, not pricing alone.

### Process for Project Evaluation and Selection

- **Integrate green eligibility and exclusion checks** into existing credit appraisal procedures.
- **Apply the Do No Harm principle** as part of loan assessment.
- **Ensure loan officers understand how to assess green eligibility** in practice.

### Management of Proceeds

- **Define how green loans will be captured and systematically organized in the current system** (e.g. product code, tag, register).
- **Ensure green loans can be separated from conventional loans** for internal reporting.
- **Assign responsibility for maintaining green loan records.**

### Reporting

- **Decide what green loan information you will track and report internally.**
- **Start with simple portfolio-level reporting**, rather than client-level impact measurement.
- **Align reporting with investor, regulator, or partner expectations where relevant.**

### Expected Outcomes

- Green loans are clearly linked to identifiable and eligible green activities.
- Green loan decisions are applied consistently across branches using existing credit processes.
- Green loans can be easily identified, reviewed, and discussed at portfolio level.
- The institution can demonstrate credible green lending practices without creating excessive reporting or compliance burden.

## 2.3. Safeguarding: Applying the “Do No Significant Harm” Principle

At early stages, safeguarding is about avoiding obvious harm and reputational risk, not conducting technical environmental assessments. Simple exclusion lists (including environmental) and basic “do no harm” checks are sufficient to start.

### *How This Applies for all Maturity Levels:*

- **Exploring:** Adopt a short exclusion list and apply it consistently.
- **Piloting:** Embed exclusions into loan forms and approval processes.
- **Integrating:** Periodically review exclusions based on portfolio experience.
- **Scaling:** Align exclusions with national taxonomy and investor standards where relevant.

Green loans should contribute positively to climate or environmental objectives without creating unintended environmental, social, or financial harm. This safeguarding approach is commonly referred to as Do No Significant Harm (DNSH) under the European Union’s sustainable finance framework and aligns closely with basic Environmental and Social Safeguards (ESS).

For MFIs, applying the “Do No Significant Harm” principle is primarily about avoiding obvious and foreseeable risks, not proving the absence of all environmental or social impacts. The objective is to prevent financing that could reasonably undermine client wellbeing, repayment capacity, or institutional reputation. **More specifically, for MFIs, DNSH should be viewed primarily as a risk-avoidance tool, not an environmental assessment requirement.**

Safeguarding considerations may include:

- Environmental risks such as pollution, overuse of water resources, or land degradation.
- Social and safety risks, including unsafe working conditions or community impacts.
- Financial stress on clients caused by inappropriate loan sizing or repayment terms.
- Gender and social inclusion risks, where women or vulnerable groups may be excluded or disproportionately affected.



### **Actions for Your Institution**

- Integrate a basic safeguarding check into your existing green loan appraisal process.
- Screen for obvious environmental, social, and safety risks relevant to your client segments.
- Ensure loan size, tenor, and repayment terms are aligned with client cash flows.
- Apply exclusion lists consistently to filter out harmful activities.
- Escalate higher-risk cases for additional review when needed.

### **Expected Outcomes**

- Green loans that support climate and environmental objectives while **protecting clients, communities, and your institution from unintended harm.**

## 2.3.1. Exclusion Lists: Setting Clear Boundaries

An exclusion list determines specific areas where the MFI will not provide any financing nor involvement. Clear exclusion criteria help prevent greenwashing and reputational risk. Exclusion lists define activities that your institution will not finance, even if they appear profitable. Rather than creating new lists, MFIs can reference established standards such as the [IFC exclusion lists](#) and [EDFI/DEG](#) list. *Refer to Annex 5 on expectations for Cambodian financial institutions on adherence to environmental, social and governance principles and client protection principles.*

Exclusion lists are particularly important in green finance, where reputational risk can arise from misclassification or association with harmful activities. Clear exclusions reduce ambiguity for staff, support consistent decision-making across branches, and protect the institution from pressure to finance activities that conflict with its values or risk appetite.

### Examples of a list of excluded projects for financing (based on IFC Exclusion List, 2007)

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.
- Production or trade in alcoholic beverages (excluding beer and wine).
- Production or trade in tobacco.
- Gambling, casinos and equivalent enterprises.
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.
- Production or activities involving harmful or exploitative forms of forced labor/harmful child labor.
- Commercial logging operations for use in primary tropical moist forest.
- Production or trade in wood or other forestry products other than from sustainably managed forests.
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.
- Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.

*Note: A reasonableness test will be applied when the activities of the project company would have a significant development impact but circumstances of the country require adjustment to the Exclusion List.*



### Actions for Your Institution

- Adopt or reference an existing exclusion list.
- Integrate exclusions into appraisal and approval processes.
- Train staff to identify excluded activities early.

### Expected outcome:

Consistent screening that protects your institution and clients from harmful activities.

## 2.4. Identifying Opportunities for Green Investments

### *How This Applies for all Maturity Levels:*

- **Exploring:** Identify 1–2 green areas closely aligned with your existing portfolio.
- **Piloting:** Narrow focus and prepare to adapt one product for testing.
- **Integrating:** Build a defined green portfolio mix across priority sectors.
- **Scaling:** Diversify responsibly across multiple green segments.

With clear definitions, principles, and safeguards in place, the next question for many MFIs is where green lending can be most practically deployed within their existing portfolios. In the Cambodian context, green investment opportunities for MFIs are strongest where:

- Client demand already exists or is emerging
- Loan sizes and repayment structures fit typical MFI products
- Investments deliver both environmental benefits and economic value to clients

MFIs are encouraged to **prioritise depth over breadth** when entering green finance. Focusing on a limited number of sectors allows institutions to build experience, refine appraisal approaches, and understand risks before expanding into additional areas. A non-exhaustive list can be seen in the table below where it aligns with Cambodia’s Sustainable Finance Taxonomy and reflect where MFIs are most effective.

Investment Area	Typical Segment	Client	Why This Is a Strong Opportunity for MFIs	Typical Investment Focus (Examples)
<b>Energy Efficiency</b>	Urban & peri-urban households, MSMEs		Incremental upgrades reduce operating costs without major behaviour change. Often bundled into existing asset financing.	Energy-efficient appliances, refrigeration, motors, lighting
<b>Clean Energy</b>	Rural households, MSMEs, small enterprises		Established demand, clear asset definition, and direct cost savings for clients. Cash-flow benefits often support repayment capacity.	Household solar systems, productive-use solar (shops, agro-processing), solar water pumps
<b>Climate-smart Agriculture (Incl. aquaculture)</b>	Smallholder farmers, cooperatives, producer groups, agri-SMEs		Strong link between productivity, resilience, and income stability. Growing relevance under climate variability.	Efficient irrigation, climate-resilient inputs, improved pond/aeration systems (i.e, semi-RAS), input/feed efficiency
<b>Water and Sanitation</b>	PWOs, Rural households, peri-urban communities, small enterprises		Clear social and health benefits; improves household resilience and productivity. Often linked to housing or livelihood loans.	Water connections, sanitation facilities, water storage, filtration systems
<b>Resilient Housing Improvements</b>	Low-income & peri-urban households		Enhances safety and climate resilience while protecting household assets. Often financed through existing housing loan products.	Roofing upgrades, flood-resistant improvements, ventilation

*Table: Example of prospective green investment areas in Cambodia and the rationale*

## ***Avoiding Misclassification and Greenwashing***

### ***Case Study 2A: Standardising Green Loan Classification Across Branches***

An MFI began reporting solar-related loans as “green”. However, internal audits showed that branches were classifying loans differently. Some loans financing diesel generators were included. Others were labelled green without clear documentation of the financed asset.

This created:

- Inconsistent reporting
- Confusion during internal review
- Risk of reputational issues

To correct this, management introduced:

- A simple approved green asset list
- A short exclusion list
- A mandatory use-of-proceeds field in the loan file
- Clear instructions and training for loan officers

After implementation, green reporting became consistent across branches.

### **Key Lesson**

If eligibility rules are unclear, branches will apply them differently. Clear operating definitions protect credibility and internal control.

### **Global Insight**

Financial institutions globally have faced greenwashing risks when green classification was left to informal interpretation. Clear use-of-proceeds documentation is widely recognised as a basic control mechanism.

## **Case Study 2B: Defining Climate-Resilient Agricultural Investments Clearly**

An MFI began financing raised planting beds, improved drainage systems, and water storage tanks in flood-prone agricultural districts. However, branches applied inconsistent interpretation of what qualified as “climate-resilient” investments.

Some branches approved:

- Standard farm expansion loans
- General equipment purchases
- Non-resilience-related agricultural inputs

Reporting became inconsistent, and green classification lacked credibility

### **Institutional Challenge**

Management realised that although the intention was good, there was no operational definition of adaptation investments.

Without clarity:

- Loan officers interpreted eligibility differently
- Reporting became unreliable
- Risk monitoring was weakened

### **Response**

The institution introduced:

- A defined climate adaptation investment list
- Simple appraisal prompt: “How does this investment reduce exposure to flood, drought, or heat?”
- Clear exclusion of non-resilience farm expansion loans

The list included:

- Raised beds in flood zones
- Water storage systems in drought-prone areas
- Pond reinforcement for aquaculture.

### **Outcome**

Within one quarter:

- Branch interpretation aligned
- Reporting accuracy improved
- Credit committee review became more consistent

### **Key Credit Insight**

Adaptation investments require clear operational definitions to avoid misclassification and inconsistency.

### **Global Insight**

Globally, green finance programs that lack clear eligibility lists (i.e., whitelist) face higher reputational and reporting risks. Clear use-of-proceeds rules are foundational for credibility.

## From Guidance to Action

### Chapter 2: Defining “Green” in the Cambodian Microfinance Context

#### What This Chapter Helps You Do

Create clear rules so staff know which loans qualify as green, and which do not.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Review the suggested green investment areas in this playbook.
- Identify which of these already exist in your portfolio.
- Discuss whether your current system can tag loans by category.

##### Foundational (Level 1)

- Create a short green eligibility list (3–5 items).
- Adopt a simple exclusion list.
- Add one green checkbox in your appraisal template.

##### Piloting (Level 2)

- Apply the eligibility list strictly in pilot branches.
- Tag green loans in your MIS.
- Review the first 10 pilot files to check consistency.

##### Integrating (Level 3)

- Standardise eligibility checks across branches.
- Clarify vendor or asset requirements in writing.
- Include green portfolio reporting in internal dashboards.

##### Scaling (Level 4)

- Align your categories with Cambodia’s taxonomy if needed.
- Strengthen documentation for investors or funders.

#### Expected Outcomes

- Staff know exactly what qualifies as green.
- You reduce greenwashing risk.
- You build credibility with partners and investors.

# Chapter 3: Building Institutional Readiness

**Maturity Scale Prioritization:**



**How This Applies for all Maturity Levels:**

- **Exploring:** Nominate a green focal person and assess institutional readiness informally.
- **Foundational:** Define basic roles, update credit policy references, and clarify internal ownership.
- **Piloting:** Activate a small cross-functional team to oversee pilot design and implementation.
- **Integrating:** Embed green appraisal prompts, MIS tagging, and oversight within existing governance structures.
- **Scaling:** Formalise board reporting, ESG alignment, and portfolio-level green performance tracking.

Green finance succeeds when it is supported by the right **institutional foundations**. This section focuses on how your institution can build readiness for green finance by aligning *strategy, governance, people, processes, and partnerships* - using existing structures wherever possible. Institutional readiness does not mean being perfect before starting. It means having **just enough structure to pilot responsibly**, learn quickly, and strengthen systems as green lending grows.

## 3.1. Establishing a Clear Green Strategy

A **clear green finance strategy** provides **direction, legitimacy, and continuity**. Without it, green lending risks remaining fragmented, dependent on individual champions, or driven primarily by external partners. For MFIs, a green strategy does not need to be a standalone document. It can be integrated into your existing corporate strategy or business plan, as long as it clearly explains **why your institution is engaging in green finance and how this supports long-term performance**.

*At early stages, a green strategy may be as simple as a short internal memo stating why your institution is exploring green finance.*

The following key considerations need to be integrated in establishing your institution’s green finance strategy:

Key Aspects	Rationale
<b>Securing Board and Investor Buy-In</b>	Board members and investors play a critical role in setting priorities and risk appetite. Green finance should be positioned as a strategic opportunity that aligns with: <ul style="list-style-type: none"> <li>• Shareholder values and corporate governance priorities</li> <li>• Long-term portfolio resilience and client stability</li> <li>• Institutional reputation and access to future green funding</li> </ul> <p><i>A clear business case, rather than an environmental messaging alone, is essential.</i></p>
<b>Setting Sustainability and ESG-Aligned Goals</b>	Green finance objectives should be translated into clear and measurable goals, such as portfolio targets, priority sectors, or client segments. These goals may also align with broader sustainability commitments, including the Sustainable Development Goals (SDGs) and Universal Standards (USSEPM), where relevant.
<b>Integrating Green Finance into Business Planning</b>	Green finance should be linked to your institution’s overall growth strategy, rather than treated as a side initiative. This helps ensure consistency in resource allocation, staff incentives, and performance management.

<b>Defining KPIs and Reporting Structures</b>	<p>Basic indicators allow management to track progress and make informed decisions. At early stages, KPIs should remain few, practical, and decision-useful, such as:</p> <ul style="list-style-type: none"> <li>• Green loan volumes and % of portfolio by category,</li> <li>• PAR / rescheduling rates of green loans vs conventional loans,</li> <li>• Green portfolio PAR compared to overall PAR</li> <li>• Green asset failure or non-functionality rate (first 6–12 months)</li> <li>• Top recurring issues observed (e.g., vendor problems, asset failures, client misunderstanding).</li> </ul>
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### Actions for Your Institution

- Clarify why green finance matters for your institution’s long-term strategy.
- Secure board and senior management endorsement for green finance priorities.
- Define a small set of corporate sustainability or green finance goals that are measurable.
- Integrate green finance objectives into existing business plans.
- Identify basic KPIs and reporting lines for green lending.

**Expected outcome:** Green finance is recognised as a strategic priority, supported by leadership and integrated into institutional planning.

## 3.2. Green Coordination and Accountability

Green finance implementation is rarely a single team’s responsibility. In most MFIs, it cuts across product development, credit, risk, operations, and branch-level delivery. The key to success is not creating new departments but clarifying who does what and how teams work together.

At early stages, green finance often fails because responsibilities are unclear: *product teams design something credit teams cannot approve, loan officers are unsure how to explain green loans to clients, or risks are not escalated properly.* Sustained integration of green finance requires integrated and dynamic exchanges between key functions and departments within your institution.

This section helps you to minimise those issues by setting up a simple, workable internal team structure for temporary coordination.

### How to Think About Coordinating Green Finance in your MFI

A practical green finance coordination setup typically has functions that already exist in most MFIs. Green finance simply requires clear alignment among them:

- Strategic oversight (direction and risk appetite),
- Operational coordination (design, rules, and monitoring),
- Frontline delivery (client engagement and loan application).

Instead of asking “*Who should own green finance?*”, ask a more useful question: “***Which existing roles already touch the green loan lifecycle, and how do we coordinate them better?***”

*At the Exploring stage, this may simply mean nominating one focal person to coordinate discussions. A formal team is not required.*

### Setting Up Your Temporary Green Team

At early stages, a “**green team**” can be as simple as one focal point coordinating across existing roles, rather than a formal committee or permanent unit. Green finance integration for loans usually involves the following functions:

- **Product / Business Development.** Defines green loan concepts, eligible uses, and basic features.
- **Credit & Risk.** Integrates green eligibility, exclusions, and safeguarding into appraisal and approval.
- **Operations and MIS.** Supports loan tagging, tracking, and basic reporting.
- **Branches & Loan Officers.** Engage clients, assess loan purpose, and apply green criteria in practice.

