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Impact of COVID-19 crisis over Green Microfinance

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Executive summary

The worldwide economy has been strongly hit by the COVID-19 bio-sanitary crisis in 2020, having important repercussions on every stakeholders involved in microfinance. This dramatic economic situation has had two main consequences for the Microfinance institutions: firstly, on the short term, they were compelled to swiftly review and prioritize their on-going initiatives with the objective to prune their Business portfolio. Secondly, they have revisited their mid and long-term strategies in order to include sustainable recovery plans.

For the short term types of actions, MFIs had to cope with a survival situation that required them to focus on emergency financial and social actions such as rescheduling loans from their clients portfolios and creditors, while at the same time finding liquidity solutions to ensure emergency loans and manage potential massive deposit withdrawal.

During those first months of crisis, many discussions, analysis, papers and other researchs or surveys have been carried out over the COVID19 impact on financial and social strategies and more globally on the microfinance market. However, one conclusion stands out immediately from their review: the environmental crisis that the world is undergoing has barely been taken into account in these papers and analysis. In such a context of stressful situation, reflexes and priorities have a natural tendency to favor what is well known, and therefore to focus on the features of the basis of our “old” economy. Green Micorifinance is still a new field where knowledge and expertise are still being built and therefore, are not perceived as robust enough or riskier, and seems is only taken into account in a second time.

Therefore, the objective of this thesis, conducted between mid june and end of July 2020, was to assess the impact of COVID-19 crisis over green microfinance strategies and associated actions. We have collected materials including articles, public data from MIX Market and ATLAS Green Index data and data from two surveys over the impact of COVID19 on the sector. This study, based on literature search, observations and deductions, will address the global impact of the crisis on microfinance and the different available tools to assess green microfinance strategies.

The 4 pillars of MFIs Green microfinance strategies (Environmental policy, internal and external environmental impacts and developing green products) will face various impacts due to the COVID-19 crisis, depending upon the reasons why MFIs were involved in managing the environmental footprint of their activities in the first place, their size associated to their financial strength and the macro-economic situation in their region.

Short-term, budget for new green investments and products will be suspended until the economy comes back to a more stable financial situation, leading MFIs to focus on their “survival mode”. However, well monitoring and reducing internal and external footprint can have a positive impact on the financial side and can therefore be positively impacted by the situation, while the overall environmental policy would be adapted to integrate climatic challenges into recovery plans.

Nevertheless, the current low interest from the financial sector in green microfinance might either reflect the lack of trust in the true potential benefits of these green strategies or the perception that the risk is still too high or the implementation too complex versus the reward. To alleviate this perception, we make two main recommendations to overall strengthen the green strategies:

- A genuine necessity of increasing the use of quantitative data to demonstrate not only the financial benefit but also the social and environmental merits of a green Business initiative, e.g.CO2 capture, effective use of water, high value job creation, effective use of energy, etc...
- Seek the support of specific governmental and international organizations whose purpose is to support efforts in areas addressing global concerns like the environmental challenge.

Companies adopting and pioneering green Business practices, therefore contributing to the well-being and the protection of mankind, should be rewarded, while the laggards, having a negative impact on the Society, should be penalized.

These two recommendations should not only reinforce investors’ interest and confidence in green MFIs , but will avoid stop-and-go decisions based on the overall economy cycle as we have currently experienced.

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Introduction

From a global standpoint, the worldwide economy had been following a positive trend during the entire 2019 year. It is clear that even if some news coming from China about a potential new and unknown virus could be heard circa the end of the year, stakeholders' confidence in the future of nearly every sector did not decrease. One can even venture to say that expectations for 2020 were rather optimistic.

A few weeks later, on the 23rd of January, China imposed the very first quarantine lockdown for sanitary reasons in different cities of the Hubei region. Among them, Wuhan was singled out, with a population of 11 million citizens, and an important weight on the Chinese industries and national economy. Even if the World Health Organization (WHO) was communicating reassuring news about the fact that this new coronavirus's spread was totally under control and a local "Chinese issue", this should have been the very first crucial signal that this threat was real.

About 10 days later, the first cases were diagnosed in Italy, showing an alarming number of people infected who needed intensive healthcare, as well as a very rapid spread inside the population and the country. This second sign was taken much more seriously by the financial market even though the WHO's communication was still limited about the fact that this could lead to a worldwide pandemic.

Another few weeks later, while Italy was in total lockdown, every decision made by authorities in order to face the virus were taken very quickly. The first worldwide signal of an economical crash was given by the USA's decision to instantly close their borders to all European and Chinese travelers. After a lot of very mixed-up communication from the richest countries' leaders, on 11 March 2020, WHO declared this new coronavirus a pandemic.

Few days later, around the 16th of March, the European union (EU) announced that they would close their borders to all foreigners coming from outside Europe, but also, for the first time since the signature of the Schengen Agreement in 1985, every internal border would be closed.

Subsequently, most of the countries in the world started closing their borders one by one in order to remain isolated from the rest of the world in an effort to contain the spread of the virus. Within their borders, when cumulating every imposed lockdowns or partial lockdowns in the world, more than half of the global population was asked to stay home.

All those decisions lead to a global financial, economic, sanitary and social crisis, adding to the other crisis, the worldwide climatic one, that all current economies are facing.

This crisis is a global one, affecting every sector of the worldwide economy. If the European populations have not been and will not be severely affected in the near future thanks to a very widely spread and generous social welfare system, a great fraction of the rest of the world will directly face drastic economic consequences. On top of them, the effect on the foundations of our economy is and will be catastrophic. As the core value of the microfinance mission, i.e. providing financial services to poor and low-income people, dictates, microfinances institutions are focusing on the vulnerable part of the population in emerging countries, even if microfinance exists and is also implemented in Northern rich countries. The microfinance sector will therefore be frontally impacted on all layers of its stakeholders.

If a vaccine against this virus will surely resurrect the worldwide economy and restore investors' confidence in a thriving future, such an economic and social crisis will tend to help both the market and people forget about another global crisis that we have now been facing for a considerable amount of years.

Climate change and related short, mid and long-term disasters awaiting every economy will need more than a new medical breakthrough.

As leaders from major economies are announcing massive support plans in order to boost their ailing economies, many voices call for an integration of the environmental factor in these economy recovery measures.

Microfinance is no different and will also have to adapt its strategies in order to survive the crisis. And to recover properly from the crisis, what will be the role of green microfinance strategies in this recovery on a short and mid/long term? And

what are the direct effects of the current survival mindset of microfinance institutions on green microfinance strategies?

I will discuss this question, drawing from on a global literature review, qualitative database analysis, surveys and assumptions about the macro-economic impact of the Covid-19 crisis on microfinance institutions green strategies.

Global context of the research

This research has been conducted between mid-June and end of July 2020, with the kind support of the e-MFP Action Group Green Inclusive & Climate Smart Finance, but also ADA while internal and external European countries borders were cautiously reopening to their economic partners. Beginning of August 2020, a resurgence of the COVID-19 cases has urged European Countries to take new and additional restrictive measures, trying to protect their economies from fragile recovery.

If in Europe and China, from mid-June, the sanitary situation showed very good signs of stabilization, and that the fear of a second wave is progressively receding, bad news regarding the economy are expected to break out during the 3rd quarter of the year, with economic indicators bound to worsen (bankruptcies, high unemployment rates...).

The virus spread is however still very active in developing countries, in America, Africa or Asia and is resurging in Europe at the end of July, resulting in new fears and uncertainty for the coming months.

One of the reasons is that most of their economies are based on informal businesses, and a partial or total lockdown of the population is very difficult to impose as it will immediately affect household's financial resources, which could lead to very severe consequences such as starvation or violent and desperate reactions leading to riots. All Americas (South, Central and North) – except for Canada – are impacted, with alarming news in some economic strongholds of South America, such as Brazil.

