



# EaSI Technical Assistance

## Green Products

### *Green Microfinance Workshop Series*

Davide Forcella (YAPU Solutions, CERMi, Head of GICSF-AG)

9 November, Online event

Natalia Realpe Carrillo (HEDERA, IASS Potsdam, Head of GICSF-AG)

# Training Description

This training provides an introduction to the concept of Green Products:

- Introduction to the methodology, processes, and key milestones related to green product development
- Introduction on how to disburse, monitor, and report on green products
- Practical case studies and practical exercise.

# Training Objectives

At the end of the training the participants will have first understanding of:

- Methodology, processes and key milestones on how to develop green products.
- How to disburse, monitor and report green products.
- Set of green technologies and practices that could be financed

# The Agenda

0. Intro
1. Concepts: Green Inclusive Finance
2. Today focus: Green Products
3. Develop and Disburse Green Products
4. Interactive Session: Develop your Green Product!
5. Examples
6. What's next?



# 0. Intro

# The Green Inclusive & Climate Smart Finance AG

The Green Inclusive and Climate Smart Finance Action Group (GICSF-AG) is a Unique multi-stakeholder think-tank for environmentally responsible inclusive finance, hosted by the European Microfinance Platform <https://www.e-mfp.eu/gicsf-ag>

## OBJECTIVES

- Discuss current **challenges and strategies** in green inclusive finance
- **Improve knowledge and action** of inclusive finance actors in environmental issue
- **Enhance cooperation** among green inclusive finance actors
- **Increase international attention** for green inclusive finance
- **Develop dedicated tools**, recognized as “standard” by the inclusive finance sector, to support green inclusive finance
- Publicise and disseminate its findings
- Enhance the interest and concrete commitment of all actors (MFIs, investors, among others) in green inclusive finance

# Members

Launched in Feb. 2013 in Berlin and hosted by the European Microfinance Platform (e-MFP) it has **135+ members** with different level of engagement, affiliated to **75+** institutions and organized into activity sub-group, among which:

ADA, Advision Finance, Agora, Alterfin, Antwerp University- IOB, Babyloan, BBVAMF, BFC, BIO, BNP Paribas, Cerise, Clarmondial, COFIDES, Digital Frontiers Institute, Envest Microfinance, ESAF, European Microfinance Network, KIVA, FDL, GAWA Capital, Global Environment Facility, Grameen Crédit Agricole MF Foundation, HEDERA, IFAD, IFU, ILO, Inpulse, LMDF, MAIN, MFC, MFR, MicroEnergy International, Microfinanza Srl, M-CRIL, myclimate, Sparkassenstiftung, Nitlapan, Palladium Europe, PAMIGA, reNature, SIDI, SOS Faim Belgium, Triple Jump, Univ. Bergamo, Univ. Genève, Univ. Lux, Rabo Foundation, RFR, REDCAMIF, ULB-CERMi, UNCDF, SPTF, World Bank, YAPU Solutions

## Coordinated by the GICSF-AG Heads:

- Natalia Realpe Carrillo, HEDERA & IASS Potsdam
- Davide Forcella, YAPU Solutions & CERMi



# In 2021 Joining forces for Green in Europe



*Join forces to foster knowledge and actions for Green Inclusive Finance in Europe and Central Asia*

## At short term:

- Series of trainings
- Study on Green Inclusive finance in Europe (2013-2021):
  - Website review (2021 and 2013): 400+
  - Surveys to MFIs: 6+ surveys, 500+ respondents
  - Case study/interview with MFIs

## At medium term:

- Developing a joint strategy and activities for the European Inclusive finance sector



# Joining forces for Green in Europe



## Join forces to foster knowledge and actions for green inclusive finance in Europe and Central Asia

- Coordination by Davide Forcella, Head of the GICSF-AG, CERMi,  Smart finance. People first.
- The analysis and visualization of data done using the tools provided by Natalia Realpe,  **HEDERA**
- GICSF-AG internship work of Mathieu François, GICSF-AG intern and EMP student.
- Data shared by the following parties:

And all MFIs that kindly shared their data.

Until Oct 2021:

- Website review (2021 and 2013): 400+
- Surveys to MFIs: 6+ surveys, 500+ respondents (2011-2020)
- Case study/interview with MFIs (2021)



Marion  
Allet

# Joining forces for Green in Europe



In the forthcoming publication “Green Inclusive Finance in Europe”:

- You will find details on the actual environmental performance of MFIs in Europe
- Examples of green practices and technology financed as well as green products
- Case studies of actual experiences in green inclusive finance of MFIs in Europe

**Stay tuned!**

In the meantime we will provide here some examples of practices, tools products from outside Europe



# **1. Concepts: Green Inclusive Finance**

# 3 key concepts for Green Inclusive Finance

**Vulnerability**

**Adverse  
Impacts**

**Economic  
Opportunities**

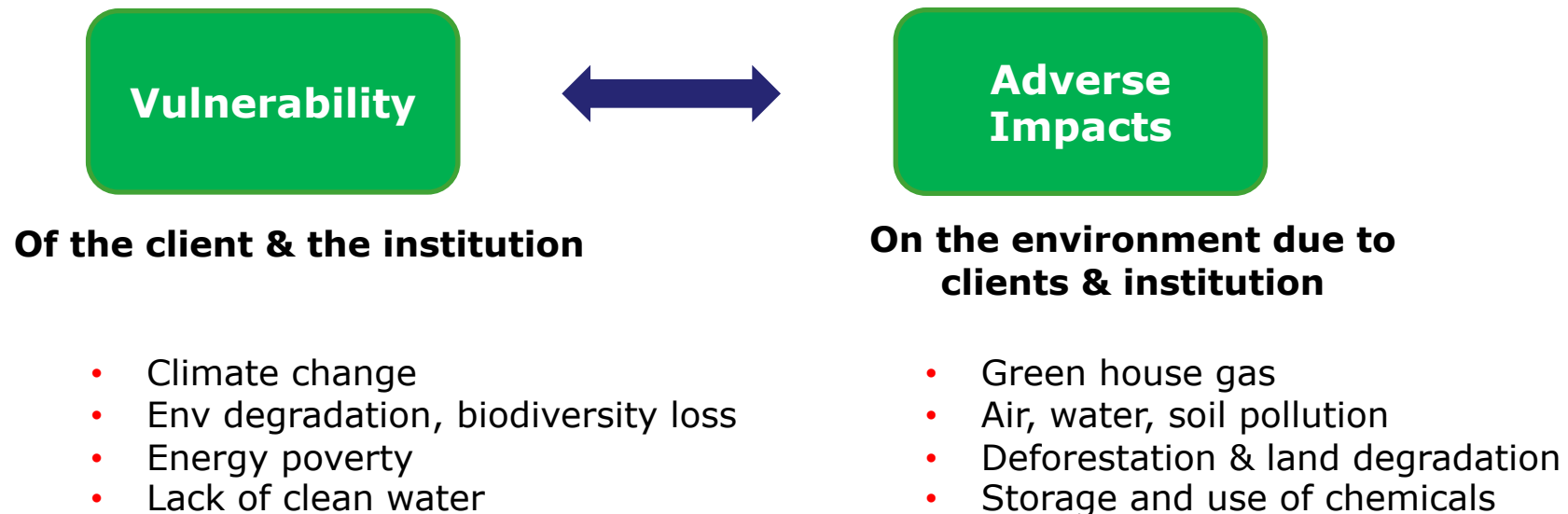
# 3 key concepts for Green Inclusive Finance

How clients and institutions are affected by the environment

How clients and institutions affect the environment

How green can satisfy demand and increase revenues

# Vulnerability & Adverse Environmental Impacts



# Indirect & Direct

## Indirect

**Activities of clients:**  
their adverse env. impacts and vulnerability

## Direct

**Institution and human resources:**  
their adverse env. impacts and vulnerability

# Making Green Inclusive Finance Operational



GREEN INDEX

The Green Index makes the Green Inclusive Finance operational.  
It operationalizes the concepts and it translates them into actionable and material items that stakeholders of the inclusive finance sector can relate to and act upon.

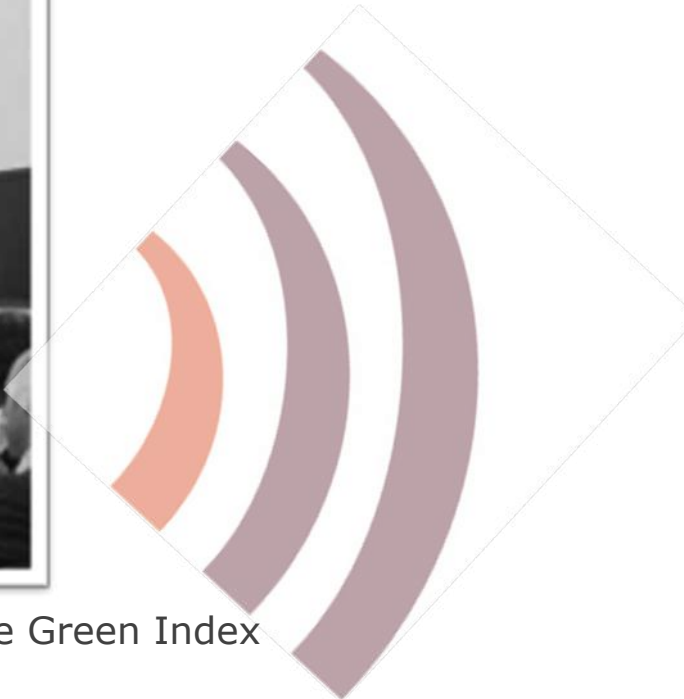


# The origins of the Green Index

The Green Index is developed by the European Microfinance Platform's Green Inclusive and Climate-Smart Finance Action Group (GICSF-AG) in 2014, and regularly updated by the GICSF-AG



2014 GICSF-AG meeting... conceptualizing the Green Index



# Measure, Plan & Improve

The Green Index is the main indicator for assessing a FSP's current performance in inclusive green finance and for defining an action plan to improve it.

