EaSI Technical Assistance

Gap Analysis and Planning Green Activities

Green Microfinance Workshop Series

Davide Forcella (YAPU Solutions, CERMi, Head of GICSF-AG)
Natalia Realpe Carrillo (HEDERA, IASS Potsdam, Head of GICSF-AG)

16 November, Online event

Training Description

This training provides an introduction to the concept of assessing gaps in environmental performance:

- Introduction to how to read the result of an environmental performance assessment: Green Index 3.0. Use of dummy examples
- The audience will engage in discussing the result of the assessments, define existing gaps, and prioritize actions.
- Explicit example of green activities will be provided

Training Objectives

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

- How to read a Green Index 3.0 assessment.
- How assess gaps and opportunities to improve.
- Possible actions to engage in to improve environmental performance

The Agenda

0. Intro
1. Concepts: Green Inclusive Finance
2. Assessing Environmental performance and way forward
3. Examples of actions
4. 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,
- The analysis and visualization of data done using the tools provided by Natalia Realpe, Head of the GICSF-AG
- 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 maintime 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

Vulnerability ⟷ **Adverse Impacts**

Of the client & the institution

- Climate change
- Env degradation, biodiversity loss
- Energy poverty
- Lack of clean water

On the environment due to clients & institution

- Green house gas
- Air, water, soil pollution
- Deforestation & land degradation
- Storage and use of chemicals

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

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.

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, 1st rev: **40+** reviewers, **300+** feedbacks; 2nd 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 COMMITEE

e-MFP Green Inclusive & Climate Smart Finance ACTION GROUP

SPTF Promoting standards & practices for responsible inclusive finance

Cerise POUR UNE FINANCE ÉTHIQUE

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.

detailed view

global view

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

GREEN INDEX 3.0 Standards, Details

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

It is about how the environmental strategy is defined, and how it is put in place, including roles an responsibilities, alignment with local or international standards, and how the institution monitors and reports on the implementation of its environmental strategy.

GREEN INDEX 3.0 Standards, Details

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

It is about the institution's ability to identify the vulnerability of clients/portfolio and the institution itself, the negative environmental impacts generated on ecosystems by clients and the institution itself, and the clients' needs and demand for green practices and technologies.

GREEN INDEX 3.0 Standards, Details

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

It is about the processes and tools in place to analyse and respond to the vulnerability, negative environmental impacts, client demand and needs identified in GI.1.
It is about how the institutions translates vulnerability, negative environmental impacts, demands & needs into actual risks and opportunities.

GREEN INDEX 3.0 Standards, Details

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

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 Standards & Essential practices, Details

GI.0 Environmental strategy
definition and put in place

GI.0.1 Definition of the Strategy
- Detailed goals, mission, documented strategy.
- Compliance with applicable standards and regulation

GI.0.2 Put in place the Strategy
- Responsibilities & processes
- Management & governance
- Monitoring:
  - Economic
  - Vulnerability
  - Negative Env impacts.

GI.1 Identification of Environmental risks and opportunities

GI.1.1 Identification of Indirect risks & opportunities
Identification of clients
- Vulnerability
- Negative Env impacts
- Demand and needs

GI.1.2 Identification of Direct risks
Identification of building and staff
- Vulnerability
- Negative impacts Env.

GI.2 Management of Environmental risks and opportunities

GI.2.1 Management of Indirect risks & opportunities
Inclusion of vulnerability, negative env Impacts and demand/needs in:
- (financial) risks management processes, tools indicators
- Credit processes & product

GI.2.2 Management of Direct risks
Actions and processes to reduce the institution vulnerability and negative env Impacts

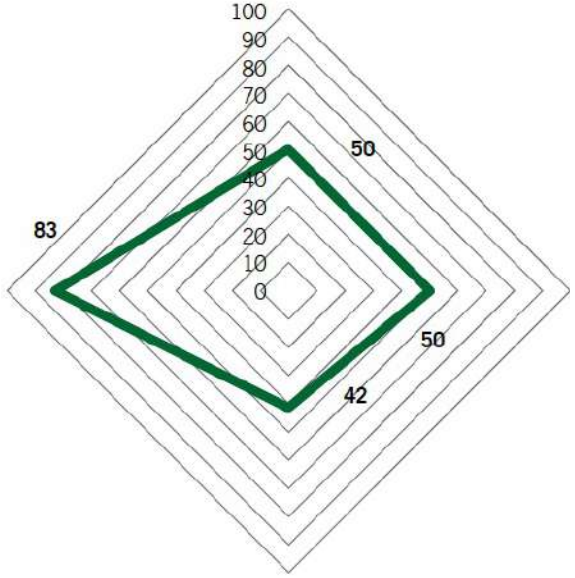
GI.3 Green products and services
Financial and non-financial

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

Visualising Green Inclusive Finance performance

GI.0
Environmental Strategy



GI.1
Identification of Environmental risks and opportunities

GI.2
Management of Environmental risks and opportunities

GI.3
Green products & services

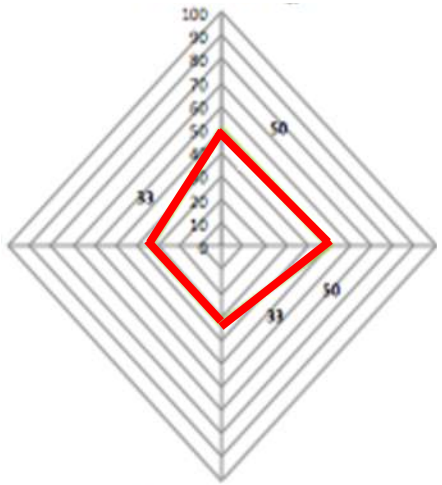
GREEN INDEX 3.0

Visualising Green Inclusive Finance performance II

The Risk management View

Indirect risks

Identification. & mgt of vulnerabilities



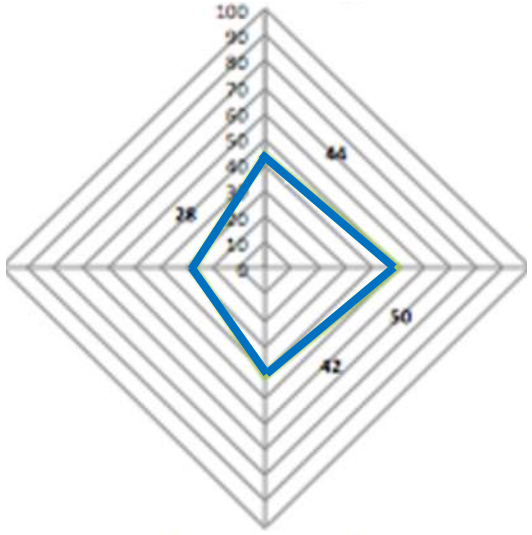
Identification. & mgt of neg env. impacts

Direct risks

The Green opportunities View

Green financial products

Identifying opportunities



Monitoring

Green non- financial products

GREEN INDEX 3.0

2. Assessing Environmental performance and way forward

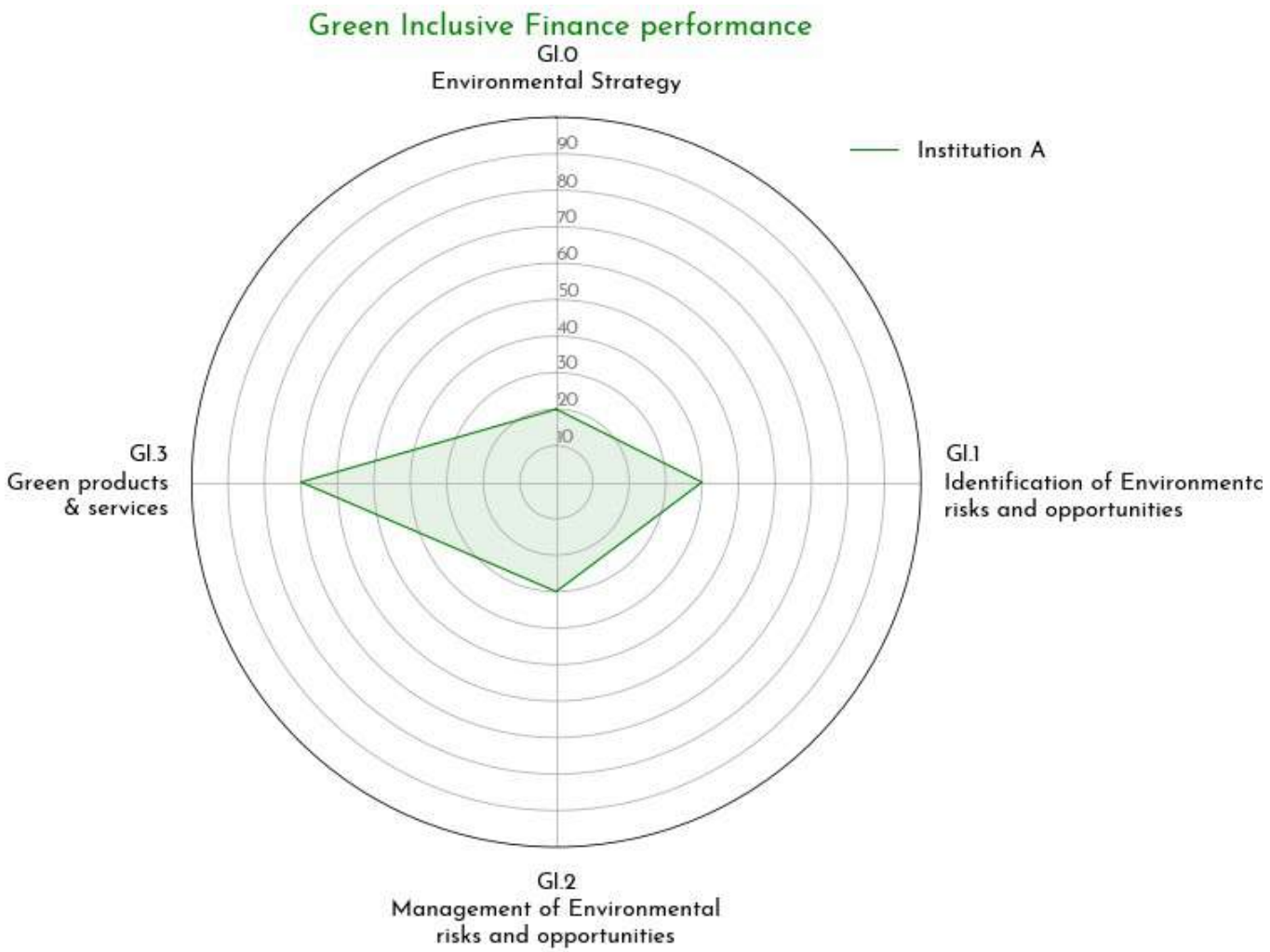
Measure, Plan & Improve

With the Green Index 3.0 you can assess the current performance in inclusive green finance of FSPs and define an action plan to improve:

- Assess the environmental performance
- Define gaps
- Prioritise actions
- Planning actions and implement them
- Monitoring progresses