The results of this research are therefore applicable for the period studied, as the evolution of the COVID-19 crisis situation is still very uncertain and continues to evolve at the time being with different scenarii playing out for the second part of the year 2020.

Literature review

Impact of COVID-19 on Microfinance

Macro-economic view of Covid-19 impact

The microfinance sector has usually reacted and performed well enough while facing the previous international (2008) or local financial crises (Littlefield & Kneiding, February 2009).

This was usually explained by the high proximity of these institutions with their market and customer portfolio, which gave them the necessary flexibility to respond to their customer's needs, but also by the fact that in 2008, the sector was less dependent upon the global international market. While facing local crisis, Microfinance institutions (financial, social or sanitary) should be able to find support on the global market, by connection with international NGOs, philanthropist funds or international creditors. (Kashif , et al., 2020)

The current crisis is different from all previous ones in many aspects. It is difficult to anticipate the microfinance sector reaction based on history and the previous experiences of international financial crisis. Indeed, since 2008, the microfinance sector has seen a growing interest from the international investors creating a higher exposure to their financial health than more than 10 years ago.

If we take a look at the first impacts of the 2020 COVID-19 crisis on the global economy, we can see that the projections (issued in June 2020 and still evolving and being updated as the crisis develops) of worldwide GDP will have a negative variation of around - 8 %, while the European Union itself that could face a total set

back of -12% of its GDP with 3 of the major economies above -13 % (France, Spain and Italy).

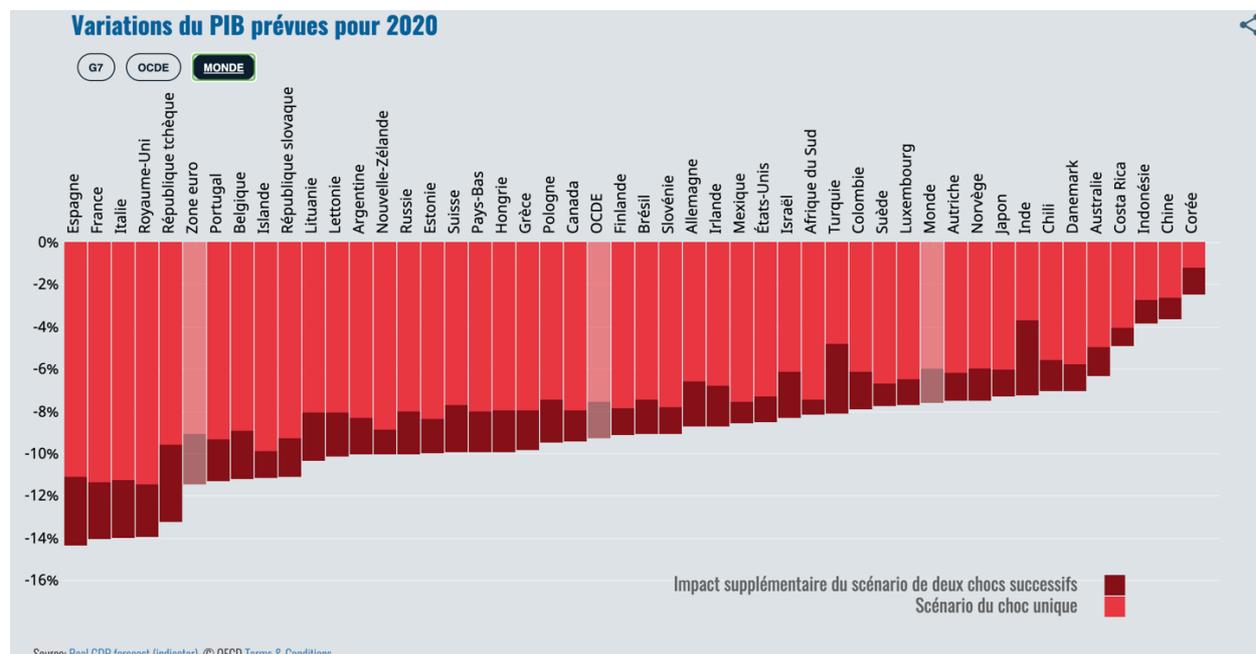


Figure 1 Source : Real GDP forecast (indicator) OECD

Stakeholders view of Covid-19 impact

This global economic downturn has an impact on every key local and international stakeholder of the sector, the latter being defined as actors of the market that are crucial to the operations of the institution.

As key stakeholders, we can list the local and international investors, shareholders and support (donors, creditors, auditors, consultants, NGOs...), the market actors (clients and suppliers) and the internal workforces of the institutions (employees). Governments also play a very important role in this context, as the sector is sometimes highly dependent upon financial and economical local policies or governmental support to reach sustainability. (Mori, 2010)

MFIs will be facing negative financial consequences from both ends of their stakeholders' spectrum, top and bottom of the cycle, having an impact on the three pillars of MFIs financial structure (Credit, Deposit and Equity).

On one hand, in countries with partial or total local lockdown, the economies will face major slowdown or will even be entirely frozen, taking down with them many

small formal and informal businesses, that were relying on a very short working capital requirement cycle, providing revenues to a large part of the population. As all of MFIs mission respect the founding principles of microfinance which are the provision of financial services to the low-income, more vulnerable parts of the population, their customer portfolio quality will henceforth be impacted by this crisis. The absence of revenue will create an important emergency liquidity wise for the population and might affect every aspect of the MFIs business models.

The main principle recommended by WHO in order to slow down the spread of the virus is the limitation of physical contacts until the situation is under control, resulting in partial or total lockdown. Without any digital services available, branches being physically closed, and field agents unable to visit customers, inflows of cash for MFIs will be null, even if customers would have the money to fulfil their financial obligations. The only way could be digital services, if they are widely developed and that countries laws permit digital money transfer and associated digital financial services.

Without any cash inflows from the market, the MFIs will face liquidity issues regarding their own international and national creditors obligations and could rapidly go bankrupt without any external support.

As an example, we can cite the findings of a team of 6 experts on the assessment of the direct impact on the Pakistani Microfinance sector highlighting that with food security for household's as priority, "70% of the sample of current microfinance borrowers reported that they could not repay their loans" (Kashif , et al., 2020).

Another illustration of this impact is shown in an article from the Grameen Credit Agricole Foundation stating, after contacting their 80 MF partners and social enterprises in 40 countries, that the major difficulties faced are the "deterioration of their loan portfolio (80%)", "the group meeting that are prohibited with their clients" and "the difficulties to travel within their country". (Grameen Credit Agricole Foundation, 2020)

Another important liquidity threat comes from compulsory or voluntary savings. MFIs financing their new customer credits on this basis might face a serious stop in the coming months. Indeed, savings are a financial product that is meant for facing major and unpredicted financial issues. As the market is facing its major financial

crisis, MFIs must be prepared for a massive withdrawal of the savings, and must overall, prevent those through good communication with the market that they are not to face insolvency, or we could witness a withdrawal rush that will have catastrophic consequences on the microfinance market and global economic balance.

In the meantime, MFIs are still facing their fixed operating costs (wages, building rents etc...) but without inflows from operations, even largest institutions with costs cutting strategies cannot last too long, and the smaller ones will without any doubt go bankrupt except if government, central banks or creditors provide them support and adapted emergency plans. However, a recent article published on CGAP present surprising results about liquidity, stating that the liquidity situation from the Microfinance sector might not be as hard as expected, with more than 56% which might not face any “trouble covering a full year’s worth of operations with the cash and liquid assets they have on hand”. LAC and SSA market have however a high risks of liquidity failure than other regions (higher OPEX on an average for these regions). However, while taking into consideration OPEX and 90 days debts repayments, MFIs are clearly at risks, this percentage drops to 25% while 26% will face direct lack of liquidity in the 3 months (19% after 1 month). (Zetterli, 16 July 2020)

Rescheduling loans with the MFIs creditors are therefore crucial in order to lower the pressure on the market, as there will be no other solution to act the same with the customer portfolio.