## GREEN INDEX

A tool for evaluating the green inclusive finance performance of FSPs  
(It is used with FSPs and not with its clients)

- Awareness raising
- Evaluation
- Commitment
- Planning
- Prioritise
- Monitoring progress

# Green Index evolution

2014

## Green Index 1.0

- The most accepted tool to assess MFIs' environmental performance
- Publication available online on e-MFP AG webpage
- Green Index available in SPI4 (optional Dim 7)

2016

## Green Index 2.0

- Incorporates lessons learnt from MFI's use, ability, and willingness to track environmental management
- Quantitative components for green products
- Integrated into SPI4 (only qualitative)

2021

## Green Index 3.0

- Inclusion of (climate) vulnerability
- lessons learnt from 1000+ assessments & 6 years of use, 300+ stakeholders inputs
- Alignment to international initiatives
- Aligned with Universal Standards Env. Performance "Dim 7" developed with SPTF & CERISE, new mandatory dimension of USSEPM

The Origin

Upgrading

Mainstreaming

# GREEN INDEX 3.0

It is based on extensive experience

**6+ years of environmental assessments** by the e-MFP GICSF AG + SPI4 + partners of the AG, among others:

SIDI, Foundation Grameen Credit Agricole, CERISE, BNPP, HEDERA, YAPU Solutions, Enclude / Palladium, CERMi, MIX, ADA, MicroEnergy International, EMN, IDB-Lab, etc.

with **1000+ environmental assessments**

2 “**Green**” e-MFP Microfinance Awards (Environment (2014) & Climate Change Adaptation (2019))

10+ years of **green inclusive finance projects** implementation and Key Projects:

- EcoMicro (IDB since 2012, 30+ FSPs)
- MEbA (since 2012, 40+ FSPs)
- P CAMBio (2008-2013, 28 FSPs)
- GPA (HIVOS, 2005)
- C&ESG (IFAD, 2019)
- FMO e-tool (2009)
- MEPI (2012)
- Energy & MF – CleanStart
- Green Energy – ADA
- ...

- Mapping and alignment to international initiatives
- In-depth interviews with MF stakeholders including MFIs and Investors
- Surveys to Investors and MFIs
- Establishment of steering committee with STFP and CERISE and alignment with USSEPM
- Assessment of needs for environmental performance from **250+** stakeholders
- Two rounds of reviews, 1<sup>st</sup> rev: **40+** reviewers, **300+** feedbacks; 2<sup>nd</sup> rev: **100+** participants

# 2021 Env. dim. part of Universal Standards

Development and implementation of the 'green' dimension of the USSEPM.  
A joint project GICSF-AG, SPTF and CERISE.

## DIM 7 of USSEPM

COLLABORATION & STEERING COMMITTEE

e-MFP  
Green Inclusive &  
Climate Smart Finance  
ACTION GROUP



### The New USSEPM



# Aligning standards and enhancing value

In a joint project, the GICSF-AG, the SPTF and CERISE has developed the 'green' dimension of the USSEPM, in alignment with the Green Index 3.0. The two tools are aligned for the benefit of the sector.



# **GREEN INDEX 3.0** Standards

**GI.0**  
**Environmental  
strategy**  
definition and put in  
place

**GI.1**  
**Identification of  
Environmental  
risks and  
opportunities**

**GI.2**  
**Management of  
Environmental  
risks and  
opportunities**

**GI.3**  
**Green products  
and services**  
Financial and non-  
financial



## **2. Today focus: Green Products**



## GREEN INDEX 3.0

# Standards, Green products

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**Green products  
and services**  
Financial and non-  
financial

*It is about the supply  
and delivery of  
"green" products and  
services to customers.  
Both financial or non-  
financial services are  
assessed.*

*Financial products  
include "green"  
credits, but also as  
insurance, savings or  
money transfer.*

*Non-financial services  
include awareness  
raising, training,  
technical assistance,  
partnerships.*

## GREEN INDEX 3.0

# Green products , Details

**GI.0**  
**Environmental  
strategy**  
definition and put in  
place

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**GI.3**  
**Green products  
and services**  
Financial and non-  
financial

### **GI.3.1** **Financial products & services**

- Green Loans
  - Clean energy /energy efficiency
  - Sustainable agriculture
  - Clean water - sanitation
  - Circular economy / others
- Savings, remittances, emergency loans
- Climate / production insurance

### **GI.3.2** **Non-financial products & services**

- Awareness raising
- Training
- Technical assistance
- Partnerships

## GREEN INDEX 3.0

# Green products , Today

**GI.0**  
**Environmental  
strategy**  
definition and put in  
place

**GI.1**  
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- Training
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- Partnerships

# Today focus: Green Loans

**GI.3**  
**Green products  
and services**  
Financial and non-  
financial

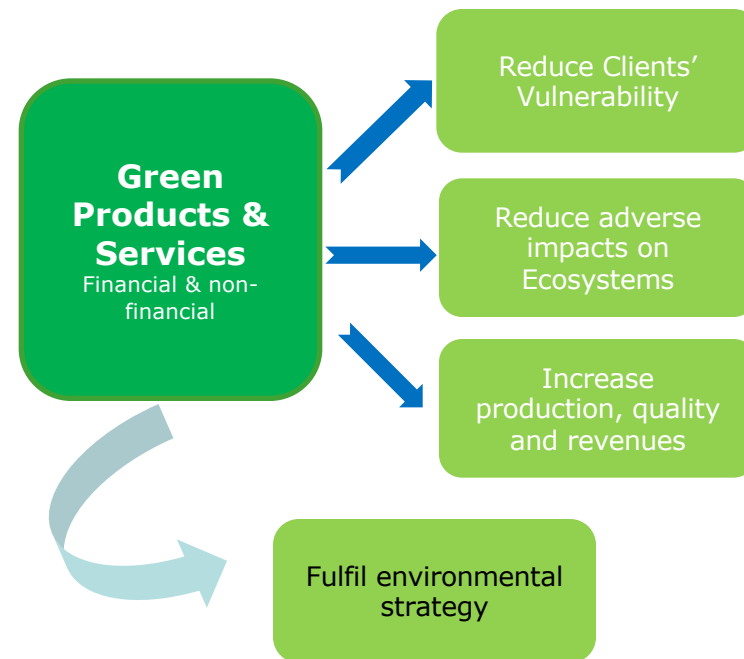
**GI.3.1**  
**Financial products & services**

## Green Loans

- Clean energy /energy efficiency
- Sustainable agriculture
- Clean water - sanitation
- Circular economy / others

# Green Products & Multiple Services Benefits

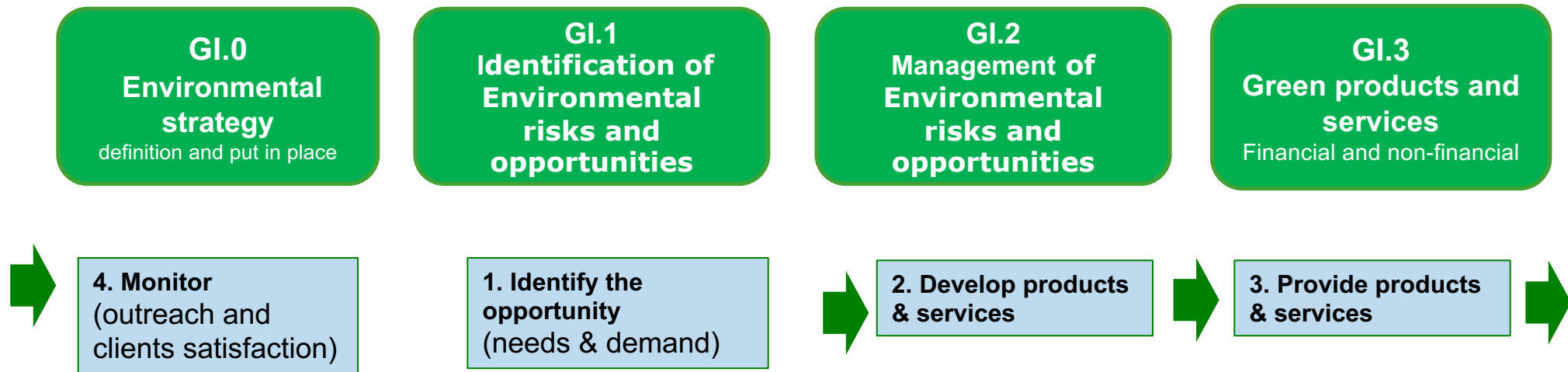
The development, disbursement and institutionalization of green products & services support risks management of clients & institutions, clients satisfaction, the achievement of the environmental strategy.





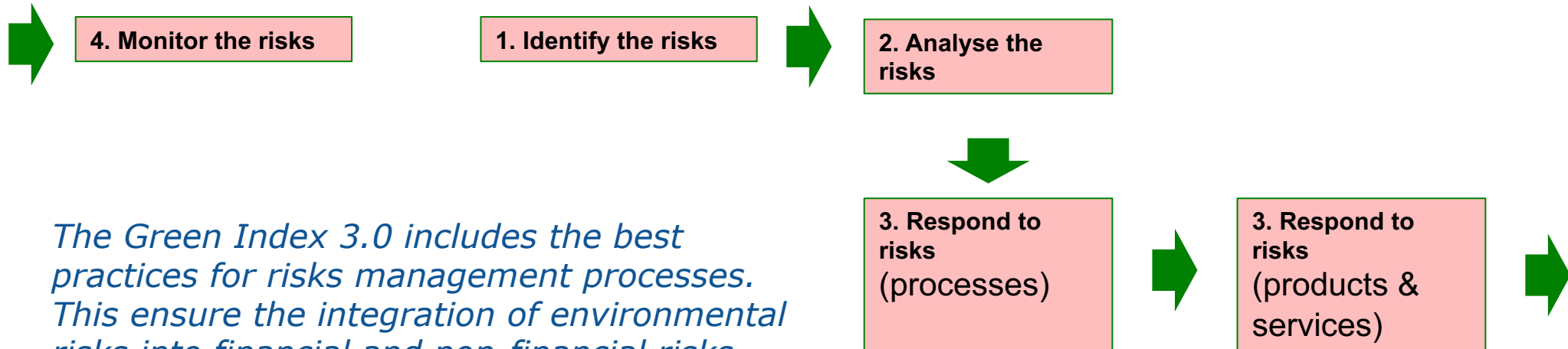
# **3. Develop and Disburse Green Products**

## **GREEN INDEX 3.0** & Green products development



*The Green Index 3.0 includes the best practices for products and services development and disbursement. This ensure the integration of environmental opportunity into credit processes and financial and non financial offer of the institution, and it ensure impacts and outreach.*

# **GREEN INDEX 3.0** - Risks Management and Green Products



*The Green Index 3.0 includes the best practices for risks management processes. This ensure the integration of environmental risks into financial and non-financial risks processes of the institution.*



# ***Developing Green products***

# Why?

## Identify Risks and Opportunities

### Economic Opportunities

- Is there a clients' demand/need?
- Is there a market opportunity?
  - Environmental regulation / incentives
  - Additional /cheaper funds
- Possibility to expand in new market?
- What your competitors/peers are doing?
- Are there good partners in the market: e.g. technology / technical providers?

