

GREEN INCLUSIVE FINANCE

Case Studies Series on Essential Practices

Essential Practice No.3:

Identify client or portfolio-level environmental risks and opportunities



June 2023

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About the Green Essential Practices Case Studies Series

The “Green Essential Practices Case Studies Series” highlights the experience of Financial Service Providers (FSPs) with good practices in the 8 key areas identified in the Green Index 3.0.¹ The Case Studies under this series offer practical examples of how an FSP developed its practices to inspire and facilitate the journey of others.

The **8 Green Essential Practices (EPs)** provide a roadmap for FSPs to maximize their green impact:

- **EP1:** Define their environmental strategy
- **EP2:** Implement their environmental strategy
- **EP3:** Identify client or portfolio-level environmental risks and opportunities
- **EP4:** Identify institutional-level environmental risks and opportunities
- **EP5:** Manage client or portfolio-level environmental risks and opportunities
- **EP6:** Manage institutional-level environmental risks and opportunities
- **EP7:** Offer green financial products and services
- **EP8:** Offer green non-financial products and services



Each Case Study in the series follows the same structure:

1. **Background** of the FSP and the context in which it operates.
2. **Evidence** of how the FSP is demonstrating good performance in the Essential Practice that is being highlighted. This is the main section of the Case Study and offers – as relevant – a review of what has enabled the FSP to reach its results, and what these results are:
 - *Capacity:* how did the FSP acquire the capacity to implement the activities needed? (e.g., internal training, training through external partnerships, technical assistance, financial support, etc.)

¹ For more details about the Green Index 3.0, refer to these links: https://www.e-mfp.eu/sites/default/files/resources/2022/11/Green%20Index%203.0_final.pdf and https://hedera.online/gicsf_ag_tools/green-index-digital.html

- *Tools*: which tools did the FSP use to implement the needed activities? (e.g., indicators, documents, materials, IT solutions, etc.)
 - *Outreach*: what were the FSPs' quantitative results? (e.g., outreach, implementation status, etc.)
3. The FSP's **journey** to implement the identified good practice, and lessons learned.
 4. The FSP's **next steps** – if any – to continue to improve in this area.

Green Essential Practice No. 3: Identify environmental risks and opportunities at customer or portfolio level

In **Green Essential Practice No. 3 (EP3)**, the FSP focuses on identifying client or portfolio level environmental risks and opportunities.

FSP Environmental Risks (clients/portfolio):

- The FSP identifies vulnerability of clients/portfolio to environmental risks and adverse environmental impacts of clients/portfolio as factors of risks to achieve its social mission or environmental objectives.
- The FSP trains its loan officers and back-office staff on how to identify, evaluate and categorize vulnerability of clients/portfolio to environmental risks and adverse environmental impacts of clients/portfolio as through its own internal human resources or through local or international experts.
- The FSP partners with technical or technologies providers to evaluate client or portfolio vulnerability of clients/portfolio to environmental risks and adverse environmental impacts of clients/portfolio as through Informal partnerships or formal agreements.

FSP Environmental Opportunities (clients/portfolio):

- The FSP conducts market research, and it identifies demand for/supply of green support.
- The FSP identifies the needs or demand of each client for green products and other objectives that can be supported with green activities.
- The FSP trains its loan officers and back-office staff on the identification, evaluation and categorization client and clusters of client needs and demand for green products and other objectives that can be supported with green activities through its own internal human resources or through local or international experts.
- The FSP has partnerships with technical or technologies providers to evaluate client needs or demand for green products and other objectives that can be supported with green activities through Informal partnerships or formal agreements.

The FSPs highlighted in Case Studies on **Green Essential Practice No. 3 (EP3)** demonstrate good practices in identifying risks and opportunities at the client and portfolio level.

PE3: Identify environmental risks and opportunities at client or portfolio level in Bancamía S.A.

A. Context

About Bancamía S.A.