According to the GCA market information, the restructuring of the customer loans are the second most taken measure by MFIs facing the crisis, between the creation of a crisis covid-19 committee as number one, and the “deliberate slowdown of disbursements”. (Grameen Credit Agricole Foundation, 2020)

On the other hand, adding to this liquidity crisis coming from the market, investors from developed countries themselves are being strongly hit by the financial situation. Beside the fact that they will decrease their risk appetite regarding their investments, we could also underline the impact of the depreciation of local currency value that will create increasing currency risks and hedging costs to their debtors.

This might also impact investors' confidence and trust in investing in those countries and then effect the amount of loans MFIs can disbursed on the market (UNHCR - Refugee Agency, 2020).

Conclusion

In conclusion, from a very short-term perspective, the COVID-19 crisis will reflect a liquidity crisis coming from the global market, top and down, local and international, that will lead to high pressure on the BoP (Base of the Pyramid, low-income and vulnerable people) and MFIs if investors and creditors are not rescheduling MFIs debts and governments are not supporting the global macro-economic situation in order to allow the necessary given time to these emergency recovery plans.

Midterm, MFIs will reduce their risk appetite in giving new loans, due to a lack of liquidity and the necessity to better assess new projects to ensure profitability and cash inflow. On the international market, investors will still have low confidence in the future until a vaccine has been found to restore said confidence in future market development (UNHCR - Refugee Agency, 2020).

Even if most of the financial investments are bound to be postponed, investments issuing from digital services might still have their place in the post covid-19 MFIs strategies. This situation has indeed showed the necessity to develop digital channels. The digital expansion presents the advantage of lowering the risks linked to a zero-activity subsequent to a total lockdown.

Many papers, studies and webinars have been made and are still going on, over the impact of COVID-19 on the fundamental double bottom line of Microfinance, mostly underlining the necessity for microfinance institutions to fulfill their social mission in this situation where BoP are strongly impacted, by offering emergency loans and rescheduling installments. However, the third bottom line that was carving out its place in debate since 2010, with an increasing interest over the past 5 years in relation with the growing awareness of the climate change issues, seems to be put aside with the advent of this survival phase of our economies.

In this emergency situation, financial survival is the major priority (Bishop, 2020). However, as stated by an open-letter issued by the IUCN (International Union of Conservation of Nature), signed by 30 international NGOs and business organizations (WWF, Danone, Unilever, AXA, Fosun International...), “both businesses and governments must put nature at the heart of their post-covid19 recovery plans” because the environmental crisis is still a major concern for the coming years. Allianz CIO Günther Thallinger, in another open-letter written alongside a London School of Economics’ professor, Nick Robins, exposed three arguments about their vision of the post-covid19 economy. First of all, the necessity of recovery plans of being aligned with the Paris agreement on climate change respecting the Sustainable Development Goals (SDGs) framework of the United Nations (UN), and overall that it will be a “historical error to lock-in in the high carbon model of past” (Günther & Nick, 2020). Secondly, Governments should adapt their policies in order to “promote sustainable growth opportunities” that will help investors to increase their trust and confidence in investing in such ways in the future. Finally, they underline that emerging countries and economies that will be hardly hit by the crisis must benefit from a “part of the recovery funds” in order to help support them in their transitions efforts (Günther & Nick, 2020).

In the inclusive finance sector, this environmental concern is integrated through the concept of green Microfinance. Based on this financial analysis, we can make the hypothesis that the COVID19 will negatively affect most of the Green Microfinance actions and projects implementations on short and mid-term, until a sustainable financial situation will get back to normal. However, we could assume that the carbon impact of internal and external activities might be put under scrutiny in order to optimize the energy consumption and waste emission in the recovery plans and search for the possibility to find carbon credit on the carbon market to support the recovery plans. Energy products related to renewable and affordable access or energy efficiency should however still have an important place in strategies, as energy will be highly needed for allowing economies to recover.

Assessment of Green Microfinance

What is Green microfinance and its link with the UN SDGs

In 2015, 17 SDGs were advocated by UN as a “universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030 » (United Nations SDGs, s.d.). Those goals are “integrated”, which means that they are all linked together, and that developing one of them would benefit directly or indirectly to others, balancing “social, economic and environmental sustainability”. (United Nations SDGs, s.d.)

As stated by Leora Klapper in an online note published on CGAP (Klapper, s.d.), financial inclusion is not directly mentioned as one of the SDGs. However, financial inclusion in emerging and/or developed countries has a direct impact on “eliminating poverty, creating jobs, improving gender equality or good health to name some” (Klapper, s.d.), by making basic financial services accessible to unbanked, poor, rural or socially excluded people in order to “Leave No One Behind” (United Nations SDGs, s.d.). Literature has been produced across the last three decades stating that poverty is too complex to be directly eliminated by a single action such as “financial inclusion”, however, healthy and sustainable Microfinance tools and practices can clearly have a direct and positive impact on the global wealth development of low-income and of parts of the population that are excluded from the formal financial sector. The major risk is therefore to be trapped into a high interest multi-credits cycles which could be very difficult to find a way out.

The double bottom line has been a strong basis for microfinance and has been thoroughly studied by many researchers since its beginnings. However, alongside with the arising awareness of the environmental impact of our past and current economic development on the part of the global public opinion, be it from new or, more surprisingly, old generations, the sector slowly integrated the environmental side of sustainable activities, which lead to the birth of what is called “Green Microfinance”. The potential triple bottom line objective of green microfinance is therefore in total alignment with the 2015 SDGs goals, as balancing “social, economic and environmental sustainability”.

Therefore, a good definition of Green microfinance would be the overall “practices of weaving the principals of environment strategy into daily operations of MFIs, and promoting environmental-friendly practices and solutions” (European Microfinance Platform & MIX, 2016).

Green microfinance in MFIs strategies

The double bottom line already comes in the form of many challenges to MFIs when establishing their strategies alongside investors in order to meet their financial and social objectives through operations. Being profitable or financially self-efficient is already a real challenge when concentrating on one-side financial products that don't take into consideration the environmental performance parameter. Indeed, a large part of MFIs have difficulties to meet the break-even point without external financial support.

Adding a third bottom line to this business model is therefore an additional challenge, and as studied by Marion Allet and Marek Hudon, characteristics (financial performance, size...) of MFIs involved in that kind of objectives vary widely to support it (Allet & Hudon, Green Microfinance. Characteristics of microfinance institutions involved in environmental management, 2013). In 2013, biggest infrastructures with strong legal forms are more likely to be involved all environmental issues management (environmental policy, internal and external ecological footprint and risks assessment), aside green credits, financial performance wasn't significantly related to environmental performance and mature MFIs seem more involved. These findings are from 2013 and the results might have evolved based on the strong awareness of environmental issues those last years and the arising of green digital products that could lower the upfront costs for small MFIs in their green products developments.

To this day, Green microfinance is still an understudied subject in comparison to other main topics of microfinance, as attests the lack of studies we can find on the subject in financial-related literature. Out of the very large amount of research over microfinance, only a small amount takes the environmental issue into serious consideration even if in the latest years there is an increasing interest about the topic

(e-MF platforms, SPTF, Green indicators) (Huybrechs, Bastiaensen, & Van Hecken, 2019).