**Identify clients needs/demands**  
**Explore the market**

### Clients' vulnerability

- Do you have clients' adverse impacts on environment (Green house gas, pollution, deforestation, use of chemicals)?

### Clients' vulnerability

- Are your clients vulnerable to climate change, environmental degradation, energy poverty, lack of clean water?

**Identify clients' risks**



# Is your institution ready?

## Internal Interest / Strategy

- Do you perceive interest by Board?
- Is the management team interested?
- Is there buy in by loan officers?
- Have your investors or shareholders manifested their interest?

**Internal analysis of your institution, and engagement**

# Identify the actual green practices and technologies to be financed

- What are the existing green practices and technologies?
  - already implemented by clients
  - already (indirectly financed – non dedicated products)
  - with technologies and technical providers in the local market
- Which one of existing green practices and technologies can:
  - offset identified vulnerability?
  - offset identified adverse environmental impacts?
  - respond to clients demand/needs, grab market opportunities?
- What is the time required to observe clients benefits?

**Start from what exists, ensure quick wins**

# Ex. of Green Practices and Technologies: Clean energy /energy efficiency

GREEN INDEX 3.0

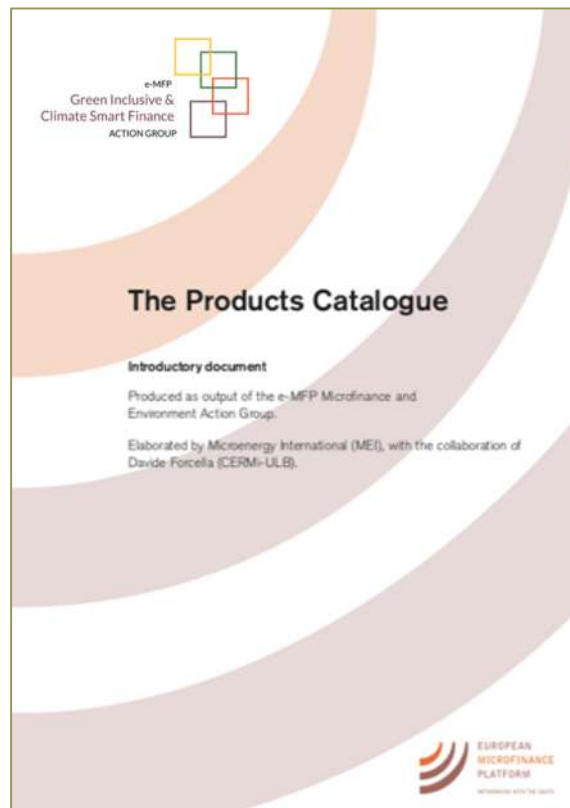
## RE technologies

- Solar dehydrators
- Solar hydroponics
- Large-scale clean energy mini-grids
- Large-scale hybrid energy mini-grids
- Small-scale clean energy mini-grids
- Small-scale hybrid energy mini-grids
- Solar home systems
- Solar water heaters
- Solar water pumps
- Pico PV
- Solar lamps
- Solar crop dryers
- Solar cookstoves

## Energy efficient technologies:

- Biodigesters
- Efficient biomass stoves / Improved cooking stove
- Efficient air conditioners
- Housing thermal insulation
- Improved cooking oven
- Rice husk gasifier stove
- Energy efficient refrigerators
- Led lighting
- Clean or hybrid energy grid connections

# Example: RE – EE products



a **catalog** developed by the Green Inclusive and Climate Smart Finance Action Group: it contains the description of 14 renewable energy or energy efficiency technologies financed or able to be financed by MFIs:

- the **vs****technical characteristics**,
- installation and maintenance,
- **benefit** to IMF clients and the environment
- price and type of financing,
- **impacts** economic and social for end users

# Ex. of Green Practices and Technologies: Sustainable agriculture, livestock, fishery

GREEN INDEX 3.0

- organic fertilizers
- soil conditioning
- conservation agriculture
- agroecology
- crop diversification
- drainage systems
- ecotourism
- firewall
- organic farming
- beekeeping
- seed banks
- windbreak
- live fences
- family orchards
- filter dams
- rainwater tanks
- drip irrigation
- contour trenches

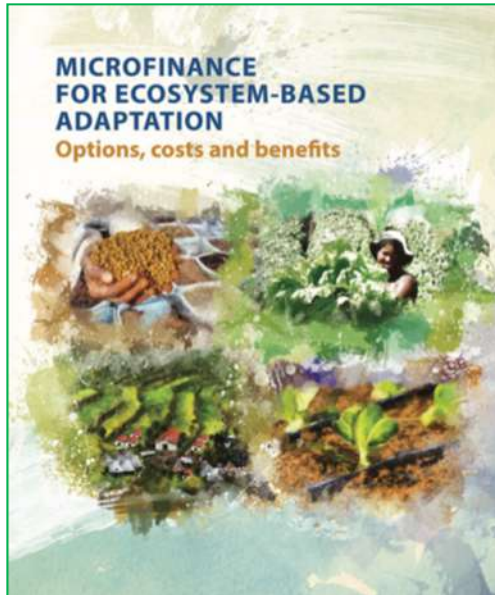
- greenhouses
- vermicompost
- fog trap
- sustainable forest management
- infiltration pits
- integrated nutrient management
- agro-sylvo-pastoral systems
- integrated pest control
- agroforestry systems
- natural retaining walls
- permaculture
- sylvo-pastoral systems
- natural shade
- aquaculture
- agricultural terraces
- soil restoration
- mixed nurseries
- crop rotation

- no-till systems
- association of cultures
- managed grazing
- improved pasture (GMO free)
- forage plants
- filter for dirty water from agricultural production
- resilient seeds (GMO-free)
- direct drilling
- intelligent storage of agricultural production
- precision fertilization
- protection of coastal wetlands (with associated fishing)
- restoration of coastal wetlands (with associated fishing)

Source:



# Example: EbA solution



a **catalog** developed by MEbA ONU Environnement: it contains the description of 40 EbA solutions financed or able to be financed by MFIs:

- Description
- Place of application
- Dangers and impacts addressed
- Method of implementation
- Inputs and costs
- Ecosystem benefits and economical
- Limiting factors
- Lessons learned

Source:

# Ex. of Green Practices and Technologies:

## Clean water – sanitation, Circular economy

GREEN INDEX 3.0

### Clean water-sanitation

- Clean water filters
- Water tanks
- Water connection
- New private toilet
- Low-flow fixtures

### Circular Economy

- recycling
- waste management
- collection of used material, appliances, second hand clothes, glasses, cans, etc. for re-use purposes
- production of products from used materials appliances, second hand clothes, glasses, cans, etc.
- re- sales of products generated by sustainable production or recycled production and/or locally produced
- electric vehicles,

- sustainable mobility or efficient vehicles
- hybrid vehicle
- clean tech (other than energy)
- reduced food waste
- green building products

# Select green practices and technologies able to generate net income for clients

- What are the activities the green practices / technologies identified can support?
- What is the estimated increase in production/revenues?
- What are the cost to install the green practices / technology?
- What is the cost to maintain the green practices / technology?
- What is the estimated return on investment?

**Ensure economic rationality for clients and your institution**

# Product development

- Are existing loan products adapt to the green practices / technologies identified?
  - Loan amount
  - Repayment schedule match cashflow generated
  - Loan term match time required for generating benefits
- Is there the need to develop a dedicated loan product?
  - If yes, consider to adapt loan amount, repayment schedule, and marketing to the specific green practices / technologies financed with the green loan, and define the right incentives (interest rate, TA, etc.), if it applies.
- Are there after sales services/guarantee for the client?
- Is there need for clients training/technical assistance?
- Can non – financial service be delivered by the MFIs or are external parties required? Thinks to partnerships
- Are the roles well distributed between the MFIs and other partners: example technology / technical providers.

***Start with what you have and then improve.***

***It needs to be a business case for all the parties:***

*financial institutions, clients, technology/capacity providers*

# Product strategy, summarized

Integral  
Strategy

Be the Change!

Promotion

Be actor of Change!

Documentation

Start Small – Go BIG!

# Product strategy, summarized

## Integral Strategy

The institution design specific strategic initiatives:

- Integration with technology / technical providers, strategic cooperation
- Consolidate a green learning system, and ensure green is integrate in all operations
- Identify and plan key performance indicators

## Promotion

The institution proactively promote green finance in its daily operations:

- Mechanisms of capacity building: internal / external
- Definition of specific products and marketing strategy
- Identification of technology / technical providers: initiation of partnerships

## Documentation

The institution introduce a better documentation of loans activities with focus on green:

- Operational inclusion of a green focus into existing products
- Inclusion of indicators and tools to verify the green investment done by clients

# ***Disburse Green products***

# Product commercialization

- Is management and loan office aware of the green product?
- Are incentives well allocated within the institution?
- Is the reputation risk managed?
- Are distribution channel/last miles and marketing in place?
- Are field officers trained to disburse green practices / technologies
- Are partnerships with technologies and technical providers well designed?
- Is the institution able to verify the green practices / technologies financed?
- Do you use / refer to a "green taxonomy" to ensure that the practices / technologies you finance are "green"
- What about scale opportunity?