Rather than working in silos, these functions should coordinate around **a shared understanding of internal green definitions, eligibility rules, and risk boundaries**. At early stages, this coordination can be informal, as long as roles and responsibilities are clear.

It is important to note that **a working group coordinates implementation, but it should not replace formal approval structures**. As a practical rule:

- Product and policy changes remain with the appropriate credit/product committee.
- Risk exceptions or high-risk cases follow existing escalation processes.
- The green focal point and working group are responsible for consolidating issues, proposing adjustments, and ensuring follow-through.

**For smaller or early-stage MFIs, a Green Coordinator role is often more effective than a large working group as functions are often times shared by the same person. Importance should be placed on ensuring sustained momentum in driving green finance development forward - starting with quick wins**

Some more advanced or larger MFIs may find it useful to establish a lean **Green Working Group**, especially during early pilots. This group typically:

- Includes representatives from at least product, credit, risk, and operations
- Meets periodically to resolve implementation issues
- Acts as a coordination mechanism rather than a decision-making body
- Should remain lightweight/lean and time-bound (not a permanent working group), especially for smaller MFIs.

## Roles and Responsibilities by Level

To make green finance operational, responsibilities should be clear at each level of the institution.

Functions / Positions	Roles
<b>Board and Senior Management</b>	<p>Their role is not day-to-day management but setting direction and boundaries. This includes:</p> <ul style="list-style-type: none"> <li>• Endorsing the institution’s green finance strategy and priorities</li> <li>• Approving overall risk appetite for green lending</li> <li>• Oversight to ensure green finance aligns with long-term business and sustainability objectives</li> <li>• Receiving periodic high-level updates on green portfolio performance</li> </ul> <p><i>Board oversight should focus on approving risk appetite, pilot scope, and loss tolerance, rather than developing technical green strategies.</i></p>
<b>Head Office Teams</b>	<p>Head office functions translate strategy into practical rules and tools, including:</p> <ul style="list-style-type: none"> <li>• Defining green loan eligibility and exclusions</li> <li>• Updating credit policies and appraisal tools</li> <li>• Setting internal procedures for loan tagging and reporting</li> <li>• Providing guidance and clarification to branches</li> </ul>
<b>Branch Managers and Loan Officers</b>	<p>Branches are where green finance succeeds or fails. Their role includes:</p> <ul style="list-style-type: none"> <li>• Identifying client needs and suitable green investments;</li> <li>• Explaining green loans clearly to clients;</li> <li>• Ensuring the stated loan purpose matches eligible green activities;</li> <li>• Collecting basic documentation and monitoring loan use.</li> </ul>

- 
- Escalating priority cases (e.g., green purpose not clear, safeguarding concerns, etc.,)

Loan officers do not need technical climate expertise, they need clear rules, examples, and escalation channels.

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*Table: Functions and Positions within your Institution and their Roles in Green Finance integration*

## Oversight and Coordination Structures

Oversight of green finance should rely on existing governance structures, wherever possible. Common options include:

- Board of Directors. Overall oversight and strategic alignment;
- Risk and Compliance Committee. Safeguarding, exclusions, and risk escalation;
- Credit and Product Committees. Approval of green products and key policy changes;
- ESG or Sustainability Committee (if existing). Coordination, monitoring.



### Actions for Your Institution

- Nominate a green finance focal point to coordinate early-stage activities.
- Map existing roles/functions involved across the green loan lifecycle (product, credit, risk, operations, branches).
- Assign clear green finance responsibilities at board, head office, and branch levels. Clarify responsibilities and escalation points in writing, even through a short internal note or memo. Ensure frontline staff know where to seek clarification or escalate issues.
- Use existing committees or regular management meetings to coordinate, oversee green finance activities and act as oversight bodies.
- Start with simple coordination arrangements and formalise structures gradually as green lending scales.

### Expected outcome:

A practical, low-burden internal setup that allows your institution to start implementing green finance confidently and refine structures over time.

### 3.3. Defining Your Green Credit Appraisal and Risk Assessment Standards

Green finance does not require MFIs to reinvent how credit decisions are made. Instead, it requires adding specific green and ESG considerations to the credit appraisal, scoring, and approval processes you already use. This section starts with the typical credit appraisal process MFIs are familiar with, and then clearly highlights what additional considerations are required for green loans.

#### The Typical Loan Appraisal Process (What You Already Do)

Most MFIs follow a broadly similar credit appraisal and decision-making process, which includes:

- Loan purpose and eligibility check
- Client repayment capacity and cash-flow analysis
- Risk appraisal and scoring
- Credit decision and approval conditions

#### What Changes for Green Loans: Key Additionalities

For MFIs, green credit appraisal does not replace your current loan appraisal process or approval layers. It simply adds a few structured questions to decisions already made. Specifically, it adds focused checks and considerations at each step to ensure environmental credibility, risk awareness, and responsible finance.

It is also important to note that principals of proportionality should apply - where applying all green finance additionalities may be too heavy for micro loans or small MFIs. An example of proportionality can be where loans below USD 10,000 should apply exclusion screening and basic safeguards only. Full ESG assessments apply to larger or higher-risk loans.

If you are at the **Exploring** or **Foundational** stage, begin by adding only limited green prompts to your existing appraisal template and integrate incrementally over time.

Process	What you already assess	What Green Finance adds	Why it matters
<b>Loan purpose and eligibility check</b>	<ul style="list-style-type: none"> <li>• Declared loan purpose</li> <li>• Basic eligibility against product criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Confirm that the loan purpose aligns with your green definition</li> <li>• Screen against your exclusion list</li> <li>• Verify that the green investment is suitable for the client’s livelihood and context</li> </ul>	This step prevents greenwashing and avoids financing unsuitable or harmful activities.
<b>Repayment capacity and cash-flow analysis</b>	<ul style="list-style-type: none"> <li>• Income sources</li> <li>• Expenses</li> <li>• Repayment capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Assess how the green asset affects cash flow (cost savings, productivity gains, resilience)</li> <li>• Realistic assumptions about payback periods and usage</li> <li>• Consideration of climate or environmental factors that may affect income</li> </ul>	Environmental benefits only matter if the client can repay sustainably.
<b>Risk appraisal and scoring</b>	<ul style="list-style-type: none"> <li>• Credit history</li> <li>• Household or business risks</li> <li>• Portfolio risk alignment</li> </ul>	<ul style="list-style-type: none"> <li>• ESG materiality considerations (which ESG risks matter most for this loan type?)</li> <li>• Green asset-specific risks (technology reliability, vendor quality, maintenance needs)</li> </ul>	Green assets introduce new risk dimensions that must be recognised early.

		<ul style="list-style-type: none"> <li>• Safeguarding and “Do No Significant Harm” checks</li> </ul>	
<b>Credit decision and approval conditions</b>	<ul style="list-style-type: none"> <li>• Approval or rejection</li> <li>• Conditions attached to approval</li> </ul>	<ul style="list-style-type: none"> <li>• Conditions related to installation, documentation, or vendor selection (where relevant)</li> <li>• Adjustments to tenor, loan size, or monitoring based on green risks</li> <li>• Clear documentation of green classification</li> </ul>	Green appraisal should lead to clear, actionable decisions, not informal judgment.

Table: Green loan additionalities for loan appraisal

## ESG Materiality: Keeping Green Appraisal Practical

ESG materiality helps your institution focus on the ESG risks and issues that are most relevant to a specific green loan, rather than trying to assess everything<sup>1</sup>. For MFIs, this means:

- Prioritising ESG risks that affect repayment, asset performance, or client well-being
- Applying deeper checks only where risks are higher
- Keeping appraisal proportionate to loan size and complexity

### ESG Materiality will be covered in more detail in Section 3.4

**ESG materiality should guide focus, not add complexity.**

## Proportionality and Institutional Fit

Green appraisal standards should be:

- Simple enough for loan officers to apply consistently
- Appropriate for your client segments and loan sizes
- Scalable over time as green lending grows

**Advanced scoring models or technical audits are not required at early stages.**

The table below breaks these additionalities into the **step-by-step credit appraisal workflow** most MFIs already follow, showing what to add at each stage without changing your core process.

Credit Appraisal and Scoring Process (Baseline)	Green-specific additionalities
<p><b>Step 1: Client Screening and Basic Eligibility</b></p> <ul style="list-style-type: none"> <li>• Client identification and KYC</li> <li>• Basic eligibility checks (client type, sector, loan size limits)</li> <li>• Initial assessment of borrowing purpose</li> </ul> <p>This step filters out ineligible clients before detailed appraisal begins.</p>	<ul style="list-style-type: none"> <li>• Confirm the proposed loan purpose falls within the institution’s eligible green categories.</li> <li>• Apply early exclusion screening to filter out non-eligible or harmful activities.</li> <li>• Assess client suitability for the green investment (livelihood relevance, usage context).</li> <li>• Check client readiness and understanding of the green asset and its expected benefits.</li> <li>• Flag potential affordability concerns linked to higher upfront investment costs.</li> </ul>
<p><b>Step 2: Loan Purpose Appraisal</b></p> <ul style="list-style-type: none"> <li>• Verification of intended use of funds</li> <li>• Alignment of the loan purpose with the client’s livelihood or business activities</li> <li>• Initial plausibility check of the investment</li> </ul>	<ul style="list-style-type: none"> <li>• Validate that the investment meets internal green eligibility criteria (not just branding).</li> <li>• Confirm the investment contributes to climate mitigation, adaptation, or resilience outcomes relevant to the client.</li> </ul>

<sup>1</sup> Note: More practical guidance and key questions are provided in Section 3.4 under ESG materiality

<p>At this stage, loan officers confirm that the loan purpose is legitimate, realistic, and aligned with the client's profile.</p>	<ul style="list-style-type: none"> <li>• Check alignment with institutional green priorities (e.g. RE, CSA, EE, WASH).</li> <li>• Document the green rationale clearly in the loan file.</li> </ul>
<p><b>Step 3: Cash-Flow Analysis and Repayment Capacity</b></p> <ul style="list-style-type: none"> <li>• Assessment of income sources and stability</li> <li>• Review of household or business expenses</li> <li>• Existing debt obligations and repayment history</li> <li>• Seasonality and volatility considerations</li> </ul> <p>This step determines whether the client can reasonably service the loan under normal conditions.</p>	<ul style="list-style-type: none"> <li>• Assess how the green asset affects cash flows (cost savings, productivity gains, income stability).</li> <li>• Consider timing mismatches between investment costs and benefit realization.</li> <li>• Review exposure to climate or operational risks that could affect income.</li> <li>• Ensure loan sizing remains conservative and client-appropriate, even where long-term savings are expected.</li> </ul> <p>Note: Standard savings or gains assumptions must be defined centrally by Head Office (HO) depending on Green solutions. Loan Officers apply these assumptions but do not derive them independently.</p>
<p><b>Step 4: Credit Risk Appraisal and Scoring</b></p> <ul style="list-style-type: none"> <li>• Credit history and behavioural indicators</li> <li>• Qualitative and quantitative risk scoring</li> <li>• Collateral, guarantees, or alternative risk mitigants</li> </ul> <p>Risk scoring informs pricing, approval authority, and loan conditions.</p>	<ul style="list-style-type: none"> <li>• Verify that the asset model and supplier are on the Approved Vendor List. Green solution listed on the list should already be assessed by HO in terms of acceptable durability, lifespan, and maintenance requirements.</li> <li>• Review technology and vendor risks, including warranties and after-sales service.</li> <li>• Consider climate and environmental risks affecting asset performance.</li> <li>• Reflect these risks qualitatively or quantitatively within existing scoring tools.</li> </ul>
<p>Note: MFIs are not responsible for repairing or guaranteeing asset performance; however, vendor reliability and after-sales service should be considered as part of credit risk, similar to supplier risk in other productive loans.</p>	
<p><b>Step 5: Loan Structuring and Approval</b></p> <ul style="list-style-type: none"> <li>• Determination of loan amount, tenor, pricing</li> <li>• Approval by appropriate authority or committee</li> <li>• Setting of any pre- or post-disbursement conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Align tenor with asset lifespan or payback period.</li> <li>• Consider grace periods where benefits accrue over time.</li> <li>• Apply conditions precedent (e.g. installation confirmation, insurance).</li> <li>• Adjust pricing or collateral requirements where justified by risk profile.</li> </ul>
<p><b>Step 6: Disbursement, Monitoring, and Follow-Up</b></p> <ul style="list-style-type: none"> <li>• Disbursement of funds</li> <li>• Verification of loan use</li> <li>• Ongoing repayment monitoring</li> <li>• Follow-up visits or checks as required</li> </ul>	<ul style="list-style-type: none"> <li>• Tag or code green loans in the system for tracking.</li> <li>• Verify use of funds for green purpose during monitoring visits.</li> <li>• Monitor early warning signs linked to technology or climate risks.</li> <li>• Use portfolio data to refine eligibility, appraisal, and product design.</li> </ul>

Table: Credit Appraisal Process and Green Additionalities

## Implications for Credit Policy and Tools

To operationalise green appraisal and scoring:

- Credit policies should explicitly reference green eligibility, exclusions, and safeguarding.
- Appraisal templates should include simple green-specific fields or checkboxes.
- Scoring tools may incorporate qualitative adjustments for green asset risks.
- Credit committees should be briefed on how green considerations affect approval decisions.

### 3.4. Aligning Green Finance with CERISE+SPTF Universal Standards for Social and Environmental Performance Management (USSEPM)



As your institution expands green finance activities, it is essential to ensure that green loan products are delivered in a way that is **responsible, client-centred, and aligned with your social and environmental objectives**. The **CERISE+SPTF Universal Standards for Social and Environmental Performance Management (USSEPM)** provide a globally recognised framework to support this.

The Universal Standards are designed to help you **intentionally and systematically manage your institution’s social and environmental performance**. Many MFIs in Cambodia already apply them through social performance management

initiatives or readily accessible tools such as SPI Online.

In the context of green finance, the Universal Standards do not define what is green. Instead, they guide **how you design, deliver, and manage green finance products responsibly**.

#### What the Universal Standards Are, and What They Are Not

It is important for your institution to clearly understand the role of the Universal Standards in green finance.

The Universal Standards help you to	The Universal Standards do not
<ul style="list-style-type: none"> <li>• Manage social and environmental performance at the institutional level</li> <li>• Integrate client protection, responsible product design, and risk management into daily operations</li> <li>• Strengthen governance, accountability, and transparency</li> <li>• Identify and manage environmental and social risks and opportunities linked to lending activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Define green finance taxonomies or eligible green sectors</li> <li>• Certify or label loans as “green”</li> <li>• Replace national, regional, or international green finance frameworks</li> <li>• Require detailed environmental or climate impact assessments for individual loans.</li> </ul>

You should therefore use the Universal Standards as a management framework that complements green finance frameworks, not as a substitute for them.

*Green finance tells you what to finance.*  
*USSEPM provides a framework to finance responsibly.*  
*ESG materiality tells you what to focus on within the framework at an institutional level.*

### 3.4.1. USSEPM Dimensions Most Relevant to Your Green Finance Activities

The Universal Standards are organised into seven dimensions. While all dimensions contribute to strong institutional performance, several are particularly important when your institution designs and delivers green finance products in a responsible and client-centred way.

It is important to note that for institutions starting green finance, Dimension 3, 4 and 7 should be prioritised particularly for agricultural portfolios where client protection and environmental risk directly affects credit risk.

The sections below highlight these dimensions and explain how they apply directly to your green finance operations, using the official dimension titles and intent.