Bancamía S.A. is a member of the [BBVA Microfinance Foundation](#). It is a Colombian bank with an outstanding track record and a pioneer in microfinance in the region. The institution specializes in serving a rural and urban target market of smallholder farmers and microentrepreneurs in the informal sector. As of December 31, 2022, the bank had approximately 1,600,000 active clients and a portfolio of USD 426 million.²

Bancamía was part of the first pilot projects of the Microfinance for Ecosystem-based Adaptation ([MEbA](#)) Program, implemented in Colombia and Peru in 2012. This initiative, sponsored by the UN Environment Program and implemented between 2012-2017 by the Frankfurt School of Business and Management, aims to provide access to microfinance products and services to vulnerable rural and peri-urban populations that enable them to invest in activities that improve their income, to increase their climate resilience, and to use biodiverse ecosystems and their environmental services in a sustainable manner.

In 2013, the organization was selected as the [winner of an IDB technical cooperation award](#) worth COL 280,000 in the category of "Financial products for renewable and efficient energy". Bancamía's initiative to develop financial products that promote the use of clean energy at a low cost was highlighted among 67 applications received from 17 countries in Latin America.

As part of its commitment to foster sustainable and inclusive development in Colombia, the bank contributes to the "Productive enterprises for peace" ([EMPROPAZ](#)) initiative. This project, which began in 2018 and runs through 2024, aims to promote productive finance in the country through microcredit, savings, insurance, and financial literacy training for rural microentrepreneurs, including Venezuelan migrants. EMPROPAZ is implemented through a public-private partnership between USAID, Bancamía, Corporación Mundial de Mujeres de Colombia (CMMC), Corporación Mundial de Mujeres de Medellín (CMMM), and the BBVA Microfinance Foundation. This program is a demonstration of Bancamía's full commitment to financial inclusion and of the confidence that its experience and trajectory inspire in national and international government agencies.

The beginning of the green agenda in Bancamía dates to 2012 when the "Green Protocol" of the banking sector in Colombia was signed and the piloting of MEbA adaptation measures was integrated.

Calendar of the current green strategy

- **2019:** Bancamía begins to offer an insurance policy issued by SBS Seguros that covers any productive unit, in the countryside or in the city, providing coverage for sudden and unforeseen events (e.g., fire, volcanic eruption, etc.). This insurance is known as "[My Protected Investment](#)" and has a new component in case of earthquake, excess rainfall and drought, where through satellite parameters and measurements, quick payments can be made to clients based on the strength of the event recorded. This insurance provides comprehensive coverage that includes direct damage to the business caused by sudden and unforeseen events and compensation for costs incurred by the insured (unforeseen expenses or reduction in income) to cope with a disaster caused by a natural event.
- **2020:** Bancamía receives the Andesco Environmental Sustainability Award for the implementation of its 'Crediverde Adaptación' product, the MEbA (Microfinance for Ecosystem-based Adaptation) program and the start-up of a [Demonstration Farm in Ubaté](#), where 11 climate change adaptation

² Social Performance Data, in Bancamia-Infografia.pdf, at <https://www.fundacionmicrofinanzasbbva.org/entidades/bancamia/>.

measures are applied. Also in 2020, in alliance with the MAPFRE insurance company, Bancamía began marketing an agricultural insurance policy with direct coverage for crops that, in the event of being affected by climate-related risks, provides support to the producer to reactivate his productive unit after the occurrence of the loss. This insurance is known as "[Mi Siembra Protegida](#)" ([My Protected Sowing](#)).

- **2022:** Bancamía joins the United Nations Environment Programme Finance Initiative ([UNEP FI](#)) as a member committed to complying with the Principles for Responsible Banking. This membership has set the tone for the redefinition of the bank's sustainability strategy and the integration of the climate financial services offering from the beginning of 2023.

In what context does Bancamía S.A. operate?