GREEN INDEX 3.0 & Model of Improvement

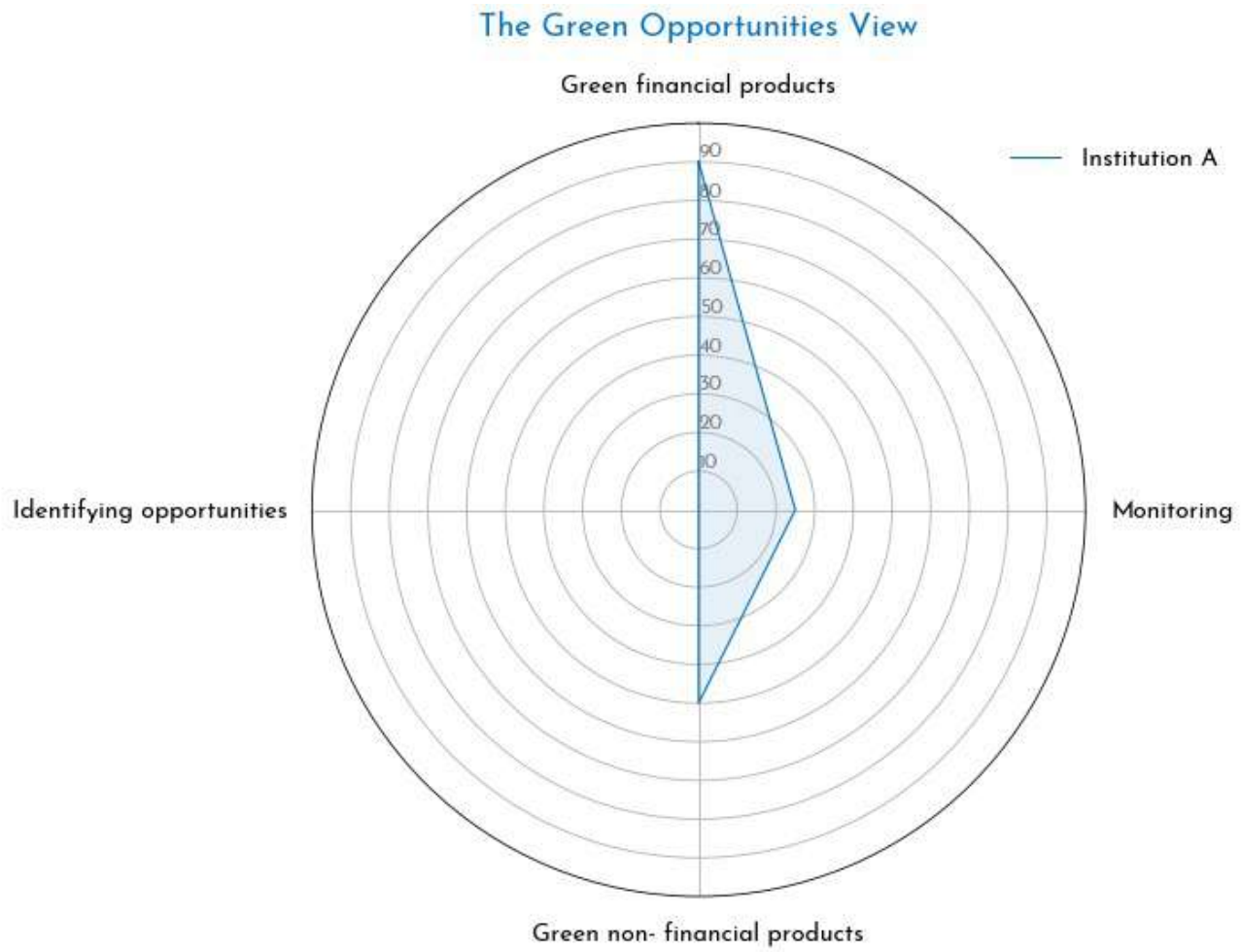
Case 1


Green Inclusive Finance performance
GI.0
Environmental Strategy
Institution A
90
80
70
60
50
40
30
20
10
GI.1
Identification of Environmento
risks and opportunities
GI.2
Management of Environmental
risks and opportunities
GI.3
Green products
& services

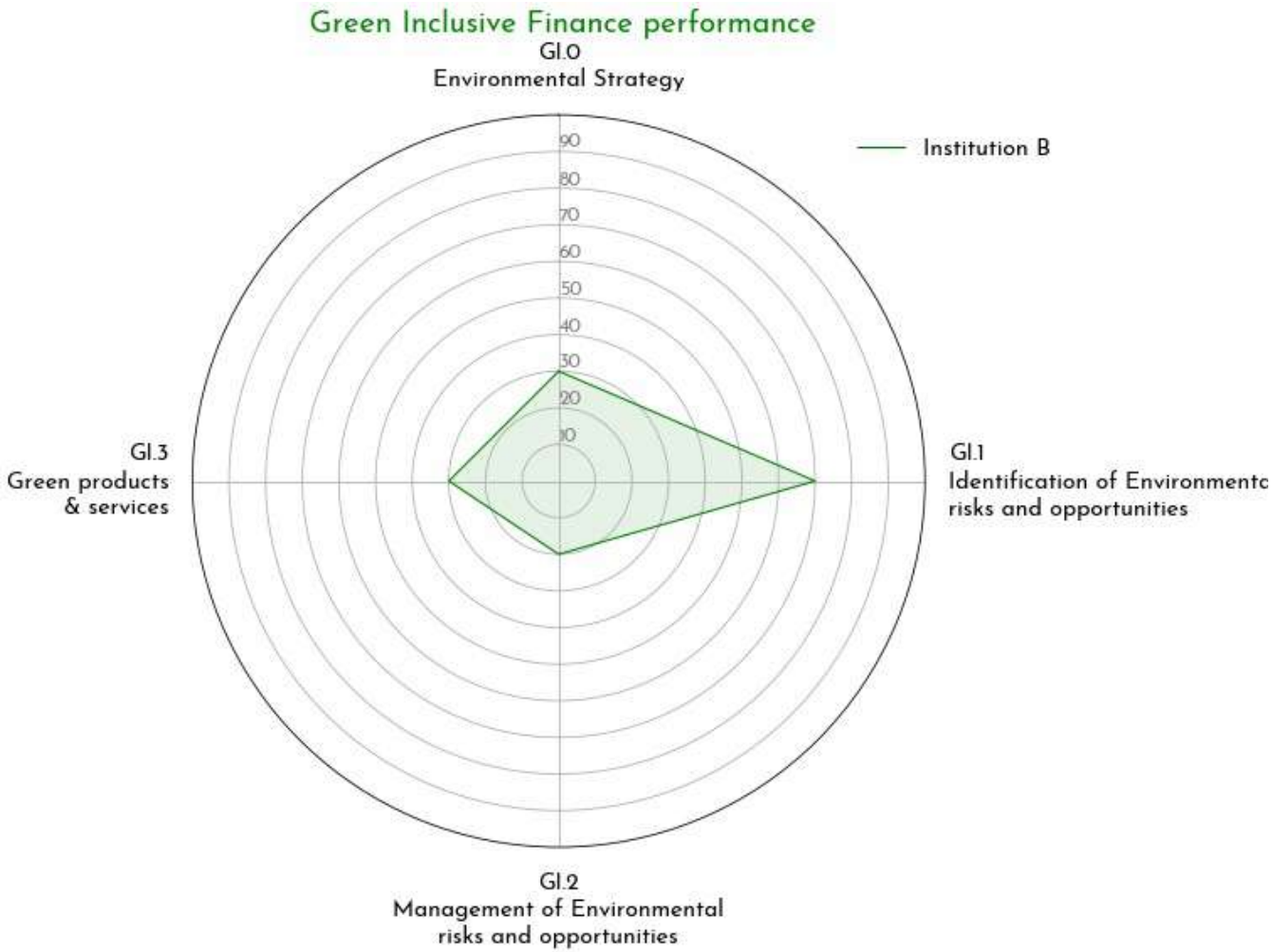
Case 1, II


The Risk Management View
Indirect risks
Institution A
90
80
70
60
50
40
30
20
10
Identification. & mgt of vulnerabilities
Identification. & mgt of neg env. impacts
Direct risks

Case 1, III


The Green Opportunities View
Green financial products
Institution A
90
80
70
60
50
40
30
20
10
Identifying opportunities
Monitoring
Green non- financial products

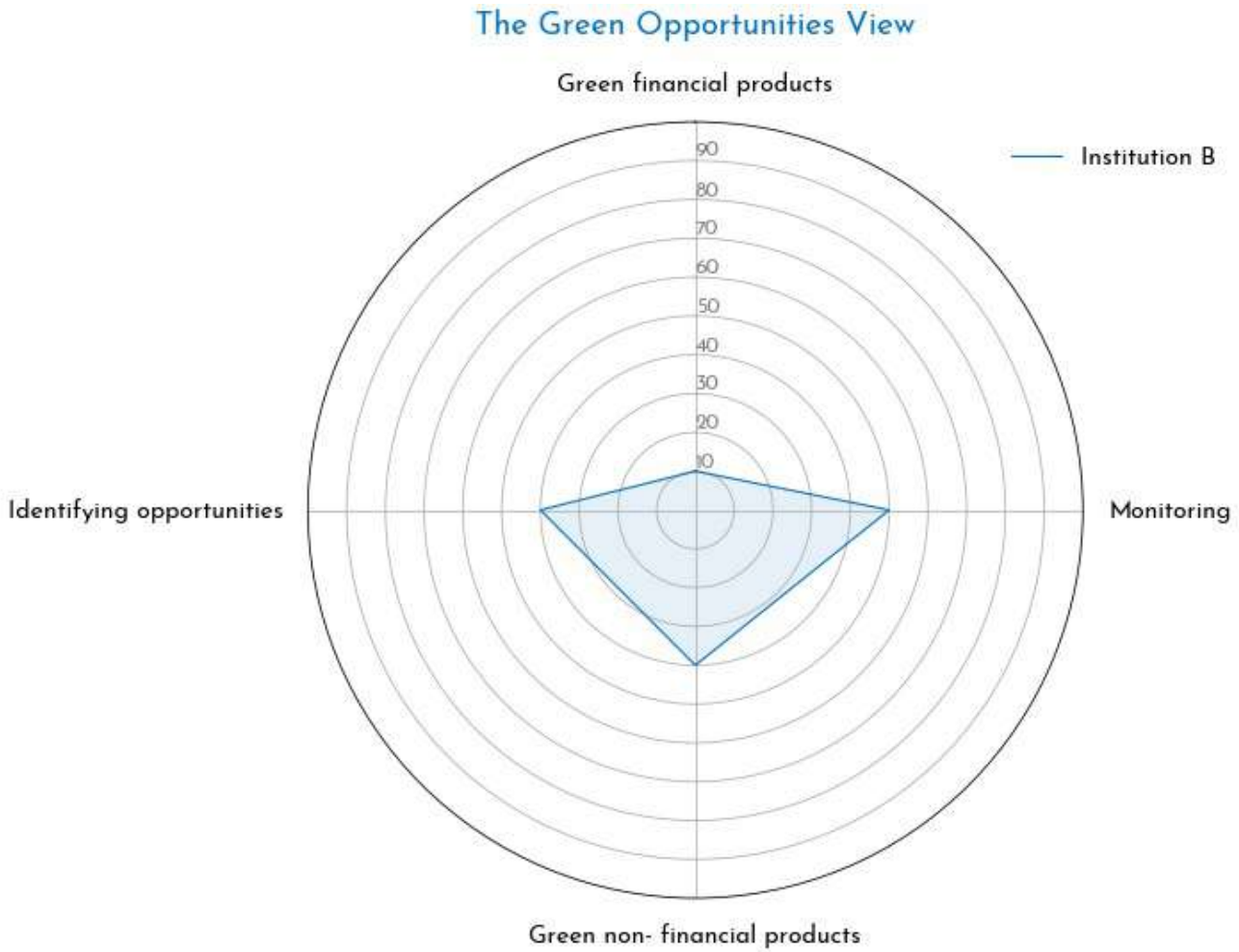
Case 2


Green Inclusive Finance performance
GI.0
Environmental Strategy
Institution B
90
80
70
60
50
40
30
20
10
GI.1
Identification of Environmentc
risks and opportunities
GI.2
Management of Environmental
risks and opportunities
GI.3
Green products
& services