From a general standpoint, strategies impacts are tightly linked to the beliefs and ideas of MFIs founders or stakeholders interest alignments, and above all, investors, specific financial, social and environmental interests.

Based on a general reflection over why companies (in any sectors) would develop environmental policies in their core strategies (Bansal & Roth, 2000), Marion Allet studied their specific implementation with regard to the microfinance sector (Allet, Why do microfinance institutions go green ?, 2012). The latter study is based on 4 parameters, namely economic opportunities, legislation, stakeholders' pressure and ethical motive, (Bansal & Roth, 2000). Allet's work explores the reasons why MFIs would take environmental-friendly practices into consideration and their impact on field.

The results found in 2012, described and analyzed the three main motives that could drive companies to integrate environmental targets in their daily activities. Those drivers are summarized in the table below; showing by type of motivation the percentage of MFIs:

Table 3. Drivers of ecological responsiveness acknowledged by MFIs

Drivers		Percentage of MFIs
Legitimation	Investors' or donors' expectations	77%
	National regulation requirements	59%
Competitiveness	Differentiation from competitors	88%
	Access to new funding	74%
	Expansion of the client base	60%
	Improvement of portfolio quality	51%
Social responsibility	Protection of the planet	93%
	Achievement of the MFI's social mission	86%

Figure 2 Source : Marion Allet : Why do microfinance institutions go green ?, 2012

Basically, even if investors have an environmental interest driving their investment in the MFIs, real impact yielded by the strategy can widely vary, depending on the implication of the board and the top and middle management.

Indeed, depending upon which driver MFIs motivation to go green is based on, the impact can be slightly different, and therefore, be influenced differently in an economic stress situation such as the actual crisis.

Strategies based on beliefs and therefore social responsibility will have the most positive impact on the activities of the MFIs. This approach is linked to structures led by “charismatic leaders pushing individual social values” even if they are “not always ecologists initially”. This creates a real impact on the daily operations of the institution and will also affect the global “concern about the environmental risks of their clients” (Allet, Why do microfinance institutions go green ?, 2012), pushing top management and employees to innovate in order to meet the environmental objectives.

Another motivation for green microfinance is achieving pure economic objectives, with the overall goal to get into a virtuous cycle. This motivation’s primary objectives will be to “lead to economic benefits and improve long-term profitability” of the institution, through new products leading to new markets (such as cross-selling products (Mahbouli, 2016), micro-insurance for climate-related risks, energy loans...), new investors leading to new or better funding conditions, better reputation leading to confidence increase of their activities and finally improving risks management for credit by taking into consideration the environmental risks weighing on the activities of their clients (lowering health risks, increasing air quality, water quality, energy stability, climate change risks...) (Mahbouli, 2016) that could increase loans repayments.

Legitimation is named for strategies that are put in place in order to align the activities under the pressure of stakeholders with environmental concerns. Measures are therefore usually positively limited on the market (excluded lists for credits for example), targeting the minimal options and without taking into consideration the client benefit first (Allet, Why do microfinance institutions go green ?, 2012).

Even if the motivations are purely ethical, each strategy is seeking to combine the achievement of environmental objectives with sustainable development of the institutions, with financial sustainability being at the top. Green strategies will have no *raison d’être* if the MFIs do not achieve any financial returns (Huybrechs, Bastiaensen, & Van Hecken, 2019), unless they are highly supported and subsidized by

private banks or government (for example in Europe (Cozarenco, 2015)). For example, the green non-financial services approach can have an important positive impact on the results of green measures (Huybrechs, Bastiaensen, & Van Hecken, 2019) (Bastiaensen, Romero, & Huybrechs, 2019). However, they are costly for the MFIs because the large majority of their clients will not take charge of any additional services in order to achieve environmental objectives (for example an agriculture case study in Nicaragua where farmers came back to old technics after the end of the subsidized green programs (Huybrechs, Bastiaensen, & Van Hecken, 2019)), but rather try to maximize their profitability in order to support their needs and develop their businesses.

Indeed, why should their customers go green when they are already subject to a very tight day to day financial management with their current way of living? Without a very strong awareness and knowledge about the environmental impact of on their lives, it is unlikely that the BoP will accept to lower their income in order to achieve environmental objectives as they don't have a good understanding of the benefits they could draw from a green approach.

Public subsidies or custom environmental policies framework are therefore needed to respond to this financial dilemma. The impact of measures taken with green strategies as basis can still be limited in some countries due to the complex interaction of the economy and the dominant social-economic context (especially true in Central or South America) (Huybrechs, Bastiaensen, & Van Hecken, 2019). Many local green measures need a better political and legal framework in order to allow green microfinance to develop on the global economic market.

According to Marion Allet 2011's research paper "measuring the environmental performance of microfinance" in which she proposes the very first tool (MEPI – Microfinance Environmental Performance Indicator) to assess GMF through management performance indicators, (Allet, Measuring the environmental performance of microfinance, 2011) environmental MFIs strategies are based on 5 key dimensions which are:

1. Adopting an environmental policy agreed by the board of directors and top management;
2. Analyzing and reducing the MFI internal ecological footprint;
3. Managing the environmental risk of the economic activities in the customer portfolio;
4. Providing environmental non-financial services (microfinance plus) and;
5. Providing green microcredits (energy loans...)

Today, the most recent recognized tool focusing on environmental performance assessment, is the Green Index 2.0 (2016), resulting from a collaboration of microfinance experts from MIX and e-MFP Microfinance & Environment Action Group, states 4 “essential practices for microfinance” on which environmental strategies should be assessed, and therefore based (European Microfinance Platform & MIX, 2016) :

1. Managing internal environmental risks
2. Managing external environmental risks
3. Fostering green opportunities
4. Formal environmental strategy

Each one can be assessed on the basis of different indicators which will be analyzed in the next part of this thesis dedicated to the presentation of the different tools for the “assessment of green microfinance”.

Since 2015, and the advent of global awareness regarding climate change, the sector has seen more MFIs implementing environmental-friendly policies in their strategies, leading to greener MFI mission statement. It was therefore needed for MFIs to have a better view of the true performance of their actions.

Assessment of Green Microfinance

Alongside criticisms about “green washing” or additional burden with utopic strategies, stand also high expectations and realistic necessity, which needed to be

assessed through a standard framework in order to ensure reliable comparison between MFIs for stakeholders.

Over the 10 years period - 2000-2010-, Microfinance specialized rating agencies, M-Cril, MicroFinanza and Planet Rating were already integrating an environmental aspect through their Social Performance rating, in order to meet the growing expectations of donors and investors (Allet, Measuring the environmental performance of microfinance, 2011).

Since then, different ways have been explored in order to quantify the factual performance of environmental strategies in the microfinance sector. The most recognized are MEPI, Green INDEX, Green INDEX 2.0 and MIX Green.

Assessing environmental performance was thus critical for any MFI with sustainable development objectives to evaluate the real impact of their activities, to better know their operations but also to improve their communication toward their stakeholders about their environmental commitment and monitor their efforts. We can find different ways of assessing environmental performance in the literature.

2009 – MIX Green Social « Environmental » performance indicators

Microfinance specialized rating agencies were already integrating environmental indicators in their social audits, which were:

1. The institution conducts activities related to raising awareness of environmental impacts, such as: facilitating training sessions and discussions, displaying posters, distributing flyers, etc.
2. The institution includes clauses in loan contracts that require clients to improve environmental practices/mitigate environmental risks.
3. The institution uses specific tools to evaluate the environmental risks of clients' activities (categorizing client risk levels by sector, surveying environmental impacts, use of an exclusion list, etc.)
4. The institution offers specific loans linked to environmentally friendly products and/or practices.
5. None of the above

This established a good basis for further tools development as those questions are going over the external involvement of MFIs about global environmental issues (trainings, awareness of clients ...), the assessment of their portfolio impact and environmental risks exposure, the inclusion of environmental criteria in loan approval processes and the involvement of the institutions in offering “green” products or services.