***Train staff, define partnerships, define incentives, provide tools***



# Learn, communicate, growth

- Are you monitoring the disbursement of the green loans?
- Are you monitoring the benefits of clients generated by green practices and technologies?
  - Reduction of vulnerability / generation of resiliency
  - Reduction of adverse environmental impacts / generate positive env. impact
  - Generation of additional / less volatile revenues
- Do you report to:
  - Management and Board
  - Public and clients
  - Shareholders and investors
  - Donors

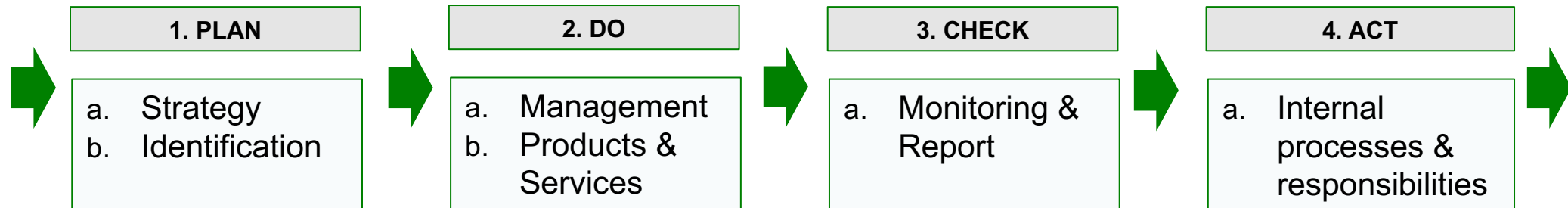
***Assess what work and what does not work and engage stakeholders!***

# Model of improvement



## GREEN INDEX 3.0 & Model of Improvement

The Green Index 3.0 includes the structure of the model of improvement: “PDCA”, plan-do-check-act. In this way it support the control and continuous improvement of processes and products.



# Enable actions and ensure Outreach of Green Products

## CAPACITY

**Internal:** trainings to staff

**External:** partnerships,  
trainings/technical  
assistance to clients

## TOOLS

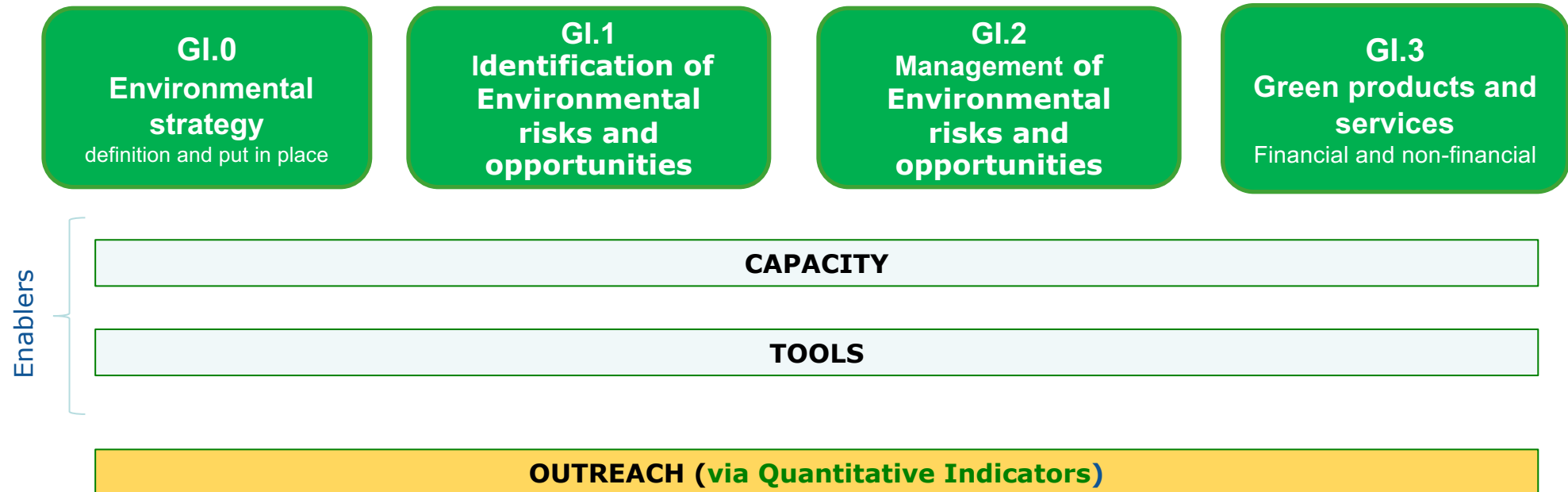
Appropriate tools to:

- Identify
- Manage
- Disbourse / Verify
- Monitor/Report

## OUTREACH

- Benefits
- Outcomes
- Lessons Learnt

## **GREEN INDEX 3.0** & Enablers and Outreach





# **4. Interactive Session: Develop your Green product !**

## ***Go to the MIRO Board***

[https://miro.com/app/board/o9J\\_lkoF8Os=?invite\\_link\\_id=948048360154](https://miro.com/app/board/o9J_lkoF8Os=?invite_link_id=948048360154)



# 5. Examples





## **5.1. Green loans for clean energy / efficiency**

# Green credits: Clean energy / energy efficiency

## Definition

"Credit to low-income households or microenterprises excluded from the traditional formal financial sector to support the use or investment in RE or EE technologies."

## Green credits: Renewable energy / energy efficiency - Benefits

Advantages	Solar powered lamps	Solar PV Systems	Improved stoves	Biogas plants
<b>Economic</b>	Savings of 5 liters per month ( <b>repayment in ~ 15 months</b> )	An average saving of 12 liters of kerosene per month.	A wood saving of \$ 1.5 / month. <b>Return on investment ~ 6 months</b>	A wood saving of \$ 3 per month. <b>Revenues of \$ 180 / year from the sale of biogas and fertilizers.</b>
<b>Environmental</b>	~ 145 kg of CO2 emissions reduced per lantern	~ 375 kg / year of CO2 emissions reduced by SHS installed (45Watt system)	25% reduction in wood consumption.	~ 4.6 tonnes / year of CO2 emissions reduced per biogas installation (3m3)
<b>Social</b>	Increased time for workplace education	More time for work and education	Improved indoor air quality	Improves agro-productivity by reusing animal waste.
<b>Financial</b>	€ 5 / month more to repay the loan	€ 12 / month more to repay the loan	\$ 1.5 / month more to repay the credit	\$ 3 / month more to repay the credit

The **good health**, consequence of clean energy, indirectly makes it possible to pay better credit

# Green credits: Renewable energy / energy efficiency Business models implemented by financial institutions

the “**End-user financing**” for the acquisition of clean energy technologies takes many forms which fall under the following basic models:

- Sales **cash** dealers
- **Consumer credit** through MFIs or commercial banks
- The **fee-for-service**, in which the equipment remains the property of the service provider

# Green credits: Renewable energy / energy efficiency

## Business models implemented by financial institutions

### Dealer Cash Sales

Clean energy technology suppliers or dealers sell directly to customers in cash.

Some sales are made on credit, generally to be reimbursed over a period of **3 to 12 months**.

*For this type of financing, international financial institutions make loans available through MFIs or commercial banks.*



Source: SolarNow

# Green credits: Renewable energy / energy efficiency

## Business models implemented by financial institutions

### Consumer credit

Local financial institutions provide loans to end users to purchase clean energy systems.

**In order to guarantee success, certain strategies should be adopted:**

International financial institutions are providing support.

Credit to end users is linked to certified suppliers.

A prior guarantee or service agreement exists between financial institutions and suppliers.

Whatever the partnership scheme, the MFI does not take on technical responsibility of the product (the functional guarantee)

# Green credits: Renewable energy / energy efficiency

## Business models implemented by financial institutions

### Consumer credit

Local financial institutions provide loans to end users to purchase clean energy systems.

### Commercial banks can either:

lend directly to consumers

*See: Equity Bank of Kenya*

provide credit lines to MFIs

*See: Sarvodaya Economic Enterprise  
Development Services in Sri Lanka*

# Green credits: Renewable energy / energy efficiency

## Business models implemented by financial institutions

### Consumer credit

Local financial institutions provide loans to end users to purchase clean energy systems.

lend directly to consumers

See: Equity Bank of Kenya

**Watch the video:**

<https://ke.orbenergy.com/>



Photo: Orb Energy

*Equity Bank and solar energy company, Orb Energy, have teamed up to provide tailored loans for homes, institutions and industries to purchase solar water heating systems.*

*With the Equity Bank loan product, Kenyans will be able to purchase solar water heaters that will save them up to 60% of the money spent on their electricity bill.*