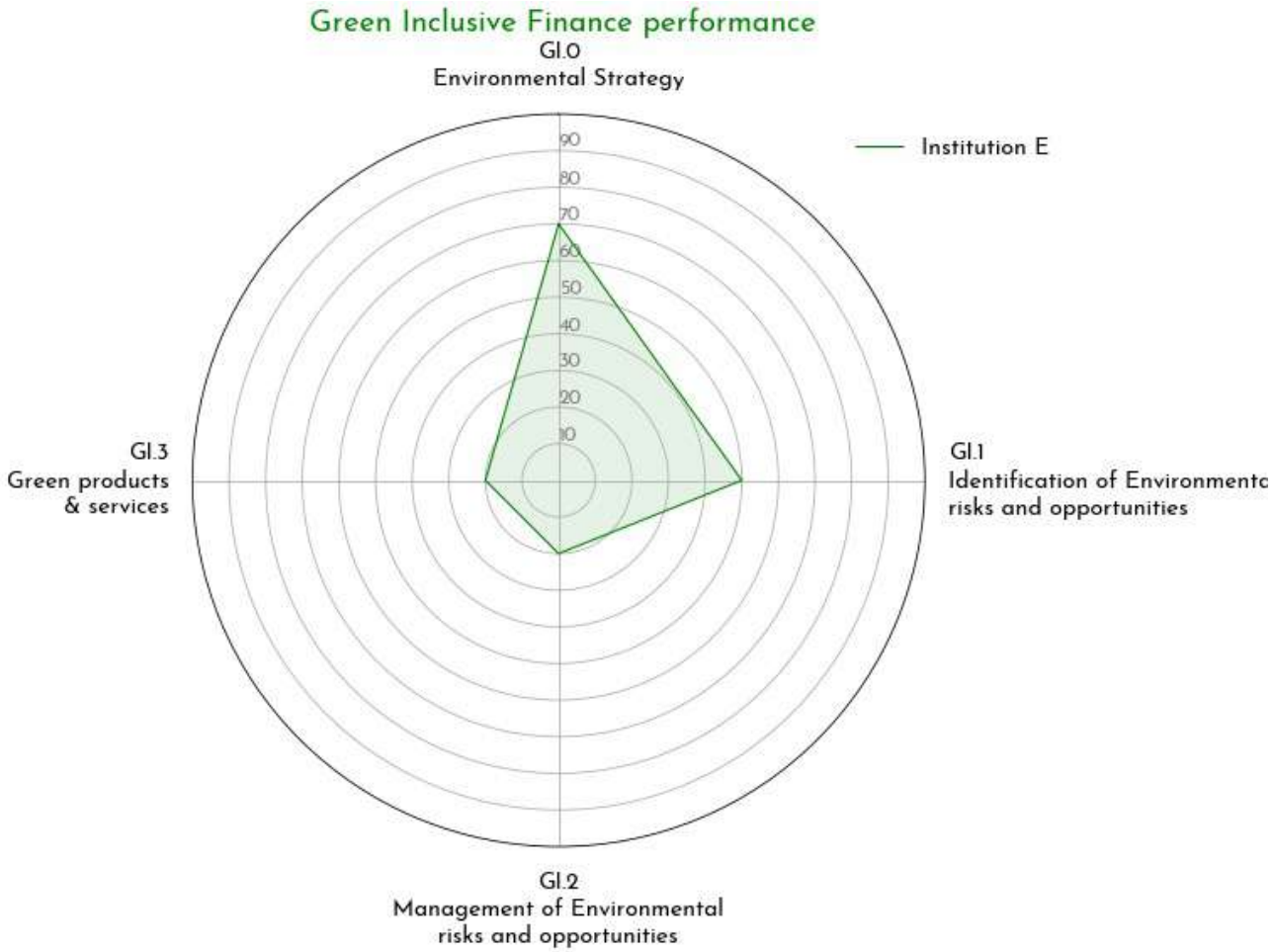
Case 2, II


The Risk Management View
Indirect risks
Institution B
90
80
70
60
50
40
30
20
10
Identification. & mgt of vulnerabilities
Identification. & mgt of neg env. impacts
Direct risks

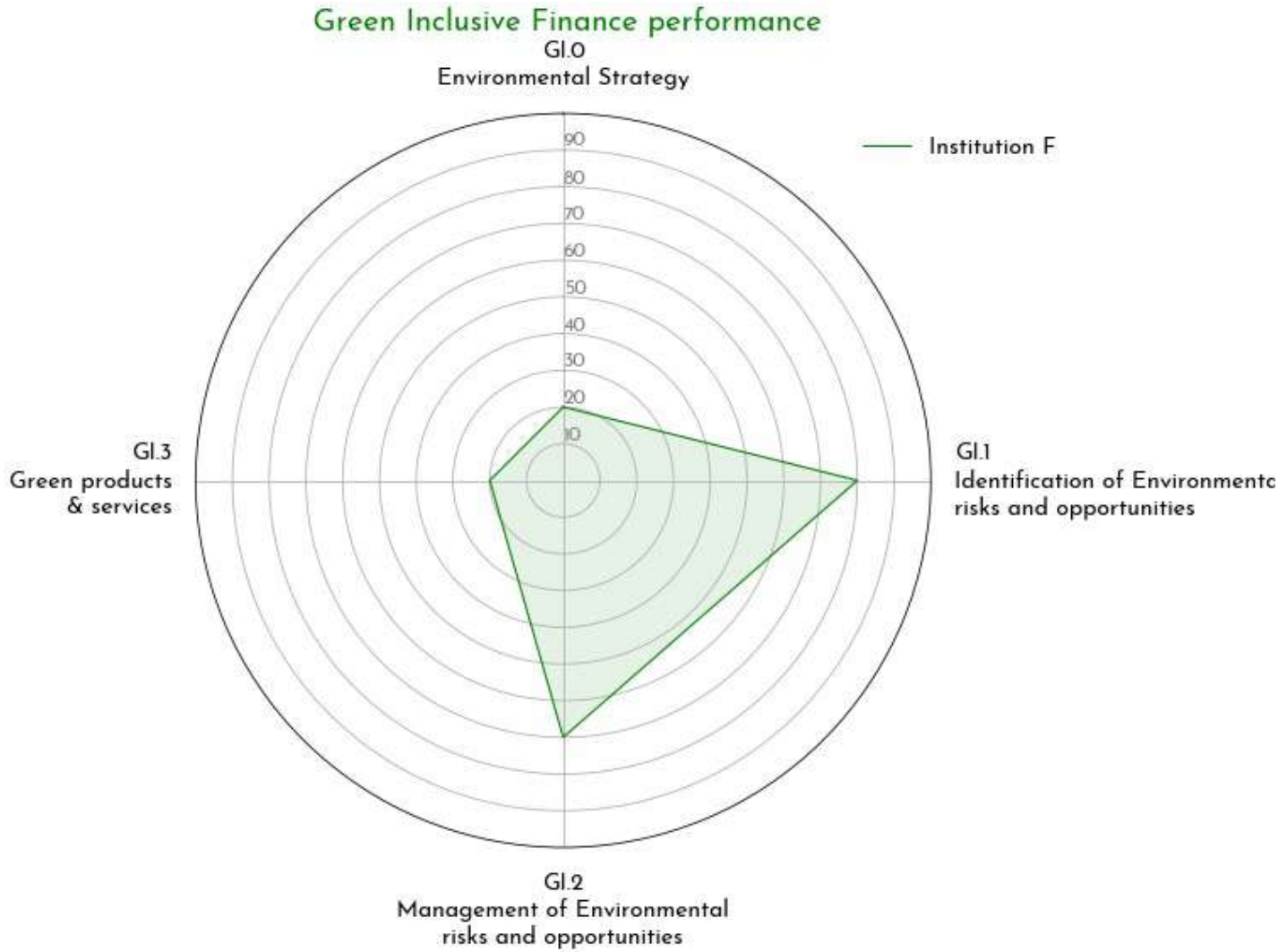
Case 2, III


The Green Opportunities View
Green financial products
Institution B
90
80
70
60
50
40
30
20
10
Identifying opportunities
Monitoring
Green non- financial products

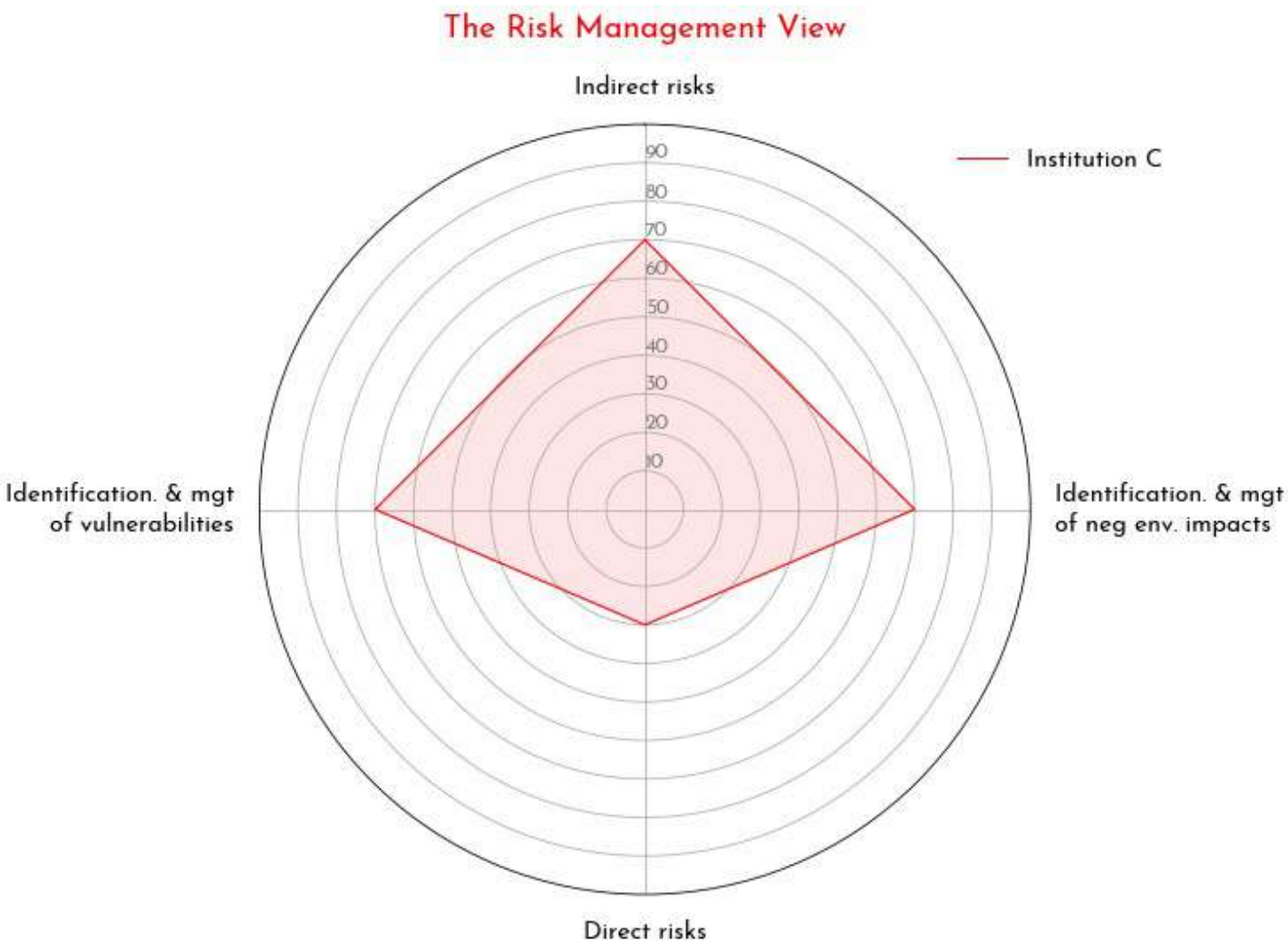
Case 3


Green Inclusive Finance performance
GI.0
Environmental Strategy
Institution E
90
80
70
60
50
40
30
20
10
GI.1
Identification of Environmenta
risks and opportunities
GI.2
Management of Environmental
risks and opportunities
GI.3
Green products
& services