2011 – MEPI - Microfinance Environmental Performance Indicator

First of all, as the global framework applied in the major industrial sectors is difficult to apply to the microfinance sector due to many specificities (large amount of customers, few data available...), a first tool (MEPI – Microfinance Environmental Performance Indicators) was proposed by Marion Allet in order to fill the gap (Allet, Measuring the environmental performance of microfinance, 2011).

2014 – Green Index

In 2014, Marion Allet, in collaboration with the e-MFP Microfinance and Environment Action Group, reviewed the current works and research over the subject and proposed the GREEN INDEX, a new practical tool to assess the environmental performance of microfinance institution. With the objective of creating a commonly accepted tool by the community, they took into consideration the evolution of the market and integrated, with the implication of CERISE, the “mindset of the Universal Standards and SPI tool”. (Marion & PAMIGA, 2014)
This tool was built across three axes (formal environmental strategy, environmental risk management and green opportunities).

2016 – Green Index 2.0

This first common reference has been reviewed in 2016 to take into consideration the new evolution of the market and the practical feedback from the market regarding the uses of the Green Index 1.0.

The Green Index 2.0 is therefore proposed as a more accurate, experienced and market validated version. As defined earlier, The Green Index 2.0 (e-MFP Microfinance and Environment Action Group , 2016) is based on 4 dimensions instead of 3 in its first version:

- The institution defines, manages and monitors its environmental strategy
- The institution manages its internal environmental risks (actions and monitoring of the internal footprint)
- The institution manages its external environmental risks. (actions and monitoring of the customer portfolio environmental risks)
- The institution fosters green opportunities (green markets, new financial and non-financial products)

The complete related indicators of the Green index 2.0 can be found in annex 2.

In order to develop an accurate view of the market, meaningful quantitative “green microfinance indicators” have also been discussed in the study of “Assessing Green Microfinance“ (European Microfinance Platform & MIX, 2016) and summarized in the following table, around 5 axis :

Axis	Indicator
Policy	Having a formal written environmental policy
Footprint	Tracking the change in electricity consumption
Awareness-raising	Offering awareness-raising/training activities for clients/community
Risk-assessment	Assessing environmental risk at loan application
	Assessing environmental risk of outstanding loans
Green products and services	Providing green loans
	Providing micro-insurance to increase environmental resilience

Table 1 Source : European Microfinance Platform & Mix 2016

These indexes, and particularly the quantitative ones, give a very interesting overview of how MFIs are integrating environmental-friendly strategies, and give the ability to analyze globally the commitment of the microfinance sector in this area.

Impact Index: HEDERA Impact Toolkit (Multi-Tier frame work & PEPI)

To complement these global indexes, more specific qualitative and quantitative tools have been developed, such as the “Access to Energy” module of the digital HEDERA Impact Toolkit¹, which targets “tracking progress and enabling impact assessment at the household level”.

The application is based on the ESMAP MTF (Energy Sector Management Assistance Program Multi-Tier framework), World Bank financed project developed to assess energy access and energy poverty along all relevant tiers dimensions, including capacity, duration, quality, affordability, legality, availability convenience, health and safety (Bhatia & Angelou, 2015-07).

It also integrates the PEPI tool kit, standing for “Progress out of Energy Poverty Index”, designed by Natalia Realpe Carrillo to track the true impact of financial and energy inclusion programs at household level. (Realpe Carrillo, 2017)

This instrument is specialized in helping MFIs to analyze, quantify and monitor their access to energy programs and commitment by identifying the needs of the market in order to foster and design adequate opportunities, combining low operational costs (100% digital) and important data collection.

HEDERA Impact Toolkit is therefore filling the gap within the market, between global index survey and on-field impact feedbacks, with a low-cost operational expenditure digital application, by collecting live market data on which strategies should be reviewed and improved to better answer the market demand. In the current crisis situation, a very reactive module has been specifically designed to assess the impact of the COVID-19 crisis on the portfolio of the MFIs.

Analyzing the evolution of these quantitative data collected through this tool could become key to support green strategies and prove their true impact on the field.

For many purposes, the need to assess impacts of actions is a global requirement specific to the microfinance sector and this tool is a perfect example of initiatives made to fill the gap (other modules from the same application are available for PPI survey – Poverty Probability Index to assess the Progress out of Poverty

¹ <https://hedera.online/toolkit.html>

Index or WASH survey, assessing the impact Wash, Sanitation and Hygiene based on framework developed by WHO and UNICEF).

Those global indexes and impact tool kits developed those last 10 years clearly show the growing interest and need specific to the stakeholders in assessing the impact of green policies through years.

Fostering Green opportunities seems to be a key for MFIs in their external green strategies, and also the most challenging one, as it will have to be the spearhead of their triple bottom line objectives on the market.

Green financial product: Green loans for energy access – business models

Green microcredits can be defined as microcredits “aiming to finance renewable energies, improvement in energy efficiency, recycling, waste management, organic production, agroforestry, eco-tourism etc...” (Hudon & Forcella, December 2014). On a general standpoint, green products opportunities can be related to at least 7 SDGs: the 6th (Clean Water and Sanitation), 7th (Affordable and clean energy), 10th (Reduced Inequality), 12th (Responsible consumption and production), 13th, 14th and 15th respectively Climate Action, Life Below Water and Life on Land.

The 7th SDG seems to be the most developed in green microfinance strategy. This might come from the fact that developing clean and affordable energies access to population have been widely supported and recognized by the international community and investors as an important action against climate change and key for sustainable economic development. For instance, Grameen Shakti (GS), implying “rural energy”, is one of the Grameen Bank’s most ambitious projects (Wimmer, February 2012).

Furthermore, our current economies models are based on high energy consumption. Clean and affordable energies are therefore a true basis for their sustainable development, and this vision led to largely subsidized programs since the last 10 years which helped the first renewable energy business models to reach economic viability. Energy uses impact every households (from cooking, lightning, moving...)

and every business regardless their size (micro to global) from the poorest to the wealthiest, in every part of the world. This is currently a critical component for economic, health and wealth development.

Access to energy has fostered many high expectations but also disappointments and frustrations. Lack of understanding of the market, low profitable business models on small scale due to low quality, high prices of solar panels for many years in developing countries, bad solar panels quality and recycling problematics, untruthful technical partners,... every aspect that forced for MFIs to be resilient and find innovative business models in collaboration with local partners.

In microfinance, depending upon which responsibilities are shared by the MFI or its partners, 4 business models for financing energy access have been developed (Groh & Taylor, December 2015) (Realpe Carrillo, 2017)

1. Lease purchase model or free-market model
2. Dealer credit model or One-hand model
3. End-user credit model or Two-hand model
4. Pays-as-you-go model

In 2015, (Groh & Taylor, December 2015) described the first three models depending on the different responsibilities in the product and summarized each characteristics in the following table :

Table 1 Different types of energy lending models based on microfinance mechanisms

	<i>Free-market model</i>	<i>Two-hand model</i>	<i>One-hand model</i>
Sale of energy loan	MFI	MFI or technology supplier	MFI
Credit disbursement	MFI	MFI	MFI
Technology acquisition	On the market	Partner technology supplier	MFI
Installation and after-sales	Up to client's discretion	Partner technology supplier	MFI
Monitoring of systems	None	Partner technology supplier	MFI
Consumer awareness	None	MFI or technology supplier	MFI

Table 2 source : (Groh et Taylor December 2015)

While the free-market and one-hand models put too much responsibilities, and therefore costs, on microfinance institutions to meet their financial performance objectives, the two-hand model made for more sustainable possibilities. The two-

hand model faces however still high fixed costs and as a consequence, makes the break-even point of the model difficult to meet without any financial support or supporting governmental programs for energy access.