# Green credits: Clean energy / energy efficiency

## Business models implemented by financial institutions

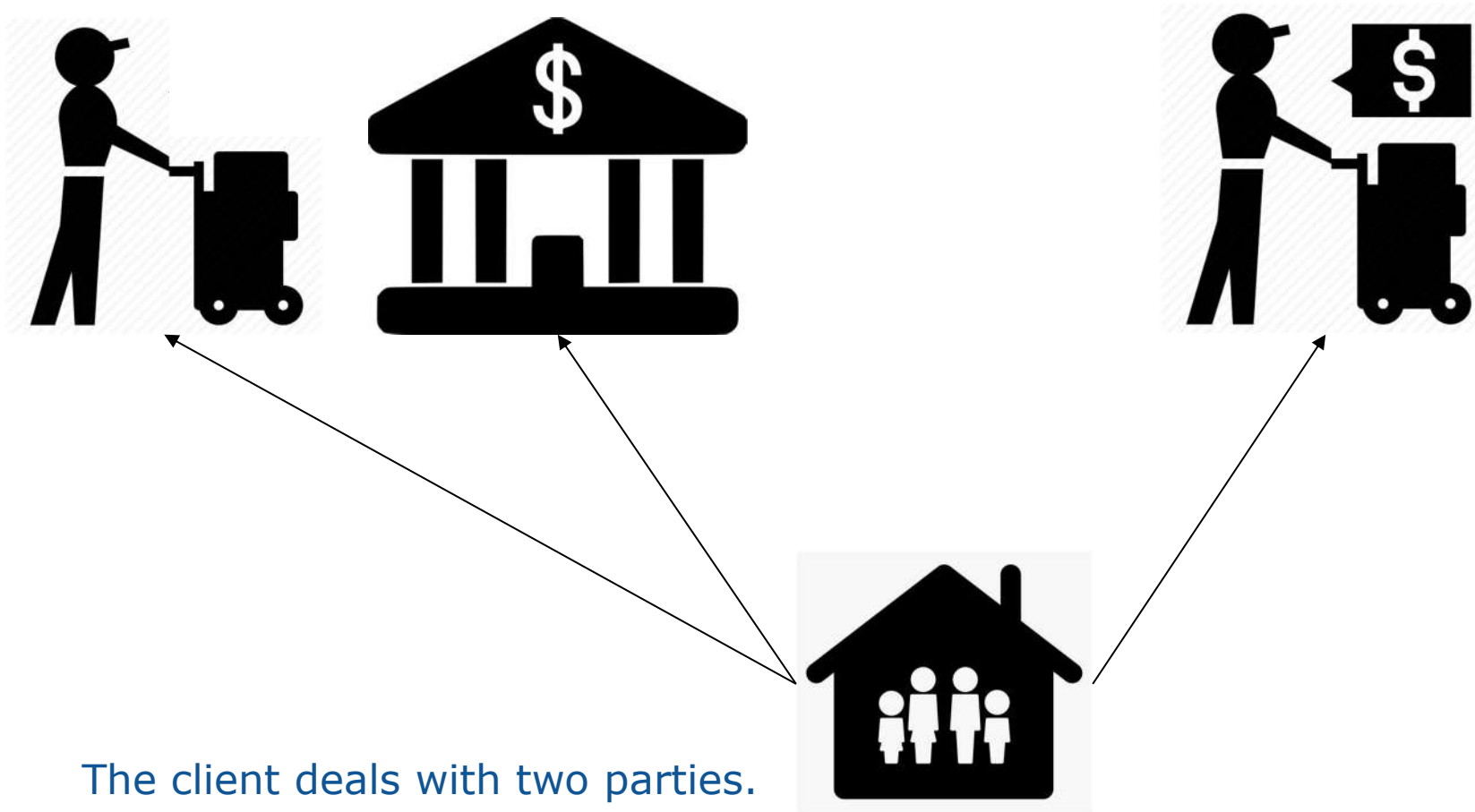
### Fee-for-service / **PAY-AS-YOU-GO**

Customers pay an energy service company, which makes clean energy affordable for very low-income customers and minimizes long-term risk to customers as the ownership and maintenance of the energy system is the responsibility of the company.

**Service charges are generally quite low** so that customers can pay in cash. Sometimes **MFIs help clients pay** costs with very short-term loans or overdrafts.

*This service is generally part of a much larger energy investment made by commercial financiers and very often supported by funds from government or multilateral sources.*

# Two-hand Business Model



The client deals with two parties.

# Green credits: Renewable energy / energy efficiency

## Business models

### One-hand business model

#### MFI

- Microfinancing
- Marketing
- Advance payment
- Collection
- Recovery in case of failure

- Installation
- Marketing
- Customer training

- After sale
- Maintenance of the service guarantee
- System upgrade / recycling

**Consumers / Microentrepreneurs**

# Green credits: Renewable energy / energy efficiency

## Business models

### Two-handed business model

#### MFI

- Microfinancing
- Marketing
- Advance payment
- Collection
- Recovery  
in case of failure

#### Energy company

- Installation
- Marketing
- Customer training
- After sale
- Maintenance of the  
service guarantee
- System upgrade /  
recycling

**Consumers / Microentrepreneurs**

# Green credits: Renewable energy / energy efficiency

## Training and capacity building for clients

### Training

- Technological knowledge
- Energy experience
- their clients' needs
- Quality experience



Baobab + agents who distribute solar kits, they sensitize the population to solar energy and present the products in villages in rural areas, in San Pedro in Côte d'Ivoire. © Baobab +

# One-hand Business Model



Zara Solar Ltd, the leading solar company in northern Tanzania, provides the population with high quality yet affordable photovoltaic systems.



By 2007, Zara Solar and its sister company, Mona-Mwanza Electrical & Electronics, had sold more than 3,600 systems, directly benefiting more than 18,000 people. Over 50,000 sales from 2005 to 2017.

Tanzania has one of the lowest electrification rates in the world. Only 10% of the population has access to the electricity grid, and in rural areas only 2% have it, making people dependent on increasingly expensive kerosene for lighting.



# One-hand Business Model



Baobab + was launched in late 2015 by Microcred Group, a digital finance company focused on financial inclusion in Africa and China.

Baobab + develops access to energy in West Africa (Senegal, Ivory Coast, Mali) and Madagascar

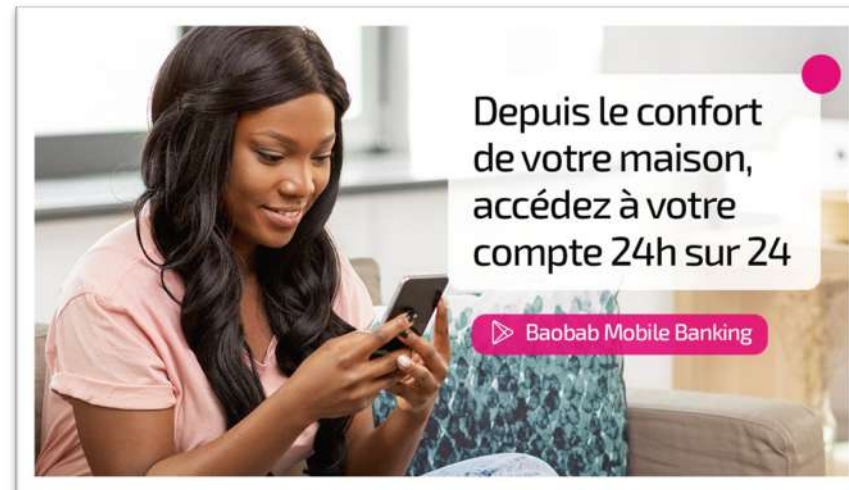
- energy
- pure water
- digital educational tablets

**classic loans** for  
Microcred  
customers

Where

model **Pay-As-  
You-Go**

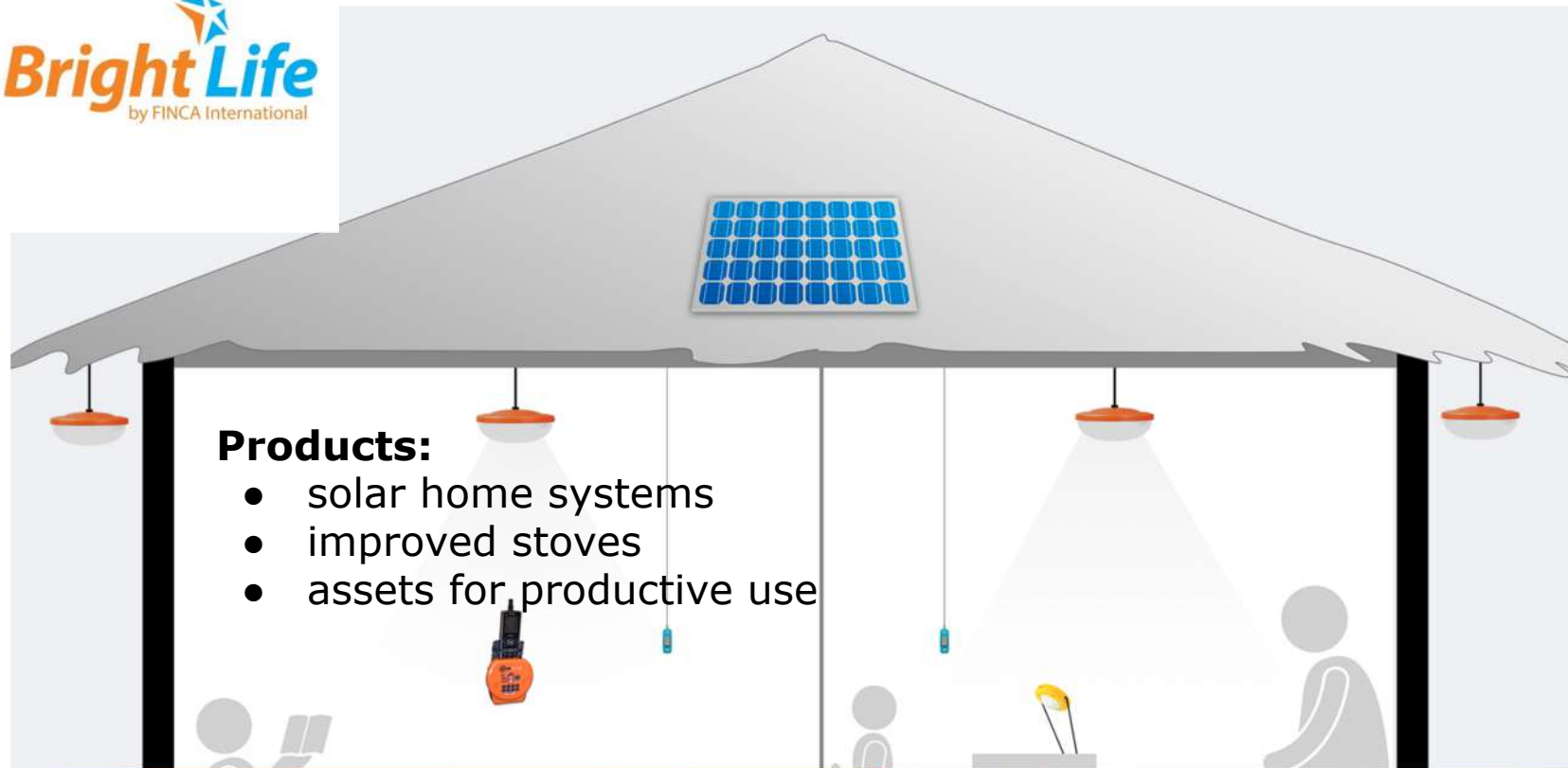
Baobab + works with various partners wishing to improve social and environmental impacts in countries.