<b>Dimension 1: Social Strategy</b>	This dimension helps you ensure green finance is not an isolated product idea, but part of your institution’s broader purpose and direction. In practice, it means you can clearly explain why you offer green loans, who they are for, and how they support client resilience and portfolio sustainability.
<b>Dimension 2: Committed Leadership</b>	Green finance requires visible leadership commitment to set priorities and create accountability. This dimension reinforces the need for leadership to actively support green finance implementation, remove internal barriers, and ensure consistent application across branches.
<b>Dimension 3: Client Centered Products and Services</b>	<p>This is one of the most direct links to green finance. It pushes you to design green loan products that match:</p> <ul style="list-style-type: none"> <li>• your clients’ needs and realities,</li> <li>• their cash flows and repayment capacity,</li> <li>• and the practical economics of green investments (e.g., payback timing).</li> </ul> <p>It also reinforces piloting and learning before scaling.</p>
<b>Dimension 4: Client Protection</b>	<p>Green finance can introduce new client risks (e.g., higher upfront costs, unfamiliar technologies, vendor/maintenance issues). This dimension helps you ensure your green loans are delivered responsibly through:</p> <ul style="list-style-type: none"> <li>• transparency and clear communication,</li> <li>• prevention of over-indebtedness,</li> <li>• responsible pricing,</li> <li>• fair treatment and complaint mechanisms.</li> </ul>
<b>Dimension 5: Responsible Human Resource Development</b>	<p>This dimension is also highly relevant in practice because green finance often fails when staff are not supported. It reinforces that your institution should equip staff with the right:</p> <ul style="list-style-type: none"> <li>• skills and guidance,</li> <li>• incentives,</li> <li>• tools,</li> <li>• and internal support mechanisms to deliver green products consistently and responsibly.</li> </ul>
<b>Dimension 6: Responsible Growth and Returns</b>	This dimension helps you scale green finance at a pace your institution can manage, without weakening credit discipline or pushing volumes just to “grow green.” It reinforces responsible pricing and sustainable returns while staying aligned with your institution’s social goals.
<b>Dimension 7: Environmental Performance Management</b>	<p>This is where USSEPM connects most explicitly to “green.” It supports your ability to:</p> <ul style="list-style-type: none"> <li>• identify environmental risks linked to lending,</li> <li>• promote environmentally responsible practices,</li> </ul>

- 
- apply proportionate screening and monitoring,
  - and improve environmental performance over time.

This does not mean full environmental impact assessments for each loan - it means applying practical, proportionate environmental performance management aligned with your capacity.

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### How you can use the Universal Standards in practice

You do not need to implement everything at once. A practical way to use USSEPM for green finance is to treat it as a reference lens to pressure-test your green lending approach:

- Is your green finance direction clear and supported? (Social Strategy, Committed Leadership)
- Are products designed around client reality and repayment? (Client Centered Products and Services)
- Are clients protected as technologies and costs change? (Client Protection)
- Are staff equipped and supported to deliver consistently? (Responsible Human Resource Development)
- Are you scaling responsibly and sustainably? (Responsible Growth and Returns)
- Are you managing environmental performance proportionately? (Environmental Performance Management)

Tools like SPI Online can support structured internal reflection against these dimensions.

### Minimum viable application of USSEPM for early green pilots

For MFIs starting green lending, a practical minimum is to focus on:

- Client Centered Products and Services (product fits cash flow and real needs),
- Client Protection (avoid over-indebtedness and mis-selling), and
- Environmental Performance Management (basic safeguarding and monitoring).
- Note: Other dimensions can be strengthened progressively as green lending scales.

## 3.4.2. ESG Materiality: Focusing on What Matters for Your Green Portfolio

ESG materiality refers to identifying **which ESG risks are most relevant** to your green loan portfolio and client segments.

For MFIs, this means focusing on ESG risks that can realistically **affect repayment capacity, asset performance, and client well-being**. Within the CERISE+SPTF USSEPM, ESG materiality ensures that environmental and social considerations are **proportionate, client-centred, and integrated into existing credit processes**, rather than treated as a separate compliance exercise.

For MFIs starting out: ESG materiality can be applied by identifying only 1–2 key risks covering environmental, social, and governance factors per loan type that could affect repayment or client wellbeing.

*At the **Exploring level (level 0)**, ESG materiality simply means asking: “What could go wrong with this investment that affects repayment?”*

Green loans often involve new technologies, higher upfront costs, and exposure to climate variability. If ESG risks are not properly identified, green finance can unintentionally increase client vulnerability or portfolio risk. Applying ESG materiality helps your institution prioritise the ESG issues that truly matter, instead of assessing everything.

ESG materiality should be applied in a proportionate and practical way, aligned with your institution's size, client base, and product scope

How to apply ESG materiality in practice

- **Identify ESG risks linked to your green loan types.** Focus on common risks such as environmental impacts, health and safety concerns, or vendor reliability.
- **Prioritise risks that affect repayment and client outcomes.** Ask whether the risk could reduce income, cause asset failure, or harm the client.
- **Integrate material ESG risks into existing processes.** Use appraisal notes, approval conditions, and monitoring visits to address these risks. Separate ESG tools are not required.

Examples of applying ESG materiality where a yes response will mean risks are likely material and should be reflected in the loan appraisal or monitoring.

ESG Materiality	Key Questions
<b>Environmental Materiality</b>  <i>What Could Go Wrong Environmentally?</i>	<ul style="list-style-type: none"> <li>• Does this green investment depend on natural conditions (water availability, sunlight, soil quality, climate patterns)?</li> <li>• Could climate variability (floods, droughts, heat stress) affect the expected benefits of the investment?</li> <li>• Is there any risk of unintended environmental harm (e.g. groundwater depletion, waste generation, pollution)?</li> <li>• At the end of the asset's life, is there a clear and safe disposal or replacement option (e.g. batteries, pumps)?</li> </ul>
<b>Social Materiality</b>  <i>Could this Investment Harm or Burden the Client?</i>	<ul style="list-style-type: none"> <li>• Does the client clearly understand how the green asset works and what it can realistically deliver?</li> <li>• Could the investment increase the client's financial pressure (high upfront cost, delayed returns)?</li> <li>• Are there any health and safety risks linked to installation, operation, or maintenance?</li> <li>• Does the investment require skills, behaviour changes, or labour the client may not be able to sustain?</li> </ul>
<b>Governance Materiality</b>  <i>Are There Delivery or Partner Risks?</i>	<ul style="list-style-type: none"> <li>• Is the vendor, installer, or supplier reliable and locally accessible?</li> <li>• Is there after-sales service or maintenance support if the asset fails?</li> <li>• Are pricing, warranties, and responsibilities transparent to the client?</li> <li>• Could weak governance or poor coordination undermine the performance of the green investment?</li> </ul>
<b>Financial Linkage</b>  <i>Does ESG Risk Affect Repayment?</i>	<ul style="list-style-type: none"> <li>• Could this ESG risk reduce income, increase costs, or disrupt cash flow?</li> <li>• Could it cause the green asset to underperform or fail?</li> <li>• Could it lead to repayment stress or arrears?</li> </ul>

**How to Use These Questions in Practice (You do not need to check every ESG issue or collect complex data)**

- Use them during underwriting discussions, not as a separate checklist.
- Focus only on 2–3 material risks per loan, not everything.
- Reflect material risks in:
  - approval conditions,
  - loan size or tenor,
  - monitoring priorities.

### 3.5. Embedding Green Finance Across the Credit Lifecycle

Green finance does not replace your institution’s existing credit operations. Instead, it is embedded within the standard credit lifecycle that MFIs already apply: origination, underwriting, disbursement, servicing, and collections.

In the Cambodian context, many clients do not actively differentiate between green and conventional loans. They focus primarily on interest rates, repayment terms, and access to credit. As a result, green finance succeeds not through branding, but through disciplined implementation across origination, underwriting, disbursement, servicing, and collections.

This section provides practical guidance for each stage, based on common challenges observed among Cambodian MFIs.

Process	Common Challenges	What to focus on	Actions
<b>Origination</b>  <i>Ensure that green loans originate from a real investment need, not from re-labelling conventional credit.</i>	Clients requesting loans without a clear understanding of green purpose  Loan officers under pressure to grow green portfolios quickly  Difficulty distinguishing productive loans from genuinely green investments  Limited client familiarity with green technologies (solar, water systems, CSA inputs)	Clear link between loan purpose and an eligible green activity  Suitability of the investment for the client’s livelihood and location  Client understanding of what is being financed and why  Early screening against exclusion lists  Avoid promising guaranteed savings or productivity gains. Staff should explain green investments using realistic ranges and practical examples, and confirm client understanding of costs, maintenance, and payback timing.	Provide loan officers with a short, Cambodia-relevant green eligibility list.  Avoid setting early-stage targets that reward green loan volume alone. During pilots, performance should prioritise correct classification, portfolio quality, and learning, not disbursement speed.  Require loan officers to describe the green purpose in their own words in the loan application.  Screen out borderline or unsuitable cases early, especially where green benefits are unclear.  Explain green loans to clients using practical examples, not environmental language.
<b>Underwriting</b>  <i>Confirm that the green investment is financially viable, appropriate for the client, and resilient to Cambodia-specific risks.</i>	Limited technical knowledge of green assets among credit teams  Overestimation of savings or productivity gains  Variable quality of local installers and after-sales service  High exposure of agriculture and	Impact of the green asset on cash flow and repayment capacity  Realistic assumptions about cost savings or income gains  Technology reliability, maintenance needs, and vendor quality  ESG risks that are material to the specific investment	Add green-specific prompts to existing appraisal and scoring templates.  Identify and circulate a list of common green asset risks in Cambodia (e.g. solar performance, pump durability).  Apply approval conditions where green risks are higher (e.g. shorter tenor, closer monitoring).

	aquaculture clients to climate variability	Safeguarding and “Do No Significant Harm” considerations	Keep ESG checks focused on material risks, not exhaustive assessments.
<b>Disbursement</b>  <i>Ensure loan funds are used for the approved green purpose, even where documentation is limited.</i>	Limited invoices or formal quotations for small-scale investments	Alignment between approval conditions and disbursement steps	Link green approval conditions directly to disbursement checks.
	Pressure to disburse quickly, especially in rural areas	Basic evidence supporting intended green use	Use staged or conditional disbursement where appropriate.
	Difficulty verifying use of funds for household-level loans	Disbursement arrangements that reduce diversion risk	Keep documentation requirements simple and proportionate to loan size.  Record green classification clearly at disbursement for tracking.
<b>Servicing</b>  <i>Confirm that green investments are installed, functioning, and delivering expected benefits.</i>	Monitoring visits focused only on repayment	Installation and basic functionality of green assets	Integrate basic green checks into routine servicing visits.
	Loan officers unsure how to assess asset functionality	Maintenance or performance issues	Train staff on what to observe, not how to repair assets.
	Limited systems to capture green performance data	Client experience and usage	Record recurring issues related to technology, vendors, or usage.
	Weak feedback loops to product and risk teams	Emerging risks linked to climate or asset failure	Use servicing insights to refine product design and underwriting standards.
<b>Collections</b>  Maintain credit discipline while recognising green-specific drivers of repayment stress.	Treating all arrears as behavioural default	Whether arrears are linked to asset failure, delayed returns, or climate events	Diagnose arrears using a green-risk lens before escalation.
	Limited coordination between collections, risk, and product teams	Fair and respectful client treatment	Document green-related causes of repayment difficulty.
	Climate shocks affecting agriculture and rural livelihoods	Lessons for future underwriting and product refinement	Feed collections insights back into underwriting standards and product design.
	Missed opportunities to improve green loan design		Maintain consistent and respectful collections practices.

To institutionalise learning, assign a simple feedback loop: servicing and collections teams summarise recurring green issues monthly or quarterly and feed them into the product/credit team to refine eligibility rules, conditions, and vendor guidance.

*Green finance succeeds when green considerations are embedded into everyday credit decisions, not treated as a parallel process. Effective green finance integration is built through disciplined, practical decisions at every stage of the credit lifecycle, not through complex frameworks.*



### Actions for Your Institution

- Apply **clear green eligibility and exclusion checks at origination**, recognising that many Cambodian clients focus on pricing and tenure rather than “green” labels. Equip loan officers to explain green loan purpose in simple, practical terms.
- Strengthen underwriting by assessing **Cambodia-specific green risks**, including technology reliability, installer quality, after-sales service, and climate exposure in agriculture and aquaculture. Focus ESG materiality on risks that directly affect repayment and client well-being.
- Align approval conditions with **proportionate disbursement controls**, acknowledging limited documentation for small or rural investments. Use staged or conditional disbursement where appropriate to protect green use-of-funds.
- Integrate **basic green checks into routine servicing**, confirming installation, functionality, and usage without requiring technical expertise.
- Use collections insights to distinguish **green-related repayment stress** (e.g. technology failure, delayed returns, climate shocks) from behavioural default, and feed lessons back into underwriting and product design.
- Build capacity gradually through **pilots and peer learning**, in line with the resource constraints of Cambodian MFIs and RCIs.

### Expected Outcomes

- Reduced greenwashing risk in an evolving green finance market
- Stronger portfolio quality through better anticipation of local green and climate risks
- Improved client protection by financing green investments aligned with livelihoods and repayment capacity

## ***Embedding Green Checks Into Normal Credit Processes***

### ***Case Study 3A: Strengthening Appraisal Without Adding Complexity***

A Cambodian MFI wanted to introduce climate-smart agriculture loans. Instead of creating a new approval structure, they integrated green checks into their existing appraisal form.

They added:

- A green eligibility confirmation section
- A simple vendor verification prompt
- A reminder to align repayment with harvest cycles
- A green tag in the MIS

No new department was created. Credit committees remained unchanged.

Loan officers reported that the new fields were clear and easy to apply because they followed the normal credit workflow.

### **Key Lesson**

Institutional readiness means adjusting existing systems — not creating parallel ones.

### **Global Insight**

Microfinance institutions that integrate green considerations into standard underwriting processes experience stronger staff adoption than those introducing separate ESG or environmental departments or teams.

### **Case Study 3B: Integrating Climate Exposure into Credit Appraisal**

An MFI with a strong aquaculture portfolio observed repeated repayment stress during prolonged heat waves. Borrowers reported fish mortality and reduced yields during extreme temperature periods.

Although aeration systems were sometimes financed, climate exposure was not systematically assessed during appraisal.

Branch patterns showed:

- Seasonal repayment spikes during extreme heat
- Concentrated stress in certain communes
- Increasing use of grace periods

#### **Institutional Reflection**

Management recognised that exposure — not borrower discipline — was driving stress.

The credit appraisal form did not include any structured climate exposure check

#### **Response**

The institution updated its appraisal template to include:

- Exposure check: flood, drought, or heat-prone zone
- Confirmation of mitigation measures (shade, aeration, pond depth)
- Conservative yield assumptions in exposed areas

Loan officers were trained to adjust repayment projections accordingly.

No environmental scoring system was created, only practical prompts integrated into existing underwriting.

#### **Outcome**

After one season:

- Cash-flow projections were more realistic
- Early repayment stress signals declined
- Credit committee discussions became more structured

#### **Key Credit Insight**

Climate exposure is a material underwriting factor in adaptation-sensitive sectors.

#### **Global Insight**

Financial institutions increasingly integrate geographic climate exposure mapping into agricultural underwriting to reduce concentrated risk.

## From Guidance to Action

### **Chapter 3: Building Institutional Readiness**

#### **What This Chapter Helps You Do**

Make sure green lending fits into your existing structure without creating confusion.

#### **What To Do Next (By Maturity Level)**

##### **Exploring (Level 0)**

- Appoint one green focal person.
- Map which teams touch product design, credit, risk, MIS, and branches.
- Identify where “green” checks would be positioned in the existing credit process.

##### **Foundational (Level 1)**

- Clarify roles in writing (even a short memo is enough).
- Update credit policy to mention green eligibility and exclusions.
- Ensure senior management approves the pilot approach.