The two-hand model is the most implemented model in the world but a new model based on digital technologies is making its way into the market in countries with friendly technologies legislations (mostly in Africa and Caribbean) and find good level of financial performance Zollmann at al., (2017) (Rolffs et al., 2014).

The price will be set in order to cover the global fees of the companies with a benefit. The total amount paid at the end of the period is estimated to range from 20 to 40% over the initial value of the device (including the deposit of more or less 15% of the contract) (Mazzoni, 2019).

The size of the device will usually be determined usually depending on the ability to repay regarding the monthly income of the customer and on the daily needs of the customer. For example, for Solar Home Systems (SHS), range goes from 6 to 60W, but this model can be applied to other green opportunities (clean cooking solutions, water pumps etc...).(GSMA, 2018).

Energy loans might also be of a very powerful help for financial inclusion of the final customer. On one hand they will have the possibility to create their first digital credit history thanks to the SHS repayment with mobile-money and on the other hand, they will become the owner of a valuable device on the market that could allow them to have access to more formal loans, giving it as a collateral.

This model is widely developed in Africa, as the continent faced a higher demand for off-grid energy solutions. In Latin America and the Caribbean, credits are more likely to be allotted to rural practices' improvement with respect to the environmental development.

However, in the post-COVID19 economies, this model might find its way in every region, as it can combine digital services and low operational costs.

Based on this analysis, we can anticipate that energy loans will still have an important role to play during and after the COVID19 crisis, as a key criterion for sustainable economic development. As an example, (Bishop, 2020) gave an example during a phone call interview about higher demand for energy products

(solar lamps) in an MFI in Africa, due to the very high increase in the Kerosene price related to the crisis macro-economic effects.

Empirical part

Methodology

In the current situation, the difficulty to find relevant data on the impact of COVID-19 over the environmental side of microfinance, while meeting the academic deadline, was a major challenge, as we are still at the heart of the crisis, especially in emerging countries.

The following qualitative analysis is therefore based on literature review, webinars, public data available on MIX Market, Green Index data available on ATLAS, and articles that could have been found on internet, on the overall impact of the COVID-19 crisis on environmental strategies on micro and global economies, between April and end of July.

In order to complement this data and info base, I conducted a survey of 27th questions, focusing on the impact of the crisis on Green Microfinance based on the fourth dimension of the Green Index. Here again, a key challenge was to identify and access relevant people, having already given some thoughts to the impact of COVID-19 on the environmental side of microfinance, within the time frame of the Master.

Consequently, this survey could not have been done without the precious and unwavering support of Natalia Realpe Carillo, as CEO of HEDERA and Co-head of the e-MFP Action Group “Green Inclusive & Climate Smart Finance” , which gave me the opportunity to digitalize the survey with the highly skilled HEDERA team and put me in contact with microfinance specialists and AG members across the different regions of the world.

I implemented a two-pronged approach:

First, we will analyze the GREEN INDEX results given on ATLAS Database, in order to better understand on which kind of characteristics, MFIs focused their actions and strategies during the pre-COVID period. This analysis will then be

compared to public MIX MARKET data over the Social Environmental Performances indicators of MFIs published from 2016 to 2019 on the platform.

Secondly, we will make observations and analysis of results yielded by the survey I conducted in order to understand which pillars of green strategies the crisis will affect. This survey was complemented with the results of another COVID-19 impacts survey, kindly shared by ADA Luxembourg and Foundation Grameen Credit Agricole.

Database presentation

Green Index ATLAS database (2016-2019) and MIX MARKET (Social environmental performance indicators 2016-2019)

The assessment of MFIs Green strategies and its related environmental performance still don't obey any worldwide standards today. The different tools that have been described in the first part of this document are usually used by the MF stakeholders. Today, we can state that the most accurate and commonly used tool is the Green Index from e-MFP (last updated version in 2016), thanks to its integration as the 7th optional dimension of the CERISE SPI4 audit. By making it optional in the SPI4, MFIs can choose to fill it or not, without interfering in their global SPI4 notation. However, as this dimension is not mandatory, we can conclude that many of the MFIs filling this dimension have already an interest in the environmental impact of their activities. This means that we could anticipate a high score in the audit. On the opposite, we cannot conclude that MFIs not filling this 7th dimension have no interest in the topic. This means that these databases give us only a partial view of the real environmental awareness of the market. In addition to this, we will see further below that some regions are under-represented in comparison to the ones answering to at least one social environmental indicator in MIX MARKET data.

Presentation of the samples

The Green Index ATLAS database is composed of 71 SPI4 audits (6 dimensions) with the 7th optional dimension "Green Index" filled, from audited MFIs

that have been uploaded by CERISE (75%) and MicroFinanza Rating (25%) between 2016 and 2019, while the Mix market database is composed of 456 MFIs of which 307 answered positively at least to one of the 4th social environmental performance indicators.

On the ATLAS database, 90 % of the audits/ratings have a reliability score between 2 and 4 (where 4 is related to an audit performed by a SPI4 qualified auditor) while 60% have a score of 4.

The sample from ATLAS studied here presents some limits in terms of representation of the MFIs sector. First, the sample is only composed of audits that have been uploaded on ATLAS from MFIs which have filled the 7th dimension of the SPTF CERISE Audits, and not the full database from the Green Index compiled by CERISE. Therefore, the number of audits per regions varies strongly between the different parts of the world, which could already give us an indication on the Green Index awareness repartition in the world.

In our case, Europe and Central Asia (ECA) present only a sample of 3 MFIs, while Middle East and North Africa are represented by 2 MFIs. There are only very few conclusions that can be drawn on this basis for those two regions ID. We can assume that we have a few representations of “environmental champions” (Forcella & Hudon, 2014), meaning that all have a real interest and a strong environmental culture in their activities.

As an example, one MFI from Europe has a 100% score in the Green Index and will be removed from the sample.

When comparing this sample to MIX MARKET, for the same period of time, we can clearly notice that the Green Index is much more known in the Latin America and Caribbean (LAC) area than in Asia, where institutions from SSEA (12 vs 207 participants) are much more reporting on Mix Market than other part of the world. However, the number of MFIs reporting an awareness of the environmental

impact from MENA still remains very low, compared to the total MFIs responding on

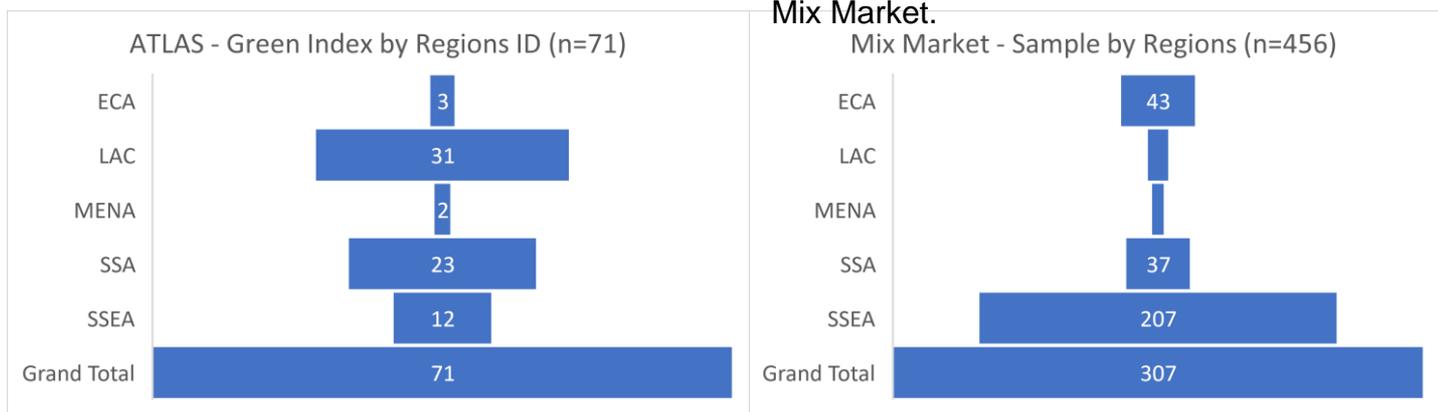


Figure 4 Source : Green Index ATLAS data

Figure 3 Source : MIX Market

At first sights, it seems like Asian institutions (SSEA) have an important awareness of their environmental impact that is not assessed through the 7th dimension of the SPI4 audit environmental performance tool and makes it difficult to have an accurate comparative interpretation between the different regions.