The ambition of Baobab + is to provide clean, affordable and reliable energy to people living off-grid by offering them quality products with appropriate financial solutions.

# One-hand Business Model

**BrightLife**, a social enterprise of FINCA International in Uganda.



Brightlife provides last mile distribution and end user financing for basic service products.



# Two-hand Business Model

*End user credit model*

**Example: Solar Today Uganda Ltd.**



*What can we notice in this relationship?*

The provider communicates and promotes the partnership with microfinance institutions and commercial banks.

Solar Today MFI Partner



# Examples of green products

## Consumer Credit

Dedicated or non-dedicated loan



PERU - Cooperativa Fondesurco



# Examples of green products

## Distribution System

Usage of branches for delivering products



**NUESTRAS OFICINAS**

**¿DÓNDE NECESITAS ENCONTRARNOS?**

Selecciona un departamento:

Beni

Selecciona una locación:

GUAYARAMERIN

**Encontrar**

También puedes contactarnos al:

**800 10 11 12**

**BOLIVIA - Bancofie**

# Examples of green products

## Loan to microentrepreneur

Microfranchises



### Crediverde Energía

Convierte tu unidad productiva en un aliado de las tecnologías ecoeficientes. Conoce más

» [Más Información](#)

COLOMBIA - Bancamía

# Examples of green products

## Monitoring and evaluation of impact of energy access

Monitoring for carbon credits



Gold Standard visit to client  
of improved cookstove



# Examples of green products

## LOAN FOR A SOLAR POWERED LED LANTERN

S. No	Particulars	Detail	Week	Opening Balance	Installment	Principal	Interest	Principal Outstanding
0	Total Loan Amount	1,250	0	1,250	78	0	0	1,172
1	Interest Rate - Flat	6.25%	1	1,172	50	44	6	1,128
2	Interest Rate - IRR	26.14%	2	1,128	50	44	6	1,083
3	Interest Amount	78.00	3	1,083	50	45	5	1,039
4	Installment Amount	50.00	4	1,039	50	45	5	994
5	Period (Weeks)	25	5	994	50	45	5	949
6	Loan Processing Fees	1%	6	949	50	45	5	904
7	Loan Cover Fees	0%	7	904	50	45	5	858
8	Downpayment	78.00	8	858	50	46	4	813
9	Up front payment (LCF+DP)	91.00	9	813	50	46	4	767
			10	767	50	46	4	721
			11	721	50	46	4	674
			12	674	50	47	3	628
			13	628	50	47	3	581
			14	581	50	47	3	534
			15	534	50	47	3	486
			16	486	50	48	2	439
			17	439	50	48	2	391
			18	391	50	48	2	343
			19	343	50	48	2	295
			20	295	50	49	1	246
			21	246	50	49	1	198
			22	198	50	49	1	149
			23	149	50	49	1	99
			24	99	50	50	0	50
			25	50	50	50	0	(0)
				1,250	1172	78		

\* All values in Indian Rupees (INR)

\*\* 1 USD = 50 INR





## **5.2. Green loans for clean water – sanitation “WASH”**



# Green credits: Water, sanitation and hygiene (WASH)

Microcredit for Water Supply and Sanitation is the application of microcredit to provide loans to small businesses and households to increase access to an improved water source and sanitation.

Microcredits are a complementary or alternative approach to enable the poor to access water supply and sanitation.



Source: Microsave



# Green credits: Water, sanitation and hygiene (WASH)

The funds are allocated either to:

- **small independent water suppliers that generate an income stream by selling water,**
- either to households in order to finance:
  - domestic connections,
  - plumbing installations or
  - on-site sanitation facilities such as latrines

# Green credits: Water, sanitation and hygiene (WASH)

A water connection can significantly reduce a family's water expenses if they previously had to rely on water vendors, saving money on loan repayments.

Although there have been many pilot projects in both urban and rural areas, only a small number of them have been scaled up.

*Many microfinance institutions have limited experience in financing investments in water supply and sanitation.*

# Example of WASH product

## SME loans for community-managed or small private service providers

Loans for community-based  
organization that manages piped  
water supply system



Kenya - KREP Loan



## **5.3. Green loans for Sustainable agriculture and adaptation to climate change**

## Some concepts and definitions

Microfinance institutions can finance practices and technologies dedicated to agricultural production or livestock which can:

- (a) improve customer productivity or the quality of production;
- b) reduce clients' vulnerability to climate change or environmental degradation;
- c) protect ecosystems and reduce greenhouse gas emissions

These practices and technologies include what are normally referred to as:

- Nature-based solutions;
- Ecosystem-based adaptation solutions;
- Climate smart agriculture solutions

## Example: EbA solutions (Ecosystem-based adaptation)

### Support to agriculture

Organic fertilizers  
Soil conditioning  
Rainwater tanks  
Drainage systems



### Ecological support

Sustainable forest management  
Seed [Filtering barricades](#)  
banks  
Mixed plant nurseries



## Biological agriculture Permaculture

### Agricultural practices

Biological agriculture  
Crop diversification  
Crop rotation  
Sustainable management of parasites



### Technology

Efficient irrigation  
Solar dryer  
Solar hydroponics  
Greenhouses  
Fish farming



# The objectives of the MEbA project

- Increase the capacity of MFIs to finance EbA alternatives (ecosystem-based adaptation)
- Strengthen the client's capacity to implement adaptation options
- Influence national and international public policies to promote adaptation through microfinance

# Evolution of the MEbA project

## IMPLEMENTING PARTNERS:



Financiado por el:  
Ministerio Federal  
de Medio Ambiente, Protección de la Naturaleza,  
Obras Públicas y Seguridad Nuclear  
en virtud de una resolución del  
Parlamento de la República Federal de Alemania



## STRATEGIC PARTNERS:



### Phase 1: (2012-2017)

5 MFI associated · 2 countries · 4 million EUR

COLOMBIA



PERU



### Phase 2: (2018-2020)

13 MFI associated · 9 countries · 1 million EUR

COLOMBIA



DOMINICAN REPUBLIC



COSTA RICA



ECUADOR



EL SALVADOR



PERU



SENEGAL



BENIN



MADAGASCAR



2021  
35 MFIs associated - 11

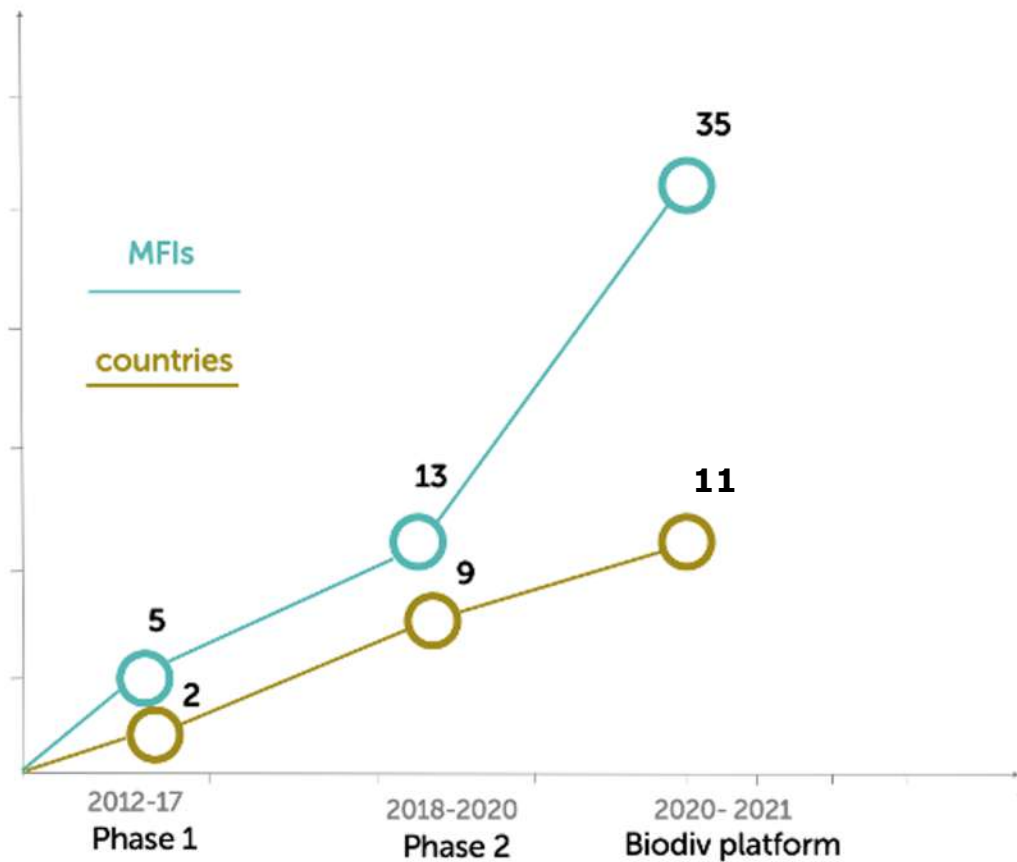
**Latin America:** Colombia, Peru, Bolivia, El Salvador, Dominican Republic and Costa Rica  
**Sub Saharan Africa:** Senegal, Ivory Coast, Benin, Burkina Faso, Rwanda

Source:





# Evolution of the MEbA II project



Source:

YAPU  
Smart finance. People first.