##### **Piloting (Level 2)**

- Form a small temporary working group.
- Add simple green fields in appraisal forms.
- Train pilot branch staff with real examples.

##### **Integrating (Level 3)**

- Embed green prompts into standard underwriting.
- Include green performance in risk or credit committee discussions.
- Standardise monitoring guidance.

##### **Scaling (Level 4)**

- Include green reporting at board level.
- Ensure internal audit reviews green classification periodically.

#### **Expected Outcomes**

- Staff understand their role.
- Green loans follow normal credit discipline.
- You avoid confusion between teams.
- The pilot runs smoothly.

# Chapter 4: Designing, Piloting and Implementing Green Loan Products

Once your institution has established a clear definition of “green” and put the right institutional foundations in place, the next step is to design, test, and implement green loan products in a structured and practical way.

This chapter walks you through the green loan product lifecycle, from initial design to piloting, rollout, monitoring, and continuous improvement. The emphasis is on starting small, setting clear pilot boundaries, learning from practice, and scaling responsibly based on evidence, rather than assumptions.

- Product Design
- Pilot Testing & Evaluation
- Product Launch
- Monitoring
- Learning & Improvement

## 4.1. Designing your product

### *How This Applies for all Maturity Levels:*

- **Exploring:** Build awareness of potential green lending areas within your existing portfolio and identify where client demand may already exist.
- **Foundational:** Define a clear product concept aligned with your green definitions, eligibility rules, and institutional capacity.
- **Piloting:** Finalise product structure, pricing, tenor, safeguards, and documentation before limited rollout.
- **Integrating:** Refine product features based on pilot feedback and embed them into standard credit processes.
- **Scaling:** Optimise product design across branches and introduce structured differentiation by client segment or risk profile.

Product design is where most green loan initiatives succeed or fail. Common challenges at this stage include weak client pipelines, limited understanding of client behaviour change, lack of branch-level capacity, and uncertainty about how green loans will be monitored. This step focuses on designing a product that responds to real client demand, fits your institution’s capacity, and can be implemented using existing systems.

*A well-designed green product is not only a strong concept, but also one that can be delivered consistently by branches, tracked in the MIS, and monitored without creating parallel systems*

### **Tip Box: Important clarification on “product design”**

In this playbook, product design does not necessarily mean creating new loan products from scratch. For many MFIs, effective green loan design begins by **adapting existing products** with clear green eligibility, safeguards, repayment logic, and monitoring practices.

Dedicated green products can be introduced gradually as institutional capacity and market demand grow.

## 4.1.1. Market Intelligence and Client Segmentation

### **Maturity Scale Prioritization:**

Level 0   Level 1   Level 2   Level 3   Level 4

### **How This Applies for all Maturity Levels:**

- **Exploring:** Analyse existing MIS data and gather branch feedback to understand where green investment demand may already exist.
- **Foundational:** Conduct light surveys, FGDs, or interviews in selected areas to identify adoption barriers and supplier reliability.
- **Piloting:** Use segmentation insights to prioritise pilot branches and clearly define eligible client profiles.
- **Integrating:** Refine segmentation using repayment performance and client uptake data.
- **Scaling:** Institutionalise segmentation into green portfolio strategy and business planning.

**For green assets, vendor availability, maintenance access, and repair services are critical feasibility criteria and should be assessed before client demand alone.**

**Understanding your current and prospective clients is a key foundation of green product design.** Green loans fail when institutions assume demand without understanding affordability, adoption barriers, and local supply conditions.

Your goal is not academic research, but practical insight that informs product features and delivery. For green finance, this research is especially important because **clients rarely ask for “green loans” explicitly**. You need to identify where green demand already exists within your current portfolio.

Market intelligence does not need to be comprehensive before piloting. Many MFIs start with limited research in 2-3 branches and refine assumptions through pilot results.

**You should begin by clearly defining what you want to learn.** Typical questions include whether your existing clients are already interested in specific green technologies, whether they can afford them, what prevents adoption, whether reliable suppliers exist, and whether policies or local conditions affect feasibility. These questions help keep research focused and actionable.

- Which existing client segments could benefit from green investments?
- Are green technologies available, affordable, and reliable for these clients?
- What barriers prevent adoption (cost, knowledge, risk perception)?
- Which suppliers or service providers are active and credible?

Research without a defined research question wastes time. Start with 3–5 questions that directly shape product decisions.

**Minimum viable market intelligence (for smaller MFIs).** If your institution has limited time and resources, start with:

- One short MIS scan (where similar loans already occur)
- 2–3 focus groups in pilot areas
- 5–10 quick interviews with vendors/installer networks

This is often sufficient to validate whether demand and supply conditions are real before investing in broader research.

At the Exploring stage, you can start by analysing your existing MIS data and speaking with 5–10 loan officers. Formal surveys are not required.

Your research approach should combine quantitative and qualitative methods. Quantitative data helps you understand affordability, repayment capacity, and potential scale, while qualitative data explains behaviour, trust issues, fears and other factors influencing decision-making and willingness to pay for new technologies or solutions. Relevant data sources include:

- Internal MIS data on client profiles, loan purposes, repayment trends, and geographic concentration
- External sources such as regulations, industry publications, NGO or donor studies, and green technology market reports
- Feedback from loan officers, branch managers, and complaint mechanisms
- Client surveys, focus group discussions, and interviews with technology providers, cooperatives, or community leaders

Data should be analysed to create client segments that go beyond demographics. Segment clients by livelihood, income stability, geographic exposure to climate risks, and openness to adopting new technologies. Mapping these segments against green technologies helps you identify where real demand exists and where adoption support will be needed.

Competition analysis should be conducted alongside market research. Understanding how other institutions price, structure, and market green products helps you avoid copying unsuitable models and identify opportunities to differentiate.

Under the 18% interest rate cap in Cambodia, pricing flexibility for green products is limited. MFIs may compete more effectively through loan tenor, grace periods, and repayment structure, and/or bundled services rather than interest rate reductions, unless subsidised funding is available.

In practice, competition analysis should answer: What similar loan products exist? What borrowers actually choose? (and why), and what approval/repayment issues competitors appear to face? This helps you avoid copying pricing or tenors that are unsustainable in your client context.

**Example:** Farmers may express strong interest in net houses to improve yields, but fear crop failure during the transition period. This insight should directly influence product design, such as aligning repayment with harvest cycles or partnering with providers for training.

### **Tip Box: Client Profiling and Persona Creation (Why It Matters and How to Do It)**

Green loan products work best when they are designed around real client behaviours, not assumptions. **Client profiling helps your institution understand who your green loan is for, while persona creation helps your staff visualise how that client makes decisions, earns income, and repays loans.** This is especially important in Cambodia, where clients rarely ask for “green loans” and instead focus on affordability, cash flow, and reliability.

**Client profiling starts by analysing your existing client data.** You should group clients based on aspects such as livelihood type, income stability, seasonality, geographic location, and exposure to climate risks. This allows you to identify which segments are most likely to adopt specific green investments, such as solar, water systems, or climate-smart agriculture inputs.

**Personas then turn these segments into practical tools for product design and staff training.** A persona is not a real person, but a realistic representation of a typical client. It should describe what the client does, how they earn income, what problem they are trying to solve, what risks they face,

and what would make a green investment attractive or risky for them. Personas are especially useful for staff training and client communication, because they help loan officers explain green investments in cash-flow language, not environmental terms.

For example, instead of designing a generic “solar loan,” you may design for “a rain-fed rice farmer with seasonal income, high diesel costs, and limited technical confidence”. This immediately informs loan size, tenor, repayment timing, and the level of support needed at branch level. Products should be broad - but have the flexibility for customisation based on institutional strengths and focus areas.

## 4.1.2. Translating Insights into a Product Concept

### **Maturity Scale Prioritization:**

Level 0    Level 1    Level 2    Level 3    Level 4

### **How This Applies for all Maturity Levels:**

- **Exploring:** Review market examples to understand how green products are structured in practice.
- **Foundational:** Hold a structured internal workshop to define one clear green product concept.
- **Piloting:** Convert the concept into documented product rules aligned across product, credit, risk, MIS, and operations.
- **Integrating:** Formalise product documentation templates for consistent replication.
- **Scaling:** Establish structured innovation processes to expand into new green segments.

Once market insights are gathered, they must be translated into a product concept that your institution can actually deliver. This step is about narrowing options and making clear choices.

Product ideation should be done through a structured internal workshop involving product development, credit, risk, MIS, finance, marketing, and branch-level staff. Including frontline staff is critical, as they understand client behaviour and operational constraints.

The objective is to select one or two priority green products that match client demand, institutional strengths, and risk appetite. Each product concept should clearly state who the product is for, what problem it solves, why it is green, and how it fits within your existing lending model. **Consider organising short, practical co-design sessions to develop and validate ideas quickly.** Each member joining the workshop should have established roles to provide specific input:

- Product structure and features - Product Development
- Appraisal and safeguards - Credit and Risk
- Practical client insights, needs, wants - Branch
- Pricing and sustainability - Finance
- Monitoring and reporting - MIS and Operations

Using a product concept matrix helps structure this discussion by linking client demand, competition, product structure, and institutional alignment. Attempt to explore these four key areas in your co-design sessions:

- **Client demand:** Do clients want this and why?
- **Competition:** Is something similar already offered, and how?
- **Product structure and feasibility:** How would the loan actually work?
- **Institutional alignment and readiness:** Can your institution deliver this product well?

**If the product idea or concept performs poorly in any of the four areas, it is a signal to redesign, delay or drop it.**

**Tip Box: Avoid taking too many concepts forward at once.**

Most MFIs are more successful when they pilot one product (or one product with two variants) rather than launching multiple green products simultaneously.

A good green product is not the most innovative one. It is the one your clients will use and your staff can deliver.

### 4.1.3. Defining Product Features

#### Maturity Scale Prioritization:

Level 0   Level 1   Level 2   **Level 3**   Level 4

#### How This Applies for all Maturity Levels:

- **Exploring:** Understand key product dimensions such as eligibility, pricing, tenor, and safeguards.
- **Foundational:** Define simple eligibility criteria and repayment structures aligned with client income cycles.
- **Piloting:** Align tenor with asset payback periods, introduce vendor requirements where relevant, and document safeguards clearly.
- **Integrating:** Adjust pricing, repayment schedules, and approval conditions based on portfolio performance signals.
- **Scaling:** Introduce differentiated pricing, risk-sharing mechanisms, or bundled services where performance data supports expansion.

Product features determine whether a green loan is affordable, usable, and sustainable. Green loans should build on your existing credit policies, with additional environmental and social considerations integrated where relevant. **Product features should be documented as clear operating rules** (eligibility, exclusions, appraisal prompts, approval conditions, disbursement steps, and monitoring expectations). **If features are only described conceptually, branches will interpret them differently.**

**Eligibility criteria should clearly define who can borrow and what activities qualify as green.** These criteria should reflect client segments identified through research and align with your green definitions and exclusion lists. Eligibility rules must be simple enough for loan officers to apply consistently.

Dimension	Key Guiding Question	Design Choices	Pitfalls to Avoid
<b>Client Segmentation</b>	Which client groups can realistically adopt this green investment? Who should this product not target?	Define 1-3 priority segments (e.g. smallholder farmers, rural households, micro-enterprises). Apply a gender lens where relevant.	Overly broad eligibility that loan officers cannot interpret consistently
<b>Relevance to climate and social context</b>	Does this investment directly address a climate or environmental challenge faced by the client?	Limit eligibility to clearly defined green activities aligned with Cambodia context (e.g. RE, CSA, WASH).	Financing “green-looking” assets with weak climate relevance.
<b>Environmental &amp; social safeguards</b>	What minimum safeguards must clients comply with?	Simple, observable safeguards (no deforestation, no harmful water extraction, no illegal activities).	Complex safeguard requirements that cannot be verified.

<b>Exclusion list</b>	What activities must never be financed?	Short exclusion list embedded in credit policy and loan forms.	Exclusion lists that exist on paper but are not applied in practice
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**Pricing should balance affordability for clients with sustainability for your institution.** While green loans often aim to encourage adoption, interest rates must still cover costs and risks. Where concessional funds or guarantees exist, your institution should decide transparently how these benefits are passed on to clients.

Dimension	Key Guiding Question	Design Choices	Pitfalls to Avoid
<b>Affordability vs sustainability</b>	Can clients afford this loan while covering your cost of funds and operations?	Price within a lower but viable range; avoid “symbolic” discounts that undermine sustainability.	Underpricing to push uptake, leading to portfolio stress.
<b>De-risking mechanisms</b>	Are there ways to reduce risk without distorting behaviour? How can we use temporary de-risking support without creating long-term dependency?	Use guarantees, concessional lines, or TA support where available, without masking real risk or costs.	Designing products that only work with permanent subsidies or incentives.
<b>Transparency</b>	Can clients clearly understand pricing and benefits?	Simple pricing explanations focused on cash-flow impact, not environmental language.	Marketing “green” benefits without explaining real costs

**Loan tenor should reflect both the payback period of the green asset and the borrower’s income cycle.** Aligning repayment schedules with harvests or production cycles is particularly important in agriculture and rural contexts. Flexibility mechanisms should be defined for climate shocks without undermining credit discipline.

Dimension	Key Guiding Question	Design Choices	Pitfalls to Avoid
<b>Technology lifespan</b>	How long does the asset realistically generate benefits?	Align tenor to asset payback period (e.g. longer for solar pumps, shorter for household solar).	One-size-fits-all tenor regardless of asset type.
<b>Repayment capacity</b>	How does the client earn income and when?	Seasonal or flexible repayment schedules aligned with harvest or production cycles.	Monthly repayments for seasonal income clients.
<b>Climate flexibility</b>	How will extreme weather affect repayment?	Built-in restructuring options for verified climate shocks, or de-risking mechanisms such as weather index insurance.	Rigid repayment terms in climate-exposed sectors.
<b>Risk mitigation</b>	What protects both client and portfolio?	Insurance or risk-sharing mechanisms where feasible.	Extending tenor without compensating risk controls.

Where vendor risk is high, MFIs may pilot with a limited set of vendors before expanding options.

#### 4.1.4. Vendor Requirements

For green loan products that finance equipment or systems (e.g., solar solutions, pumps, biodigesters, or semi-RAS components), vendor and installer practices can directly affect asset performance and, in turn, repayment risk.

MFIs do not need to certify vendors but should define and apply minimum vendor requirements as part of product design and credit conditions.

At a minimum, this may include verifying basic business legitimacy (e.g., business registration or an established track record), confirming warranty terms, ensuring clear after-sales contact details and service response expectations, and obtaining a simple quotation or cost breakdown where feasible.

Where vendor risk is higher or the technology is new to the institution, MFIs may pilot the product with a limited set of preferred vendors before expanding options based on observed performance and client experience.

If eligibility is unclear, the product will fail at origination.  
If pricing is unrealistic, uptake or portfolio quality will suffer.  
If tenor ignores income cycles, arrears will increase.

### **Case Study 4A: From Assumed Demand to Real Client Segmentation**

A Cambodian MFI decided to introduce a solar irrigation loan after observing increased interest from agricultural clients. Management assumed that most smallholder farmers would adopt solar pumps due to rising diesel prices.

However, when reviewing MIS data and branch feedback, the institution discovered:

- Many smallholders farmed less than one hectare
- Some relied on shared irrigation systems
- Upfront installation costs were high relative to seasonal income
- Farmers were hesitant about unfamiliar technology

#### **Market Intelligence Phase**

The MFI conducted: Branch-level discussions, Informal client interviews, Supplier/Vendor consultations

They segmented clients into:

- Larger farmers with stable irrigation needs
- Small farmers dependent on rainfall
- Farmers already using diesel pumps

They concluded that the product should initially target:

- Farmers already using diesel pumps
- Clients with at least two harvest cycles of stable income

#### **Product Concept**

The refined concept became:

“Solar irrigation refinancing for diesel-dependent farmers with stable historical yields.”

