



STATE OF THE ART OF GREEN INCLUSIVE FINANCE 2011-2019

WORLDWIDE STATUS AND PROGRESS OVER 10 YEARS

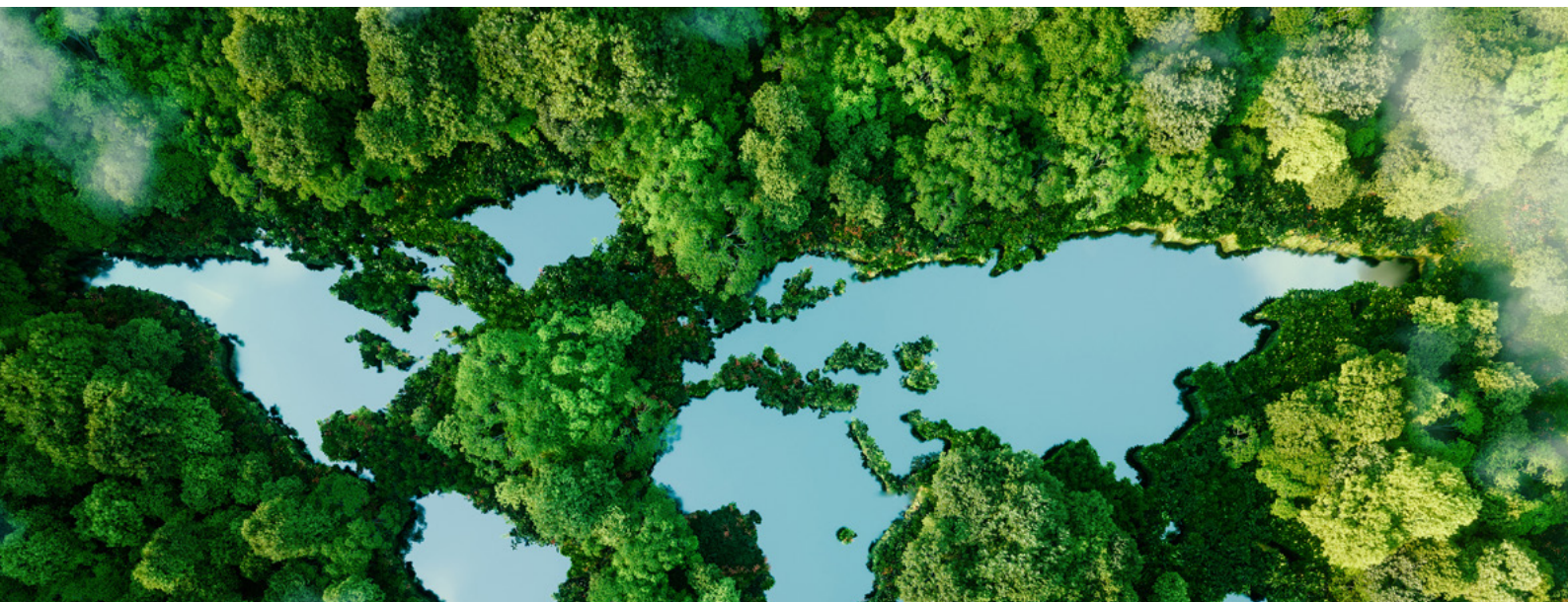
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EUROPEAN
MICROFINANCE
PLATFORM

ADVANCING FINANCIAL INCLUSION



e-MFP Green Inclusive and Climate Smart Finance Action Group

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.

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The publication is based on extensive data collection done by partners and members of the e-MFP GICSF-AG. Data assessment and analysis is done by the e-MFP GICSF-AG, under the coordination of its co-heads and in partnership with its members and partners.

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EXECUTIVE SUMMARY

Over the past ten years, green inclusive finance has matured and consolidated its role within the inclusive finance sector. Projects and programmes targeting environmental protection have been implemented across the world by different stakeholders. Financial service providers (FSPs) that have acted to improve their environmental performance have been assessed in various contexts and regions using the framework and indicators of the Green Index¹. The outcomes of the provision of green loans on clients and ecosystems have also been evaluated in some cases. And some quantitative studies assessed the characteristics of FSPs, in terms of size, age, legal status, location, among other factors, that have a positive, a negative, or no influence on the environmental performance of the institutions.

Nevertheless, a global view of the status of green inclusive finance and the sector's evolution is lacking. Understanding the sector evolution and the lessons learned over time is of major importance to support the growth of the wider green inclusive finance sector. This publication aims to close this gap. It presents the evolution of the green inclusive finance sector worldwide, during the period 2011 until 2019, using the Green Index framework developed by the e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG), and building the analysis on more than 1130 environmental assessments of 866 different FSPs. The broad objective of the study is to provide the baseline for periodic data collection and analysis of the sector.

The main conclusions of the present study are:

1. The Green Index has proved to be a strong framework to aggregate data in a unique sound database.
2. The offer of financial green products has increased in the period 2011-2019 in all regions assessed: Africa, Asia, Latin America and Caribbean (LAC), and Europe; and for all types of legal status assessed.
3. While the loans for renewable energy and energy efficient products have been the most common green products offered worldwide, with constant growth in the period 2011-2019, the provision of loans for nature-based solutions (NbS), i.e., sustainable agriculture/livestock/fisheries/forestry has been the green product with the strongest growth in the period 2011-2019.
4. At geographical level, the status and evolution of green products was as follows:
 - a. For European respondent institutions, the most common green product has been the provision of renewable energy and energy efficient loans (2017-2019), and this has also been the green loan product with highest growth in the period 2011-2019.
 - b. For African respondent institutions, the most common green product has been the provision of renewable energy and energy efficient loans (2017-2019), while the loans for NbS had the highest growth in the period 2011-2019.
 - c. For Asian and Latin American & Caribbean respondent institutions, the provision of loans for NbS has been the most common green product (2017-2019) as well as the green product with highest growth in the period 2011-2019.
5. The evolution of the environmental performance of FSPs exhibits mixed trends, with the overall average assessment score for the Green Index remaining almost constant at world level over time. In particular:
 - a. the number of FSPs improving the management of their ecological footprint and providing green financial products increased in the period 2017-2019 compared to the period 2011-2013,
 - b. the establishment of an environmental strategy and building capacity to manage environmental risks of FSPs decreased in the period 2017-2019 compared to the period 2011-2013.

¹ <https://www.e-mfp.eu/green-index>

These results allow us to conclude that there has been a positive change in the actual intention and activity of FSPs to finance the green practices and technologies of their clients, i.e., from 'do-no-harm' to 'do-good'. Green loans, once a rare and complex product to develop, have evolved and have become more mainstream and included within the FSPs' product offer. Nevertheless, because the actual number and amount of green loans disbursed per year by FSPs still remains low, and the overall evolution of the environmental performance of FSPs does not manifest a stable growth and consolidation, much more focus is needed. Indeed, a holistic approach, including strategy, risk management and financial and non-financial products and services provision is needed to ensure progress, growth in outreach and positive outcomes for green inclusive finance broadly, and in particular for FSPs' clients.

The results presented in this study call for a more in-depth investigation using recent data, as well as for constant monitoring of the evolution of the environmental performance of FSPs in the next years. Our interpretation of the evolution of green inclusive finance in the period 2011-2019 is that the sector has been focused on a pilot-by-pilot approach, which did not allow FSPs to define a clear medium-term strategy and improvement path.

It is essential to build on existing experiences and lessons learned. The FSPs and other sector stakeholders should work together to expand the outreach of green loans and promote the institutionalisation within the FSPs of their green products offer, while ensuring positive environmental, social, and economic impacts for the clients..

Thus, it will be crucial to reinforce environmental risks management, monitoring and transparency to encourage FSPs to develop their green strategies, while promoting internal awareness and capacity building and, equally important, communicating and raising awareness among clients.

1. INTRODUCTION

Our society, economy and financial system are in a transition period, threatened by climate change, biodiversity and ecosystem loss, and growing exclusion and inequalities. The inclusive finance sector is at the forefront of these challenges. Smallholder farmers, rural communities, poor households, micro, small and medium enterprises, in particular in developing countries, who are the main clients of Financial Service Providers (FSPs) are and will be among the most vulnerable to the present and future threats. Such threats are relevant for all sector stakeholders: for the clients, they are a question of survival - having enough food and revenue and access to education and health; for the FSPs, they represent a great challenge to the institutions' capacity to achieve their social mission and financial stability; for investors and development agencies, they are a key financial risk and a challenge to achieve the intended impact; for regulators, a key source of financial and non-financial instability.

Over the past ten years, green inclusive finance has matured and consolidated its role within the inclusive finance sector. Green inclusive finance aims to:

- Support the generation of (climate) resilience of FSPs' clients and beneficiaries.
- Promote sustainable environmental practices among clients.
- Respond to the needs and demand of clients for higher and less volatile revenues.

Green inclusive finance offers the opportunity to finance and support the implementation of green practices and technologies by poor households, smallholders, micro and small enterprises, generating higher revenues, decreasing their climate and environmental risks, increasing their resilience, and protecting the ecosystems these populations depend on.

Nowadays, green inclusive finance is no longer just about adding a "third" bottom line to the two classic – social and economic – dimensions of impact, but rather it is the only way inclusive finance can operate under the threat of climate change and ecosystem loss. The sector should move forward and seize the opportunity to evolve and align its operations, products, and services under the scenario of climate change, and promote an inclusive green transition for their clients and beneficiaries. Without such a shift, financial and social performance, the two pillars of the inclusive finance sector, will be more and more difficult to maintain and achieve.

To enable this transition there should be a strong focus on analysing and understanding the 'status quo' and evolution of the green inclusive finance sector, the main challenges and lessons learned, and proven approaches that are ready to be scaled up and adapted to various other contexts.

Projects and programmes targeting environmental protection have been implemented across the world by many different stakeholders. In the past decade, FSPs that have taken action to improve their environmental performance and provide green products and services to their clients have been assessed in various contexts and regions. Some quantitative studies assessed which characteristics of FSPs, in terms of size, age, legal status, geographic location, among others, have positive, negative or no influence on the level of environmental performance of the FSPs (see references in Annex).

Nevertheless, an analysis at sector level that identifies the main factors influencing the environmental performance of FSPs is lacking. Understanding these aspects is of major importance to support the growth, consolidation, and improvement of the green inclusive finance sector.

The implementation of a panel analysis has been hampered by the lack of available data and the heterogeneity of the existing data as environmental performance assessments have been conducted by different parties, with data being collected using different tools, methodologies, and questionnaires.

Through this publication, the e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG) aims to address these challenges, close this data gap and, thus, provide a solid basis for the ongoing monitoring and reporting of the state of art of green inclusive finance.

Drawing on the extensive work conducted within the framework of the GICSF-AG, we built a database containing 1,130 environmental assessments of 866 FSPs worldwide in the period 2011-2019. The main results of this analysis are:

- A unique database for the inclusive finance sector, built using the standards provided by the Green Index, with data collected from different parties (13 different databases) that can be merged under a common umbrella.

- For the first time, a consistent analysis of trends in green inclusive finance during the studied period, facilitating the assessment of the environmental performance of the sector, its actual size, its evolution, and challenges.
- The provision of a baseline for further data collection and analysis.

The main research question of the present study is:

"What has been the evolution of green inclusive finance performance?"

While the analysis provides strong evidence to support the possibility of answering such a question, some limitations should be acknowledged. The data distribution in years, regions and legal status is not homogeneous, and the data collection methodology among the various databases used in the study is similar but not fully aligned. In addition, the analysis is based on the framework provided by the Green Index 2.0, and not the latest version 3.0 (only available since 2021). All these challenges will be overcome in the next report if mechanisms to manage and centralise data collection and analysis can be implemented for the benefit of the sector and in particular its clients and beneficiaries.

2. METHODOLOGY

2.1 FRAMEWORK: GREEN INDEX 2.0

The Green Index 2.0² was used as the framework to structure the database and analyse data on the green inclusive finance performance of FSPs.

The Green Index was first developed in 2014 by the e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG) and subsequently updated. It is the main framework and tool to assess the performance of FSPs in inclusive green finance and to define action plans to improve it. Many different stakeholders have included the Green Index in their product lines and governance: investors (as part of their due diligence), micro-finance networks (as part of their support to the sector), rating agencies (as part of social ratings),

consultants and consulting companies (as part of their advisory services), and FSPs themselves (as part of their social and environmental performance management). The Green Index tool is meant for companies, financial institutions, and institutional investors rather than clients or retail investors. The tool is composed of four standards (summarised in Table 1) and a corresponding set of indicators. To assess its compliance with these indicators, an FSP must answer the questions included in the tool. The FSP can either perform a self-evaluation or receive support for an expert evaluation by an external auditor.