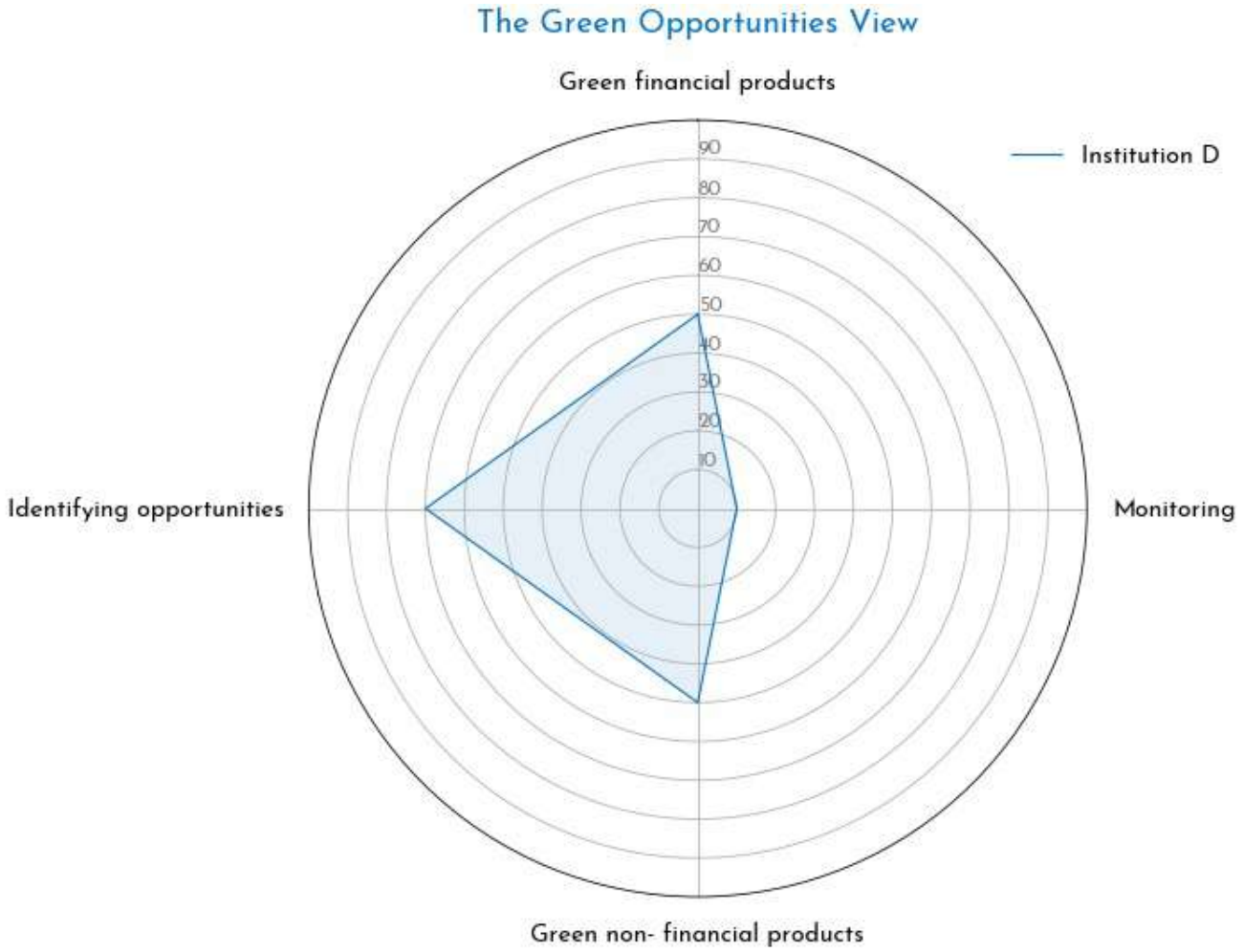
Case 4


Green Inclusive Finance performance
GI.0
Environmental Strategy
Institution F
90
80
70
60
50
40
30
20
10
GI.1
Identification of Environmentc
risks and opportunities
GI.2
Management of Environmental
risks and opportunities
GI.3
Green products
& services

Case 5


The Risk Management View
Indirect risks
Institution C
90
80
70
60
50
40
30
20
10
Identification. & mgt of vulnerabilities
Identification. & mgt of neg env. impacts
Direct risks

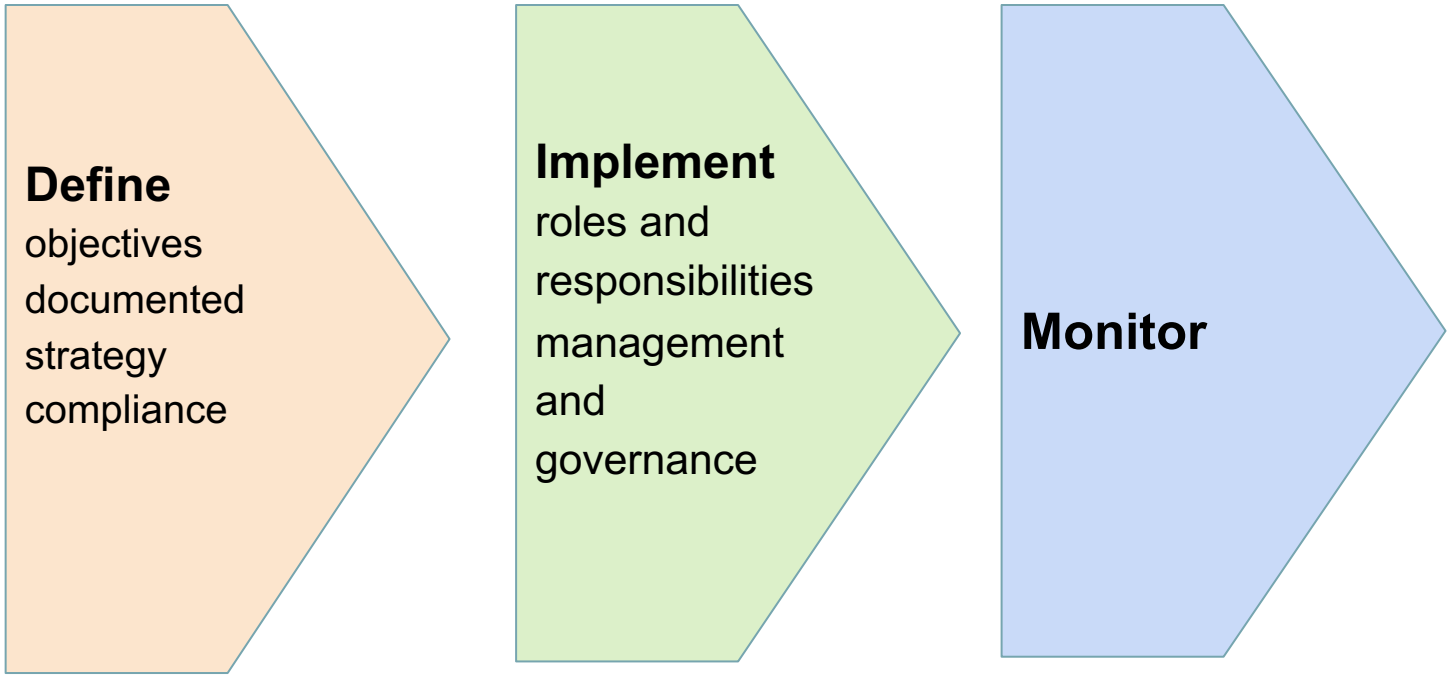
Case 6


The Green Opportunities View
Green financial products
Institution D
90
80
70
60
50
40
30
20
10
Identifying opportunities
Monitoring
Green non- financial products

3. Examples of actions

3.1 Green strategy

Environmental strategy



Example: strategy implementation

Contactar Microfinanciera

Citi Foundation

citi

Implementation of the green strategy

- Environmental policy
- Non-financial services
- Environmental risk management
- Ecological footprint
- Green credit

MICRO ENERGY INTERNATIONAL

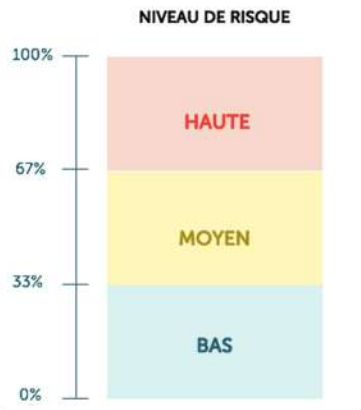
https://www.contactarcolombia.org

3.2 Identification of Indirect risks and opportunities

Example: vulnerability assessment

Client vulnerability and portfolio vulnerability can be assessed and integrated into risk management through the use of appropriate indicators: Adaptive Capacities

Example: Indicators of EbA adaptive capacities



1.PRODUCTIVE CHAIN

2.ASSOCIATIVITY

3. SOIL QUALITY

4.NUTRIENT MANAGEMENT

5.PEST AND DISEASE MANAGEMENT

6.WATER ADMINISTRATION

7.ECOSYSTEM MANAGEMENT

8.WASTE MANAGEMENT

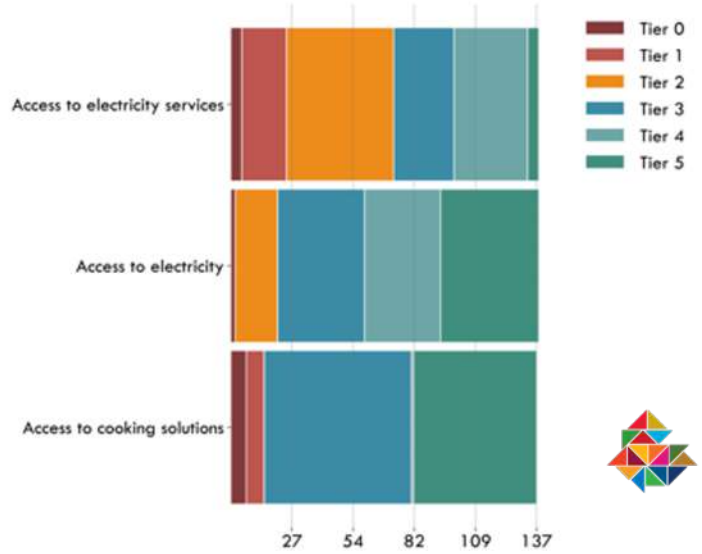
9.CULTURE MANAGEMENT

10. ANIMAL MANAGEMENT

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

Source:

Example: measuring energy poverty of clients



The majority of the population has a higher level of access to energy.

Case: vulnerability assessment of energy access in remote rural areas.
Goal: determine the market for clean energy products.

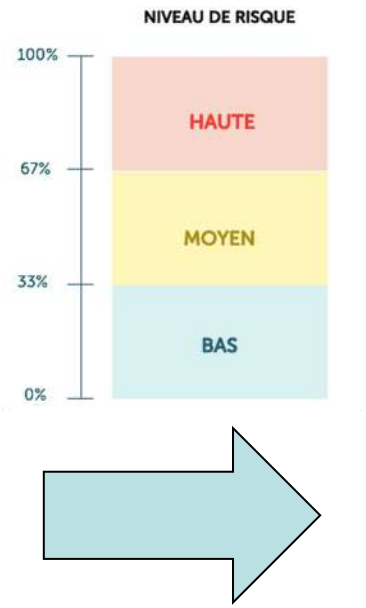
Conclusion:access to electricity and electricity services acceptable with potential for improvement. Low demand for energy technologies.