#### **Product Features**

The institution defined:

- Clear eligibility criteria
- Minimum land size threshold
- Tenor aligned with harvest cycles
- Vendor warranty requirement
- Installation confirmation before final disbursement.

#### **Outcome**

Instead of launching a broad solar loan, the MFI launched a focused product aligned with realistic client capacity.

#### **Key Lesson**

Product design starts with client segmentation, not enthusiasm for technology.

#### **Self-Reflection Questions**

- How well do we understand which client segments can realistically adopt this product?
- Are we designing based on actual portfolio data, or assumptions about demand?
- Which client segments might we unintentionally exclude or mis-target?
- If we launched today, would loan officers clearly understand who qualifies?
- What risks are we underestimating at the design stage?

## From Guidance to Action

### Chapter 4.1: Designing Your Product

#### What This Section Helps You Do

Turn green ideas into a structured product that fits your clients and your institution.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Review your current loan portfolio.
- Identify where clients already invest in solar, agriculture, housing, or water.
- Ask branch staff: “What green assets are clients already financing?”

##### Foundational (Level 1)

- Choose ONE product to focus on.
- Define: Who it is for; What it finances; Why it qualifies as green
- Keep the structure simple and aligned with existing products.

##### Piloting (Level 2)

- Finalise eligibility, pricing, tenor, and repayment schedule.
- Define vendor or safeguard requirements (if needed).
- Document everything before disbursement starts.

##### Integrating (Level 3)

- Refine product features based on early feedback.
- Adjust repayment schedules if stress patterns appear.
- Improve appraisal prompts where confusion arises.

##### Scaling (Level 4)

- Standardise product across branches.
- Introduce product differentiation if portfolio grows.
- Optimise pricing and vendor partnerships.

#### Expected Outcomes

- Your product matches real demand.
- Staff can explain and deliver it confidently.
- Early repayment stress is reduced.

## 4.2. Pilot Testing and Evaluation

### *How This Applies for all Maturity Levels:*

- **Exploring:** Focus on readiness and internal alignment before considering pilot implementation.
- **Foundational:** Define pilot scope, select branches, prepare systems, and train staff before launch.
- **Piloting:** Execute structured pilot with capped volume and close monitoring of uptake, repayment, and operational feasibility.
- **Integrating:** Refine underwriting standards, vendor criteria, and monitoring procedures based on pilot findings.
- **Scaling:** Institutionalise pilot governance frameworks for future product development cycles.

Pilots are expected to surface problems. A pilot that reveals weaknesses is successful if it prevents larger losses at scale. Piloting allows your institution to test the product in real conditions before scaling. It helps identify operational bottlenecks, staff capacity gaps, client understanding issues, and monitoring challenges.

A typical pilot may run for 6–8 months, but duration should be adjusted based on the investment type and repayment structure (e.g., longer where benefits accrue seasonally or over time). Shorter pilots may be used for niche segments with rapid adoption. Piloting should follow a structured process covering team composition, protocols, objectives, systems readiness, staff training, marketing, and evaluation. Pilot processes and resources for the dimensions need to develop prior to the pilot (e.g., training for branch officers). The purpose is not only to assess profitability, but also client uptake, staff confidence, and environmental and social performance.

If your institution is still clarifying definitions and eligibility, delay piloting and strengthen foundations first.

## 4.2.1. Guide to Piloting the Product

The pilot testing process follows a logical sequence that helps your institution move from preparation to evidence-based decision-making. These steps are not meant to be rigid. They should be adapted to your institutional capacity but skipping them increases the risk of implementation failure.

<b>Step 1: Set up pilot leadership and accountability</b>	Every pilot needs clear ownership. Assign a senior manager to lead the pilot and confirm who is responsible for product decisions, credit approval, risk oversight, systems support, and branch-level delivery. Without clear accountability, pilots tend to stall or generate unclear lessons.
<b>Step 2: Define the pilot scope and protocol</b>	Clearly document what is being tested and where. This includes selecting pilot branches, defining eligible client segments, setting loan volume limits, confirming timelines, and outlining roles and responsibilities. A simple pilot protocol helps avoid confusion and uncontrolled expansion.
<b>Step 3: Agree on pilot objectives and success criteria</b>	Decide upfront how you will judge success. Objectives should go beyond disbursement volumes to include client uptake, repayment behaviour, operational feasibility, staff confidence, and environmental and social outcomes. Clear success criteria ensure pilots generate actionable conclusions.
<b>Step 4: Prepare systems and financial assumptions</b>	Before launching, ensure your MIS can tag green loans and generate basic reports. Financial projections should estimate costs, revenues, and risks, with the understanding that assumptions will be refined as real data emerges during the pilot.
<b>Step 5: Finalise product rules and prepare staff</b>	Confirm product features, eligibility rules, appraisal guidance, and monitoring requirements. Train pilot staff using real scenarios, focusing on how to explain the product, assess green risks, and apply safeguards consistently at branch level.
<b>Step 6: Launch and closely monitor the pilot</b>	Roll out the product in selected branches and monitor early implementation closely. Focus on client uptake, appraisal quality, disbursement controls, technology performance, and early repayment behaviour. This is where most practical issues emerge.
<b>Step 7: Review results and decide next steps</b>	At the end of the pilot period, review financial performance, portfolio quality, client experience, operational challenges, and green outcomes. Use these findings to decide whether to scale the product, refine its design, or discontinue it.

## 4.2.2. Piloting Decision Process Matrix

Throughout the pilot, your institution should collect data on loan uptake, repayment trends, client feedback, technology performance, and vendor reliability. This information should be reviewed regularly and used to refine product features and procedures. Certain decisions will need to be made depending on progress of the piloting to ensure product is adapted as soon as possible.

Dimension	Key Guiding Question	How to test?	Decision / Next Step
<b>Pilot scope definition</b>	Is this product suitable for a limited, controlled rollout?	Select 2–5 branches with relevant client base; cap number of pilot loans; define eligible client profile	Confirm pilot scope or revise product
<b>Staff readiness</b>	Can staff explain, appraise, and process the product correctly?	Short training; test with mock cases; review first loan files	Proceed or adjust training/guidance
<b>Client uptake</b>	Do clients apply without heavy pressure or incentives?	Track number of applications vs approvals; capture rejection reasons	Proceed, redesign product, or stop pilot
<b>Credit appraisal</b>	Are green-specific risks identified and documented?	Review appraisal notes and scoring; spot-check loan files	Improve appraisal tools or rules
<b>Disbursement controls</b>	Are funds used for the approved green purpose?	Installation checks, invoices, or site visits (proportionate)	Maintain or strengthen controls
<b>Repayment behaviour</b>	Do repayment patterns match assumptions?	Monitor first repayment cycles and early arrears	Adjust tenor or repayment schedule
<b>Technology performance</b>	Do green assets perform reliably? Vendor underperforming?	Track failures, maintenance issues, vendor response time	Tighten vendor list, introduce conditions, pause tech in the category
<b>Monitoring &amp; Reporting</b>	Can green loans be tracked easily?	Test loan tagging and simple system generated reports	Improve MIS or reporting setup
<b>Pilot Pause/Stop Triggers</b>	What are the triggers to stop or pause the pilot?	Repeated asset failures, abnormal payment stress, safeguarding concerns	Pause pilot, re-pivot or stop the pilot
<b>Client experience</b>	Do clients understand and benefit from the product?	Third party checks, informal interviews, complaint review	Improve communication or support
<b>End Pilot evaluation</b>	Is the product ready to scale?	Structured review of financial, operational, and risk results	Scale, adapt/revise, or stop

### **Case Study 4B: Controlled Pilot in Three Branches**

Following product design, the MFI selected three agricultural branches for a pilot. The pilot was capped at 40 loans over six months

#### **Structured Pilot Setup**

The institution:

- Assigned a pilot lead at head office
- Defined clear approval authority
- Activated green loan tagging in MIS
- Trained branch staff with mock cases
- Defined success criteria beyond volume

Success criteria included:

- Uptake without heavy incentives
- Repayment alignment with projections
- Vendor reliability
- Staff ability to apply eligibility consistently

#### **Early Observations**

Within the first quarter:

- Uptake was moderate
- Several clients used grace periods consistently
- One vendor had delayed installation

The pilot review revealed:

- Cash-flow benefits were slower than projected
- Vendor selection needed tightening

#### **Decision**

The MFI extended the pilot period, refined vendor requirements, and adjusted repayment timing before scaling.

#### **Key Lesson**

Pilots are for testing assumptions — not proving success.

#### **Self-Reflection Questions**

- Do we define success criteria before launching new products?
- Would we be willing to pause or extend a pilot if early warning signals appear?
- Are we testing repayment assumptions, or only measuring disbursement volume?
- Who is accountable for reviewing pilot results?
- What would trigger us to refine rather than scale?

## From Guidance to Action

### Chapter 4.2: Pilot Testing & Evaluation

#### What This Section Helps You Do

Test the product in real conditions before scaling.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Do not pilot yet.
- Ensure product concept and internal readiness are clear

##### Foundational (Level 1)

- Select 2–5 pilot branches.
- Set a maximum pilot loan volume and pilot length.
- Train staff before launching.

##### Piloting (Level 2)

- Monitor: Uptake, Repayment patterns, Vendor performance, Staff confidence
- Review pilot performance monthly.

##### Integrating (Level 3)

- Adjust: Tenor, Approval conditions, Vendor criteria
- Fix operational bottlenecks.

##### Scaling (Level 4)

- Develop a structured rollout plan.
- Use pilot results to justify expansion.
- Document lessons for future product launches.

#### Expected Outcomes

- You reduce scaling risk.
- Problems are detected early.
- Staff gain confidence before expansion.

### 4.3. Product Launch

**How This Applies for all Maturity Levels:**

- **Exploring:** Build internal understanding of launch requirements without initiating rollout.
- **Foundational:** Ensure policies, staff training, and systems are prepared for limited launch.
- **Piloting:** Launch in selected branches with close oversight and structured supervision.
- **Integrating:** Expand gradually across branches once operational readiness and performance stability are confirmed.
- **Scaling:** Standardise launch processes, governance oversight, and reporting expectations across the institution.

Launching a green loan product is not primarily a marketing exercise. It is about ensuring that your institution is operationally ready to deliver the product consistently, correctly, and responsibly across branches. **A strong launch depends on internal alignment before external promotion.**

Before offering the product to clients, you should confirm that policies, systems, staff, and governance structures are fully aligned. Credit, risk, compliance, IT, and reporting teams must work together so that green loans are processed, approved, monitored, and reported in the same disciplined way as other credit products. Staff readiness is a critical success factor. Credit officers, branch staff, back-office teams, and supporting functions must understand not only the product features, but also why the product exists, who it is for, and how green considerations are applied within existing credit processes. Green loans should feel familiar to staff, with clear guidance on what is different and why.

Client outreach should focus on practical value, not technical explanations. In the Cambodian context, clients respond to clear benefits such as reduced costs, improved productivity, or greater resilience to climate risks. Staff should avoid promising guaranteed savings or productivity gains. Messaging should focus on realistic benefits, payback timing, and client responsibilities for use and maintenance. Partnerships with community leaders, cooperatives, CSOs, NGOs, and technology providers can help build trust and accelerate adoption.

Where possible, product launch should be phased, starting with a limited number of prepared branches before expanding. This allows your institution to manage risks, reinforce learning, and build internal champions.

#### Product Launch Checklist

Readiness Areas	What to Check?
<b>Product and Policy Readiness</b>	<ul style="list-style-type: none"> <li>• Product features, eligibility criteria, exclusions, and safeguards are finalised and approved</li> <li>• Credit policies and procedures reflect green loan requirements</li> <li>• Loan forms, appraisal templates, and approval conditions are updated</li> </ul>
<b>Staff Readiness</b>	<ul style="list-style-type: none"> <li>• Branch managers and loan officers understand product purpose, features, and client suitability</li> <li>• Credit and risk teams can apply green appraisal and ESG checks consistently</li> <li>• Clear escalation channels exist for green-related questions or issues</li> </ul>
<b>Systems and Reporting</b>	<ul style="list-style-type: none"> <li>• Green loans are correctly tagged in the MIS</li> <li>• Basic green reporting (portfolio, uptake, arrears) can be generated</li> <li>• Data entry procedures are clear and tested</li> </ul>
<b>Governance and Coordination</b>	<ul style="list-style-type: none"> <li>• Credit committees and management understand approval and oversight expectations</li> <li>• Responsibilities across product, credit, risk, and operations are clearly assigned</li> </ul>
<b>Client Outreach Preparation</b>	<ul style="list-style-type: none"> <li>• Client messages focus on practical benefits, not technical or environmental jargon</li> <li>• Outreach plans leverage local networks, community leaders, or partners</li> <li>• Materials are simple, accessible, and locally relevant</li> </ul>

A practical approach to piloting is to expand in waves (e.g., 2–5 branches at a time), only after early loan files and monitoring notes show consistent application of eligibility and safeguards

### **Case Study 4C: Launch Delayed Due to System Gaps**

After pilot refinement, the MFI prepared to expand the solar irrigation loan to all branches.

However, during pre-launch review, management discovered:

- MIS tagging was not active in several branches
- Some appraisal templates were outdated
- Credit committee members had not received green briefing
- No clear escalation process existed for vendor disputes

### **Management Decision**

Instead of proceeding with a formal launch event, management delayed expansion by one month.

They:

- Standardised appraisal templates
- Activated system tagging
- Issued branch guidance notes
- Conducted refresher training

### **Outcome**

When the product was rolled out:

- Appraisal was consistent
- Monitoring data was available from day one
- Branch confidence was higher

### **Key Lesson**

Product launch is about operational readiness, not marketing momentum.

### **Self-Reflection Questions**

- If we launched today, are all branches operationally ready?
- Can our MIS track/tag green loans accurately from day one?
- Are credit committees aligned on eligibility and safeguards?
- Do loan officers feel confident explaining this product?
- Have we clarified escalation channels for vendor or asset issues?

## From Guidance to Action

### Chapter 4.3: Product Launch

#### What This Section Helps You Do

Roll out the product in a disciplined way.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Build internal awareness.
- Do not launch yet.

##### Foundational (Level 1)

- Confirm: Credit policy updates, green tagging in MIS, staff training complete
- Prepare simple client messaging.

##### Piloting (Level 2)

- Launch only in prepared branches.
- Monitor first disbursements closely.
- Review first repayment cycle carefully.

##### Integrating (Level 3)

- Expand gradually.
- Strengthen coordination between branches and head office.
- Share lessons across teams.

##### Scaling (Level 4)

- Standardise launch procedures.
- Include green portfolio updates in management reports.
- Ensure governance oversight is clear.

#### Expected Outcomes

- Rollout is controlled.
- Early operational mistakes are limited.
- Growth remains manageable.

## 4.4. Monitoring Green Loans in Practice

### *How This Applies for all Maturity Levels:*

- **Exploring:** Understand the importance of monitoring for credibility and risk management.
- **Foundational:** Prepare simple tagging and monitoring frameworks before disbursement begins.
- **Piloting:** Integrate basic green checks into servicing visits and observe repayment patterns beyond arrears.
- **Integrating:** Track recurring vendor, asset, and repayment signals at portfolio level and review periodically.
- **Scaling:** Institutionalise structured green portfolio reporting and management-level review mechanisms.