The latest version of the Green Index (Green Index 3.0³) was released in November 2021 and is the result of extensive experience and sectoral work to ensure its relevance and alignment with existing practices and experiences. This update

TABLE 1: GREEN INDEX 2.0 STANDARDS

Environmental strategy	The definition, management, and monitoring of an environmental strategy.
Internal risk management	The management and monitoring of the FSP's ecological footprint (e.g., using renewable energy sources, recycling waste produced, and/or reducing energy usage, water usage, paper usage, fuel consumption, waste production, and/or GHG emissions at headquarters and branches).
External risk management	The assessment and management of clients' environmental risks (e.g., evaluating the environmental risks of clients' activities, categorising loan applications according to the level of environmental risk, and applying specific procedures according to each risk category).
Green opportunities	Green financial products (e.g., loans for renewable energy or energy efficiency, sustainable agriculture, or other green activities, or agriculture/climate insurance) and non-financial services such as client training on environmentally friendly practices or businesses

Note: Each standard contains essential practices and indicators. For each indicator, the FSP can answer "yes", "partially", or "no", and it receives the respective score "100%", "50%", or "0%". This results in a total score between 0% and 100% for each one of the 4 standards.

² Allet, M., Dumitrescu, R., Forcella, D., and Jan Schuite G. (2016). *The Green Index 2.0, An innovative tool to assess environmental performance in the microfinance sector*. European Microfinance Platform (Brief No. 6). https://www.e-mfp.eu/sites/default/files/resources/Green_Index_Nr_2_2016.pdf

³ Forcella, D. and Realpe Carrillo, N. (2022). *Green Index 3.0, Mainstreaming Green Inclusive Finance*, European Microfinance Platform and GICSF-AG. https://www.e-mfp.eu/sites/default/files/resources/2022/11/Green%20Index%203.0_final.pdf

was conducted in parallel with the co-development with Cerise+SPTF of Dimension 7 of the Universal Standards for Social and Environmental Performance Management ensuring the alignment of the two tools.⁴

The present study, which uses assessments dating between 2011 and 2019, is based on the Green Index 2.0, which was developed by the GICSF-AG in 2016 and used until 2021. The design of the tool was based on a market assessment of FSPs carried out jointly by the e-MFP GICSF-AG, and MIX Market⁵.

FIGURE 1: FOUR STANDARDS OF THE GREEN INDEX 2.0



2.2 DATA COLLECTION, AGGREGATION AND CLEANING

With contributions from GICSF-AG members, partners, as well as other sector stakeholders, the GICSF-AG was able to build a unique database of environmental assessments composed of:

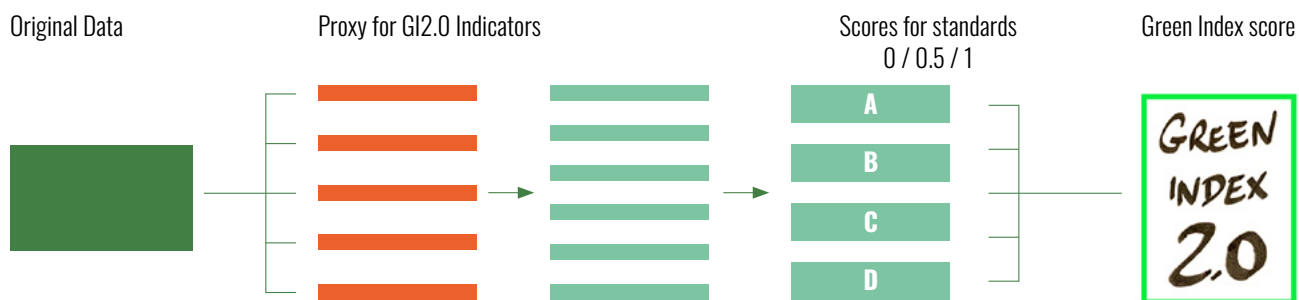
- 13 different databases aggregated.
- 1,130 environmental assessments of 866 different FSPs worldwide.
- in the timeframe: 2011-2019.

The 13 databases have been previously used for research and consultancy work and were provided, in anonymised basis, by the following GICSF-AG members, partners, and sector stakeholders:

- ADA
- European Microfinance Network (EMN) & Microfinance Centre (MFC)
- European Microfinance Platform
- Enclude-Palladium
- Grameen Credit Agricole Foundation
- IDB-LAB
- Marion Allet
- SIDI
- YAPU Solutions

⁴ The contents of Dimension 7 of the Cerise+SPTF's USSEPM and the e-MFP GICSF-AG's Green Index 3.0 are fully aligned at the concept level of the standards and essential practices. The Green Index 3.0 provides an in-depth analysis and helps establish a detailed improvement action plan on green inclusive finance. Dimension 7, co-developed by Cerise+SPTF and the e-MFP GICSF-AG, helps establish a detailed improvement action plan in the framework of the Universal Standards.

⁵ Allet, M., Forcella, D., Huybrechs, F., Moauro, A., Pierantozzi, A., Realpe Carrillo, N., Jan Schuite, G. and Spaggiari, L. (2015). Assessing Green Microfinance, Qualitative and quantitative indicators for measuring environmental performance. MIX and European Microfinance Platform. <https://www.e-mfp.eu/sites/default/files/resources/2016/01/Assessing%20Green%20Microfinance%20-%20Qualitative%20and%20quantitative%20indicators%20for%20measuring%20environmental%20performance.pdf>

FIGURE 2: BUILDING A UNIQUE DATABASE BASED ON THE GREEN INDEX 2.0

All data underwent a detailed quality control and cleaning, including triangulation of information and consistency checks. For certain databases, answers were also audited. Using the Green Index as a common framework, despite the heterogeneity of the various datasets, allowed for a robust aggregation process to obtain a unique dataset containing, for each environmental assessment, the answers to the Green Index 2.0, as sketched in Figure 2. The aggregation process included the development of common proxies in each survey for each of the indicators of the Green Index 2.0, mapping then the available assessment data into answers to the questions of the Green Index 2.0 and their corresponding scores.

The data collected from the 13 original databases are not homogeneous over time (i.e., the distribution over the period studied is uneven) and are drawn from different world regions. Before the evolution of environmental performance could be considered over time, it was therefore important to establish relevant clusters. To this purpose, data were grouped in three-year periods, namely, 2011-2013, 2014-2016, and 2017-2019. This allowed to optimise the distribution of data points.

To check the consistency of the resulting database, we compared the obtained average scores of the Green Index 2.0 standards, essential practices and indicators with average scores available in two databases of environmental assessments from independent sources⁶:

1. The Green Index assessments contained in SPI4 of CERISE⁷ in the period 2014–2019, re-organised along the framework of the Green Index 2.0 (originally 29 environmental assessments with the Green Index 1.0 in the period 2014–2016; 69 environmental assessments with the Green Index 2.0 in the period 2016–2019).
2. Environmental information contained in the 245 social ratings conducted by MicroFinanza Rating (MFR)⁸ in the period 2007-2022, organised along the Green Index 2.0.

The matching of indicators averages between these databases confirmed the proxy validity, with differences in values attributable, under the statistical errors, to the different size of the databases and methodologies used for data collection.

In order to complete the information related to environmental performance, our working database has been merged with the social and financial data provided by ATLAS⁹.

⁶ Unfortunately, due to data protection and privacy policies, it was not possible to aggregate these two databases into our working database used for the present study.

⁷ <https://cerise-sptf.org/>

⁸ <https://www.mf-rating.com/>

⁹ <https://www.atlasdata.org/>

2.3 THE WORKING DATABASE

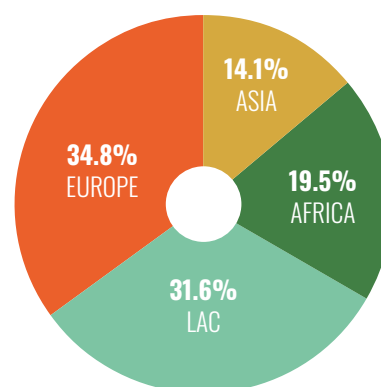
After aggregation, cleaning, implementation of proxies and execution of transversal consistency checks within the various datasets, the resulting database considered for the present study, consists of 1,130 high level quality environmental assessments¹⁰ worldwide, with 333 assessments conducted in LAC, 148 in Asia, 201 in Africa, and 448 in Europe.

Regarding the legal status, the database distribution is as follows: 352 NGOs, 306 NBFIs, 120 cooperatives or credit unions, 63 banks, 12 governmental organisations. For the remaining institutions the legal status was not disclosed or not available.

The database is composed of 866 unique FSPs with 112 FSPs having repeated assessments (at least 2 times).

Figures 3 to 5 present in more detail the geographical and legal status distribution of the database, while tables 2 and 3 provide more information on the types of environmental assessments and the

FIGURE 3: SHARE OF AVAILABLE ASSESSMENTS PER REGION



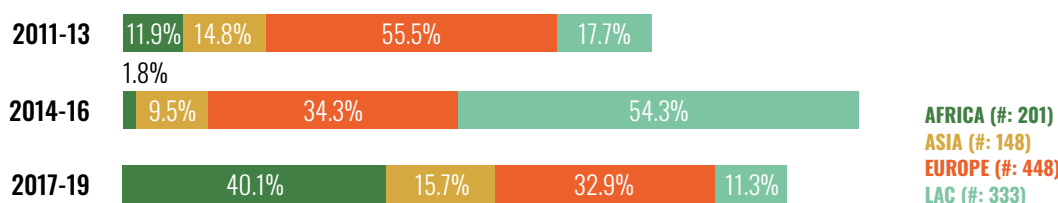
overall averages for key financial and social performance indicators.

Table 2 below shows the distribution of environmental assessments contained in the resulting database per region and: unique FSPs, per assessments containing information on all 4 standards of the Green Index 2.0, the ones reporting on the 4th standard (financial and non-financial green products), and in particular the number of assessments of the most recent time tranches 2017-2019.

TABLE 2: DISTRIBUTION OF ENVIRONMENTAL ASSESSMENTS IN THE DATABASE

Region	Total environmental assessments	Unique FSPs	Reporting on 4 standards	Reporting on financial and non-financial green products	Reports in 2017-2019
Africa	201	169	200	201	156
Asia	148	122	148	148	61
Europe	448	301	108	448	128
LAC	333	274	307	307	44
World	1130	866	774	1104	389

FIGURE 4: DISTRIBUTION OF AVAILABLE DATA PER REGION AND TIME PERIODS



¹⁰ From the original 1,233 environmental assessments collected.

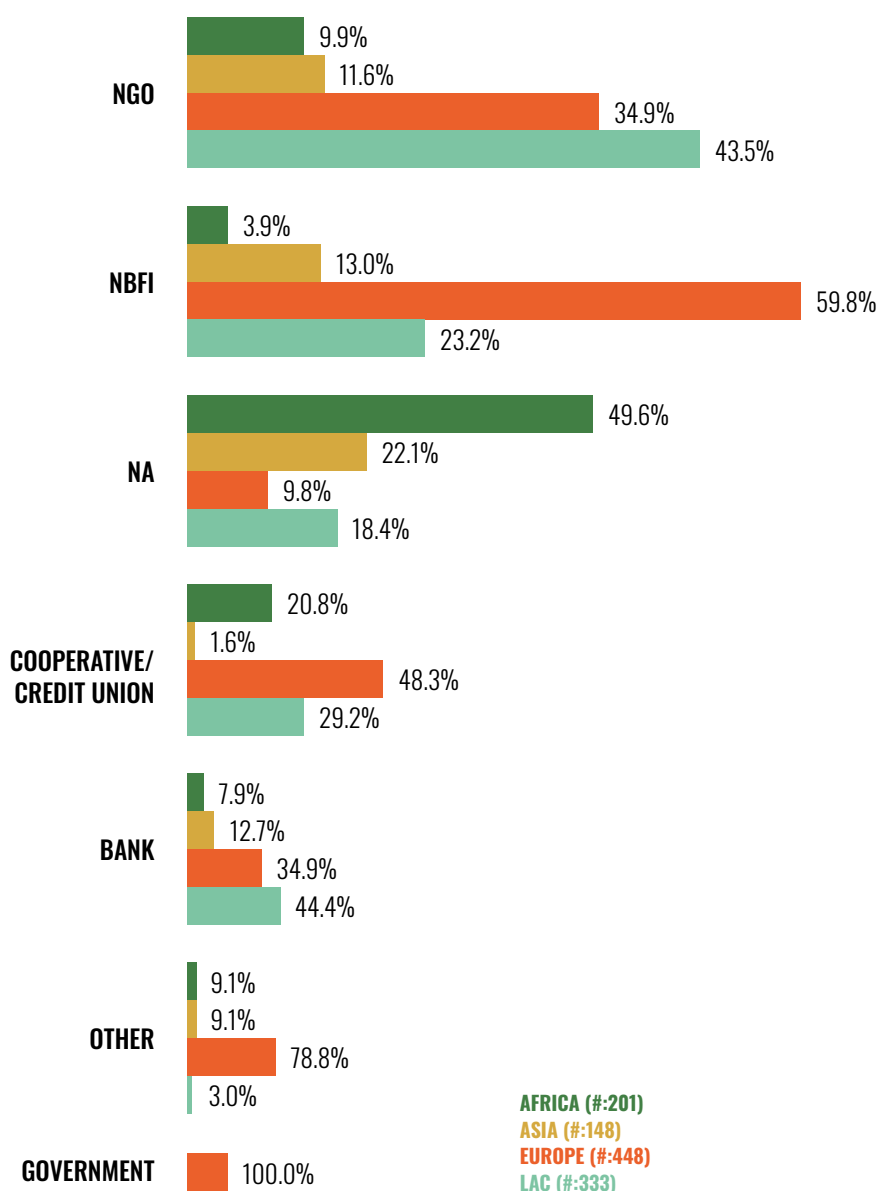
FIGURE 5: DISTRIBUTION OF AVAILABLE DATA PER REGION AND LEGAL STATUS

Table 3 presents the average values of key indicators of the FSPs part of the database build for the environmental assessment. The average is cal-

culated based on the values from ATLAS, where available, and for the most recent period.