Source: HEDERA, 2019

Example: Assessing impacts on biodiversity

The negative impacts of customer activities on biodiversity can be assessed and managed with specific indicators, for example developed in the project: MEbA biodiversity platform.

Example: Biodiversity risk level indicators: MEbA biodiversity platform.



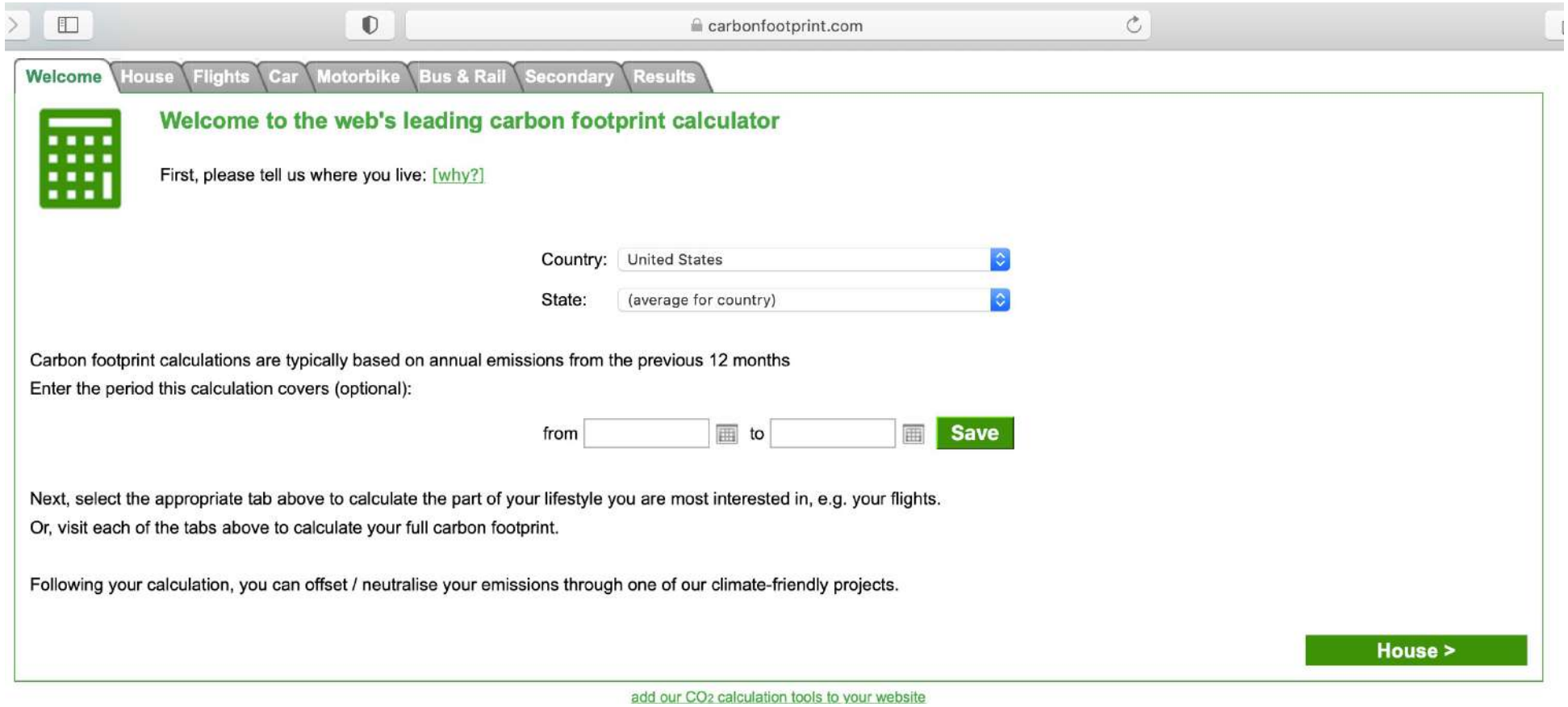
1. CHANGES IN LAND USE
2. OVEREXPLOITATION
3. CLIMATE CHANGE
4. POLLUTION
5. INVASIVE ALIEN SPECIES

Source:

Source: https: //unepmeba.org/Fr/biodiversity-platform/

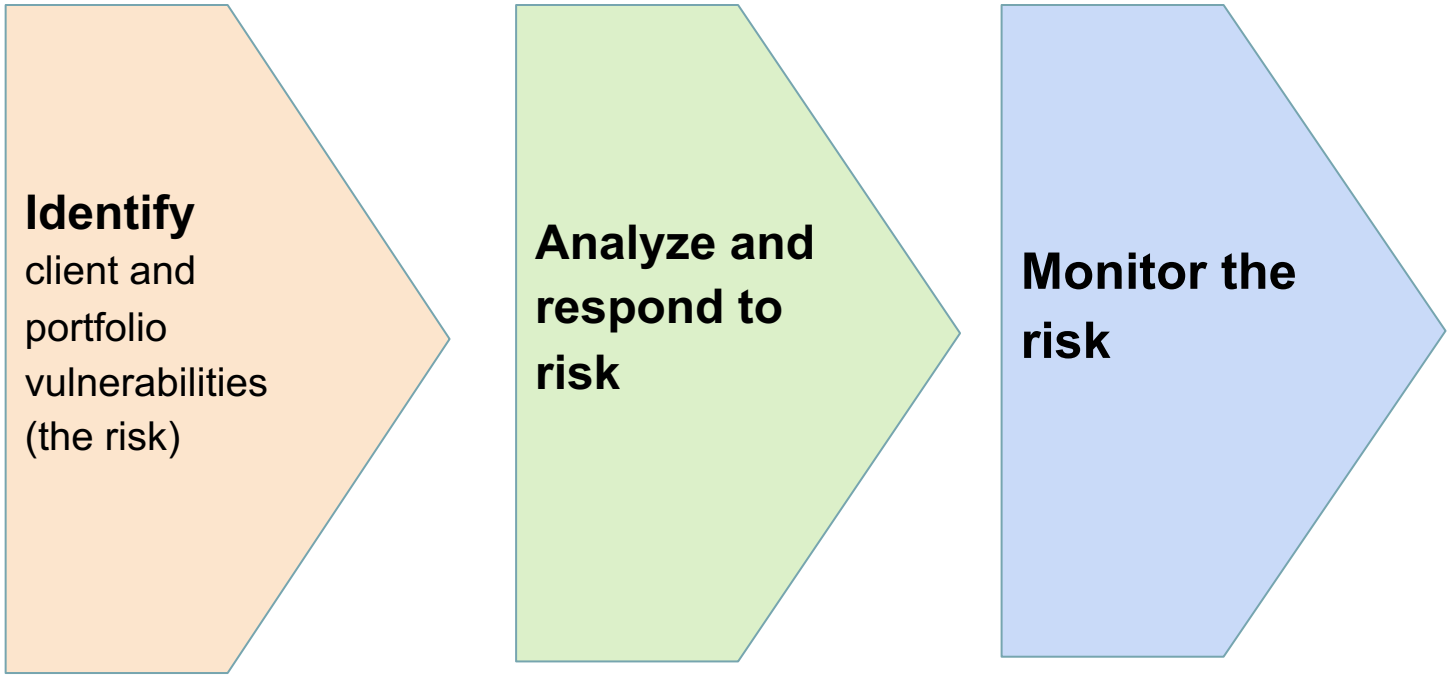
3.3 Identification of Direct risks

Example: CO2 calculation

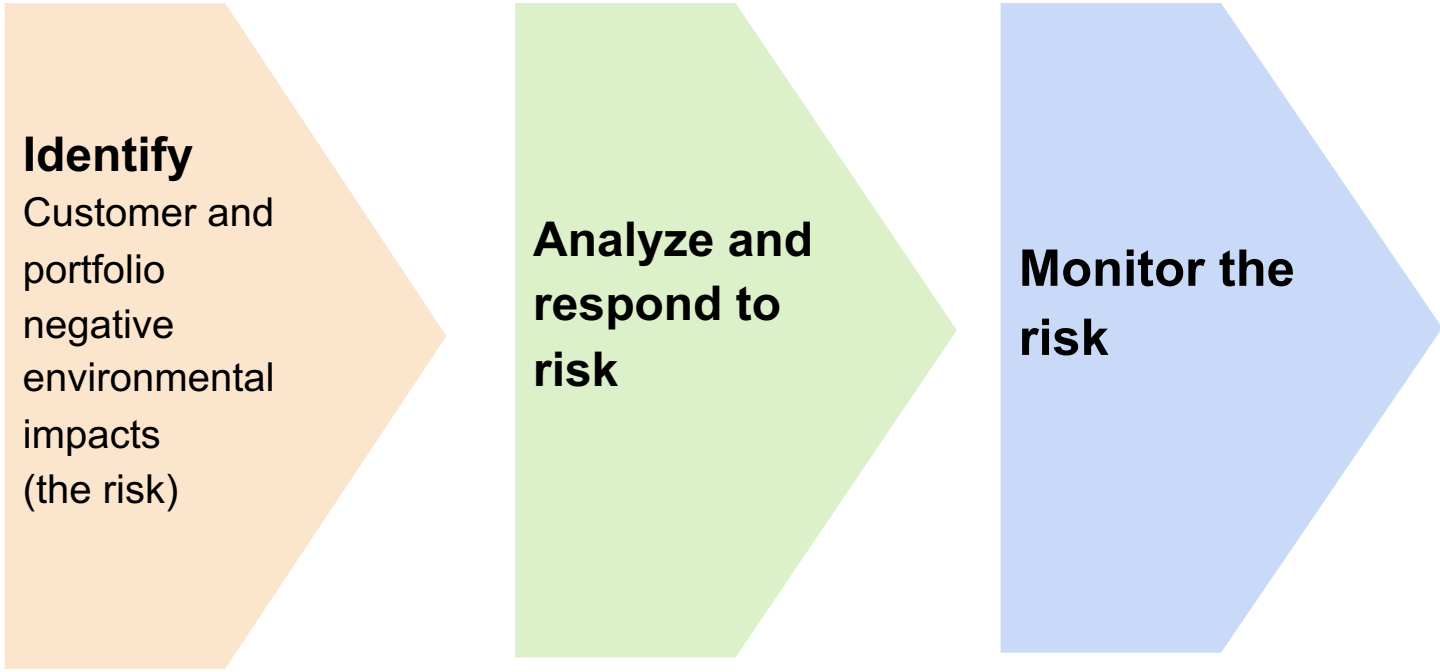


3.4 Management of Indirect risks

Client and portfolio climate vulnerability: how to manage it



Negative environmental impacts of the client and the portfolio: how to manage it



Example: Risk management

Inclusion of Climate Risks in into risks processes and policy

Inclusion of environmental impacts in
into risks processes and policy

Example MFIsin: EcoMicro

https://ecomicroecuador.org.ec/en/

3.5. Green loans for clean energy / efficiency

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

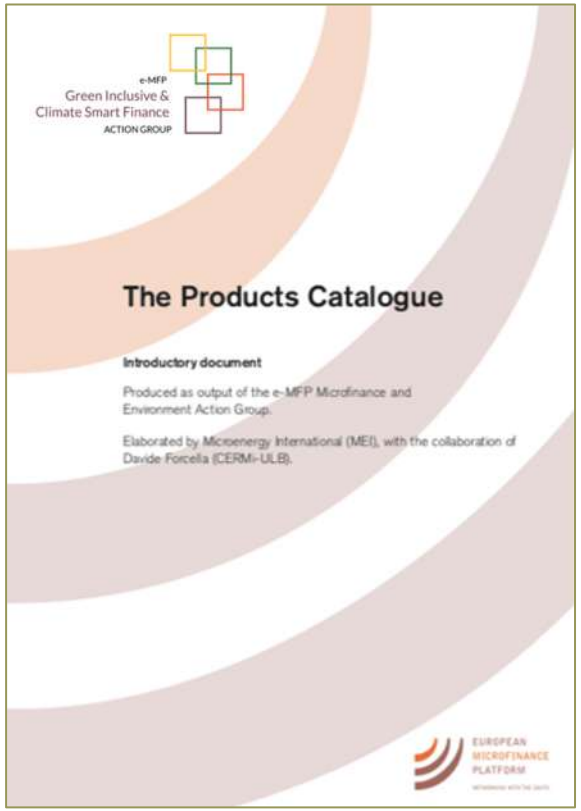
RE technologies

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

Source: https://www.e-mfp.eu/actions-groups/microfinance-environment

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
Economic	Savings of 5 liters per month ***(repayment in ~ 15 months)***	An average saving of 12 liters of kerosene per month.	A wood saving of $ 1.5 / month. ***Return on investment ~ 6 months***	A wood saving of $ 3 per month. ***Revenues of $ 180 / year from the sale of biogas and fertilizers.***
Environmental	~ 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)
Social	Increased time for workplace education	More time for work and education	Improved indoor air quality	Improves agro-productivity by reusing animal waste.
Financial	€ 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	provide credit lines to MFIs
See: Equity Bank of Kenya	*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