Monitoring is the point at which green lending either becomes a **disciplined portfolio practice** or slowly degrades into re-labelled conventional credit. For MFIs, starting effective monitoring mechanisms does not require new systems, specialist staff, or deep technical expertise. It requires structured observation, embedded into normal credit operations, and disciplined use of what staff already see and hear in the field.

In the Cambodian MFI context, green loan monitoring must work under real constraints. Loan officers work under constraints such as time pressure and performance targets. Clients often operate informally and rarely describe their loans as “green”. Documentation may be incomplete. Climate and market shocks are frequent. Monitoring therefore needs to be **practical, proportionate, and focused on decision-relevant information**.

The goal of monitoring green loan portfolios for MFIs in this case is not primarily focused on proving environmental impact. When implemented and done properly, monitoring protects clients, strengthens credit discipline, and safeguards the credibility of the institution’s green finance portfolio. The goal of implementing monitoring mechanisms is to ensure that:

- Green loans are used as intended
- Risks specific to green investments are detected early - before arrears escalate
- Recurring issues are identified before they affect portfolio quality
- Lessons are captured to generate practical insights that improve future lending decisions

## 4.4.1. Monitoring use-of-funds and green asset functionality

### *How This Applies for all Maturity Levels:*

- **Exploring:** Understand why verifying loan purpose protects green credibility.
- **Foundational:** Define simple use-of-funds verification expectations within servicing processes.
- **Piloting:** Confirm installation and functionality during routine visits in pilot branches.
- **Integrating:** Standardise documentation and review procedures across branches.
- **Scaling:** Track use-of-funds compliance rates as part of portfolio-level reporting.

The first and most fundamental monitoring question is simple: **was the financed green asset purchased, installed (where relevant), and used as intended?**

In practice, this verification should happen during routine servicing or follow-up visits. It does not require technical inspection. **Loan officers** are not expected to assess system efficiency, engineering quality, or emissions reductions. They are expected to **observe, confirm, and document basic facts**.

For example, when financing a solar home system, solar irrigation pump, biogas digester, or energy-efficient equipment, the officer should be able to confirm that:

- The asset is physically present
- It appears installed and in use
- It broadly matches the purpose described in the loan application
- The client can explain how it is being used

In Cambodia, reliance on invoices alone is often insufficient. Many small-scale suppliers do not issue formal receipts, or clients purchase through informal channels where communications are conducted primarily through voice notes on messaging applications such as Telegram or Messenger. In these cases, **direct observation and client explanation are acceptable and often more reliable** than formal paperwork if it is not available.

This step is critical because misuse of funds is rarely malicious; it is often driven by cash pressure, misunderstandings, or weak vendor practices. If not detected early, such cases accumulate and undermine the integrity of your institution's green loan portfolio.

## 4.4.2. Monitoring Repayment Behaviour Beyond Arrears

**How This Applies for all Maturity Levels:**

- **Exploring:** Recognise that green loans may have different repayment dynamics.
- **Foundational:** Define how repayment patterns will be observed once loans are disbursed.
- **Piloting:** Monitor grace period usage, partial payments, and seasonal stress patterns.
- **Integrating:** Consolidate repayment pattern analysis into risk and credit discussions.
- **Scaling:** Use repayment analytics to refine pricing, tenor assumptions, and portfolio strategy.

Repayment performance is one of the most important sources of information about whether green loan assumptions hold in practice. Green loans are often approved based on expected cost savings, productivity gains, or resilience benefits. Monitoring repayment behaviour allows MFIs to test whether these assumptions are realistic.

Rather than focusing only on arrears status, **MFIs should pay attention to repayment patterns.**

Repayment Pattern	Potential Financial Cause	Green loan context (Examples)
Habitual grace period use	Systemic cash flow mismatch	Renewable Energy (RE) assets have high upfront costs with slow and incremental savings. Borrowers may use grace periods to bridge the time between asset installation and the realization of reduced utility bills.
Increased reliance on rescheduling payments	Long-term shock or over-indebtedness	High investment costs in new climate-smart technology or unproven green tech (e.g., efficient irrigation) can lead to debt traps if the tech doesn't immediately yield the appropriate productivity gains projected.
Seasonal stress that exceeds projections discussed at appraisal	Underestimating environmental risks or shocks	Traditional "lean or off seasons" are now amplified by unpredictable weather patterns (droughts/floods), making standard appraisal projections for organic or sustainable crops obsolete in the case of regenerative agriculture.
Partial payments or delayed instalments	Prioritizing urgent operational costs	As a means for transition maintenance, borrowers may prioritize immediate repair costs for green equipment/assets (e.g., solar panels or bio-digesters) over loan instalments to keep their income source functional.

In Cambodia, this is especially relevant for agricultural, aquaculture, and climate-exposed livelihoods, where weather variability and market fluctuations directly affect cash flow. It is also relevant for technologies with delayed or uncertain payback periods.

The key distinction to make is between:

- **Behavioural repayment issues**, such as poor discipline or competing consumption needs; and/or
- **Structural repayment stress**, where the green asset underperforms, fails, or does not generate expected benefits.

Failing to distinguish these may lead to inappropriate responses by your institution, either tightening collections when product design is the issue, or repeatedly rescheduling loans without addressing underlying risks.

### 4.4.3. Identifying Green-Specific Risk Drivers

**How This Applies for all Maturity Levels:**

- **Exploring:** Build awareness of technology, vendor, and climate-related risk drivers.
- **Foundational:** Identify potential risk drivers before pilot disbursement.
- **Piloting:** Track recurring technology or vendor issues and escalate patterns early.
- **Integrating:** Adjust eligibility rules, vendor criteria, and underwriting assumptions based on evidence.
- **Scaling:** Use portfolio-wide data to strengthen partnerships and optimise risk management frameworks.

Green lending introduces risk drivers that often only become visible after disbursement. These risks are not unique to individual clients; they tend to repeat across similar technologies, vendors, and client segments. **Common green-specific risk drivers** observed in Cambodian portfolios include (but not limited to):

- Substandard equipment quality leading to early failure
- Poor installation resulting in underperformance
- Lack of after-sales service from vendors leading to eventual lost of trust in the technology
- Over-optimistic assumptions about savings or productivity
- Climate shocks that affect asset productivity and negate expected benefits

Individually, these may appear as isolated cases. **Collectively, they represent portfolio-level signals.** Your institutional monitoring should therefore focus on identifying:

- Which issues recur
- Which loan types or technologies are affected
- Whether certain suppliers or contractors are consistently associated with problems
- Whether staff interpretation of eligibility criteria varies across branches

Risk Driver	What staff should look for	How to record it (simple)	What the institution can adjust
<b>Substandard equipment quality / early failure</b>	<ul style="list-style-type: none"> <li>• Track asset failure rates linked to specific vendor serial numbers.</li> <li>• Monitor client complaints about equipment malfunctions.</li> <li>• Engage technical experts to conduct random physical inspections of older assets to assess durability and actual condition.</li> </ul>	<ul style="list-style-type: none"> <li>• Note issue type + vendor name in visit notes; log “failure reported: yes/no”</li> </ul>	<ul style="list-style-type: none"> <li>• Implement strict vendor vetting and only finance equipment that meets international or local quality standards.</li> <li>• Introduce a mandatory warranty period (e.g., 1-2 years) as a condition for financing.</li> </ul>
<b>Poor installation resulting in underperformance</b>	<ul style="list-style-type: none"> <li>• Perform post-disbursement technical verification visits within 30 days to confirm correct installation and client training.</li> <li>• Use simple client surveys/calls to confirm the installer explained maintenance procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Tick-box: installed/working/not working; short note</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a Qualified Installer Network; only allow certified technicians to perform installations.</li> <li>• Withhold a final payment to the vendor until successful installation is verified by the MFI or client.</li> </ul>
<b>Lack of after-sales service from vendors leading to</b>	<ul style="list-style-type: none"> <li>• Monitor vendor response times to client service</li> </ul>	<ul style="list-style-type: none"> <li>• Log “vendor response:</li> </ul>	<ul style="list-style-type: none"> <li>• Develop Service Level Agreements (SLAs) with vendors that mandate</li> </ul>

<b>eventual lost of trust in the technology</b>	<p>calls using a simple call log system.</p> <ul style="list-style-type: none"> <li>Track client satisfaction scores regarding repairs and maintenance.</li> <li>Utilize existing consumer protection hotlines for systemic issues.</li> </ul>	timely/slow/no response"	<p>maximum response and repair times (e.g., 48-72 hours).</p> <ul style="list-style-type: none"> <li>Terminate partnerships with vendors who consistently fail to meet service standards.</li> </ul>
<b>Over-optimistic assumptions about savings or productivity</b>	<ul style="list-style-type: none"> <li>Conduct post-implementation performance surveys to compare actual savings/yields with initial projections discussed during loan appraisal.</li> <li>Analyse loan repayment patterns for signs of stress when expected benefits do not materialize.</li> </ul>	<ul style="list-style-type: none"> <li>Record "benefit realized: as expected / lower / none"</li> </ul>	<ul style="list-style-type: none"> <li>Train credit team and potentially loan officers on making realistic financial projections and using conservative estimates during the appraisal process.</li> <li>Provide clients with educational materials that manage expectations regarding the time it takes for green investments to yield returns.</li> </ul>
<b>Climate shocks that affect asset productivity and negate expected benefits</b>	<ul style="list-style-type: none"> <li>Monitor regional weather data and compare actual events (droughts, floods) with appraisal assumptions.</li> <li>Track portfolio-at-risk metrics in geographic areas experiencing extreme climate events.</li> </ul>	<ul style="list-style-type: none"> <li>Record shock type; link to location; track rescheduling</li> </ul>	<ul style="list-style-type: none"> <li>Design flexible repayment schedules (e.g., harvest-indexed) that allow for missed payments during climate-related income shocks.</li> <li>Encourage bundled products, such as integrating crop or asset insurance with the green loan.</li> </ul>

The role of the MFI is not to resolve technical failures directly, but to use these **signals to adjust credit decisions, product parameters, and partnerships**. These actions include:

- **Prioritise approved vendors** (i.e., a whitelist of vendors)
- Adjust Debt service coverage ratio (DSCR) assumptions to be more conservative to factor potential technology/equipment downtime
- **Design performance-linked products** (e.g., Products where interest rates decrease if client can prove sustained asset performance)
- **Have seasonal flexibility in mind** to ensure loan parameters allow for principal holidays or tailored repayment schedules that align with agricultural cycles and typical realization of climate-savings
- Develop **products with bundled services** where vendors are mandated to include a service and maintenance package for the financed equipment for the life of the loan
- **Performance-based partnerships** where payments to vendors are tied to verified performance and lifespan of the equipment, not just the sale.

## 4.4.4. Monitoring Client Understanding and Experience

### *How This Applies for all Maturity Levels:*

- **Exploring:** Understand how client behaviour and awareness affect green loan performance.
- **Foundational:** Prepare clear client communication materials before pilot rollout.
- **Piloting:** Observe client understanding during servicing visits and capture feedback signals.
- **Integrating:** Refine product messaging and staff guidance based on recurring misunderstandings.
- **Scaling:** Institutionalise client feedback loops into product development and portfolio review.

Client understanding plays a significant role in the success of green loan products. Many clients may adopt new green technologies with limited prior exposure. Misunderstandings about usage, maintenance, or expected benefits are common and often surface only after disbursement. Loan officers should therefore pay attention to qualitative signals such as:

- Repeated questions about how the asset works
- Confusion about expected savings or income impacts
- Improper use or maintenance of equipment
- Dissatisfaction expressed through complaints or informal feedback

These signals do not necessarily indicate client fault. They often reflect gaps in communication, sales practices, or staff explanations during appraisal. If left unaddressed, poor understanding can lead to disappointment, misuse of assets, repayment stress, and reputational risk. **Monitoring client experience allows MFIs to refine product messaging, improve staff guidance, and make small but meaningful adjustments to product design**, without changing core credit policy.

## **Monitoring Beyond Arrears**

### **Case Study 4D: Detecting Structural Stress Through Repayment Patterns**

Six months after scaling, the MFI reviewed repayment data. PAR remained low. However, deeper analysis showed:

- High use of grace periods in certain communes
- Repeated partial payments among specific borrowers
- Concentration of issues linked to one supplier

Monitoring visits confirmed:

- Some equipment underperformed
- Delayed vendor servicing
- Client misunderstanding of maintenance requirements.

### **Management Action**

Management conducted:

- Conducted vendor performance review
- Restricted financing to approved vendors
- Strengthened maintenance briefing at disbursement
- Adjusted cash-flow projections

### **Outcome**

Grace period reliance decreased in subsequent cycles.

### **Key Lesson**

PAR alone does not reveal emerging structural risk.

### **Self-Reflection Questions**

- Do we monitor repayment patterns beyond PAR?
- Are grace period patterns reviewed systematically?
- How quickly would we detect recurring vendor-related issues?
- Are monitoring visits capturing client understanding and asset functionality?
- What signals/insights are we currently missing?

## From Guidance to Action

### Chapter 4.4: Monitoring Green Loans in Practice

#### What This Section Helps You Do

Protect your green portfolio through structured monitoring.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Understand why monitoring matters.
- Recognise that green loans can fail for technical reasons.

##### Foundational (Level 1)

- Activate green tagging in MIS.
- Define simple monitoring checks for servicing visits.

##### Piloting (Level 2)

- During verification visits, confirm: Asset is installed, asset is being used, loan purpose matches reality
- Track repayment patterns beyond arrears.

##### Integrating (Level 3)

- Identify recurring issues: Vendor failures, climate shocks, repayment mismatches
- Discuss patterns in risk or credit meetings.

##### Scaling (Level 4)

- Track green portfolio performance separately.
- Institutionalise green monitoring reports.
- Adjust policy based on recurring signals.

#### Expected Outcomes

- Green loans remain credible.
- Risks are detected early.
- Product design improves over time.

# 4.5. Turning monitoring into better decisions

**How This Applies for all Maturity Levels:**

- **Exploring:** Understand that monitoring insights should inform future product decisions.
- **Foundational:** Define how pilot findings will be reviewed internally.
- **Piloting:** Conduct structured monthly reviews of uptake, repayment, and risk signals.
- **Integrating:** Embed green performance discussions into existing management and credit forums.
- **Scaling:** Use portfolio analytics to guide product optimisation, capital allocation, and long-term strategy.

Monitoring alone does not strengthen portfolios. Learning and actions do. This section outlines how MFIs can systematically convert monitoring insights into better credit decisions using structures they already have in place.

Learning should be routine, disciplined, and focused on patterns rather than individual cases. It should not rely on special studies or completely outsourced to external consultants. Instead, it should be embedded into existing management forums and decision-making processes. Assign ownership for consolidation to a specific function (e.g., product, risk, or a green focal point). Insights should then be reviewed in an existing forum such as the credit committee, risk committee, or monthly management meeting to ensure decisions are made and followed through.

## 4.5.1. Consolidating Monitoring Insights

At regular intervals, typically monthly or quarterly, MFIs should consolidate key observations from green loan monitoring. This does not require detailed reporting. A concise summary of recurring issues is sufficient. The objective is to move from anecdotal observations to shared institutional understanding.

Areas of Insights	Recurring Observation Examples	Evidence / Data to Consolidate
Repayment stress linked to specific green loan types	Solar Water Pump loans showing 20% partial payments in Month 3	% of borrowers using grace periods consistently in the same cycle
Recurring asset or vendor-related problems	Solar inverters failing after heavy rain in some provinces.	# of technical failures reported for a specific vendor
Inconsistencies in staff interpretation or application of criteria	Branch Y is ignoring "Flood-prone area" warnings in the green loan criteria.	Audit of 50 loan files shows inconsistent climate-risk scoring
Client misunderstandings that appear repeatedly	Clients believe solar panels are "maintenance-free" and do not clean them.	% of underperforming assets were found to be covered in dust/debris.