TABLE 3: AVERAGE VALUES OF KEY INDICATORS FOR THE ENVIRONMENTAL ASSESSMENTS IN THE DATABASE

Age (year)	GLP (M USD)	GLP Female	Rural	Number of borrowers	Average outstanding loan balance over GNI	PAR30	Debt to Equity Ratio	OSS
10.6	131.9	54.8%	51.1%	78.336	51.4%	6.8%	3.96	1.15

Source: ATLAS

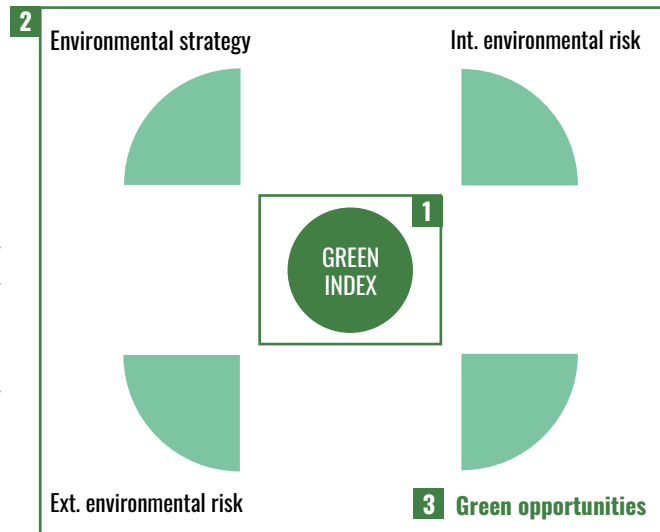
3. ANALYSIS OF RESULTS

This section discusses the result of our analysis, which was developed along three main aspects:

1. Overall Green Index 2.0 score.
2. Scores along each standard of the Green Index 2.0
3. Scores of the indicators for the Standard “Green Opportunities”.

Where possible we provide the analysis disaggregated per region and legal status, and the evolution and trends over time. All results presented in the following sub-sections are based on the working database of 1,130 environmental assessments, unless stated otherwise.

FIGURE 6: DATA ANALYSIS ELEMENTS

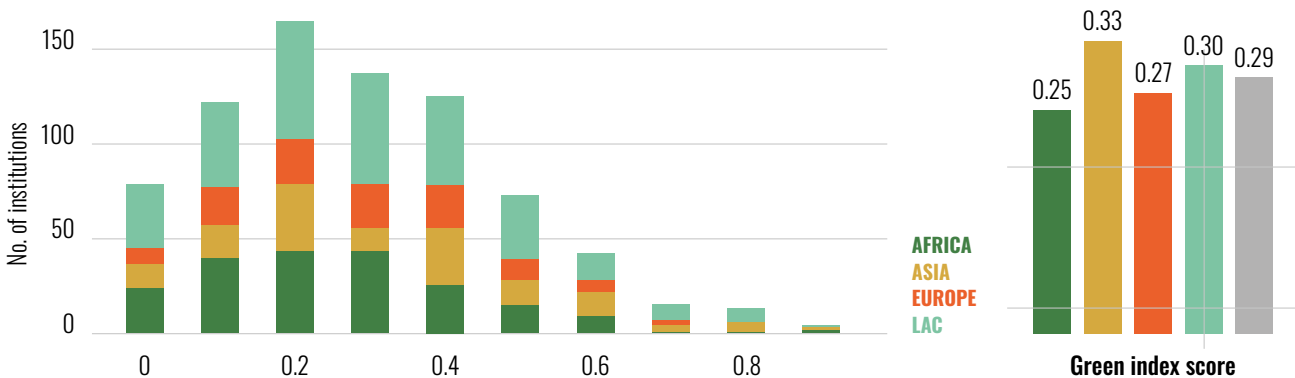


3.1 GREEN INDEX 2.0 SCORE

The average score for the Green Index 2.0 for the whole database, during the period 2011-2019 is 29%. The score distribution has high variability, with a long tail of environmental assessments

with higher scores, in particular in the interval 30%-50% and almost 75 assessments within the scoring interval 50-60%. Asia is the region with the highest average score: 33%, followed by LAC with 30%, while Africa is the region with the lowest average score: 25%.

FIGURE 7: DISTRIBUTION OF THE GREEN INDEX 2.0 SCORES (LEFT) AND AVERAGES PER REGION (RIGHT)



The score distribution per region shows that the distribution of scores in Asia and LAC present higher frequency for higher values of scores compared to the distribution of scores at the world level. In particular, Asian institutions have higher

frequency for the scores in the interval 60%-80% and institutions from LAC have higher scores in the range 50%-80%. The details are displayed in Figures 8 and 9 below.

FIGURE 8: DISTRIBUTION OF THE GREEN INDEX 2.0 SCORE (ASIA)

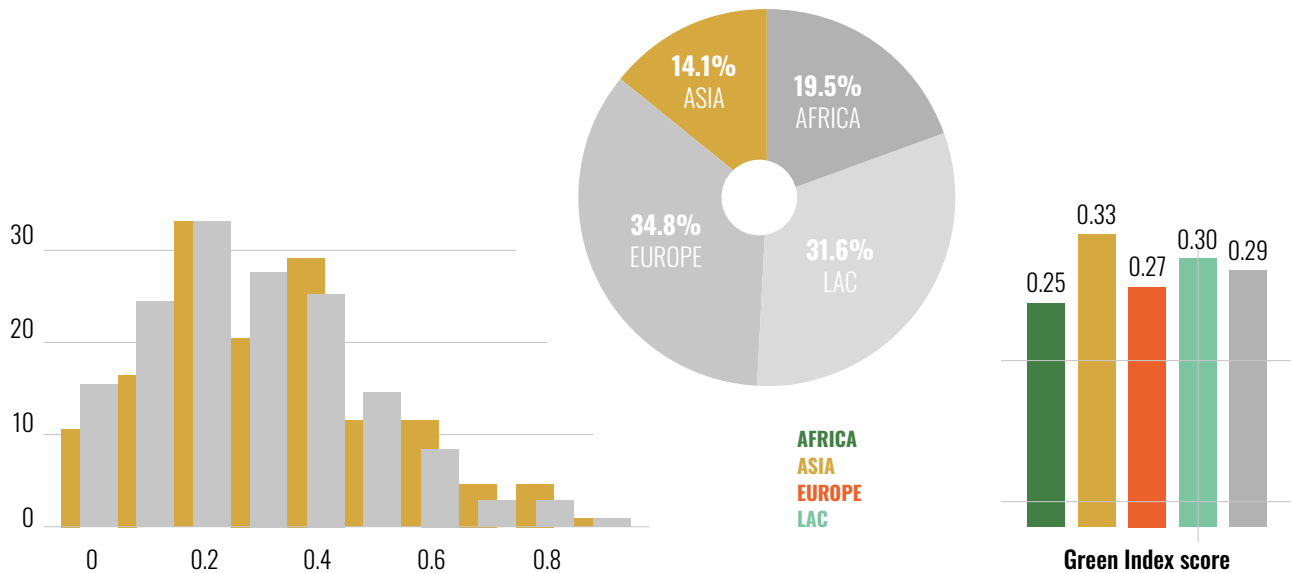


FIGURE 9: DISTRIBUTION OF THE GREEN INDEX 2.0 SCORE (LAC)

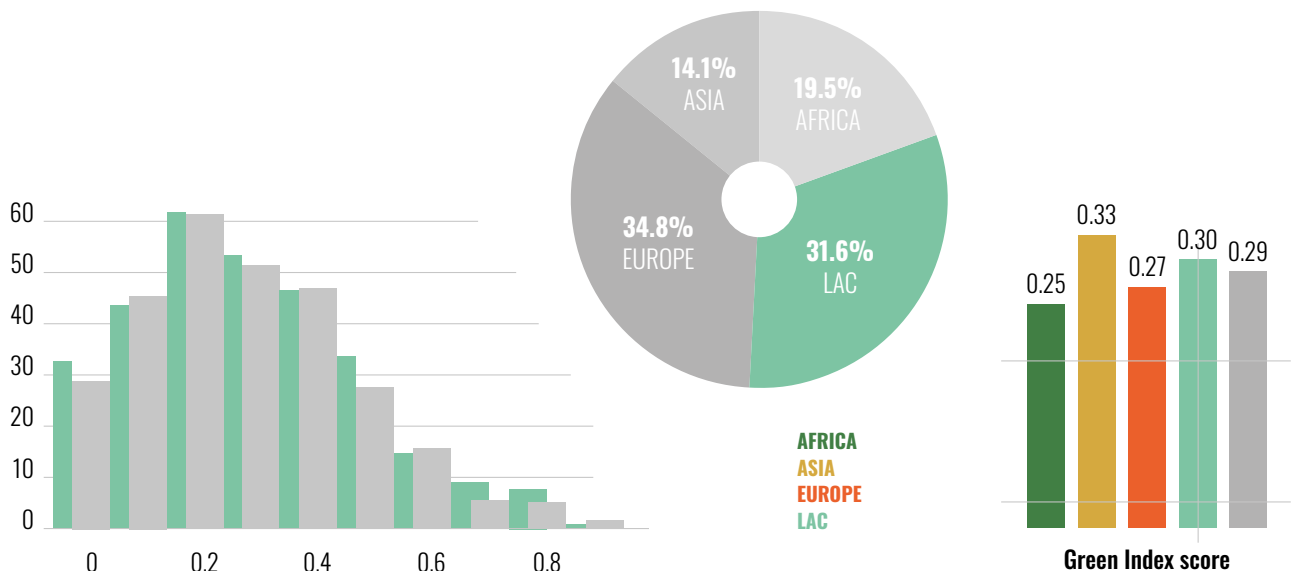
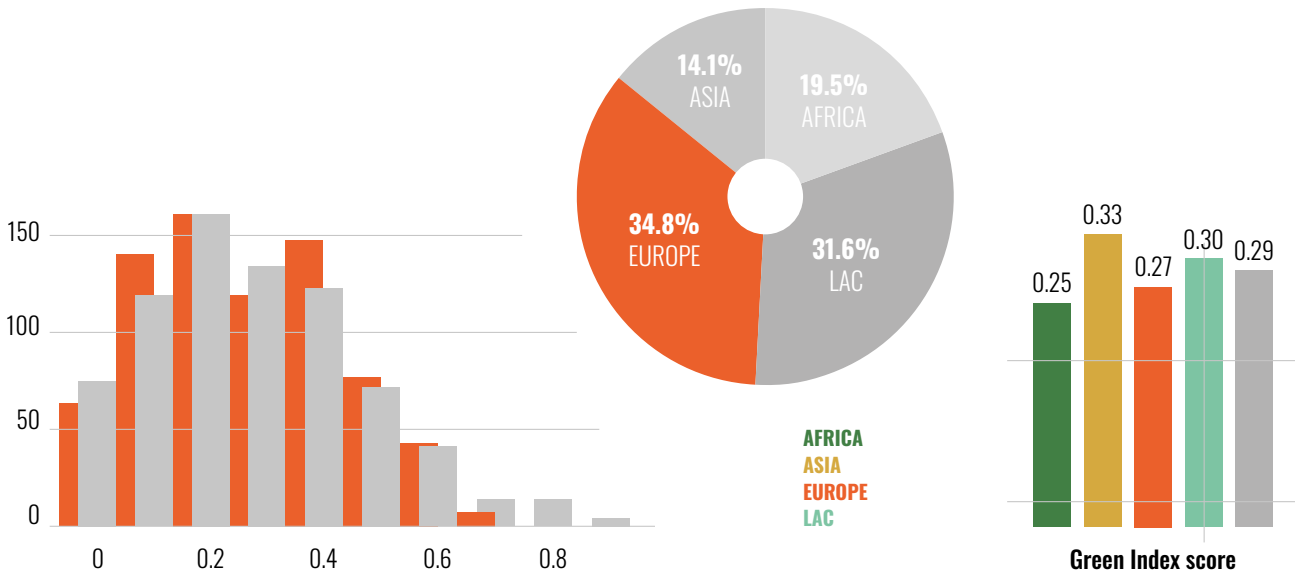