Colombia was the second country in Latin America (after Brazil) to adopt for the first time in 2012 a "[Green Protocol](#)". This agreement between the National Government and the financial sector aims to facilitate the convergence of public-private efforts to implement policies and practices directed at environmental protection and sustainable development. This convergence of interests facilitated the emergence of a milestone for the region and for the country, as Colombia was the first nation in Latin America to define a green taxonomy to guide the investment practices of the financial sector.

The main national and international frameworks that constitute a reference for Bancamía in relation to climate change are related to the [Colombian Green Taxonomy](#), the [TCFD - Task Force for Climate Related Disclosure](#) standards (not yet implemented) and the adoption and implementation of the [UNEP FI Principles for Responsible Banking](#), to which Bancamía has been a signatory since 2022. The Colombian Green Taxonomy defines what is a green investment in Colombia and contributes to the fulfillment of international commitments developed in the [United Nations Framework Convention on Climate Change \(UNFCCC\)](#), as well as in the [Convention on Biological Diversity \(CBD\)](#). The latter promotes measures that lead to a sustainable future through the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the utilization of genetic resources.³

Colombia, as well as Chile, Peru, and Ecuador, are territories exposed to climatic events characterized by drought and rainy seasons. These two seasons are known as the "fenómeno del niño" (dry season) and the "fenómeno de la niña" (rainy season). Climate change has made these natural phenomena less and less predictable and the corresponding rainy and dry seasons have intensified. This leads to climatic disturbances with negative impacts, causing natural disasters due to extreme droughts, floods and torrential flows or avalanches. These climatic distortions affect the productive units financed by the bank, particularly those in the agricultural and livestock sector. Consequently, the articulation of a climate finance strategy to combine the bank's differentiated range of products and services to address this situation and help clients adapt has become a priority. This new strategy is based on making efficient and intelligent use of the information systems available in the country and in the bank to design a climate finance offer tailored to the client's needs.

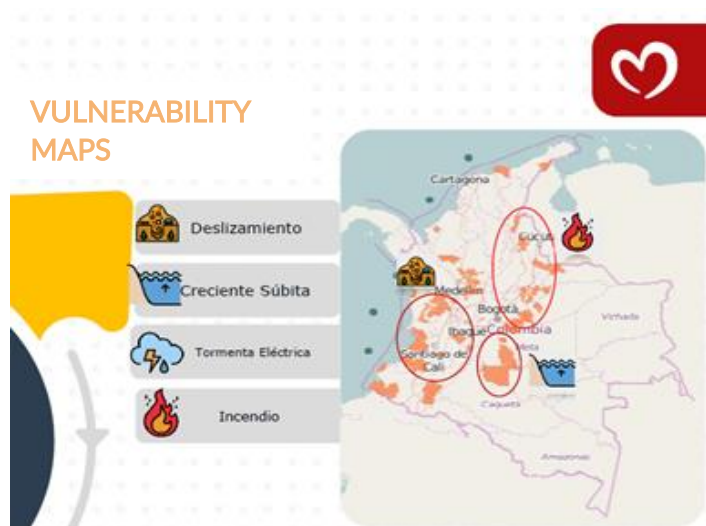
B. Essential Practice No.3 at Bancamía S.A.

Implementation of a geo-referenced climate and vulnerability information management system.

Thanks to the use of quarterly data made available by the National Modeling Center of the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) in Colombia, Bancamía is able to identify the vulnerable areas of the national territory, exposed to climatic alterations in terms of droughts, floods and landslides or avalanches. IDEAM makes this information public and builds maps at different scales, so that the authorities and entities responsible for risk and disaster management in different public and private organizations can incorporate this data as support for decision making.