*Note: Areas of insights and observations are not exhaustive*

A summary report can include an analysis of the areas of insights and observations above, emerging climate and market trends, vendor and partner performance watchlist, and suggested actions items for the next period. Avoid using anecdotal information or relying on single cases. Use simple counts, trends, and repeated qualitative signals (e.g., the same complaint appearing across branches) to form evidence-based conclusions.

A one-page "Green Portfolio Issues Summary" template is often sufficient: top 5 recurring issues, where they occur, supporting evidence, and recommended actions for the next period.

## 4.5.2. Reviewing Patterns, Not Cases

Learning discussions should focus on trends and patterns, not on assigning responsibility for individual loans. Management and credit committees should ask practical questions such as:

- Are certain green technologies consistently associated with stress or complaints?
- Are specific client segments struggling more than expected?
- Are some branches interpreting eligibility or conditions differently?
- Are climate events repeatedly affecting particular loan types?

These questions shift discussions away from blame and towards portfolio improvement.

## 4.5.3 Taking Proportionate and Targeted Action

Once patterns are identified, responses should be measured and practical. Not every issue requires a policy revision. Many issues can be addressed through guidance, clarification, or small adjustments. Common actions include:

- Refining eligibility or exclusion criteria
- Adjusting loan tenors, grace periods, or approval conditions
- Strengthening staff coaching and appraisal guidance
- Tightening or revising vendor requirements
- Pausing expansion of certain loan types until issues are resolved

The emphasis should always be on **proportionality**, matching the response to the level of risk observed.

## 4.5.4 Building Institutional Capability Over Time

Green finance capability develops through repetition and reflection, not one-off training. In the Cambodian context, the most effective approach is to:

- Pilot changes in selected branches,
- Share lessons across teams and regions,
- Use real cases as coaching material,
- Gradually formalise practices that prove effective.

This approach keeps learning grounded in operational reality and avoids overwhelming staff with abstract requirements.

Monitoring tells the institution what is happening.

Learning determines what needs to change.

Implementation ensures green finance becomes part of normal credit practice, not a parallel system

## **Turning Monitoring Into Better Decisions**

### **Case Study 4E: Using Monitoring Data to Refine Policy**

After one year of product expansion, the MFI consolidated monitoring insights across branches.

Recurring patterns included:

- Overestimation of yield improvements
- Higher repayment stress in flood-prone areas
- Staff inconsistency in exposure assessment

### **Management Review**

In quarterly review, the institution:

- Compared repayment patterns across zones
- Analysed vendor-linked complaints
- Reviewed 50 randomly selected loan files

### **Adjustments Implemented**

The MFI:

- Revised eligibility criteria for high-exposure zones
- Adjusted tenor in flood-prone areas
- Updated appraisal prompts
- Introduced quarterly vendor review

These adjustments were proportionate — not a complete product redesign

### **Outcome**

Product quality improved gradually without major disruption.

### **Key Lesson**

Monitoring only strengthens portfolios when it triggers structured action.

### **Self-Reflection Questions**

- How often do we consolidate monitoring insights at portfolio level?
- Are management discussions focused on patterns or individual cases?
- Do we adjust eligibility, tenor, or vendor rules based on evidence?
- Who is responsible for triggering product adjustments?
- Are we scaling based on performance, or momentum?

## ***Piloting, Monitoring, and Adjusting Before Scaling***

### **Case Study 5: Solar Pump Pilot and Early Warning Signals**

An MFI piloted solar irrigation loans in three agricultural branches. The pilot volume was capped and reviewed monthly.

Within the first repayment cycles, management observed:

- Frequent use of grace periods
- Some delayed instalments
- Equipment complaints linked to a specific supplier

Instead of expanding the product, management conducted a structured review and concluded:

- Cash-flow projections were slightly optimistic
- Vendor quality controls were insufficient
- Repayment schedules needed better seasonal alignment

The institution responded by:

- Adjusting tenor and grace structure
- Restricting financing to vetted vendors
- Reinforcing appraisal guidance.

Only after these adjustments was the product expanded.

### **Key Lesson**

Monitoring repayment patterns early allows institutions to correct product weaknesses before portfolio stress increases.

### **Global Insight**

International renewable energy microfinance programs show that early pilot review and vendor control significantly reduce scaling risk and long-term portfolio deterioration.

## From Guidance to Action

### Chapter 4.5: Turning Monitoring into Better Decisions

#### What This Section Helps You Do

Use monitoring insights to improve future lending decisions.

#### What To Do Next (By Maturity Level)

##### Exploring (Level 0)

- Understand that monitoring is for learning, not just reporting.

##### Foundational (Level 1)

- Decide how often pilot data will be reviewed.
- Assign responsibility for summarising insights.

##### Piloting (Level 2)

- Conduct monthly review meetings.
- Focus on patterns, not individual blame.
- Make small adjustments quickly.

##### Integrating (Level 3)

- Embed green performance review into existing credit forums.
- Update underwriting assumptions where needed.

##### Scaling (Level 4)

- Use portfolio data to refine: Pricing, tenor assumptions, vendor partnerships
- Make evidence-based expansion decisions.

#### Expected Outcomes

- You avoid repeating the same mistakes.
- Product improves continuously.
- Green lending becomes part of normal credit discipline.

## Annex 1. Key Resources and Links

- [LMA Green Loan Principles](#)
- [EU Do No Significant Harm](#)
- Cambodia Sustainable Finance Taxonomy (Note: Official release set for 2026; Please request for a copy of the draft from CMA)
- [ASEAN Taxonomy version 4 \(6 November 2025\)](#)
- [DEG / EDFI Exclusion List](#)
- [IFC Exclusion List \(2007\)](#)
- [Environment & Social Framework for IPF Operations: ESS9 Financial Intermediaries](#)

## Annex 2. Indicative List of Eligible Green Activities

Source: Green Loan Principles. (2025). [Green Loan Principles-26Mar25.pdf](#)

This appendix presents an illustrative and non-exhaustive list of activities that may qualify as eligible Green Projects. The categories are provided for guidance only and are not listed in any order of priority. Eligibility is determined based on the intended use of loan proceeds, subject to compliance with applicable environmental and social safeguards, the Do No Significant Harm (DNSH) principle, and relevant exclusion lists.

- **Renewable Energy** - Activities that support the generation, storage, transmission, or use of energy from renewable sources. This includes renewable energy production systems, energy storage solutions, grid or transmission components, and renewable energy-based appliances or equipment.
- **Energy Efficiency** - Investments that result in measurable improvements in energy performance relative to existing conditions. Examples include energy-efficient technologies and equipment, improvements in new or renovated buildings, smart energy systems, and district heating or cooling solutions.
- **Pollution Prevention and Control** - Activities aimed at preventing, reducing, or managing pollution across air, water, and soil. This may include reductions in greenhouse gas emissions, wastewater and effluent treatment, soil remediation, waste prevention and reduction, recycling initiatives, and energy- or emissions-efficient waste-to-energy processes.
- **Sustainable Management of Natural Resources and Land Use** - Projects that promote the responsible and sustainable use of land and natural resources. This includes environmentally sustainable agricultural and livestock practices, climate-smart farming inputs such as drip irrigation or biological crop protection, sustainable fisheries and aquaculture, sustainable forestry (including afforestation and reforestation), ecosystem restoration, eco-tourism initiatives, and traceability systems supporting sustainable value chains.
- **Biodiversity Conservation and Enhancement** - Activities that protect, restore, or enhance terrestrial and aquatic ecosystems. This includes conservation and restoration efforts in coastal, marine, watershed, and urban environments that contribute to biodiversity protection and ecosystem resilience.
- **Clean and Low-Emission Transportation** - Investments supporting transport systems with reduced environmental impact. This includes electric or hybrid vehicles, public and rail transport, non-motorised and multi-modal transport solutions, infrastructure supporting clean energy vehicles, and initiatives aimed at reducing transport-related emissions.
- **Green and Climate-Related Technologies** - Financing for technologies that contribute to climate mitigation or adaptation objectives, such as energy storage systems, carbon capture solutions, and emerging low-carbon technologies, including green hydrogen.

- **Sustainable Water and Wastewater Management** - Projects that improve water efficiency, access, quality, and resilience. Eligible activities may include infrastructure for clean or drinking water supply, smart irrigation systems, wastewater treatment facilities, and water recycling or reuse solutions.
- **Climate Change Adaptation and Resilience** - Investments that enhance resilience to climate-related risks and impacts. This includes nature-based solutions, climate-resilient infrastructure and urban development, flood and drainage management systems, river management interventions, early warning systems, and climate information and monitoring tools.
- **Circular Economy Solutions** - Activities that promote resource efficiency and waste reduction through circular production processes and business models. This includes the design, production, and deployment of reusable, recyclable, or refurbished materials and products, circular services and practices, and certified eco-efficient goods.
- **Green Buildings** - Construction or renovation of buildings that meet recognised regional, national, or international standards or certifications for environmental performance, including energy efficiency, resource efficiency, and reduced environmental impact.

## Annex 3. Example Positive List (Whitelist) for Green Lending (Mitigation and Adaptation Solutions)

Note:

- List below is illustrative and should be checked before reference.
- It is by no means exhaustive and should always be referenced with the Cambodia Sustainable Finance Taxonomy.
- MFIs should adapt to their portfolio focus and risk appetite.

### 1. Renewable Energy (Mitigation)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Solar home systems (SHS)	Rural households	Climate Mitigation	Confirm physical installation during first monitoring visit; align tenor with expected savings period.
Productive-use solar	MSMEs	Cost reduction / Mitigation	Assess impact on operating costs; verify system size matches business needs.
Solar irrigation pumps	Farmers	Diesel replacement / Mitigation	Structure repayment around harvest cycles; assess water source reliability.
Biogas digesters*	Rural households	Clean energy / Mitigation	Verify installation and client training on use; check livestock availability for feedstock.
Mini/off-grid solar	Remote communities	Energy access / Mitigation	Use vetted vendors during pilot; confirm warranty and after-sales contact details; confirm licensing requirements satisfied

Note: \*Not all biogas digesters models qualify - need to verify with Cambodia Sustainable Finance Taxonomy

### 2. Energy Efficiency (Mitigation)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Energy-efficient refrigerators	Retail shops	Lower electricity use	Verify appliance efficiency rating (if available); assess electricity cost savings.
Efficient motors & pumps	Small enterprises	Energy savings	Confirm suitability for business scale; check vendor reliability.
LED lighting upgrades	MSMEs & households	Energy efficiency	Bundle with working capital if needed; small-ticket loans suitable.
Insulation & ventilation upgrades	Households	Heat reduction	Integrate into housing loan appraisal; assess affordability.

### 3. Climate-Smart Agriculture (Adaptation + Mitigation)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Drip irrigation systems	Farmers	Water efficiency / Adaptation	Align repayment with crop cycle; assess water access and maintenance capacity.
Climate-resilient seeds	Smallholders	Yield stability / Adaptation	Use conservative yield projections; assess transition risk.
Net houses / shade houses	Horticulture farmers	Heat protection / Adaptation	Consider grace period during transition; verify installation quality.
Semi-RAS aquaculture systems	Fish farmers	Water & feed efficiency	Conduct enhanced appraisal; verify technical support availability from vendor.
Composting systems	Farmers	Soil health / Mitigation	Small working capital add-on to loan amount; verify actual use during monitoring.

### 4. Water & WASH (Adaptation)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Household water connections	Rural households	Drought resilience	Confirm service availability; verify installation post-disbursement.
Rainwater harvesting	Households	Water security	Check storage capacity is appropriate; verify physical installation.
Water filtration systems	Communities	Health resilience	Confirm basic functionality during follow-up visit.
Sanitation facilities	Households	Public health resilience	Integrate into housing loans; verify construction completion.
Water storage tanks	MSMEs / farmers	Drought buffer	Assess drought exposure; structure repayment conservatively.

### 5. Resilient Housing Improvements (Adaptation)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Elevated flooring	Flood-prone households	Flood resilience	Confirm flood exposure risk in appraisal; verify construction completion.
Reinforced roofing	Rural housing	Storm resilience	Assess climate risk relevance; confirm installation.
Improved drainage	Flood-prone zones	Asset protection	Ensure it directly protects property; verify physical works completed.
Ventilation upgrades	Urban/peri-urban households	Heat stress reduction	Assess heat exposure risk; confirm affordability.

## 6. Sustainable MSME Improvements (Transition Activities)

Eligible Activity	Typical Client	Climate Objective	MFI Lending Note
Efficient agro-processing equipment	MSMEs	Fuel reduction	Verify productivity impact; assess maintenance requirements.
Cold chain efficient upgrades	Food businesses	Reduce spoilage / Efficiency	Confirm energy savings potential; check technical support availability for energy audits.
Waste reduction / recycling equipment	SMEs	Resource efficiency	Small pilot recommended; monitor actual usage during servicing.

# Annex 4. ESS and DNSH Safeguarding Checklist for Green Loans

*(Aligned with IFC and DEG/EDFI Exclusion Lists)*

Sources:

DEG/EDFI. (2011). [Harmonized EDFI Exclusion List](#)

International Finance Cooperation. (2025). [IFC Exclusion List 2007\\*\\*](#)

## Purpose of the Checklist

This checklist supports MFIs in applying Environmental and Social Safeguards (ESS) and the Do No Significant Harm (DNSH) principle in a proportionate and practical manner. It helps ensure that green loans deliver positive environmental outcomes without creating environmental, social, financial, or inclusion-related harm, and that non-eligible activities are screened out in line with international standards.

The checklist is intended to be applied during loan appraisal and approval, using information already collected through standard credit processes.

## Section A: Exclusion Screening

The proposed loan must NOT finance any of the following activities.

- Production or trade in illegal products or activities
- Forced labour or child labor
- Production or trade in weapons, ammunition, or military equipment
- Production or trade in tobacco or gambling activities
- Activities causing significant destruction of critical natural habitats or protected areas
- Activities involving hazardous waste management without proper controls
- Activities involving harmful or banned chemicals (e.g. persistent organic pollutants)
- Coal mining, coal-fired power generation, or related infrastructure
- Activities involving involuntary resettlement or significant community displacement

If any box is checked; the loan is NOT eligible for green financing.

## Section B: Environmental Safeguards (DNSH – Environmental)

Assess whether the financed activity could cause environmental harm.

- No significant pollution risks (air, water, soil)
- Proper waste disposal arrangements in place (including batteries, chemicals, or equipment waste)
- No excessive use of water resources that could affect local availability
- No land degradation, deforestation, or damage to sensitive ecosystems
- Technology or equipment financed is appropriate for local conditions

If risks are identified:

- Risks are low and manageable
- Mitigation measures are feasible and understood by the client

## Section C: Social, Health, and Safety Safeguards

Assess potential risks to people and communities.

- No unsafe working conditions associated with the activity
- No significant health or safety risks to the client or community
- No negative impacts on neighbouring households or shared resources
- Client demonstrates basic awareness of safe operation and maintenance

If risks are identified:

- Risks are minor and can be mitigated through guidance or conditions

#### **Section D: Financial Safeguards (Client Protection)**

Ensure the loan does not create financial harm.

- Loan size is appropriate to the client's repayment capacity
- Repayment terms match expected cash flow from the green investment
- Client understands costs, benefits, and repayment obligations
- No evidence of over-indebtedness linked to this loan

This section aligns with responsible finance and client protection principles, recognizing that financial stress undermines both sustainability and climate outcomes.

#### **Section E: Gender Equality and Social Inclusion (GESI)**

Assess inclusion-related risks and opportunities.