MEbA  
microfinance for  
ecosystem-based adaptation

# Benefits and results

## Avantages de MEbA :



De meilleurs  
écosystèmes



Augmentation  
de la  
productivité et  
de la qualité



Revenu  
diversifié



Moins de risques de  
pertes dues aux  
événements  
climatiques

Nombre de crédits  
EbA octroyés

17.870

Investissement  
privé vers EbA

\$ 30.699.583



## **5.4. Green loans for Circular economy / others**

# Define the potential problems and benefits of the recycling product

Ex. Funding to MSMEs

Product	Potential Problems	Advantages
Credits / Other funding to MSMEs	<ul style="list-style-type: none"><li>• Project management income from waste do not cover necessarily the investment initial (<math>NPV &lt; 0</math>)</li><li>• Difficulty devaluation project risk (lack of data on the management of waste and their valuation)</li></ul>	<ul style="list-style-type: none"><li>• There is a clientele.... Recycling business plan in Africa which are viable (we have seen for example <a href="#">Wecyclers</a> in Lagos)</li></ul>

Source: "Panel Discussion on African Clean Cities Platform as a Vehicle to Promote Investment in Waste Management in Africa  
» 28th June 2018 1st ACCP Annual Meeting Rabat, Morocco adapted by Silvia Recupero

ATTENTION TO FINAL CHARGES (INTEREST RATES) FOR CUSTOMERS

# Enda Tamweel's experience in Tunisia

## 2) Contact rag dealers and recycling collection centers

### - Crédit Eco-prêt



Ce produit est destiné aux chiffonniers et centres de collecte de matières recyclables.

**Montant :** De 200 à 20 000 DT

### Eligibility criteria:

**Having or wanting to create a recycling activity**, and which are from:

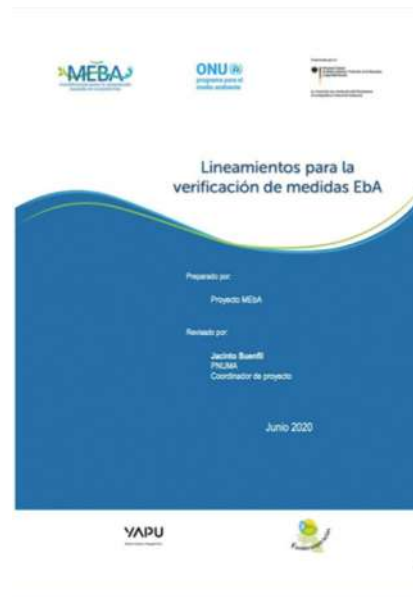
- NOT Tunisian nationality or residence permit valid in Tunisia
  - Be between 18 and 65 years old
  - Be resident in the intervention areas of Enda agencies



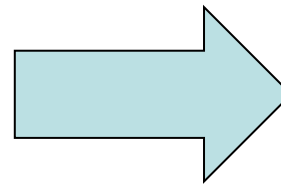
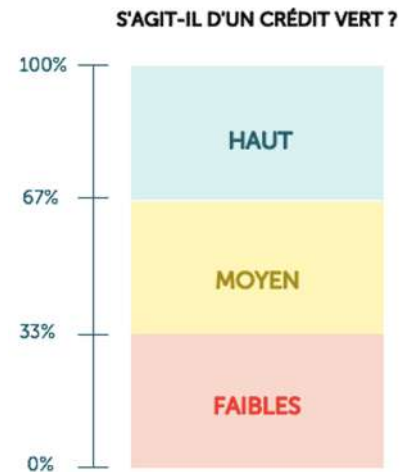
## **5.5. Verification / Monitoring Green Practices and Technologies**

# Verification of funded EbA solutions

Example: EbA verification indicators



Source: <https://unepmeba.org/es/medios-y-publicaciones/>



1. INTERNAL REPORT TO INVESTORS
2. DEMONSTRATION OF THE IMPACT
3. BENEFIT FROM GREEN FUNDING
4. ASSESS THE LEVEL OF PROMOTION OF BIODIVERSITY

Source:

YAPU  
Smart finance. People first.

MEBA  
microfinance for  
ecosystem-based adaptation

# Green credits: Clean energy / energy efficiency

## Verification and Monitoring

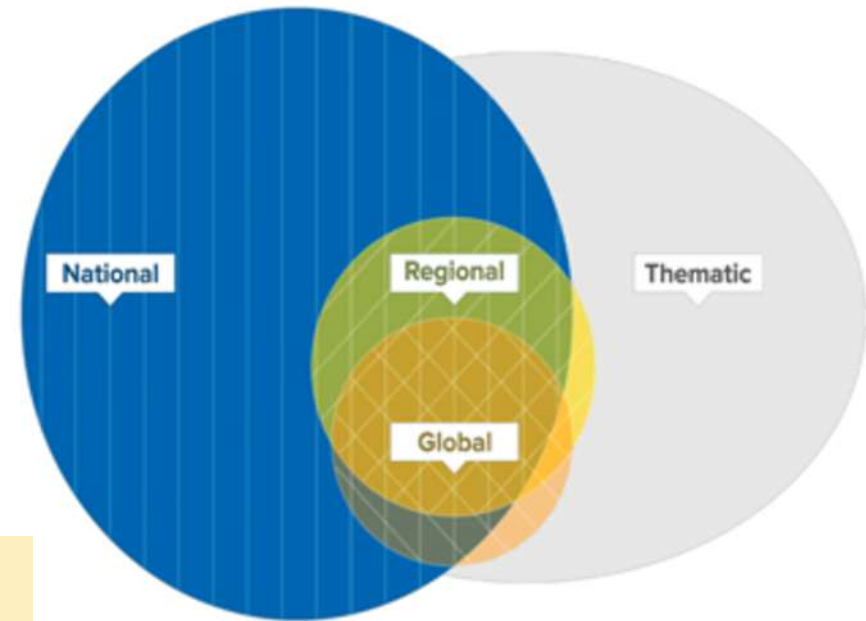
7 ÉNERGIE PROPRE  
ET D'UN COÛT  
ABORDABLE



Indicators form the backbone of monitoring progress towards achieving the SDGs at local, national, regional and global levels.

"A strong indicator framework will turn the SDGs and their targets into a management tool to help countries develop implementation strategies and allocate resources accordingly."

Likewise, a report card to measure progress towards sustainable development, helps to ensure the accountability of all stakeholders to achieve the SDGs.



Source: Adams & Judd (2019)



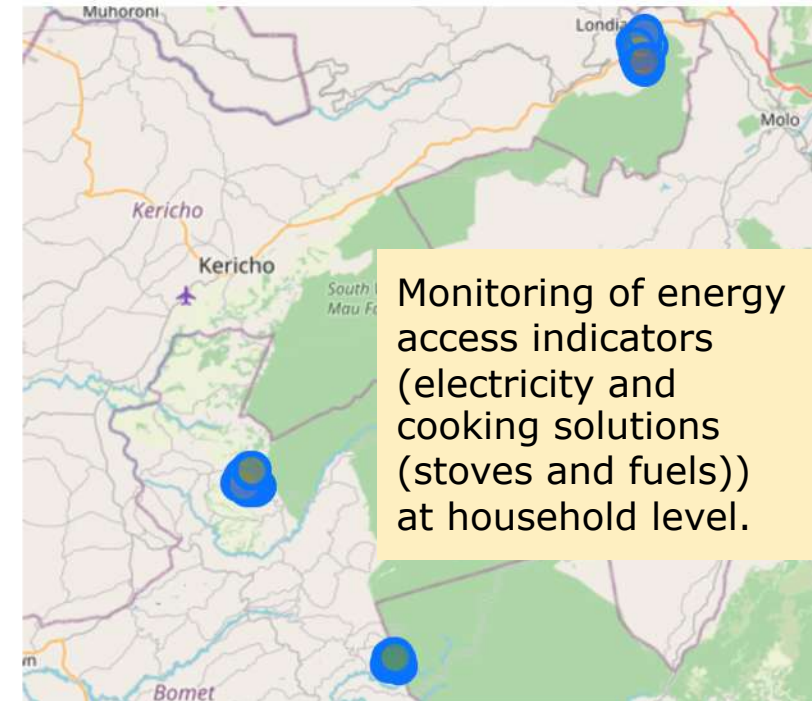
# Green credits: Clean energy / energy efficiency

## Verification and Monitoring

***Where does the data come from?***

Energy surveys are an essential data collection tool.

Monitoring of energy access indicators (electricity and cooking solutions (stoves and fuels)) at household level.



Example:  
Kenya (HEDERA 2019)

# Green credits: Clean energy / energy efficiency

## Verification and Monitoring

### At household level

Energy surveys are an essential data collection tool.



MULTI-TIER  
FRAMEWORK

*Example*



[Household level energy access survey](#)