Secondly, the sample is mostly composed of “big” MFIs (66% for ATLAS sample; 80% for Mix Market). After producing a segmentation between Big, Medium and Small MFIs (based on Gross Loan Portfolio: for LAC and EU : Big > 15m\$ > mid > 5 m\$ > small ; for other Big > 8m\$ > mid > 3m\$ > small (Bauwin, February 2019)), we can find an over representation of “big” MFIs, which make it difficult to find general conclusions applicable to every categories of MFIs.

This overrepresentation of “big” MFIs can also be noticed in the global SPI4 (7 dimensions, including Green Index) analysis edited by ADA in February 2019 (Bauwin, February 2019), where 55 % of the audits were coming from “Big”, 24% of “medium” and 21% of “small” MFIs and on the MIX Market database too.

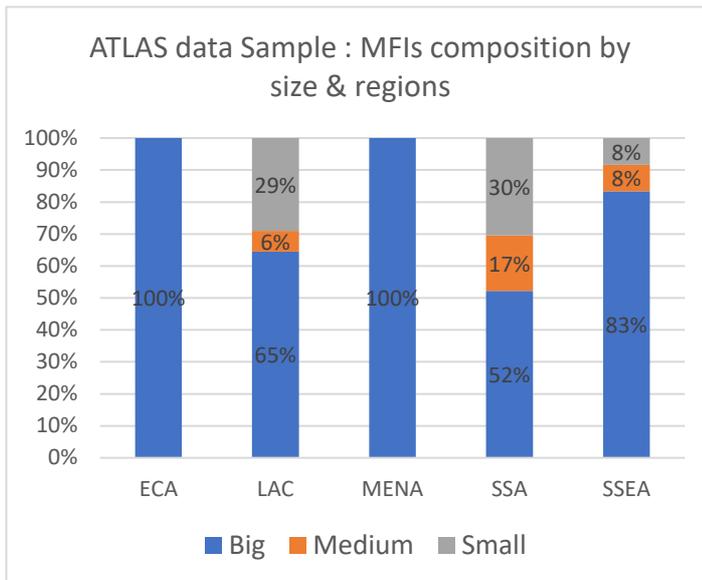


Figure 6 Green Index ATLAS data

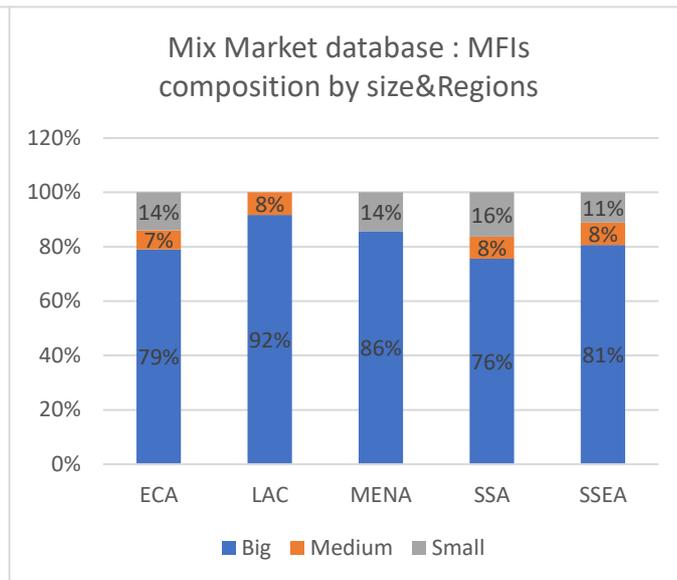


Figure 5 Mix Market

Three interpretations could be made based on this over representation. First, big structures have a much higher international exposure and are therefore used to international audits standards and quantitative and qualitative indicators requirements from their investors. Secondly, big MFIs are much more likely to implement environmental strategies than small ones, thanks to their large structure and greater financial strength that could allow them to finance less profitable activities. Finally, important MFIs are more likely to be audited for external and internal obligations and have the resources to collect their social, financial and environmental performances in order to share them on public platforms such as MIX Market.

In this case, SPI4 data give a good representation of small MFIs, especially in LAC and SSA, where the sample given seems to have the most balanced composition.

Finally, this sample is only composed of qualitative information (1 = yes ; 0 = no), and therefore no additional quantitative analysis such as number of green loans/total gross loan portfolio, evolution of water/electricity consumptions, evolution of waste, evolution of carbon impact per financed activities or monthly market demand by green products will illustrate or confirm the analysis.

ATLAS & Green Index database: Global Score by pillars (4), regions and size

According to the given sample of MFIs given, and if we put aside the ECA (n=3) and MENA (n=2) due to the very small number of participants, the average score of the Green Index is around 32% which is significantly low compared to other SPI4 dimensions.

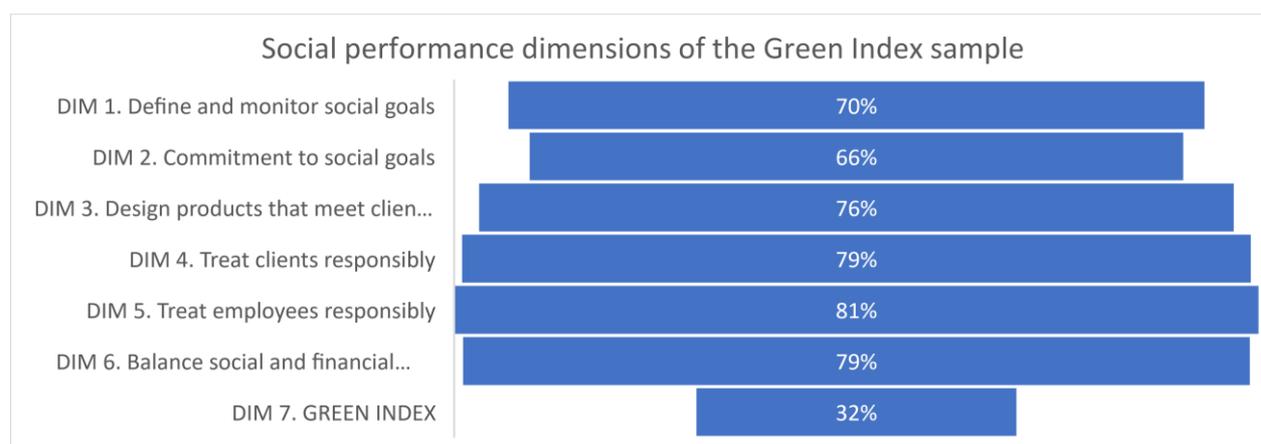


Figure 7 Source : Green Index ATLAS data : Social performance dimensions of Green Index Sample

Unsurprisingly, and as stated in this reference (Allet, Why do microfinance institutions go green ?, 2012), MFIs are already strongly involved in their social performances with high score on every dimension. When comparing these social performances with the global ADA analysis from (Bauwin, February 2019) of SPI4 database, almost each SPI4 6th Dimensions show higher scores from 1 to 8 additional point (see Annex 2).