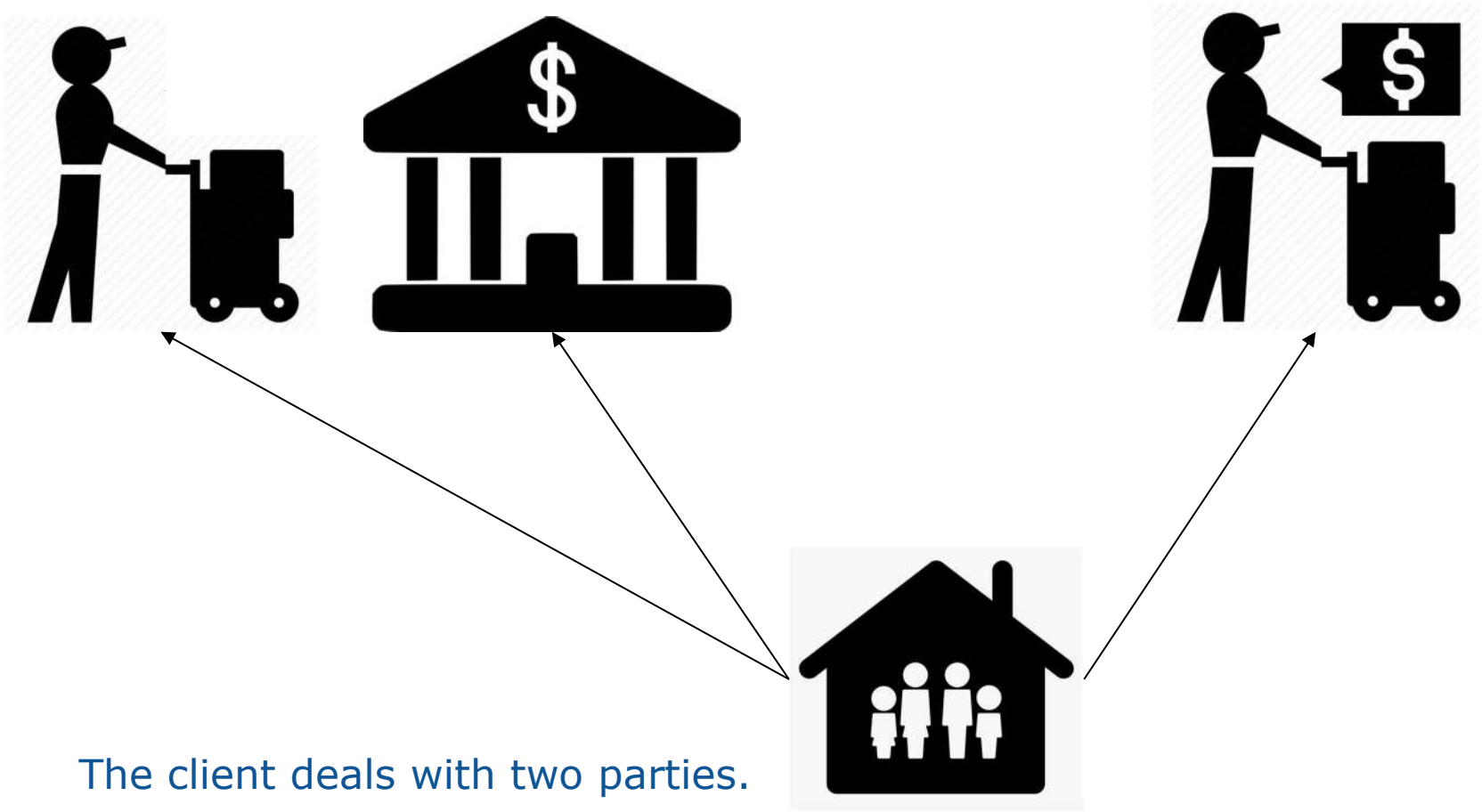
Fee-for-service / *PAY-AS-YOU-GO*

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

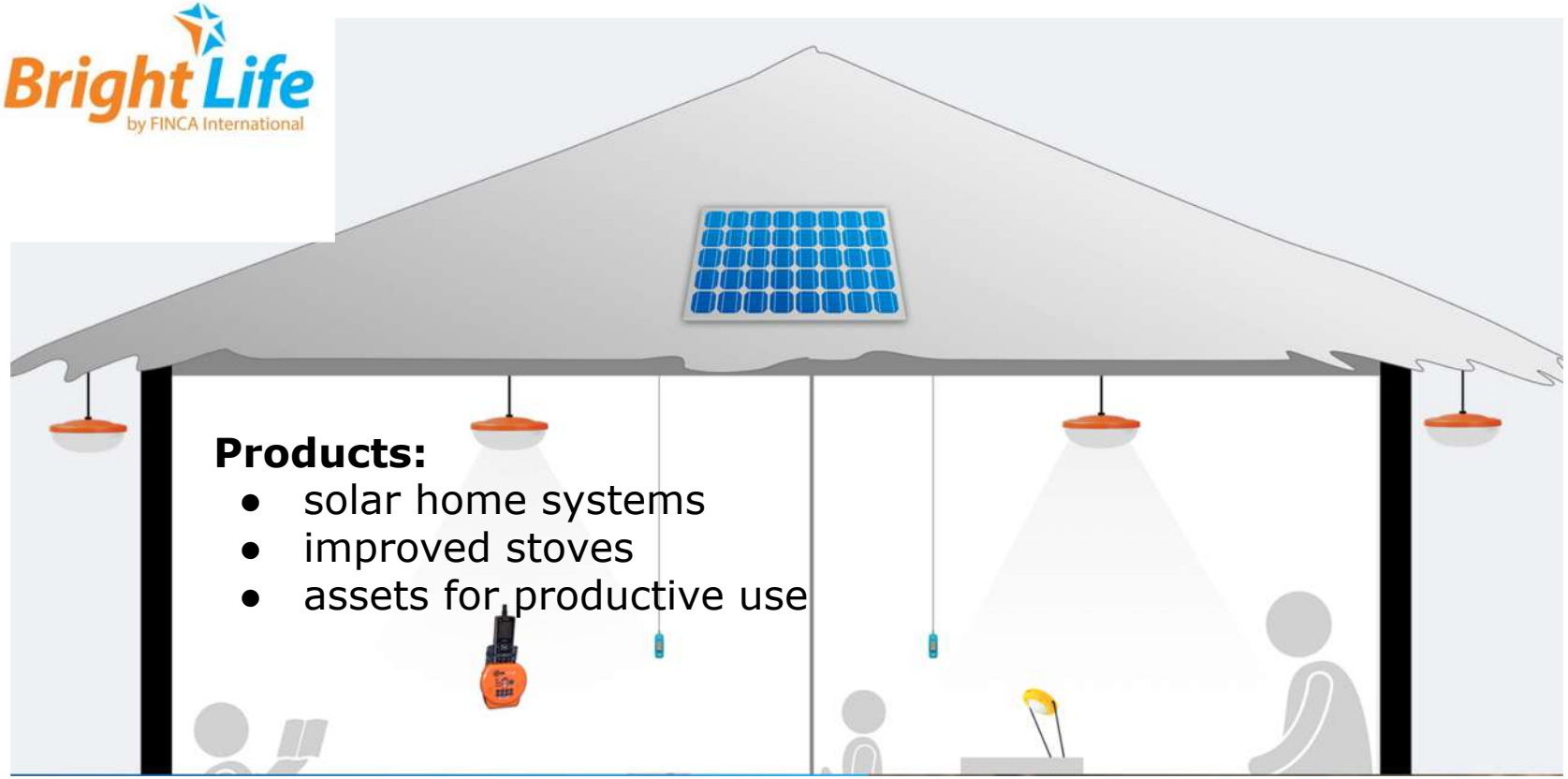
model **Pay-As-You-Go**

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.

https://brightlifeuganda.com/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.

Examples of green products

Consumer Credit

Dedicated or non-dedicated loan

Examples of green products

Distribution System

Usage of branches for delivering products

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
0	Total Loan Amount	1,250
1	Interest Rate - Flat	6.25%
2	Interet Rate - IRR	26.14%
3	Interest Amount	78.00
4	Installment Amount	50.00
5	Period (Weeks)	25
6	Loan Processing Fees	1%
7	Loan Cover Fees	0%
8	Downpayment	78.00
9	Up front payment (LCF+DP)	91.00

* All values in Indian Rupees (INR)

** 1 USD = 50 INR

Week	Opening Balance	Installment	Principal	Interest	Principal Outstanding
0	1,250	78	0	0	1,172
1	1,172	50	44	6	1,128
2	1,128	50	44	6	1,083
3	1,083	50	45	5	1,039
4	1,039	50	45	5	994
5	994	50	45	5	949
6	949	50	45	5	904
7	904	50	45	5	858
8	858	50	46	4	813
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	

3.6. Green loans for clean water – sanitation “WASH”

Ex. of Green Practices and Technologies: Clean water – sanitation

Clean water-sanitation

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

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

3.7. Green loans for Sustainable agriculture and adaptation to climate change

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

- 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:

Source: https://unepmeba.org/wp-content/uploads/2020/03/Fichas-francés_marzo_2020.pdf

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

Source:

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

Source: MEBA microfinance pour l'adaptation fondée sur les écosystèmes

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

Source:

Evolution of the MEbA project

IMPLEMENTING PARTNERS:

UN environment

Ministerio Federal de Medio Ambiente, Protección de la Naturaleza, Obras Públicas y Seguridad Nuclear

YAPU Smart finance. People first.