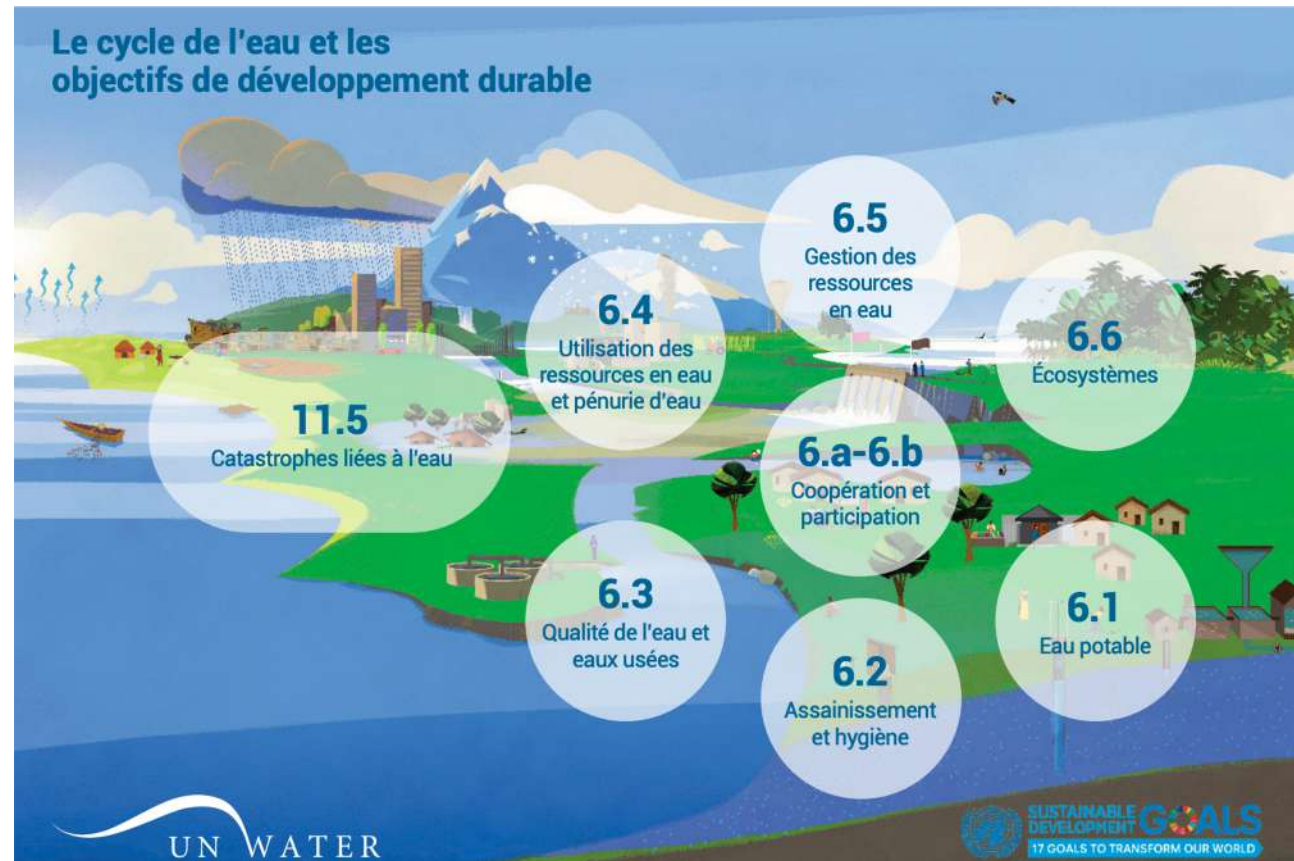


### At stakeholder level

**Rapid Household Energy Assessment Tool (HEART)  
for situational assessment and stakeholder mapping**  
[Household Energy Assessment Rapid Tool \(HEART\)  
for Situational Assessment and Stakeholder Mapping](#)

# Green credits: Water, sanitation and hygiene (WASH) Verification and follow-up

Monitoring indicators make it possible to understand the contribution and commitment of the organization to the achievement of the SDGs.



# Green credits: Water, sanitation and hygiene (WASH) Verification and follow-up



This indicators for monitoring the drinking water, sanitation and hygiene related elements of the SDG targets and reflects in-depth discussions with over 100 experts from over 60 organizations around the world.

## ECHELLES UTILISÉES POUR LE SUIVI DE L'EAU DE BOISSON, L'ASSAINISSEMENT ET L'HYGIÈNE DANS L'AGENDA 2030

Eau potable	Assainissement	Lavage des mains
Géré en toute sécurité	Géré en toute sécurité	Installations Élémentaires
Elémentaire	Elémentaire	
Limité	Limité	Installations Limitées
Non amélioré	Non amélioré	
Pas de service	Pas de service	Pas d'installation





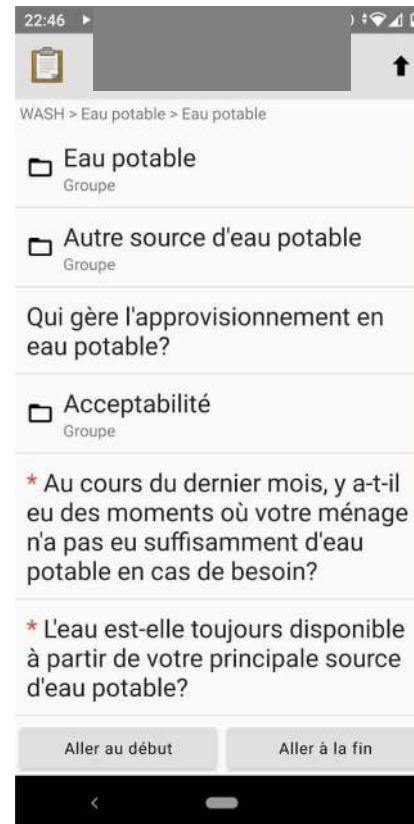
# Green credits: Water, sanitation and hygiene (WASH)

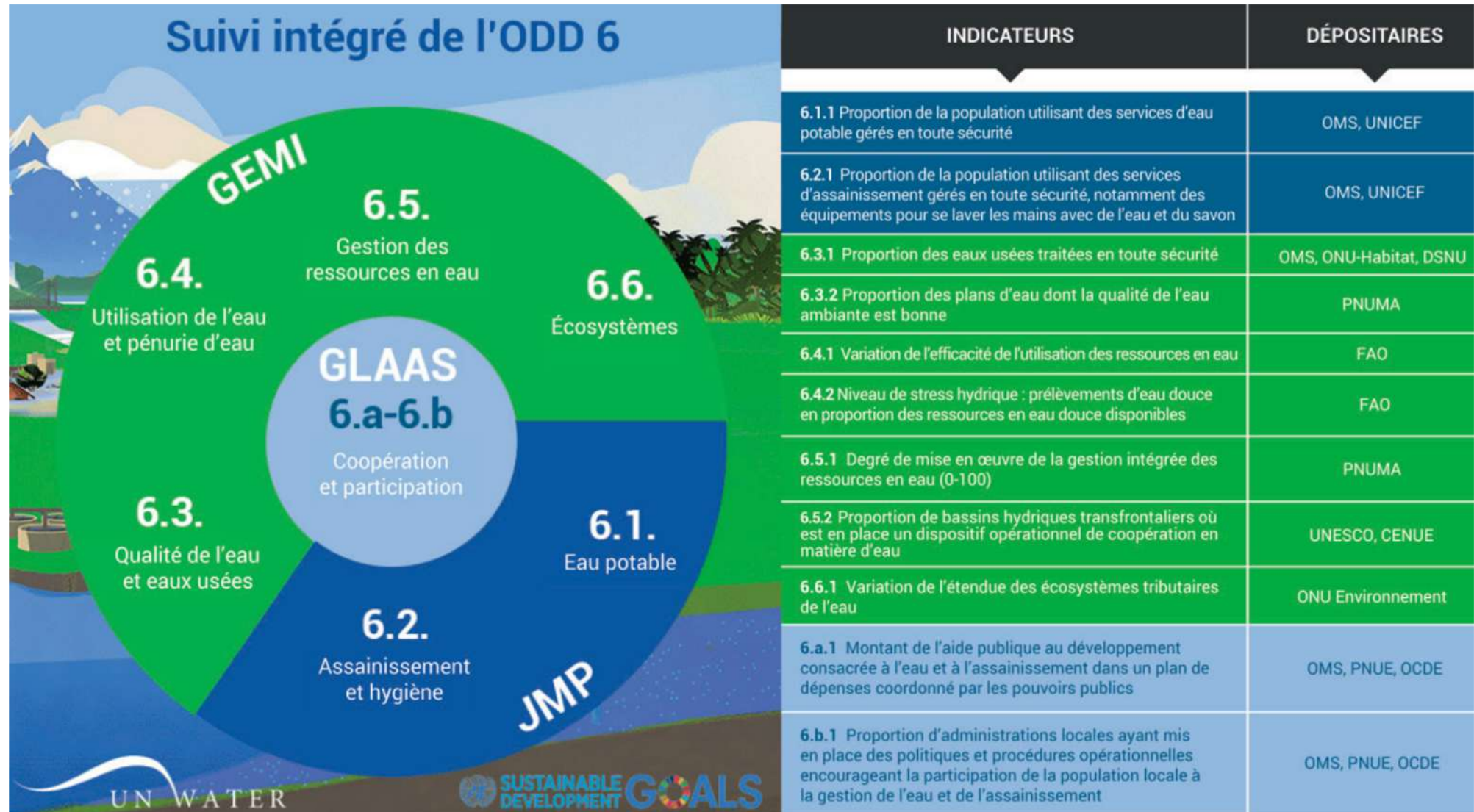
## Verification and follow-up



Digital measurement tools:

- Social demand and social acceptability of sanitation
- Impact assessment





# Green credits: Water, sanitation and hygiene (WASH) - Verification and follow-up

Monitoring indicators make it possible to understand the contribution and commitment of the organization to the achievement of the SDGs.

## INDICATEURS

6.1.1 Proportion de la population utilisant des services d'eau potable gérés en toute sécurité

6.2.1 Proportion de la population utilisant des services d'assainissement gérés en toute sécurité, notamment des équipements pour se laver les mains avec de l'eau et du savon

6.3.1 Proportion des eaux usées traitées en toute sécurité

6.3.2 Proportion des plans d'eau dont la qualité de l'eau ambiante est bonne

6.4.1 Variation de l'efficacité de l'utilisation des ressources en eau

6.4.2 Niveau de stress hydrique : prélèvements d'eau douce en proportion des ressources en eau douce disponibles

6.5.1 Degré de mise en œuvre de la gestion intégrée des ressources en eau (0-100)

6.5.2 Proportion de bassins hydriques transfrontaliers où est en place un dispositif opérationnel de coopération en matière d'eau

6.6.1 Variation de l'étendue des écosystèmes tributaires de l'eau

6.a.1 Montant de l'aide publique au développement consacrée à l'eau et à l'assainissement dans un plan de dépenses coordonné par les pouvoirs publics

6.b.1 Proportion d'administrations locales ayant mis en place des politiques et procédures opérationnelles encourageant la participation de la population locale à la gestion de l'eau et de l'assainissement



## 6. What's next?



# The next workshop 16 Nov

Next week, on November 16, we will have the second workshop:

***"Gap Analysis and Planning Green Activities "***

*Thanks a lot for your presence and attention!*

**Heads of the GICSF-AG:**

Natalia Realpe Carrillo: [natalia@hedera.online](mailto:natalia@hedera.online)

Davide Forcella: [davide.forcella@yahoo.it](mailto:davide.forcella@yahoo.it)

**e-MFP contact:**

Joana Afonso: [jafonso@e-mfp.eu](mailto:jafonso@e-mfp.eu)



# EaSI\* Technical Assistance

**For more information, about:**

Technical Assistance, contact:  
**[easi.ta@fs.de](mailto:easi.ta@fs.de)**

Ratings and Evaluations, contact:  
**[easi.ta@mf-rating.com](mailto:easi.ta@mf-rating.com)**

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