³ https://www.taxonomiaverde.gov.co/webcenter/portal/TaxonomiaVerde/pages_taxonomaverdedecolombia

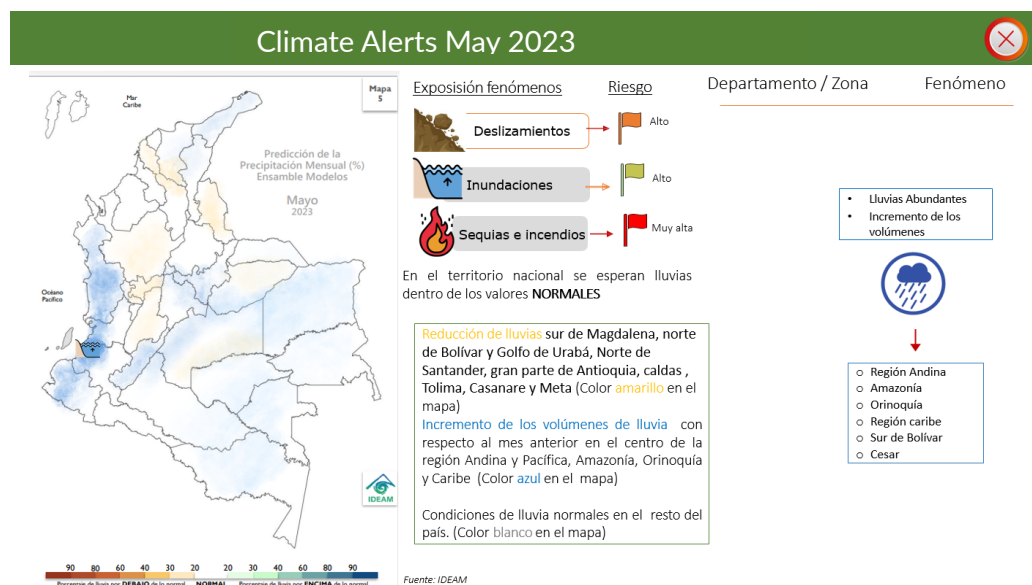
In the case of Bancamía, this information is captured by the sustainability department, and it feeds the bank's information system which is used transversally in the organization, being essential to prepare the maps that reveal the climate vulnerability of the institution's clients. These vulnerability maps allow Bancamía to understand the reality of its clients in terms of climate change impacts and have become a fundamental tool for identifying and managing climate risk in the institution.



Bancamía's risk management department combines the climate prediction information contained in the IDEAM maps with the past-due portfolio data, producing the index of past-due portfolio caused by the effects of climate change by department.⁴ This index has made it possible to identify, for example, that in 2023 the Colombian departments of Huila and Tolima have been strongly affected by heavy rains and consequently also the bank's clients located in those geographical areas.

With the implementation of a geolocation system for clients and offices that uses [ArcGIS Online](https://www.arcgis.com/) interactive maps, Bancamía's risk department has the capacity to cross-reference and enrich the information from IDEAM's climate change vulnerability maps with information on the location of the bank's clients and offices in the departments with high levels of impact due to climate change. This geo-referenced information on the past-due portfolio of clients allows the bank to generate climate alerts that not only recognize the exposure of the bank's intervention areas to phenomena such as landslides, drought, and floods, but also make it possible to identify the level of portfolio risk due to climate change and design mitigation and/or adaptation strategies tailored to the needs of those clients.

⁴ Currently, Colombia is territorially organized mainly by departments, municipalities, and districts. Colombia has 1123 municipalities, 32 departments and 5 districts (<https://www.colombia.co/pais-colombia/estructura-del-estado-colombiano/como-es-la-organizacion-politico-administrativa-de-colombia/>).



How does the geolocation tool or maps help the bank manage risk?

The geolocation of clients exposed to physical risks due to climate change has been a determining factor in the design of mitigation and adaptation strategies for these phenomena in the bank. Considering that the productive units most vulnerable to climatic alterations are farmers, the bank has decided to align its mitigation and adaptation strategies with the communications of agro-climatic alerts issued by the [National Association of Coffee Growers](#) to farmers through the [CENICAFE](#) platform, a repository and research center where relevant information on coffee cultivation and good agricultural practices in general can be found.