Fundecooperación

STRATEGIC PARTNERS:

BNP PARIBAS

FONDATION GRAMEEN CRÉDIT AGRICOLE Microfinance & Social Business

Fundación BBVA MicroFinanzas

BANCOLDEX

Phase 1: (2012-2017)
5 MFI associated · 2 countries · 4 million EUR

COLOMBIA: Bancamía, crezcamos, Contactar

PERU: FONDESURCO, Solidaridad

Phase 2: (2018-2020)
13 MFI associated · 9 countries · 1 million EUR

COLOMBIA: Coomultegro, delamujer, Interactuar

DOMINICAN REPUBLIC: Banco Adopem

COSTA RICA: Fundecooperación

ECUADOR: Banco CODESARROLLO

EL SALVADOR: BFA Banco de Fomento Agropecuario

PERU: Caja del Santa, Norandino

SENEGAL: Caurrie, LA BANQUE AGRICOLE

BENIN: COMUBA

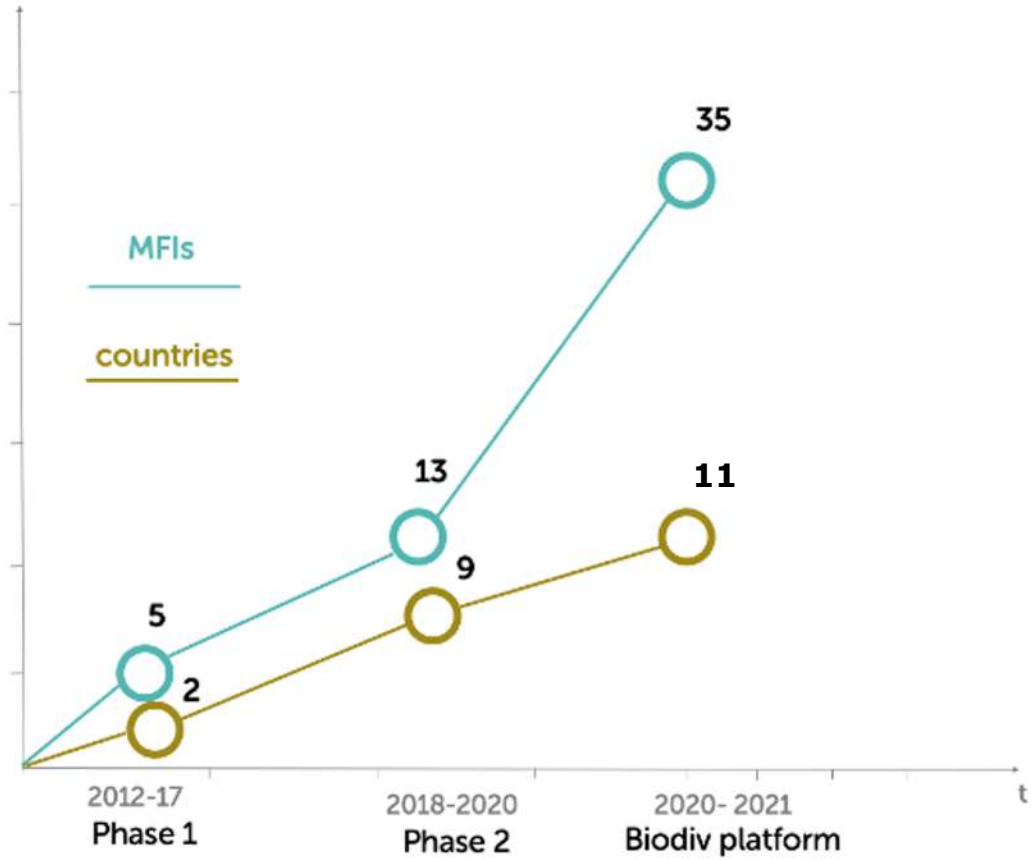
MADAGASCAR: Vahatra

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: MEBA microfinance for ecosystem-based adaptation

Evolution of the MEbA II project



Source:

Benefits and results

Nombre de crédits EbA octroyés

17.870

Investissement privé vers EbA

$ 30.699.583

Source:

3.8. Green loans for Circular economy / others

Ex. of Green Practices and Technologies: Circular economy

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

Define the potential problems and benefits of the recycling product

Ex. Funding to MSMEs

Product	Potential Problems	Advantages
Credits / Other funding to MSMEs	• Project management income from waste do not cover necessarily the investment initial (NPV <0) • Difficulty devaluation project risk (lack of data on the management of waste and their valuation)	• There is a clientele…. Recycling business plan in Africa which are viable (we have seen for example Wecyclers in Lagos)

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

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:

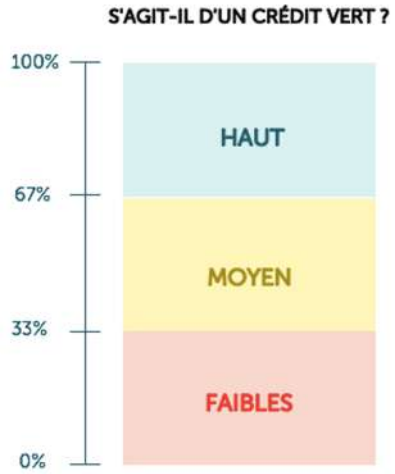
- NOT Tunisian nationality or residence permit valid in Tunisia
- Be between 18 and 65 years old
- Be resident in the intervention areas of Enda agencies

Environment Pack - Enda tamweel

3.9. Verification / Monitoring Green Practices and Technologies

Verification of funded EbA solutions

Example: EbA verification indicators



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

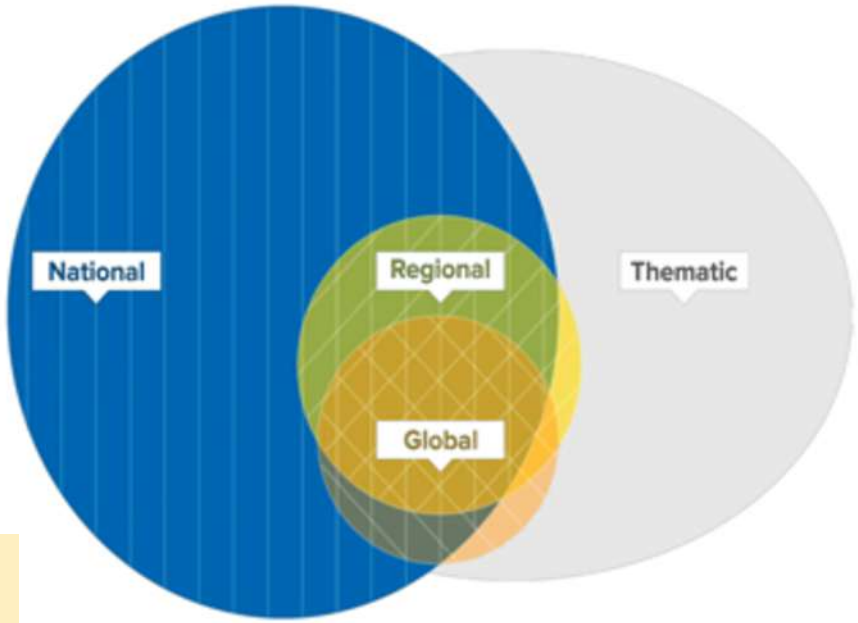
Source: https://unepmeba.org/es/medios-y-publicaciones/

Source:

Green credits: Clean energy / energy efficiency Verification and Monitoring

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."



Source: Adams & Judd (2019)

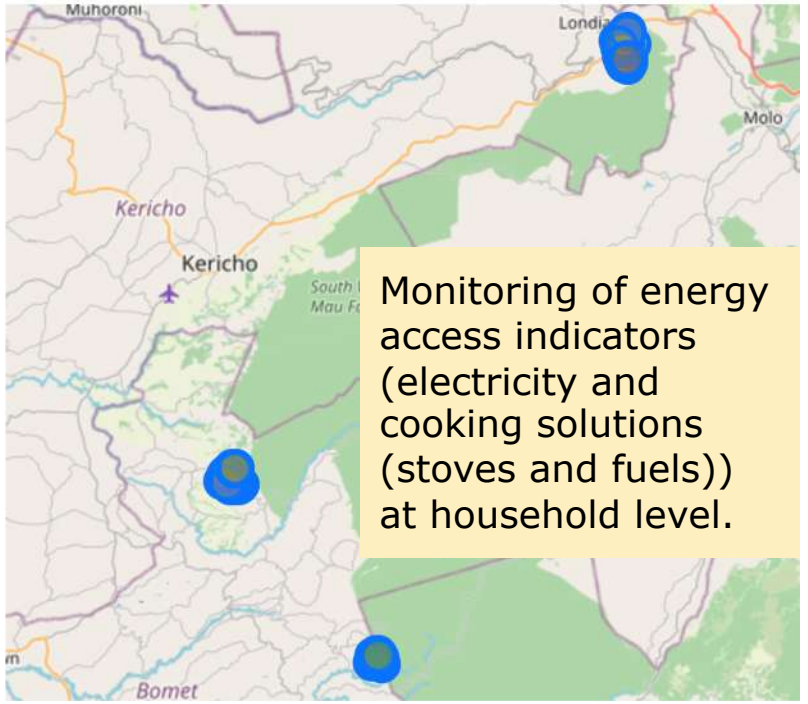
Likewise, a report card to measure progress towards sustainable development, helps to ensure the accountability of all stakeholders to achieve the SDGs.

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.



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.

MTF MULTI-TIER FRAMEWORK *Example*

ESMAP Energy Sector Management Assistance Program

THE WORLD BANK IBRD • IDA

Household level energy access survey

At stakeholder level

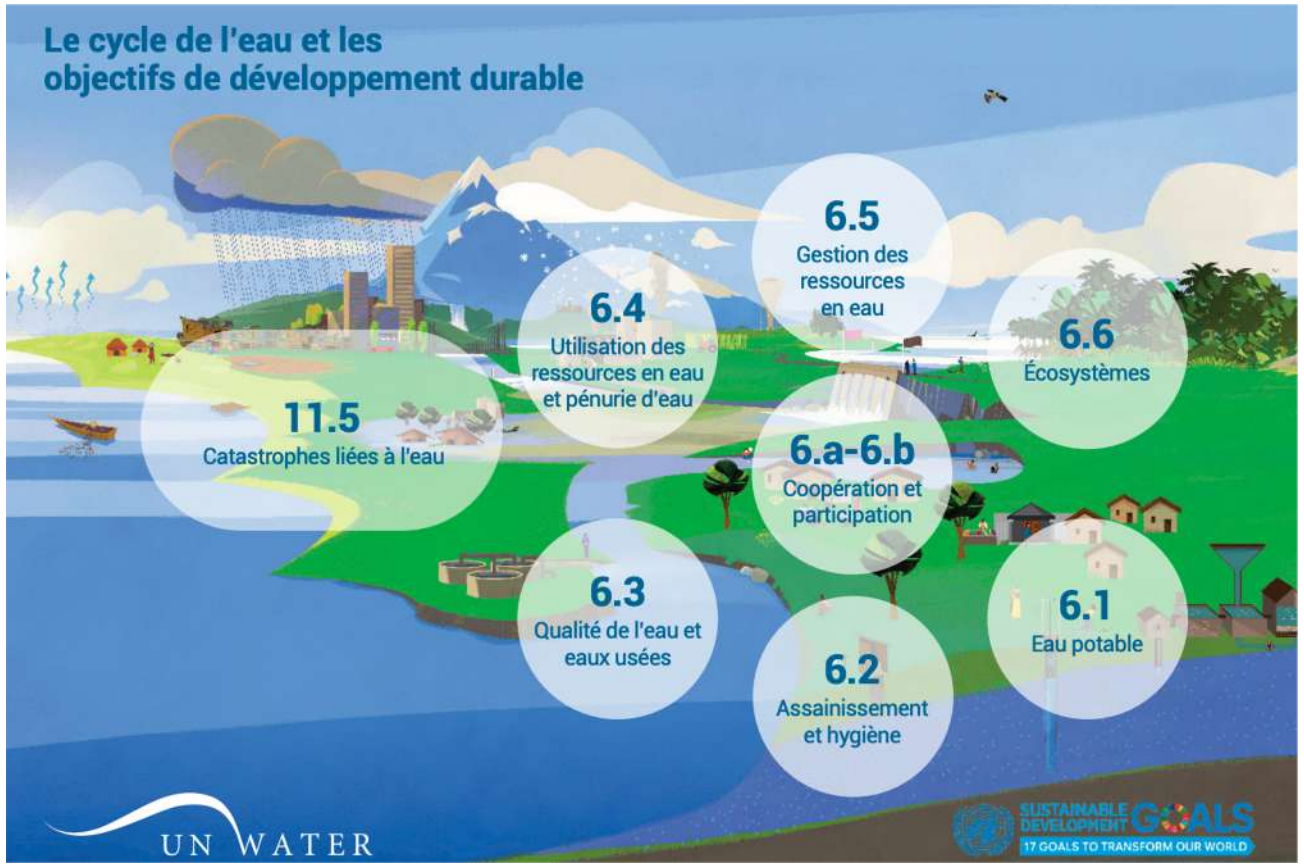
World Health Organization

Rapid Household Energy Assessment Tool (HEART) for situational assessment and stakeholder mapping