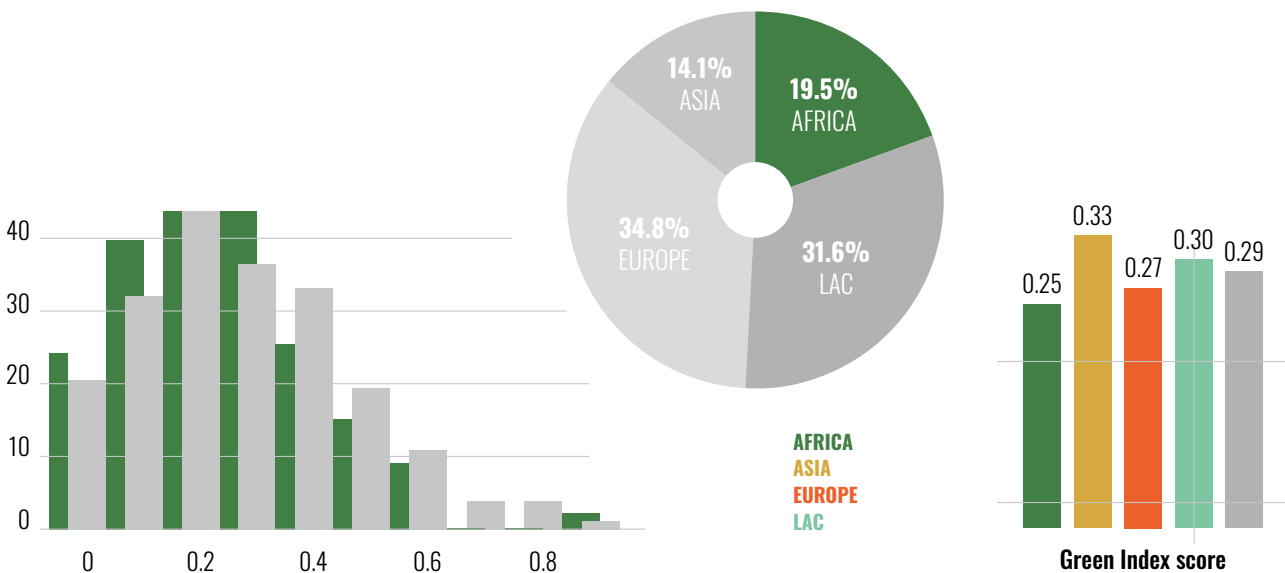
Figure 10 on page 16 shows that the score distribution of the European institutions is comparable with the distribution at the global (world) level.

FIGURE 10: DISTRIBUTION OF GREEN INDEX 2.0 SCORE (EUROPE)



African institutions, in contrast, show lower environmental performance compared to the world benchmark. The distribution of scores in Africa presents higher frequency for lower values, particularly for the scores in the interval 0%-10%.

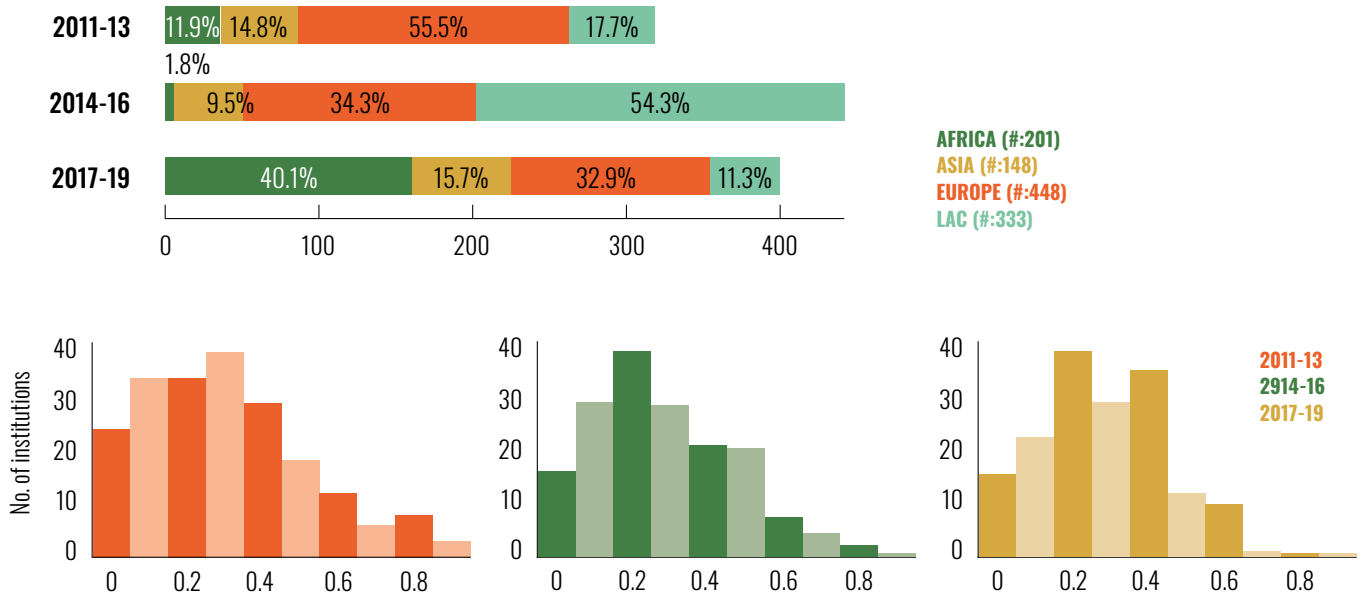
FIGURE 11: DISTRIBUTION OF THE GREEN INDEX 2.0 SCORE (AFRICA)



The distributions of the Green Index 2.0 scores for the time intervals considered (2011-2013, 2014-2016, 2017-2019) reveal that scores are more concentrated towards medium-high scores

(in the range of 50% to 70%) for the period 2017-2019 showing progress in the environmental performance of FSPs over time.

FIGURE 12: EVOLUTION OF GREEN INDEX 2.0 SCORE



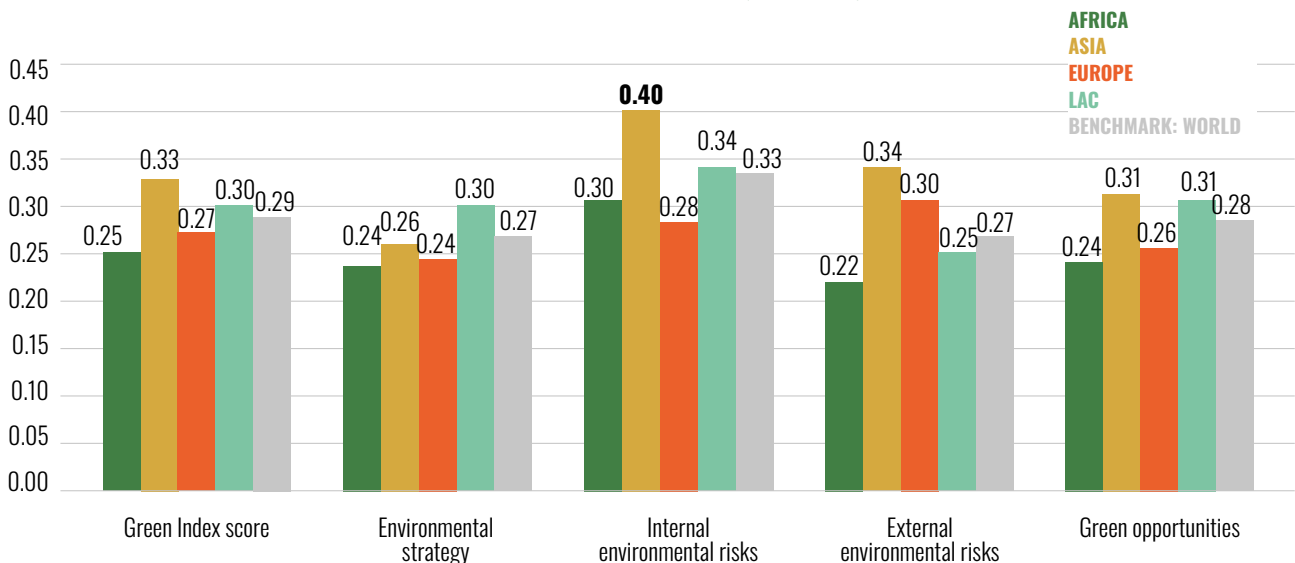
3.2 SCORES ALONG EACH STANDARD OF THE GREEN INDEX 2.0

The standard “Internal Environmental Risks” has the highest average score (33%) for the period 2011-2019, while the two standards, “Environ-

mental Strategy” and “External Environmental Risks” exhibit the least performant results, with average scores of 27%.

The assessments from Asian institutions have the highest average score for all four standards in the period 2011-2019, except for the standard “Environmental Strategy” where the highest scores are from institutions in the LAC region.

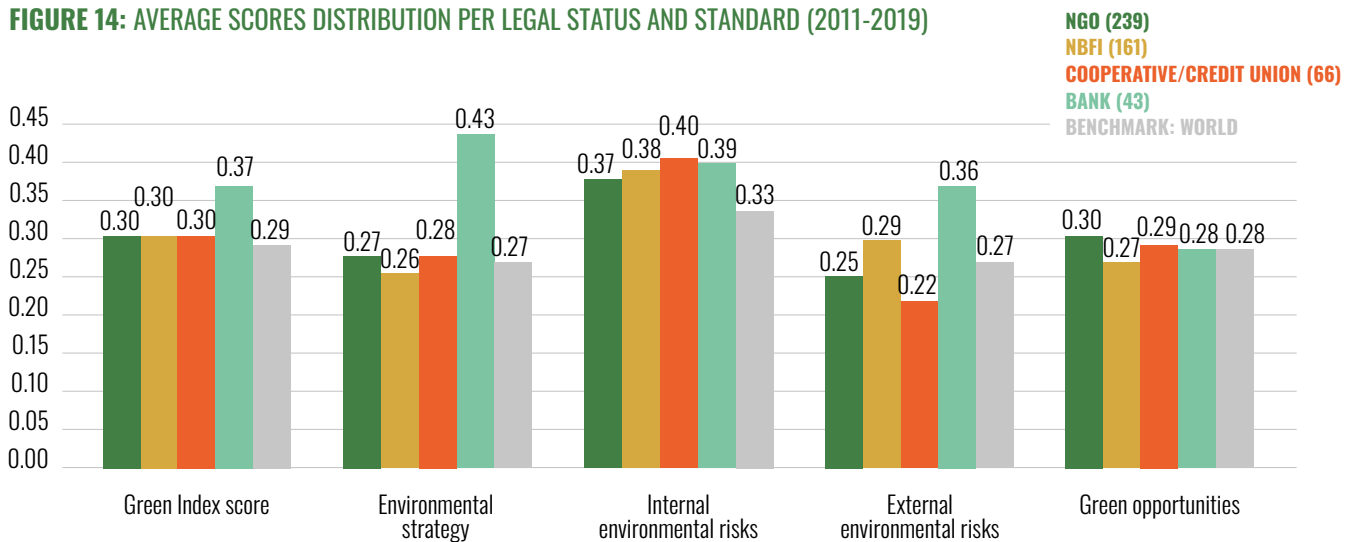
FIGURE 13: AVERAGE SCORES OF THE DIFFERENT STANDARDS PER REGION (2011-2019)



The breakdown per type of institution shows that, over the period 2011-2019, banks have the highest overall average Green Index 2.0 score. The standards “Environmental Strategy” and “External Environmental Risks” are, for these institutions,

those with higher performance. Cooperatives have the highest average score for the standard “Internal Environmental Risks”, while NGOs achieved the highest average score for the standard “Fostering Green Opportunities”.