CENICAFÉ issues communications with recommendations for farmers on good agricultural practices at the national level. These recommendations take into account the exposure of agricultural production units to physical risks arising from climate change. Bancamía integrates CENICAFÉ's recommendations in its communications to customers, and proposes adaptation strategies in line with these recommendations and the local conditions. Thus, for example, if CENICAFÉ recommends that farmers make "*appropriate management of weeds*",⁵ Bancamía aligns this recommendation with one of the adaptation measures it finances through its [Crediverde Adaptation](#) line, in this case "*implementation of ecological agriculture*", and verifies its relevance for the area in which the client is located.

The association and combination of agro-climatic information in relation to the ecosystem-based adaptation measures (EbA) financed by the bank and CENICAFÉ's recommendations, allows the creation of specialized advisory documents for agricultural producers. These technical support suggestions for the smallholder farmer's productive activity are sent to the farmer in a personalized way to his or her cell phone. This way of communicating with the client allows Bancamía to propose timely management strategies in response to the effects of climate change on the productive units and to strengthen relationships of trust with its clients, by promoting practical and relevant information that benefits both the client and the institution.

What information do vulnerability maps capture?

In 2022, Colombia experienced a higher level of rainfall compared to the historical average, and for the first quarter of 2023, the IDEAM climate prediction model estimates rainfall 20% higher compared to historical levels. "Given the above, a natural disaster situation was declared by the National Government through Decree 2113 of 2022, which established that risk management is oriented to the evaluation of

⁵ Weeds are all those plant species that grow wild in an agricultural ecosystem and compete for water and nutrients with crop plants.

policies, strategies, plans, programs, regulations, instruments, measures and permanent actions for risk reduction and disaster management, with the explicit purpose of contributing to the quality of life of people and sustainable development".⁶

Bancamía addressed this situation through a robust information management system, which allowed the bank to design a pilot program based on the construction of climate vulnerability maps that made it possible to pinpoint the areas of the country with high rates of non-performing loans due to climate change. Thus, the risk department, in cooperation with the sustainability area, was able to identify and analyze the climate vulnerability of clients and define, as of November 2022, who and how many were affected by climate conditions. These people were given the possibility of renegotiating their debt according to the level of impact, granting them grace periods, reduction of installment or extensions of the loan term according to the client's circumstances. In 2022, 927 clients benefited from the restructuring of COL 3,698 million of credit lines due to the effects of climate change.

The information captured in the bank's vulnerability maps has gained relevance in 2023 and has become a tool used transversally in the institution, as it generates very accurate information about the client's situation and allows the bank to report relevant information to the authorities. However, although the tool has been improved since 2022, it is important to note that the transfer and management of information through maps has been relevant in the bank since long ago. Knowing details about the geographic distribution of clients, the characteristics of the areas in which the staff operates, and the spatial location of the bank's branches, is essential for planning commercial, product and risk management strategies.

Nonetheless, the more precise approach of these maps to identify client vulnerabilities and the risk exposure of the bank's portfolio has made it possible to generate more specialized, permanent, and assertive management systems to generate an offer of products and services adapted to the needs of the client and its socio-economic and environmental context.

Currently, the vulnerability maps project the climate scenarios faced by the bank on a quarterly basis. Although the information from IDEAM as a primary source is not 100% reliable and may change, the estimates of the climatic phenomena studied allow the bank to monitor the climate situation and design relevant alerts and strategies relatively early. Thus, based on the information contained in the vulnerability maps, it is defined what percentage of clients is vulnerable to climate change and at least two levels of exposure to risk are determined by department and geographic location. This gives rise to the categorization of clients according to their level of vulnerability and the generation of management indicators that, according to the levels of client vulnerability and credit risk, are made visible through a system of red and orange alerts at the level of clients, branches, and geographic intervention zones by department.