Household Energy Assessment Rapid Tool (HEART) for Situational Assessment and Stakeholder Mapping

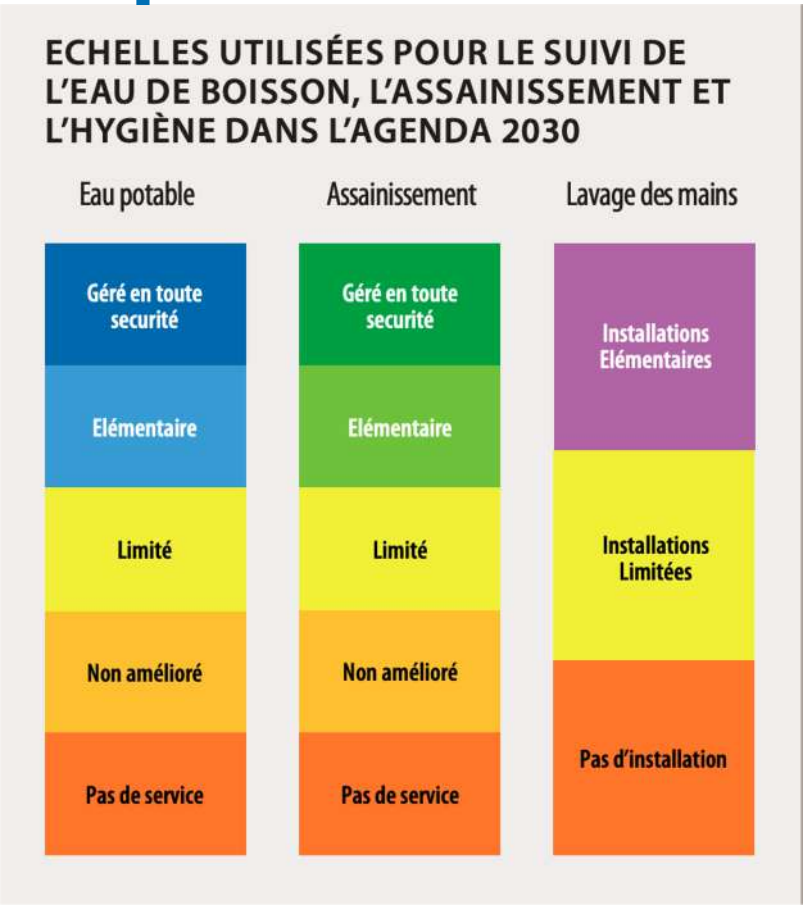
Green credits: Water, sanitation and hygiene (WASH) Verification and follow-up

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

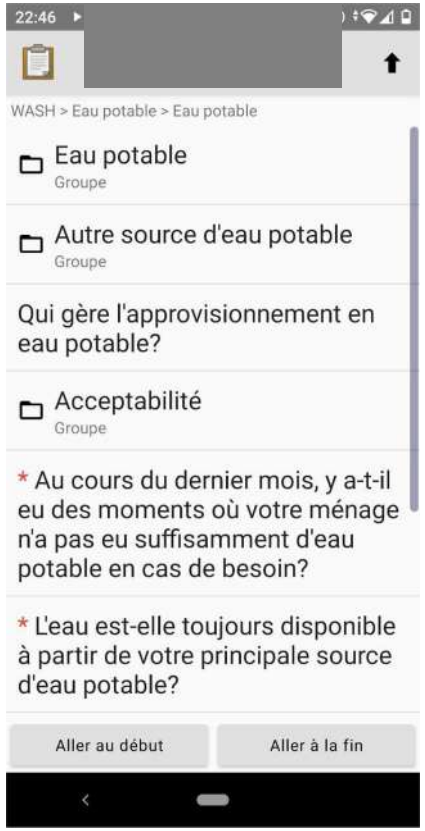
This indicators for monitoring the drinking water, sanitation and hygiene related elements of the SDG targets and reflects in-depth discussions with over 100 experts from over 60 organizations around the world.



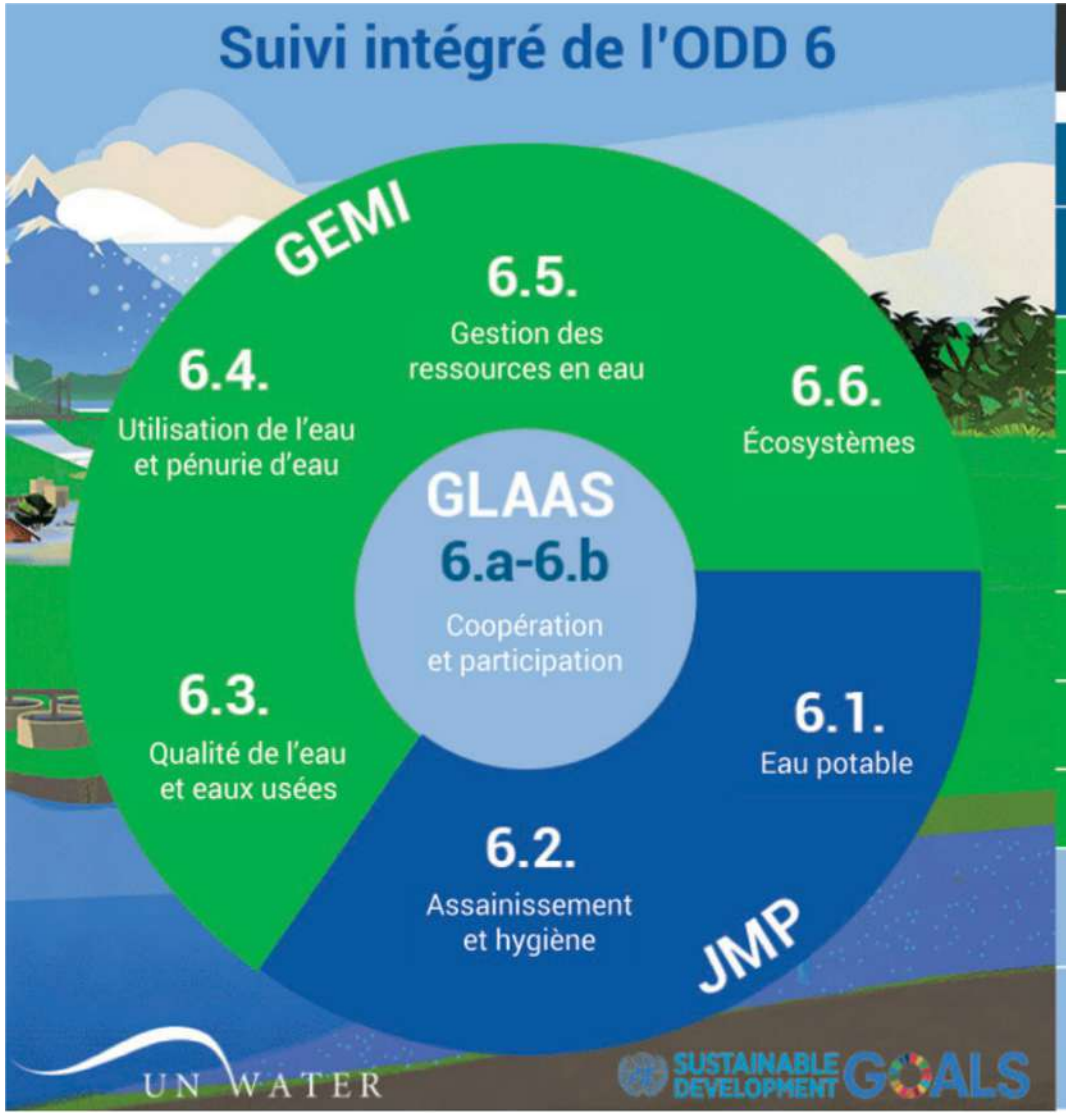
Green credits: Water, sanitation and hygiene (WASH) Verification and follow-up

Digital measurement tools:

- Social demand and social acceptability of sanitation
- Impact assessment



Suivi intégré de l'ODD 6



INDICATEURS	DÉPOSITAIRES
6.1.1 Proportion de la population utilisant des services d'eau potable gérés en toute sécurité	OMS, UNICEF
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	OMS, UNICEF
6.3.1 Proportion des eaux usées traitées en toute sécurité	OMS, ONU-Habitat, DSNU
6.3.2 Proportion des plans d'eau dont la qualité de l'eau ambiante est bonne	PNUMA
6.4.1 Variation de l'efficacité de l'utilisation des ressources en eau	FAO
6.4.2 Niveau de stress hydrique : prélèvements d'eau douce en proportion des ressources en eau douce disponibles	FAO
6.5.1 Degré de mise en œuvre de la gestion intégrée des ressources en eau (0-100)	PNUMA
6.5.2 Proportion de bassins hydriques transfrontaliers où est en place un dispositif opérationnel de coopération en matière d'eau	UNESCO, CENUE
6.6.1 Variation de l'étendue des écosystèmes tributaires de l'eau	ONU Environnement
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	OMS, PNUE, OCDE
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	OMS, PNUE, OCDE

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

3.10 Non financial services

Non-financial service I

To support customer engagement, generate capacity, and the positive results of green practices and technologies, training and technical assistance should be provided to customers:

*a) how **reduce vulnerability** (climate or climate change, environmental degradation or pollution, fuel poverty, lack of drinking water or sanitation)*

*b) how **reduce negative environmental impacts**;*

*c) and how **promote positive environmental impacts** and create resilience*

Non-financial service II

Non-financial services offered to clients should be focused on:

- Awareness raising

- Training for capacity building of clients to enable them to implement green practices and technologies on their own;

-Technical assistance: that is, specialized (and ongoing) support to help customers install, implement and maintain green practices and technologies.

This training and technical support should be provided up-front and on-going, and may include frequent events, online or offline, to engage customers.

6. What’s next?

...way forward for Green Inclusive Finance

The set of 4 workshops is finished, but we now look to listening to you on what are your needs, and opportunities, to work together on our way forward in:

"Green Inclusive Finance"

Thanks a lot for your presence and attention!

Heads of the GICSF-AG:
Natalia Realpe Carrillo: natalia@hedera.online
Davide Forcella: davide.forcella@yahoo.it

e-MFP contact:
Joana Afonso: jafonso@e-mfp.eu

EaSI* Technical Assistance

For more information, about:

Technical Assistance, contact:
easi.ta@fs.de

Ratings and Evaluations, contact:
easi.ta@mf-rating.com

*EU Programme for Employment and Social Innovation

The author of this presentation takes full responsibility for its contents. The opinions expressed do not necessarily reflect the view of the European Commission.