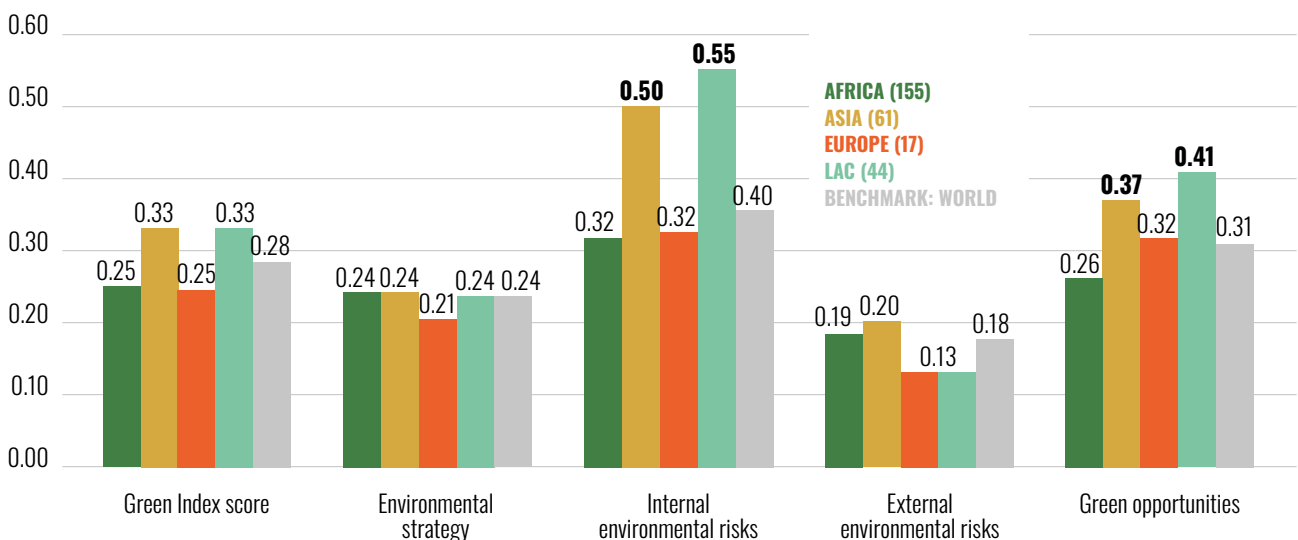
FIGURE 14: AVERAGE SCORES DISTRIBUTION PER LEGAL STATUS AND STANDARD (2011-2019)



In the most recent period (2017-2019), the score of the standard “External Environmental Risk” and the standard “Environmental Strategy” decreased. In the same period, the standards assessing the management of “Internal Environmental Risk” and “Green Opportunities” increased.

Assessments from FSPs in Asia and LAC have the overall best environmental performance (33%), while European and African institutions have the lowest overall environmental performance. FSPs in LAC have the best performance for the score “Green Opportunities” and “Internal Environmental Risks”, followed by FSPs in Asia, which have the best performance for the standard “External Environmental Risks”.

FIGURE 15: AVERAGE SCORES PER REGION (GREEN INDEX 2.0 AND STANDARDS) IN THE PERIOD 2017-2019



Looking at the average scores for the four standards of the Green Index 2.0 during the three time intervals (2011-2013, 2014-2016, and 2017-2019), the better performance scores were achieved for the standards “Internal Environmen-

tal Risks” and “Green Opportunities” in the period 2017-2019. Conversely, the scores for standards “Environmental Strategy” and “External Environmental Risks” decreased in the last period.

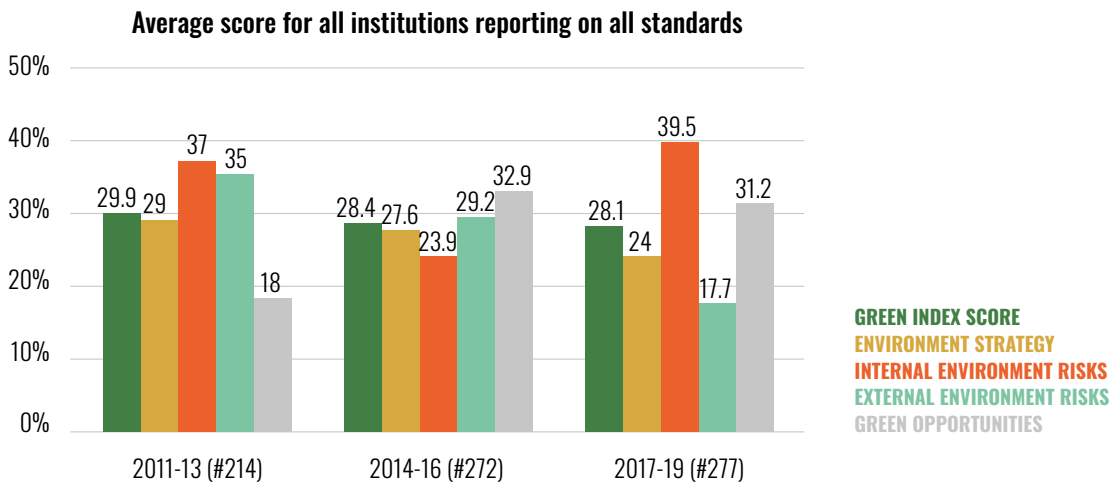
FIGURE 16: EVOLUTION OF AVERAGE SCORES FOR THE 4 GI 2.0 STANDARDS 2011-2013, 2014-2016, AND 2017-2019



While the overall score for the Green Index 2.0 remained almost constant, the scores for the standards “Environmental Strategy” and “External Environmental Risks” decreased in both periods. In turn, the average score for the standard “Internal Environmental Risk” decreased between 2011-

2013 and 2014-2016 but returned to the highest value in the last period. The standard “Green Opportunities” increased strongly between 2011-2013 and 2014-2016 (18.5% to 32.9%), then remained almost constant in 2017-19.

FIGURE 17: EVOLUTION OF AVERAGE SCORES FOR THE FOUR STANDARDS IN THE THREE PERIODS



3.3 GREEN OPPORTUNITIES

This section focuses on the standard “Green Opportunities”, which is composed of 5 indicators:

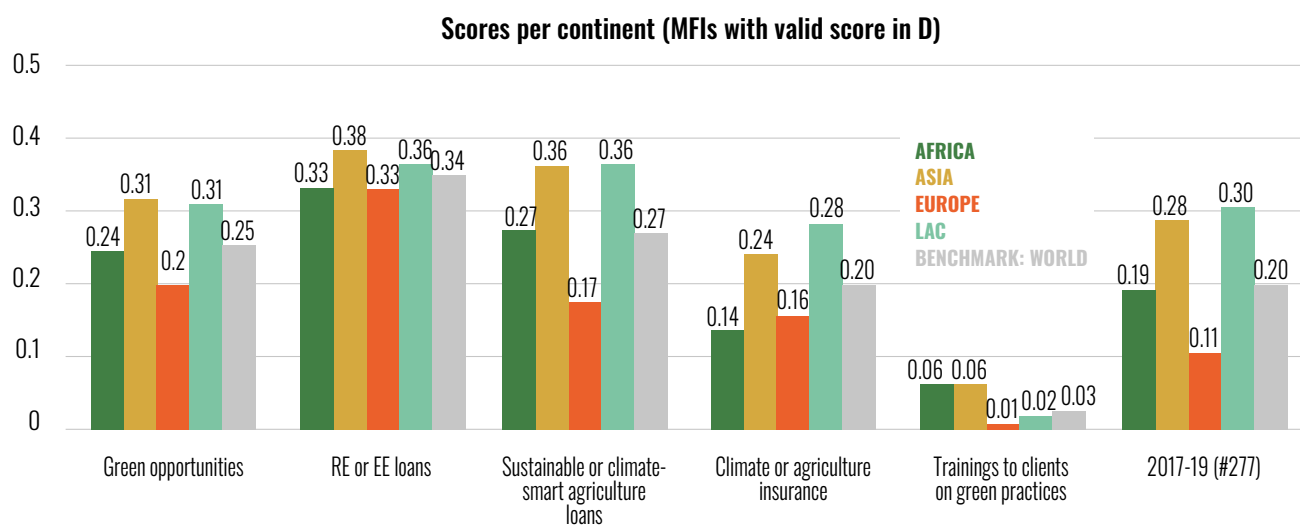
- Renewable Energy (RE) or Energy Efficiency (EE) Loans
- Sustainable or Climate-Smart Agriculture Loans
- Other Green Loans (e.g., recycling, waste management and WASH)
- Climate or Agriculture Insurance
- Training to Clients on Green Practices

At the world level, for the period 2011-2019, the indicator “Renewable Energy or Energy Efficiency Loans” has the highest average score (33%),

showing a focus of the sector on this type of green product. Green Products for “Sustainable or Climate-Smart Agriculture” has an average score: 27%, while “Climate or Agriculture Insurance” proves to be a very rare product with a very low average score (3%).

At regional level, for the period 2011-2019, Asian institutions have the highest score for “Renewable Energy or Energy Efficiency Loans” (38%) followed by FSPs from LAC (36%). Moreover, institutions from LAC and Asia have similar scores for “Climate-Smart Agriculture Loans” (36%). The LAC region exhibits the highest score for the “Other Green Loans” (28%), and for the provision of “Training to Clients on Green Practices” (30%) followed by Asia (24% and 28%, respectively).

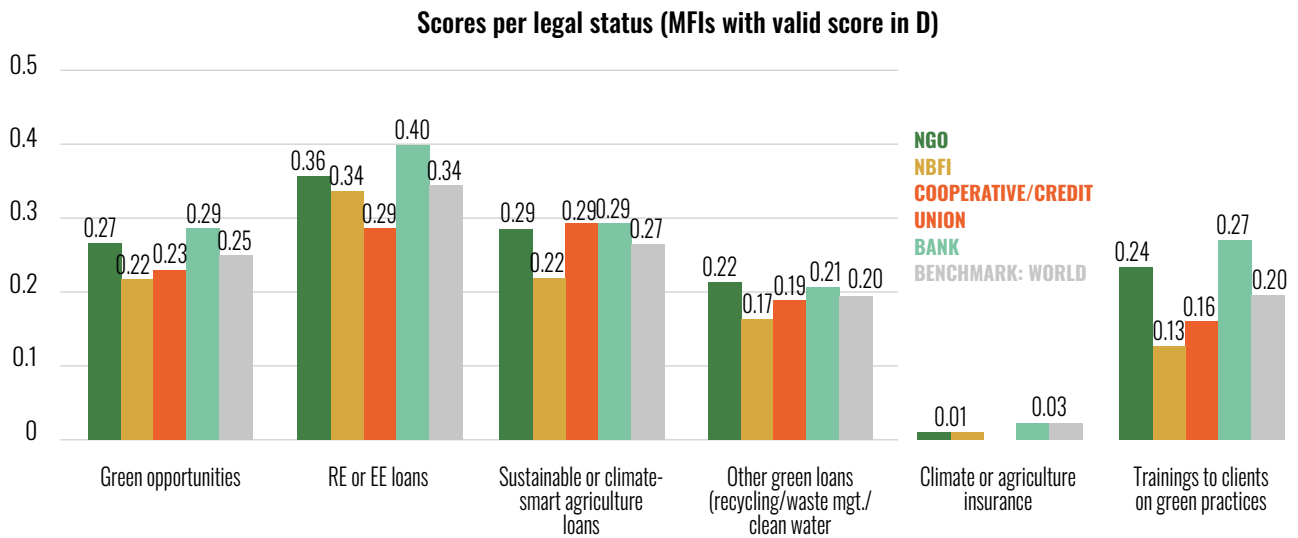
FIGURE 18: SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE SUB-INDICATORS PER REGION (2011-2019)



In the same period (2011-2019), banks have the highest score for the indicator “Renewable Energy or Energy Efficient Loans” (40%) and “Training to Clients on Green Practices” (27%). The results for “Climate-Smart Agriculture Loans” are similar across the different types of institutions, with

slightly higher scores for banks, NGOs and cooperatives (29%) compared to NBFIs (22%). NGOs and banks have the highest scores for the indicator “Other Green Loans” (22% and 21%, respectively).

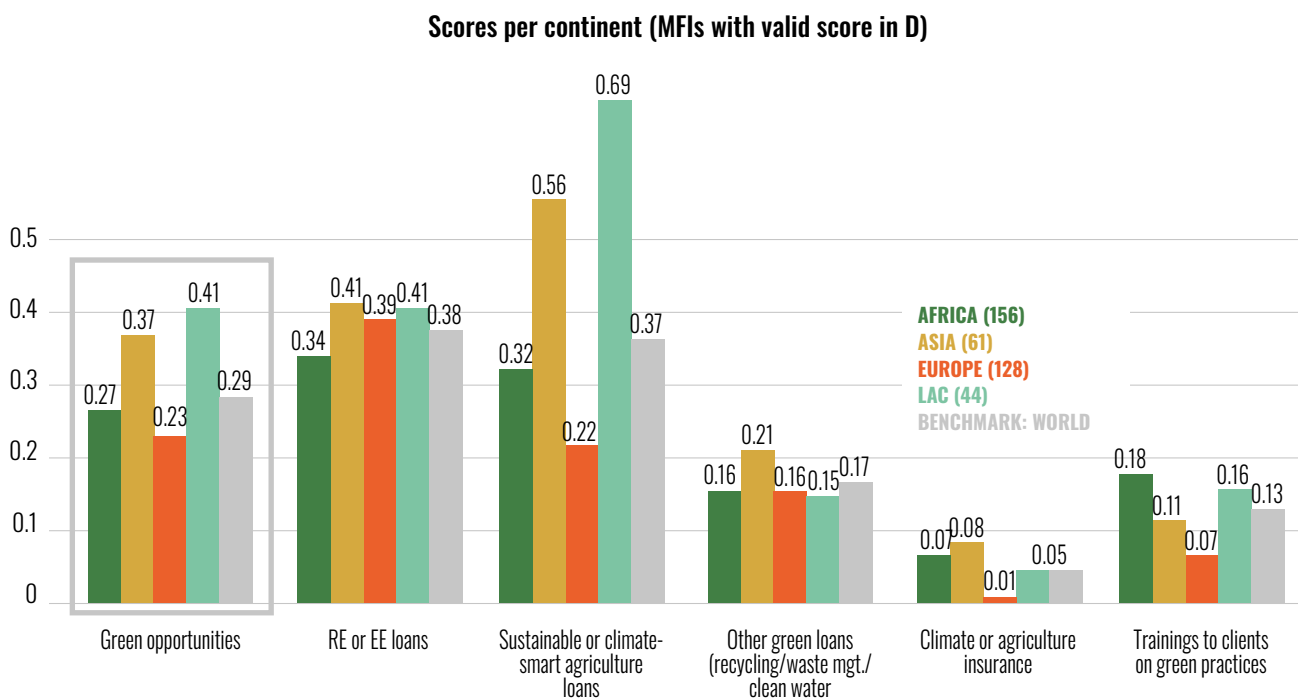
FIGURE 19: SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE INDICATORS PER LEGAL STATUS (2011-2019)



Focusing on the distribution of the scores per region, and in the most recent period (2017-2019), the overall score for “Green Opportunities” increased, mainly driven by loans for renewable energy and energy efficiency and loans for sustainable and climate-smart agriculture. The score for the “Training to Clients on Green Practices” indicator decreased. “Renewable Energy and En-

ergy Efficiency Loans” increased in importance in all regions and remained the most relevant green product provided by FSPs. Lastly, the scores for institutions in the LAC region exhibit the most significant increase in the offer of green products, driven by “Sustainable and Climate-Smart Agriculture Loans”.