Figures as of December 31, 2022:

% Clientes con riesgo de afectación climática		
DEPARTAMENTO	TIPO DE AFECTACION	% CLIENTES POSIBLEMENTE AFECTADOS
HUILA	Inundaciones	21.26%
	Flujos torrenciales	46.38%
TOLIMA	Inundaciones	42.07%
SÚCRE	Inundaciones	22.03%
	Sequias	43.74%



Source: Bancamía, Gestión Sostenible, Informe Periódico de Fin de Ejercicio 2022, p.38.

⁶ Bancamía, Sustainable Management, Periodic End of Year Report 2022, p.38.

In the areas identified as red and orange alert, where clients are more vulnerable and credit risk is higher, training workshops have been held for both clients and staff, with the objective of providing technical information and raising awareness about the need to adapt to climate change and the existence of technology (MEbA measures) and specific practices (good agricultural practices) to reduce the vulnerability of clients' production units and increase their level of resilience to climate change.

The bank recognizes that increasing the level of knowledge of both clients and staff is fundamental to be able to better manage environmental and social risks, as well as to successfully adopt adaptation measures at the client level and at the level of the bank's commercial staff. For this reason, it has developed didactic material for staff to become more familiar with the technical characteristics of the 'Crediverde Adaptación' credit line, as well as virtual workshops for clients explaining how to adapt to climate change and disseminating the experiences of clients who implement ecological agriculture techniques, drip irrigation, construction of water reservoirs or implementation of silvopastoral practices, for example.

C. Bancamía S.A.'s route to Essential Practice No.3

How did it start?

While Bancamía's information system included the use of maps for the design of business strategies and georeferencing of branches, the systematic incorporation of data related to climate change began following the recommendation of the Colombian Green Taxonomy protocol. This protocol advised the financial sector in general to inform itself and develop green financing strategies in accordance with the productive value chains, the characteristics of the territory, or the use of agricultural land. The need to comply with natural disaster management regulations by 2022 was also a catalytic event. The continuous work of refining this information management tool has allowed Bancamía to increase its analysis capacity, discover opportunities for insurance offerings and simultaneously coordinate the intervention of different areas of the bank. It has been a process driven by regulation.

What was the key to your success?

The key to success has been to develop a sustainability approach in the bank that coordinates the efforts of different departments to enrich the information and management system through the generation of commonly used tools, such as the climate vulnerability maps. These maps provide timely information on the client's real situation and allow the bank to, quantitatively and visually, assess the bank's past-due portfolio index due to climatic conditions. Moreover, according to the results of this exercise, since 2022, the ratio of non-performing loans due to climate change has always been higher than the bank's non-performing loan ratio. This measurement has shown that many clients have been forced to stop paying their financial commitments because their productive units have been affected by some effect of climate change. The analysis derived from the implementation of the vulnerability maps in association with the past-due portfolio indexes has been key to structure the bank's climate change management strategies and to comply with the new guidelines of the financial superintendence in this matter.

What challenges have you encountered?

The fundamental challenge for Bancamía was to have 100% reliable information to predict weather conditions that inform the adaptation strategies that can be offered to the bank's clients. However, technology is constantly evolving, and the bank is always adopting the tools available that best suit its operating system and budget. This system is still being perfected as the challenge is to be increasingly accurate, agile, and relevant, not only to be able to formulate credible and timely climate change adaptation strategies, but also to be able to report information on the bank's climate change risk management plans truthfully and reliably to the banking superintendency.

How did you overcome them?

The strategy of piloting this tool from 2022 allowed the bank's teams to be prepared to comply with the new legal requirement in terms of climate risk reporting and disclosure. In addition, Bancamía's affiliation

with the Asobancaria association of banks in Colombia was useful and important for obtaining first-hand information, contacts with support entities for technical assistance, as well as for keeping abreast of trends and good banking practices in terms of the disclosure of financial risks associated with climate change at the international level.