- Women and vulnerable groups have fair access to the loan
- Loan conditions do not disadvantage women or marginalized groups
- The activity does not increase unpaid labor burdens
- Where relevant, women are involved in decision-making related to the investment

#### **Section F: Overall DNSH Assessment**

Based on the above screening:

- The loan meets DNSH requirements and is eligible for green financing
- The loan requires minor mitigation measures (document below)
- The loan does not meet DNSH requirements and should not be classified as green.

# Annex 5. Adherence to Environmental, Social and Governance Principles and Clients Protection Principles

## Adherence to Environmental, Social and Governance Principles

The Bank/Institution acknowledges its role and responsibility in the much-needed preservation of our planet and environment in accordance with Cambodian legislation and the Cambodian Sustainable Finance Principles. The Bank/Institution highly commits to prioritize the environmental, social, protect humanity, and preserve cultural heritage by actively assessing, managing, mitigating, offsetting or avoiding potential risks or negative impacts arising from our clients' business activities. Therefore, all client's business activities shall be conducted in accordance with the following:

- Compliance with national environmental and social laws and regulations and performance standards of the financing institutions.
- Adherence to Environmental and Social Performance Standards by strictly refraining from causing any of the following adverse environmental and social impacts:
  - Environmental and Social Risks and Impacts
    - Business activities directly or indirectly involving the act of deforestation, forest destruction and forest clearing beyond the authorized volume or without permission or adequate assessment from the Ministry of Agriculture, Forestry and Fisheries or competent authority.
    - Business activities involving landfilling of natural lakes, river, waterways, or hydropower construction that causes flooding, drought, and the loss of biodiversity.
    - Production or trade in pharmaceuticals and hazardous chemicals subject to bans by national laws and international conventions or agreements.
    - Business activities involving the production or generation of significant amount of solid and liquid/water waste.
    - Business activities involving the production or emission of dust, smoke, odour, disturbing noise that cause adverse impact on the daily lives of people in the surrounding community.
  - Labor and Working Conditions and Community Health, Safety and Security
    - Business activities directly or indirectly involving human trafficking or the employment of illegal migrant workers from overseas.
    - Business activities involving directly or indirectly the use of child labour.
    - Business activities involving all forms of exploitative and forced labour, work for life force to work for debt repayment deprivation of worker's right, or slavery.
    - Work under hazardous condition or in polluted environment that could cause incident, sickness, or long-term health problem.
    - Business activities that could cause hug explosion, hug dust, smoke, disturbing noise, causing adverse effect the safety and security of daily work and living of people in the surrounding area.
  - Resource Efficiency and Pollution Prevention
    - Business activities involving the use of high volume of electricity/power or water that could cause interruption to the neighbouring community.
    - Business activities involving the use of high volume of papers and natural resources.
    - GHG emission, Carbon (Co2), water pollution and ground water contamination.
  - Land Acquisition and Involuntary Resettlement
    - Business activities that could cause the land dispute.
    - Business activities that could cause the land loss, the loss of land possession, land use restriction, not allowing for residential enjoyment or other business operations thereon.
    - The loss of community's land or valuable location.
    - Business activities that could cause evacuation and involuntary resettlement.
  - Biodiversity Conservation and Sustainable Management of Living National Resources
    - Business activities that could cause the loss of living thing, loss habitats to the life of rare species and common species.
    - Business activities could cause the loss of water and other natural resources, loss of waterways or airways.
    - Business activities could cause the rising of unfriendly species, invasion of alien species, epidemic disease/cholera.
    - Business activities that seen overexploitation natural resources.

- Indigenous People and Cultural Heritage
  - Business activities that could cause the loss of cultural heritage such as memorial/worship/holy site, farmland, village or community.
  - Business activities could cause land acquisition and involuntary resettlement of the indigenous people.
- All credit products offered to clients shall be checked against to the Exclusion List of business activities as follows:
  - Production or business activities involving harmful or exploitative forms of forced labor or of child labour.
  - Production or trade in weapons and munitions.
  - Gambling, casinos, prostitution and equivalent enterprises.
  - Trade in wildlife or wildlife product regulated under the law.
  - Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where the Bank/Institution considers the radioactive source to be trivial and/or adequately shielded.
  - Production or trade in any product or activity deemed illegal under the laws or regulations of the Kingdom of Cambodia or international conventions and agreements, or subject to international bans, such as pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
  - Production and trade in any product subject to international reduction or bans of which the Bank/Institution has been officially aware of.
  - Production or service, which cause recognized and serious damage to the natural environment and are forbidden under the laws of the Kingdom of Cambodia.
  - Any other activities deemed illegal under the laws or regulations of the Kingdom of Cambodia or international conventions and agreements.
  - Production or trade in wood or other forestry products other than from sustainably managed forests.
  - Production or trade in tobacco.
  - Production or trade in alcoholic beverages (excluding beer and wine).
  - Production or trade in unbonded asbestos fibres. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
  - Commercial logging operations for use in primary tropical moist forest.
  - Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.
  - Production or trade in pharmaceuticals subject to international phase outs or bans.
  - Production or trade in pesticides/herbicides subject to international phase outs or bans.
  - Production or trade in ozone depleting substances subject to international phase outs or bans.
  - Drift net fishing in the marine environment using nets in excess of 2.5km in length.
  - Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples or non-indigenous peoples, without full documented consent of such peoples.
  - Production or distribution of anti-democracy or racial discrimination, information.

### Adherence to Clients Protection Principles

The Bank/Institution is highly committed to implementing its ethical code of conduct and strictly maintaining the triple bottom line (people, planet, and profit) as well as respecting the environment, society, and community we are in. Therefore, the following seven client protection principles will be duly adhered to:

- Appropriate product design and delivery
- Prevention of over-indebtedness
- Transparency
- Responsible pricing
- Fair and respectful treatment of clients
- Privacy of client data
- Mechanisms for complaint resolution

## Annex 6. Various Templates

Note: For reference only

### Template A - Environmental Exclusion List

#### TEMPLATE A: ENVIRONMENTAL EXCLUSION LIST (THE "NO-GO" LIST)

##### Instructions for Participants:

This list combines IFC standards with Cambodia-specific risks identified in the research (e.g., illegal logging, brick kilns).

Action: This list should be printed, disseminated, and placed on every Loan Officer's desk.

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" ENVIRONMENTAL EXCLUSION LIST" (Example)

Mandate: [MFI Name] will NOT finance any activity involving:

##### 1. Illegal Activities & International Bans

- Production or trade in any product deemed illegal under Cambodian laws (e.g., drugs, gambling).
- Production or trade in weapons, munitions, radioactive materials, or unbonded asbestos.
- Trade in wildlife or wildlife products regulated under Convention on International Trade in Endangered Species - CITES (e.g., Pangolins, Ivory, Tiger parts).

##### 2. Labor Violations (The "Zero Tolerance" Zone)

- **Forced Labor:** Any work extracted under threat of penalty.
- **Harmful Child Labor:** Employment of children that is hazardous or interferes with education.
- **Brick Kilns:** Financing of traditional brick kilns is PROHIBITED unless the client proves full compliance with Ministry of Labor regulations regarding debt bondage.

##### 3. Environmental Destruction (Cambodia Specific)

- **Illegal Logging:** Commercial logging in primary forests or protected areas (e.g., Prey Lang, Cardamoms).
- **Logging Equipment:** Financing of chainsaws or modified tractors where the primary intended use is suspected to be timber extraction in protected zones.
- **Prohibited Pesticides:** Trade or use of pesticides banned by the Ministry of Agriculture and Forestry or WHO Class Ia/Ib (Extremely Hazardous).

##### 4. Social Harm

- **Land Grabbing:** Activities involving the eviction of Indigenous peoples or involuntary resettlement without free, prior, and informed consent (FPIC).

##### 5. Vice Activities

- Gambling, casinos, and equivalent enterprises.
- Production or trade in tobacco or alcoholic beverages (excluding beer and wine). (Applies if >10% of revenue).

(Verified by: \_\_\_\_\_ Date: \_\_\_\_\_)

## Template B - Environmental Policy

### TEMPLATE A: ENVIRONMENTAL POLICY DRAFTING GUIDE

#### Instructions for Participants:

**Goal:** Create a 3-page policy to be approved by your Board.

**How to use:** The table below outlines the required sections in the policy. In the "Drafting Guidelines" column, we explain *what* to write. In the "Example Text" column, we provide standard wording you can adapt.

**Action:** Do not just copy the example text. Answer the Probing Questions first. Your answers to these questions will form the unique "meat" of your 3-page policy.

#### Structure of the Policy:

Section	Content Description & Drafting Guidelines	Drafting Guidelines with Probing Questions	Example Text (Adapt for your Policy)
1. Header	Governance: Proof of official status. Include Board approval dates.		<p><b>** ENVIRONMENTAL POLICY**</b></p> <p>Ref: ENV-POL-001</p> <p>Version: 1.0</p> <p>Prepared By: Responsible Department/Name</p> <p>Approved By: Board of Directors</p> <p>Date:</p>
2. Introduction or Strategic Intent and	The "Why": Connect environmental risk to Credit Risk to ensure Board buy-in.	Q. Which climate shock (Flood, Drought, Heat) has hit your NPLs the hardest in the last 3 years?	**** recognizes that environmental risks—such as floods, droughts, and pollution—

1

Commitment		<p>Q. Why is this policy important for your <i>specific</i> lenders or shareholders?</p> <p>Q. How does environmental risk connect to your institution's credit risk?</p> <p>Q. What commitments (Do No Harm, Manage Risk, Promote Green) resonate most with your Board?</p>	<p>are material threats to our clients' livelihoods and our own portfolio quality.</p> <p>We commit to:</p> <ol style="list-style-type: none"> <li>1. <b>Do No Harm:</b> We will not finance activities that violate Cambodian law or our Exclusion List.</li> <li>2. <b>Manage Risk:</b> We will assess environmental risks in our lending process.</li> <li>3. <b>Promote Green:</b> We will actively finance technologies that help our clients adapt to climate change.</li> </ol>
3. Scope	The "Where": Define who must follow this. Usually, it applies to <i>all</i> loans, but the <i>intensity</i> of checking varies.	<p>Q. Should this policy apply to all loan products or only certain categories?</p> <p>Q. Does it extend to internal operations (e.g., branch energy use, paper reduction)?</p> <p>Q. Which staff roles (Loan Officers, Risk Managers, Credit Committee) are responsible for compliance?</p> <p>Q. Are thresholds needed for different levels of screening intensity?</p>	<p>This policy applies to all loan products and operations. All staff, from Management to Loan Officers, are responsible for adherence.</p>

### TEMPLATE C: GREEN LOAN SCREENING TOOL (THE "POSITIVE LIST")

**Instructions for Participants:**

This is your operational tool for "Green" classification.

Logic: If it is on the list, it is Green. If not, it is Standard.

Control: Note the mandatory "Disbursement Check" to prevent cash diversion.

**\*\* GREEN LOAN ELIGIBILITY CHECKLIST\*\***

**STEP 1: POSITIVE LIST CHECK (Is it Green?)**

*If the asset is NOT on this list, it is a STANDARD loan.*

Sector	Eligible Asset	Verification (Must be YES)	Remarks
Renewable Energy	Solar Home System	Capacity >100W? Warranty >1 Year?	[ ]
	Solar Water Pump	NO diesel backup? Replaces diesel pump?  Pump must be DC or AC+Inverter	[ ]
	Solar Drying Dome	Polycarbonate structure? Invoice verified? Invoice must specify "Solar Dryer".	[ ]
Climate Smart Agriculture	Biodigester	Installer is selected/certified by the National Biodigester Program (NBP) of MAFF and SNV or authorized company	[ ]
	Drip Irrigation	System of pipes/emitters  Invoice from approved agri-supplier?	[ ]
	Net House	Permanent structure for crop protection?	[ ]
Energy Efficiency	Inverter AC / Fridge	MME 5-Star Label visible on unit?	[ ]
	Electric Motorbike	Battery Electric (BEC). No hybrids.	[ ]

## Annex 7. First 6-month Green Loan Roadmap

### Who this roadmap is for

This roadmap is designed for institutions in the **Exploring** (learning what green finance means) and **Early Foundational** (Starting to define internal rules) Stage that:

- Do not yet have a formal green loan product
- Do not tag green loans in their system
- Do not have defined green eligibility criteria
- Have not conducted a green pilot before

### What this roadmap is NOT for activities that belong in later maturity stages

This roadmap does NOT require:

- ESG scoring frameworks
- Impact measurement systems
- Separate green departments
- Advanced climate modelling
- Immediate portfolio targets
- Complex reporting

### Where You Should Be After 6 Months

By the end of 6 months, you should:

- Have a clear internal green definition
- Have one structured green loan product
- Have launched a controlled pilot
- Have activated basic monitoring
- Be ready to decide whether to scale

### The Goal

At 6 months, the question is NOT: “How many green loans did we disburse?”

The real question is: “Do we understand how this product behaves in our portfolio?”

If yes, you are ready to move into Integrating stage (Level 3).

**Table: First 6-month Green Loan Roadmap (Exploring and Early Foundational Stages)**

Month	Maturity Shift	Playbook Alignment	What You Do	Key Outcomes
Month 1	Exploring → Foundational	Chapter 1	<ul style="list-style-type: none"> <li>• Discuss climate-related portfolio risks at management level</li> <li>• Identify 2–3 climate-exposed sectors</li> <li>• Agree why green lending matters</li> <li>• Appoint Green Focal Person</li> </ul>	<ul style="list-style-type: none"> <li>✓ Internal green definition note</li> <li>✓ Leadership alignment</li> </ul>
Month 2	Foundational	Chapter 2	<ul style="list-style-type: none"> <li>• Create simple green eligibility list (3–5 categories)</li> <li>• Adopt a short exclusion list</li> <li>• Add green checkbox to appraisal template</li> <li>• Select ONE product idea to test</li> </ul>	<ul style="list-style-type: none"> <li>✓ Defined eligibility list</li> <li>✓ Updated appraisal form</li> <li>✓ Chosen pilot product</li> </ul>
Month 3	Foundational → Pilot Preparation	Chapter 3	<ul style="list-style-type: none"> <li>• Clarify roles across product, credit, risk, MIS, branch</li> <li>• Activate green tagging in MIS</li> <li>• Select 2–5 pilot branches</li> <li>• Train staff</li> </ul>	<ul style="list-style-type: none"> <li>✓ Pilot protocol document</li> <li>✓ Staff trained</li> <li>✓ MIS tagging active</li> </ul>
Month 4	Early Piloting	Chapter 4.1	<ul style="list-style-type: none"> <li>• Finalise product features (tenor, pricing, safeguards)</li> <li>• Cap pilot loan volume</li> <li>• Launch in pilot branches only</li> </ul>	<ul style="list-style-type: none"> <li>✓ Approved pilot product</li> <li>✓ First disbursements completed</li> </ul>
Month 5	Piloting	Chapter 4.2 - 4.3	<ul style="list-style-type: none"> <li>• Monitor early repayment patterns</li> <li>• Confirm asset installation during visits</li> <li>• Track vendor issues</li> <li>• Hold structured monthly review</li> </ul>	<ul style="list-style-type: none"> <li>✓ Monitoring checklist used</li> <li>✓ Month-end review summary</li> </ul>
Month 6	Piloting → Structured Learning	Chapter 4.4 - 4.5	<ul style="list-style-type: none"> <li>• Identify recurring patterns (repayment, vendor, climate)</li> <li>• Adjust tenor or approval conditions if needed</li> <li>• Conduct 6-month evaluation</li> <li>• Decide: Scale / Refine / Pause</li> </ul>	<ul style="list-style-type: none"> <li>✓ Pilot evaluation report</li> <li>✓ Clear management decision</li> </ul>

*Note: The 6-month timeline is indicative and may vary depending on the institution's starting point, capacity, and progress.*