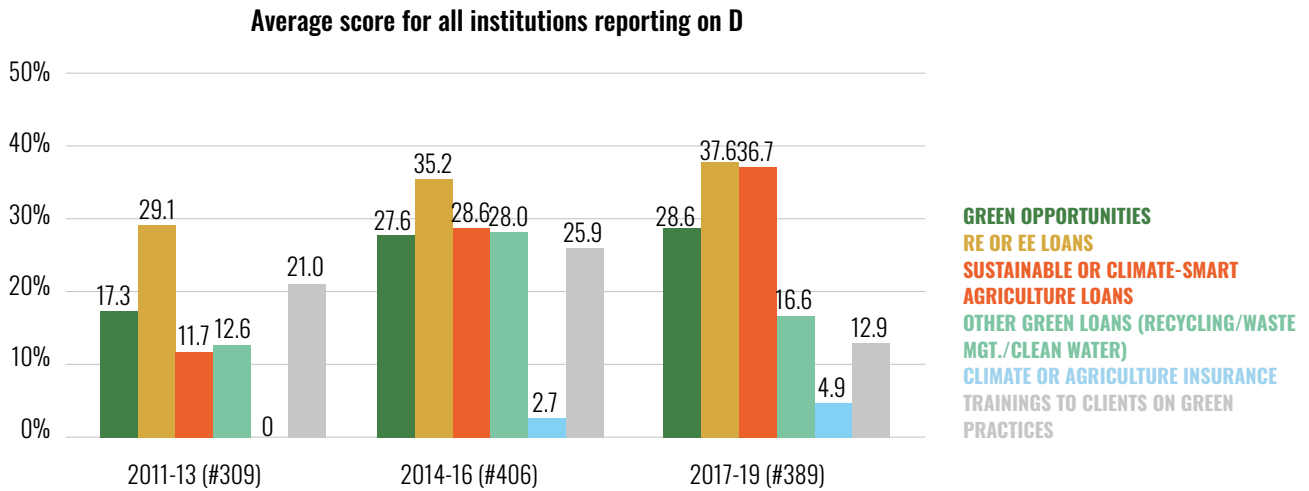
FIGURE 20: SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE INDICATORS PER REGION (2017-2019)



The scores evolution over the three time periods assessed (2011-2013, 2014-2016, 2017-2019) shows that the indicators related to “Sustainable or Climate-Smart Agriculture Loans” have the most significant increase among all green prod-

ucts indicators, followed by the increase of “Renewable Energy or Energy Efficiency Loans”. This aspect highlights the relevance of these dimensions in the green inclusive finance sector.

FIGURE 21: EVOLUTION OF THE TOTAL SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE INDICATORS IN THE THREE PERIODS



Figures 22 and 23 provide a more detailed view of LAC and Europe, respectively, as examples of evolution at the regional level. While “Sustainable or Climate-Smart Agriculture Loans” registers the

highest increase in the LAC region, green loans for “Renewable Energy or Energy Efficiency” are the product with the highest increase in Europe.

FIGURE 22: EVOLUTION (LAC INSTITUTIONS) OF THE SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE SUB-INDICATORS IN THE THREE PERIODS

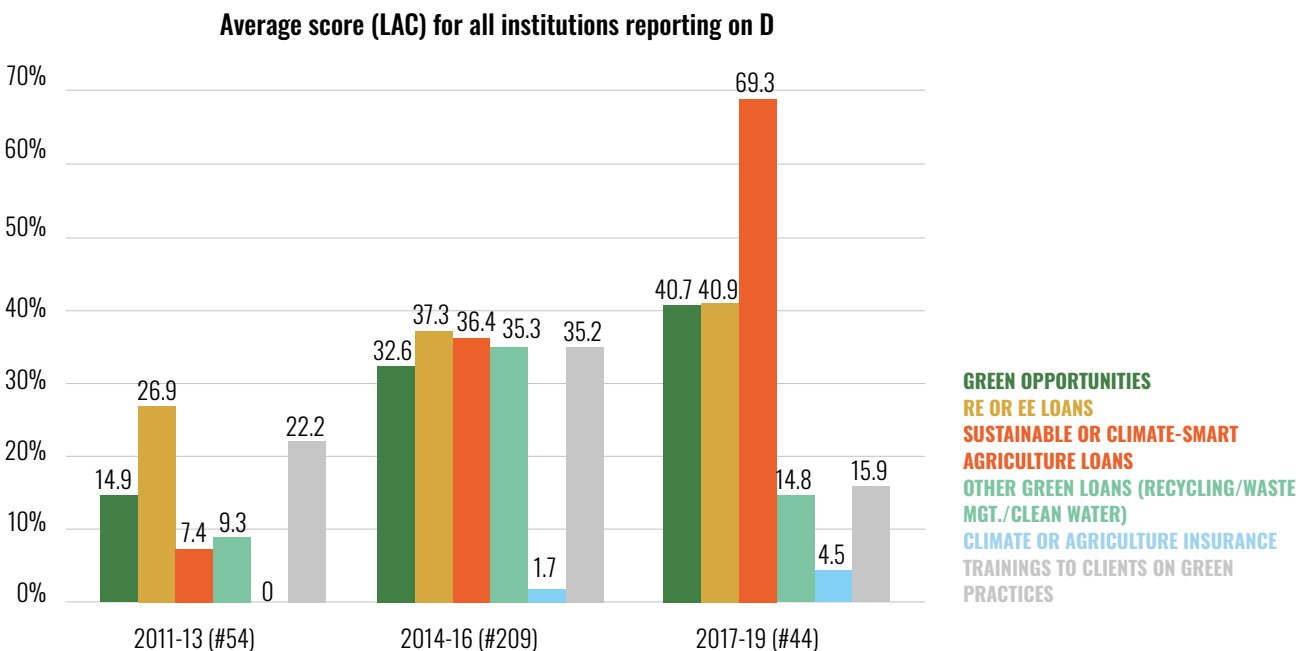
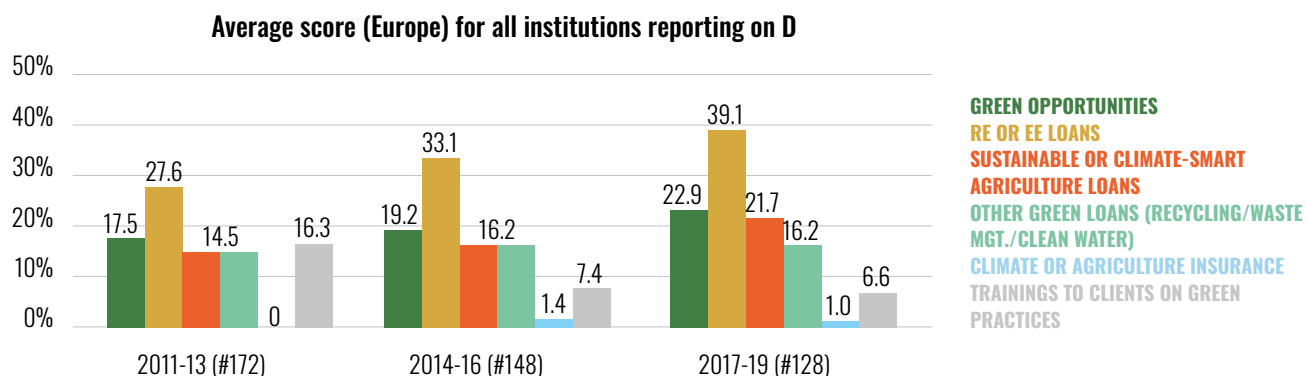


FIGURE 23: EVOLUTION (EUROPEAN INSTITUTIONS) OF THE SCORES FOR THE STANDARD GREEN OPPORTUNITIES AND ITS FIVE SUB-INDICATORS IN THE THREE PERIODS.



3.4 CORRELATIONS OF INDICATORS

It is interesting to highlight the positive correlations between FSPs' scores of the different Green Index 2.0 indicators (Figure 24). These correlations illustrate that synergies exist between the implementation of various practices for green inclusive finance. The following positive correlations are particularly notable:

- "Formalisation of environmental protection in the mission or values" and "existence of person or a committee appointed to manage environmental issues".
- "Reporting on environmental performance and practices through internal reports" and "[...] through public reports".
- "The institution implements two or more actions to use renewable energy sources, recycle waste produced, and/or reduce energy usage, water usage, paper usage, fuel consumption, waste production and/or greenhouse gas emissions at headquarters and branches" and "the institution tracks the achievement of two or more quantitative targets set for energy usage, water usage, paper usage, fuel consumption, waste production, and/or greenhouse gas emissions at headquarters and branches."
- "The institution trains loan officers on how to evaluate the environmental risks of its clients' activities" and "the institution categorises loan applications according to the level of environmental risk and applies specific procedures according to each risk category".
- "The institution offers specific loan products dedicated to renewable energy (RE) and/or energy efficiency (EE)" and "the institution offers specific loan products dedicated to promoting other environmentally friendly practices and activities (e.g.: recycling, waste management, clean water, etc.)".
- "The institution offers specific loan products or other financial products dedicated to promoting sustainable or climate-smart agriculture" and "the institution offers specific loan products dedicated to promoting other environmentally friendly practices and activities (e.g.: recycling, waste management, clean water, etc.)"
- "The institution offers specific loan products dedicated to promoting other environmentally friendly practices and activities (e.g.: recycling, waste management, clean water, etc.)" and "the institution offers training to its clients, directly or in partnership with environmental organizations, on environmentally friendly practices or businesses".