What are the important lessons to share with other institutions seeking to improve their performance around EP3?

In Bancamía's opinion, the construction of climate vulnerability maps with client information is a useful and relevant tool for consolidating, communicating, and managing strategic information. Similar methodologies are being adopted by other banks to make data related to climate risks more objective. Bancamía recommends evaluating and seeking reliable sources of information and coordinating the involvement of different departments of the bank, including management, in the design and use of this type of information systems.

D. What is the next stage?

Training activities for staff and clients will be important to achieve a better adoption of risk management and climate change adaptation strategies, through the relevant offer of products and services. For this reason, it is a priority for Bancamía to update training manuals to make more explicit the risk management process related to climate change and the solutions proposed by the bank. Bancamía is working to offer comprehensive response packages to clients exposed to climate change events, and to this end there is an important focus on the design of guarantees and the offering and promotion of insurance with a climate change or natural disaster risk assessment component.

Compliance with and implementation of the principles of Responsible Banking is an essential part of the organization's work plan, and to this end, the strengthening of risk management methodologies is fundamental. For Bancamía, it is very important to continue working together on sustainable finance and digital transformation, as the organization is convinced that this is how it will be possible to anticipate more accurately the risk exposure of the portfolio and the institution. In Bancamía's opinion, this is the only way to plan solutions and improve the quality of products and services for the benefit of customers.

Acknowledgments

e-MFP and the Green Inclusive and Climate Smart Finance Action Group (GICSF-AG) would like to thank Bancamía S.A., particularly Yazmín Ramírez Moreno and Loren Viviana Nieto Romero, for sharing their time, information and knowledge about the bank's experience in green inclusive finance with Juana Ramírez and the Green Map team. Special thanks to Mauricio Velez García, Director of Sustainability at Asobancaria for helping us get in touch with Bancamía S.A. and to the Government of the Grand Duchy of Luxembourg for their financial support and for making this work possible.

More information

For more information on Bancamía's environmental track record, we invite you to consult the following resources:

- Bancamía's website: [Bancamía](#)
- Contact: Oscar Fernando Hernandez, Sustainability Manager loscar.hernandez@bancamia.com.co

For more information on Essential Practices, we invite you to consult the [Green Index 3.0](#).

Contribute

We encourage you to actively participate in the creation of a pool of available resources on good environmental practices.

If you are interested in **contributing to the Green Essential Practices Case Study Series**, we invite you to contact Joana Afonso at the European Microfinance Platform (e-MFP) at jafonso@e-mfp.eu.

The e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG)

The e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG) is a unique multi-stakeholder think tank that brings together inclusive finance practitioners and researchers to enhance cooperation, exchange experiences and find a common path to deal with environmental issues, improve knowledge and disseminate findings, seize green opportunities and co-create common standards for the inclusive finance sector and new practical tools to advance green inclusive and climate smart finance. Created in 2013, today it counts today more than 150 members affiliated to more than 75 institutions worldwide and represents the majority of sector stakeholders.

The European Microfinance Platform (e-MFP)

The European Microfinance Platform (e-MFP) is the leading network of organisations and individuals active in the financial inclusion sector in developing countries. It numbers over 130 members from all geographic regions and specialisations of the microfinance community, including consultants & support service providers, investors, FSPs, multilateral & national development agencies, NGOs and researchers. Up to two billion people remain financially excluded. To address this, the Platform seeks to promote co-operation, dialogue and innovation among these diverse stakeholders working in developing countries. e-MFP fosters activities which increase global access to affordable, quality sustainable and inclusive financial services for the un(der)banked by driving knowledge-sharing, partnership development and innovation. The Platform achieves this through its numerous year-round expert Action Groups, the annual European Microfinance Week which attracts over 400 top stakeholders representing dozens of countries from the sector, the prestigious annual European Microfinance Award, and its many and regular publications.

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