FIGURE 24: CORRELATION OF SCORES FOR THE INDICATORS OF THE GREEN INDEX 2.0 AT WORLD LEVEL (2011-2019)

Correlation between standards (as categorical variables)																
A11	1	0.45	0.62	0.36	0.38	0.078	0.18	0.15	0.19	0.2	0.19	0.14	0.27	0.19	0.22	0.14
A12	0.45	1	0.24	0.56	0.56	0.24	0.23	0.27	0.27	0.4	0.17	0.18	0.34	0.19	0.12	0.19
A21	0.62	0.24	1	0.25	0.29	0.11	0.18	0.28	0.45	0.46	0.21	0.044	0.19	0.17	0.2	0.13
A221	0.36	0.56	0.25	1	0.65	0.25	0.24	0.15	0.32	0.4	0.23	0.15	0.43	0.34	0.21	0.27
A222	0.38	0.56	0.29	0.65	1	0.34	0.31	0.16	0.23	0.39	0.21	0.16	0.41	0.29	0.19	0.23
B11	0.078	0.24	0.11	0.25	0.34	1	0.67	0.13	0.35	0.31	0.12	0.14	0.17	0.11	0.11	0.098
B21	0.18	0.23	0.18	0.24	0.31	0.67	1	0.095	0.32	0.25	0.27	0.1	0.16	0.11	0.093	0.13
C11	0.15	0.27	0.28	0.15	0.16	0.13	0.095	1	0.39	0.39	0.17	0.1	0.1	0.19	0.089	0.17
C12	0.19	0.27	0.45	0.32	0.23	0.35	0.32	0.39	1	0.64	0.37	0.14	0.29	0.4	0.37	0.34
C21	0.2	0.4	0.46	0.4	0.39	0.31	0.25	0.39	0.64	1	0.29	0.11	0.28	0.32	0.27	0.33
C31	0.19	0.17	0.21	0.23	0.21	0.12	0.27	0.17	0.37	0.29	1	0.18	0.17	0.2	0.17	0.34
D11	0.14	0.18	0.044	0.15	0.16	0.14	0.1	0.1	0.14	0.11	0.18	1	0.4	0.64	0.092	0.23
D21	0.27	0.34	0.19	0.43	0.41	0.17	0.16	0.1	0.29	0.28	0.17	0.4	1	0.63	0.46	0.26
D31	0.19	0.19	0.17	0.34	0.29	0.11	0.11	0.19	0.4	0.32	0.2	0.64	0.63	1	0.35	0.59
D32	0.22	0.12	0.2	0.21	0.19	0.11	0.093	0.089	0.37	0.27	0.17	0.092	0.16	0.35	1	0.34
D33	0.14	0.19	0.13	0.27	0.23	0.098	0.13	0.17	0.34	0.33	0.34	0.23	0.26	0.59	0.34	1
	A11	A12	A21	A221	A222	B11	B21	C11	C12	C21	C31	D11	D21	D31	D32	D33

0.0-0.14 / 0.15-0.29 / 0.30-0.44 / 0.45-59 / 0.60-0.74 / 0.75-0.99 / 1

Note: See Annex 1 for details and descriptions of the Green Index 2.0 indicators

3.5 INSTITUTIONS WITH MULTIPLE ASSESSMENTS

In this section, the analysis focuses on the details of the FSPs with multiple environmental assessments. The results show mixed trends. Table 4 summarises these results for the overall Green Index 2.0, and the 4 standards, considering, for each standard, the number of institutions with multiple valid assessments. Namely, 50 FSPs out of 122 (41%) improved their Green Index 2.0 score between two consecutive assessments,

while 59 institutions (48%) exhibited a lower score. Similar behaviours can be observed for the standards “Environmental Strategy”, “Internal Risks”, and “External Environmental Risks”, with similar percentages of institutions which improved or decreased their score. In the case of “Green Opportunities”, where a higher number of repeated FSPs assessments was available in the database (206 FSPs), we observed overall better performances (42% with increased score, 29% with no changes, 29% with lower score).

TABLE 4: ANALYSIS OF THE EVOLUTION OF SCORES (GREEN INDEX 2.0 AND THE FOUR STANDARDS), CONSIDERING INSTITUTIONS WITH MULTIPLE ENVIRONMENTAL ASSESSMENTS

Indicator	Number of FSPs with evolution of score from 1st to 2nd environmental assessment		
	Increased score	Same score	Decreased score
Overall Green Index 2.0	50	3	59
Environmental Strategy	51	10	55
Internal Risk Management	41	21	55
External Risk Management	41	19	57
Green Opportunities	86	60	60

A more detailed visualisation of the trends in the standard “Green Opportunities” is provided in Figure 25 below. The score improvements are mostly for institutions whose first assessment was conducted between 2011 and 2013 (for those, the second assessment is in most cases better). At the same time, the analysis shows that the most significant score decreases were observed in assessments conducted in 2015 and 2017, when the score of a second assessment was often zero. Further research is required to better identify the reasons for this behaviour.

Figure 26 on page 26 shows the same analysis but restricted to the institutions in the LAC region. In this case, the positive trend is visible across the entire time span, with only a few institutions showing a strong decrease in score between subsequent assessments.

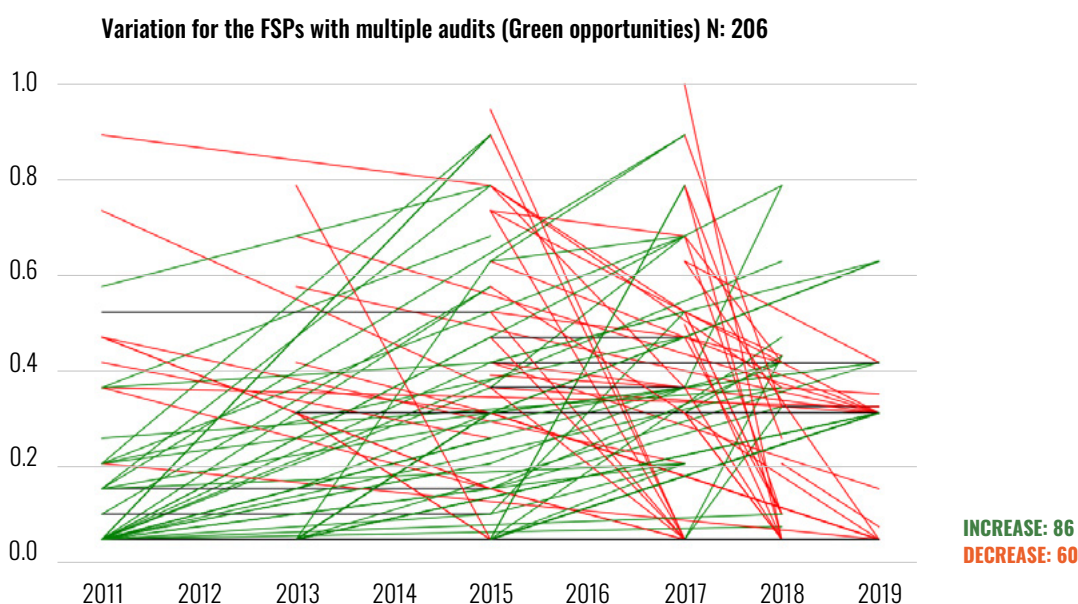
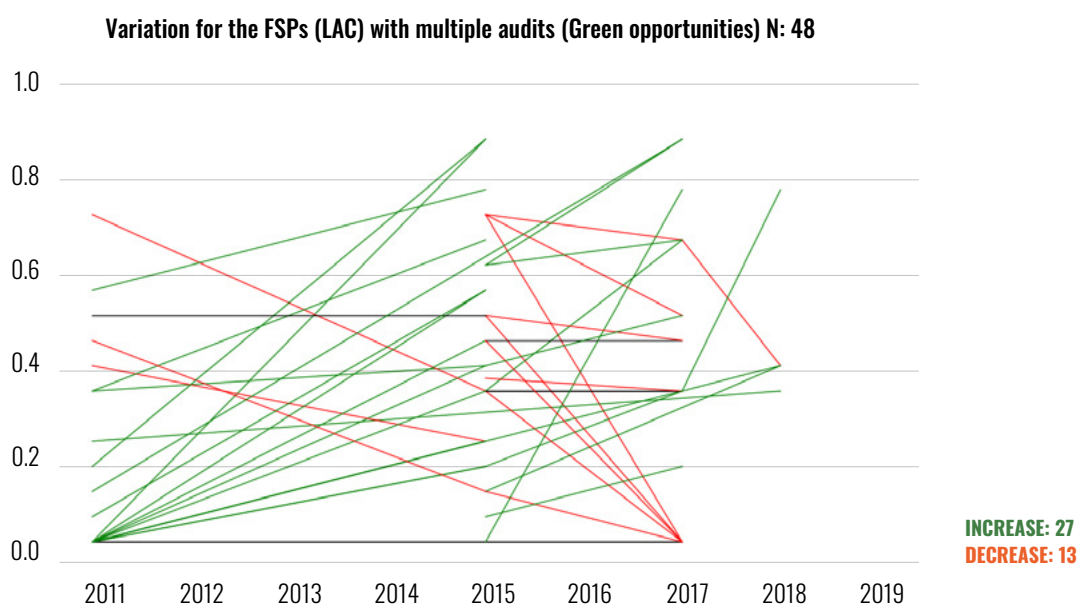
FIGURE 25 : VISUALISATION OF EVOLUTION OF SCORE FOR THE STANDARD GREEN OPPORTUNITIES FOR FSPS WORLDWIDE WITH MULTIPLE ENVIRONMENTAL ASSESSMENTS.

FIGURE 26: VISUALISATION OF EVOLUTION OF SCORE FOR THE STANDARD GREEN OPPORTUNITIES FOR FSPs IN LAC WITH MULTIPLE ENVIRONMENTAL ASSESSMENTS

3.6 A VIEW ON QUANTITATIVE DATA

Among the FSPs that provided information about their environmental performance in 2011-2019 and reported offering green loans or climate microinsurance products to their clients, 215 provided additional information about the level of outreach of their products and quantitative information along the Green Index 2.0 outcome indicators.

The analysis presented in this section is not meant to be representative, in terms of averages of cumulated outreach, but rather to shed some light, for the first time, on a set of outcome indicators for green inclusive finance.

These outcome indicators comprise¹¹:

Green loans for clean energy (energy efficiency and renewable energy)

- Total number of clean energy loans: 163,790
- Total volume of clean energy loans: USD 65.98 million.
- Average loan amount for a clean energy loan: USD 462.07.

Green loans for sustainable or climate-smart agriculture

- Total number of sustainable or climate-smart agriculture loans: 3,668,293.
- Total volume of sustainable or climate-smart agriculture loans: USD 3,571.25 million.
- Average loan amount for a sustainable or climate smart agriculture loan: USD 943.82.

¹¹ The information provided here is, in most cases, based on self-declarations by the FSPs that have not been verified. The actual financing, as well as the quality and compliance of the green practices and technologies financed have not been verified. The actual impact (e.g., ecosystems conservation, decrease of climate vulnerability, revenues generation, etc.) has not been assessed. The quantitative information provided is obtained by considering only institutions that have declared to have green loans (or agriculture/climate microinsurance), in particular, the averages presented are computed considering only the FSPs with green loans, and not the full working database. Outliers, i.e., institutions with green portfolio that differs significantly from other observations, have been removed from the computations.

Climate or Agriculture Microinsurance

- Total number of borrowers with an active climate or agriculture micro-insurance: 54,394.

Even if the green loans had still a limited outreach in the period 2011-2019, the data on loans disbursement (several hundreds of thousands of green loans and hundreds of USD millions, with average loans of USD 1,000) show that green inclusive finance practices are consolidating. The sector is committed to capitalise the experience

and upscale the outreach. Therefore, it is important to improve the monitoring and reporting on FSPs' environmental performance and the overall verification and information systems they use to control for quality and impact of green loans and foster the scale up of their outreach.

It is worth observing that, among the green products, climate and agriculture microinsurance have still limited outreach, according to the data available in the working dataset.

3.7 COMPARISON WITH SPI4 AND MFR DATABASES

This section compares the working database with two additional sources:

Environmental assessment from CERISE-SPI4 database

- Type of data: audited environmental assessments with Green Index 1.0 and Green Index 2.0 (no quantitative data).
- Time frame: 2014-2020.
- 98 assessments (29 with Green Index 1.0 and 69 with Green Index 2.0).

Social ratings from MicroFinanza Rating (MFR) database

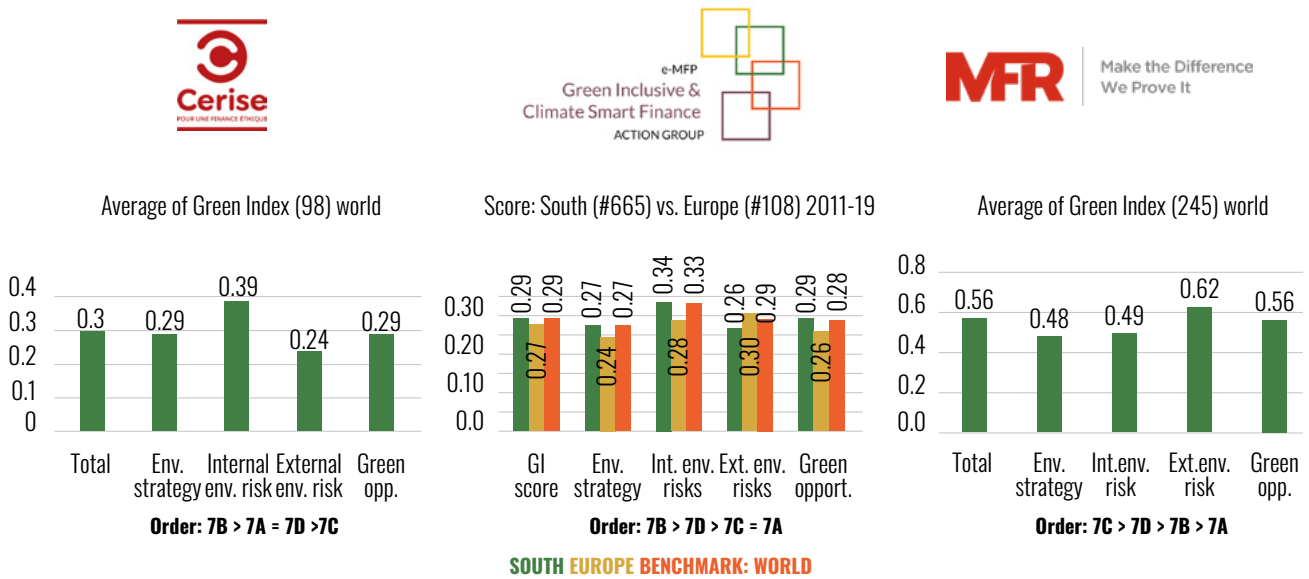
- Type of data: social rating with environmental part aligned – a posteriori – with the framework of Green Index. Not all indicators of Green Index 2.0 are assessed.
- Time frame: 2007-2020.
- Total environmental assessments: 245.

Due to data privacy constraints, it was not possible to fully aggregate these datasets within the main database.

The GICSF-AG collaborated with CERISE and MFR, which generated independently a similar analysis regarding their databases to the one presented in this work, along the framework of the Green Index 2.0. The main conclusions of these analyses, which are based on a reduced database and a different data collection methodology, are aligned with the conclusions presented in this paper. The analysis conducted by the GICSF-AG extends the analysis, with a five to ten times larger database, solving statistical issues associated with small samples, which facilitates following the evolution of the environmental performance of FSPs over 10 years for all indicators of the Green Index 2.0, and for all regions.

The comparison of these analyses is presented below. It is important to observe that a rigorous comparison is possible only for limited statistical results (due to the above-mentioned data limitations of the two comparative samples)

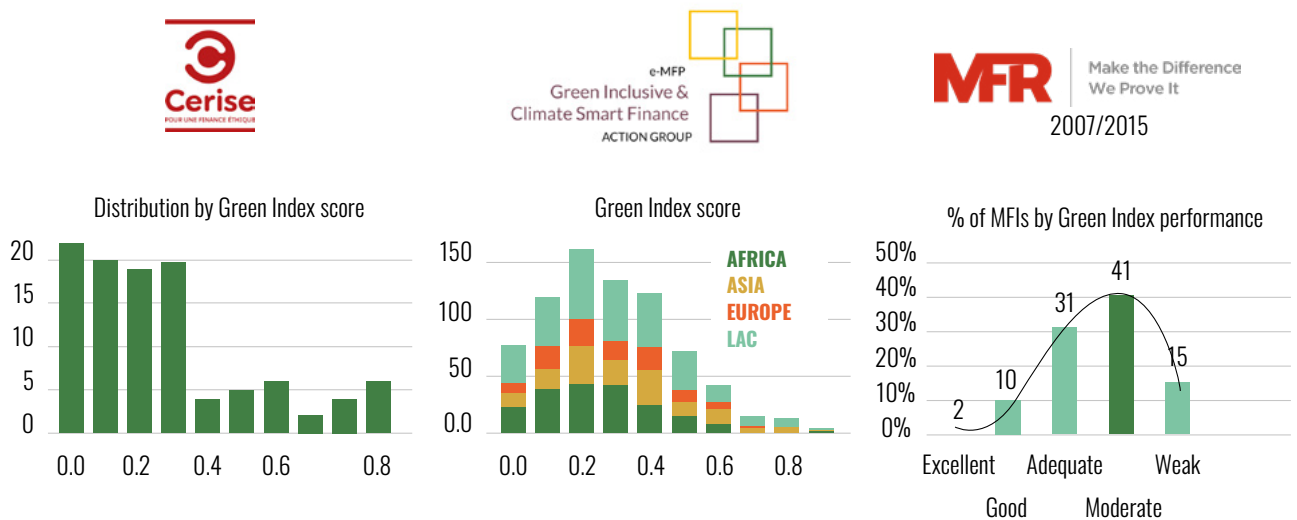
FIGURE 27: COMPARISON OF AVERAGE SCORES FOR THE GREEN INDEX 2.0 AND THE FOUR STANDARDS.



Comparing the working database with the CE-RISE-SPI4 database, the average scores are aligned, while there are some differences regarding the MFR database. These can be explained by the differences in the samples, since MFR's data-

base includes more 'expert' FSPs that are more advanced in risk management. Moreover, since the normalisation process used in the three databases is different, a one-to-one comparison of average values is not possible.

FIGURE 28: COMPARISON OF THE SCORE DISTRIBUTION FOR THE OVERALL GREEN INDEX 2.0.



The distribution of the overall score of the Green Index 2.0 shows good alignment of scores with the MFR database, whilst some differences are observed with the CERISE-SPI4 database. These discrepancies might be due to the limited small sample size of the CERISE-SPI4 database.

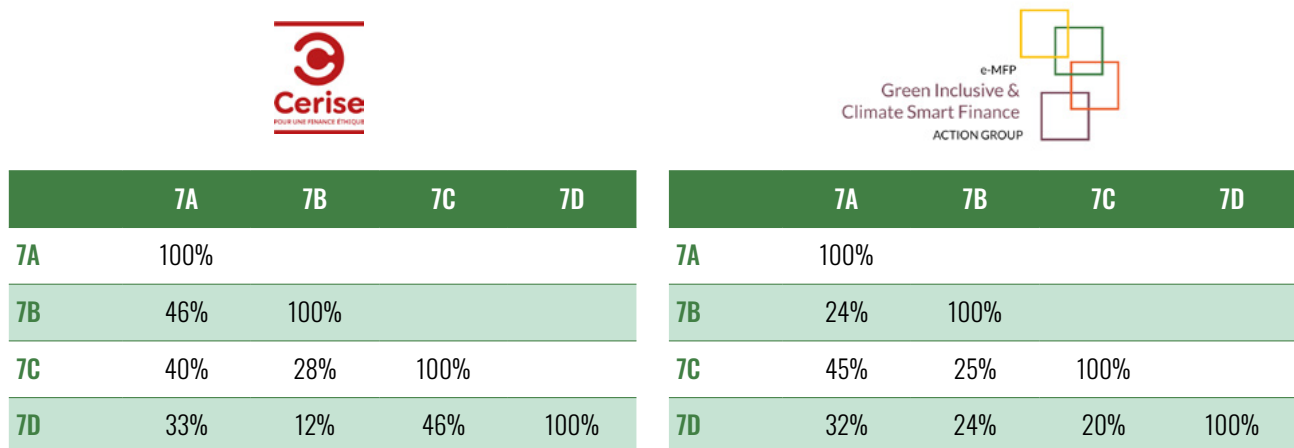
Figure 29 shows good alignment of scores for all types of institutions except NBFIs, which have a higher average score in the working database compared with the CERISE-SPI4 database.

FIGURE 29: COMPARISON OF THE SCORE DISTRIBUTION FOR THE OVERALL GREEN INDEX 2.0 PER LEGAL STATUS



Note: Data not available from MFR database

FIGURE 30: COMPARISON OF THE SCORES CORRELATION AMONG THE 4 STANDARDS OF THE GREEN INDEX 2.0



Note: Data not available from MFR database

The comparison of the indicator correlation matrices for the two databases confirms the correlation observed for the standard 7A and 7C, i.e., “Environmental Strategy” and “External Environmental Risks”.

4. CONCLUSION

Using the Green Index as standard language, it was possible to aggregate and compare environmental performance assessment data collected from different parties (13 different databases) under a common umbrella useful for studying the trends and the evolution of the green inclusive finance sector performance in a systematic way and laying the basis for ongoing monitoring of the sector.

HIGHLIGHTS OF THE ANALYSIS

1. The evolution of the environmental performance of FSPs has been affected by mixed trends, with their overall environmental performance remaining almost constant at the world level from 2011 to 2019. This finding could be interpreted as resulting from a focus of the sector on pilots, projects, and green products rather than on a systemic change and the institutionalisation of green practices.

- The environmental performance of FSPs concerning environmental strategy and capacity to manage environmental risks of the clients has decreased from 2011 to 2019.
- While the environmental performance of FSPs concerning the management of their ecological footprint and the provision of green financial products has improved from 2011 to 2019.

2. The offer of green loans has increased from 2011-2019 in all regions assessed: Africa, Asia, LAC, and Europe, and for all legal status assessed: Banks, NBFIs, NGOs, Cooperatives.

- At world level: renewable energy and energy efficient loans were largely the main green product in 2011-2013; both renewable energy and energy efficient loans, and loans for nature-based solutions (NbS), i.e., sustaina-

ble agriculture/livestock fisheries/forestry, constantly grew from 2011 to 2019 with the steepest growth for the second one, resulting on a comparable importance for both products for the period 2017-2019.

- At regional level: in Europe, the offer has focused on the provision of renewable energy and in particular energy efficient loans; in Asia, Africa, and LAC, the provision of loans for nature-based solutions (NbS) has driven the growth of green loans, becoming the main offer in LAC and Asia, while in Africa loans for renewable and energy efficiency still remain the most common offer of green loans.

3. Environmental training for clients has decreased in importance for all types of institutions and all world regions, except for Africa, where it has remained stable. Further investigation on this result is needed. Indeed, training and capacity building for clients, as well as the FSPs staff, is crucial to ensure a sound and impactful delivery of green loans and the implementation of green practices and technologies. A renewed focus on non-financial green services would be needed to ensure the scaling up and impact of green inclusive finance.

Although based on a large database, these conclusions should be taken carefully, as they could be biased by the selection of institutions in the available databases, which were not selected randomly as representative of a country or a region. Nevertheless, the work presented in this paper provides the opportunity to start a rigorous investigation of progresses and challenges for the green inclusive finance sector. The present database will be constantly expanded with the data collected with the new version of the Green Index, (Green Index 3.0).

ANNEX 1

GREEN INDEX 2.0 INDICATORS

Dimension	7	GREEN MICROFINANCE	Answer (YES/NO/ PARTIALLY)
Standard	7 A.a	The institution defines, manages and monitors its environmental strategy.	
Essential Practice	7 A 1	The institution defines its environmental strategy.	
Indicator	7 A 1 1	The institution formalizes environmental protection in the mission or values.	
Indicator	7 A 1 2	The institution has a formal environmental policy which specifies its environmental goals, targets, and indicators.	
Essential Practice	7 A 2	The institution manages and monitors its environmental strategy.	
Indicator	7 A 2 1	The institution has a person or a committee appointed to manage environmental issues.	
Indicator	7 A 2 2	The institution reports on its environmental performance and practices through.	
Detail	7 A 2 2 1	Internal reports (to the Board, to investors)	
Detail	7 A 2 2 2	Public reports (annual reports)	
Standard	7 B	The institution manages its internal environmental risks.	
Essential Practice	7 B 1	The institution implements actions to reduce its internal ecological footprint.	
Indicator	7 B 1 1	The institution implements two or more actions to use renewable energy sources, recycle waste produced, and/or reduce energy usage, water usage, paper usage, fuel consumption, waste production and/or greenhouse gas emissions at headquarters and branches.	
Essential Practice	7 B 2	The institution monitors its internal ecological footprint.	
Indicator	7 B 2 1	The institution tracks the achievement of two or more quantitative targets set for energy usage, water usage, paper usage, fuel consumption, waste production, and/or greenhouse gas emissions at headquarters and branches.	
Standard	7 C	The institution manages its external environmental risks.	
Essential Practice	7 C 1	The institution evaluates the level of environmental risk of its clients.	
Indicator	7 C 1 1	The institution uses specific tools to evaluate the environmental risks of clients' activities.	
Indicator	7 C 1 2	The institution trains loan officers on how to evaluate the environmental risks of its clients' activities.	
Essential Practice	7 C 2	The institution includes the level of environmental risk as a factor in the loan approval process.	
Indicator	7 C 2 1	The institution categorizes loan applications according to the level of environmental risk and applies specific procedures according to each risk category.	
Essential Practice	7 C 3	The institution raises clients' awareness on environmental risks linked to clients' activities and possible mitigation strategies.	
Indicator	7 C 3 1	The institution conducts activities to raise clients' awareness on environmental risks linked to clients' activities and on possible mitigation strategies.	

Standard	7 D	The institution fosters green opportunities.
Essential Practice	7 D 1	The institution offers specific financial products for clean energy.
Indicator	7 D 11	The institution offers specific loan products dedicated to renewable energy (RE) and/or energy efficiency (EE).
Essential Practice	7 D 2	The institution offers specific financial products for sustainable or climate-smart agriculture.
Indicator	7 D 21	The institution offers specific loan products or other financial products dedicated to promoting sustainable or climate-smart agriculture.
Essential Practice	7 D 3	The institution offers other green financial or non-financial products or services.
Indicator	7 D 31	The institution offers specific loan products dedicated to promoting other environmentally-friendly practices and activities (e.g.: recycling, waste management, clean water, etc.)
Indicator	7 D 32	The institution provides, directly or via a third-party insurer, agricultural or climatic micro-insurance products that contribute to help clients become more resilient to environmental shocks or climate change.
Indicator	7 D 33	The institution offers trainings to its clients, directly or in partnership with environmental organizations, on environmentally-friendly practices or businesses.

See the complete Green Index 2.0 at https://www.e-mfp.eu/sites/default/files/resources/Green_Index_Nr_2_2016.pdf

ANNEX 2 FURTHER REFERENCES

EXAMPLES OF QUANTITATIVE STUDIES ON THE ENVIRONMENTAL PERFORMANCE OF FSFS

At World level

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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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