However, we can assume that some MFIs, focusing their overall activities on solar panels and monitoring their internal and external footprint, have a very high score in the Green Index without being highly socially driven (for example, digital MFIs specialized in pays-as-you-go solar products models).

From a global standpoint, various conclusions can be drawn based on this high gap between social performance scores and the Green Index, taking into consideration that these scores are given by MFIs that should already be more advanced than the average about their environmental impact.

The first conclusion would be that environmental strategies and related actions are still not deeply integrated in MFIs activities, while social performance has always been a pillar to microfinance since the beginning.

The second one could be that the 4 pillars of the Green Index don't carry the same weight and must then be analyzed at a lower level, as involvement and implementation of green strategies is done at various levels.

Finally, the Green Index indicators are not sufficiently aligned with the fast-moving actions taken by the market related to climatic and environmental issues. Therefore, stakeholders don't seem to recognize their actions in the 7th dimension questions

The score for each pillar by regions shows a higher involvement from LAC in their global environmental performance while the second pillar of the Green Index is one small and medium MFIs seem to be most focused on. However, the global scores remain low (excluding the European MFI with a score of 100%).

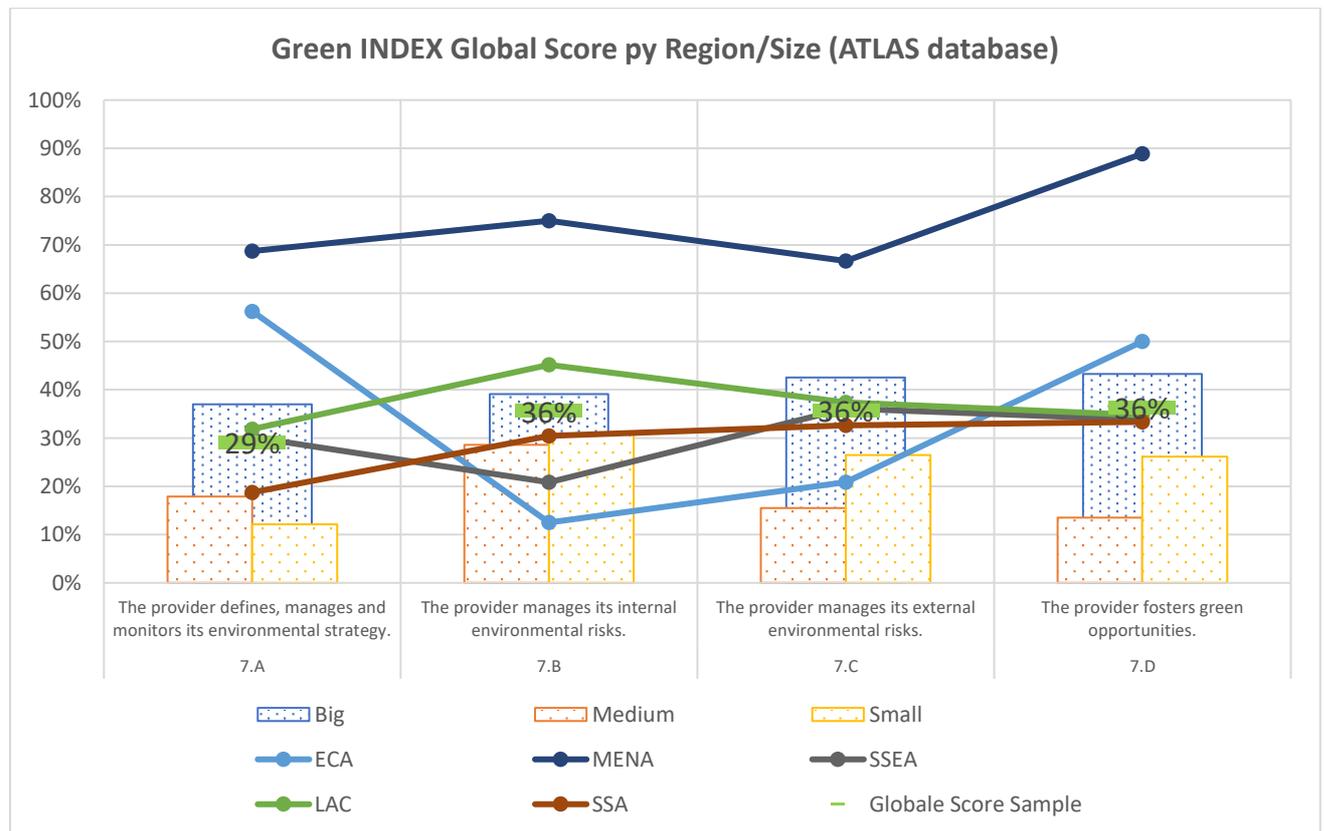


Figure 8 Source: Green Index ATLAS data (excluding European MFI with 100% in green index)

This graphic shows interesting differences by regions. Aside from the fact that MENA MFIs “champions” that filled the Green Index have very good scores in every pillar, we can see that European MFIs are inconsistent in their scoring, showing that they clearly focus their environmental efforts on defining their strategies (56%) and developing actions in green opportunities (renewable energy...), which are the two

pillars that are the most visible for investors and funds donors on the European market. On the opposite, the 3 other regions (LAC/SSA/SSEA) have similar scores. LAC is however showing much more involvement in managing their internal environmental risks.

When observing MFIs global score with respect to their size we clearly see that big MFIs have much better scores than medium and small ones, with the largest gap for the first and fourth pillar.

The size here is assessed based on the gross loan portfolio, which means that those MFIs have the strongest financial capacities, that could mean bigger obligations to fulfill investors requirements which will force them to develop their communication strategically their communication to meet those. Defining and monitoring their environmental strategy is therefore a priority in order to inform and convince their green investors. It is also not surprising to see very high scores linked to the green opportunity pillar, as the biggest MFIs can much better handle low profitability business models and riskier programs in order to fulfill their environmental objectives. On the opposite, small MFIs can have lower incentives to clearly define clearly their environmental strategy but can however present much better scores in other pillars as they show better flexibility in order to develop actions in line with their institutional internal culture. Based on this hypothesis, we can therefore explain why small MFIs have very low global scores in the first pillar (10%) while they have higher scores in other pillars than medium infrastructures.

As a way to get a broader vision of MFIs strategies and related actions, we will analyze in more details the lower layers of each Green Index pillar. In order to better understand the Green Index scores, we will describe the sub-categories that compose each pillar. We will focus on the three regions with the highest number of participants (LAC;SSA;SSEA).

First Pillar: A.: The provider defines, manages and monitors its environmental strategy.

This first pillar's objective (Global score of 29%) is to assess whether the institution clearly indicates its environmental involvement and willingness to integrate green strategies in its core value, and how does it manages to follow its related performance.

This first pillar can be directly linked to the MFIs size, as large companies usually have more incentives to develop and clearly communicate their strategy to foster alignment and good management practices in their business. Core values and expected objectives are crucial for internal and external communication. Taking into account that largest structures mostly have higher commitments regarding their investors and external stakeholders (debts, audits, reports...), we might expect these MFIs to score better in this dimension. As mentioned previously, implementing and defining policies and objectives could be a direct action in order to align the MFIs activities to their investors requirements. We can however assume that small institutions formalizing their environmental efforts in their activities might have a greater involvement in their company culture, as it could come directly from the founder's initiative and not from external incentives.

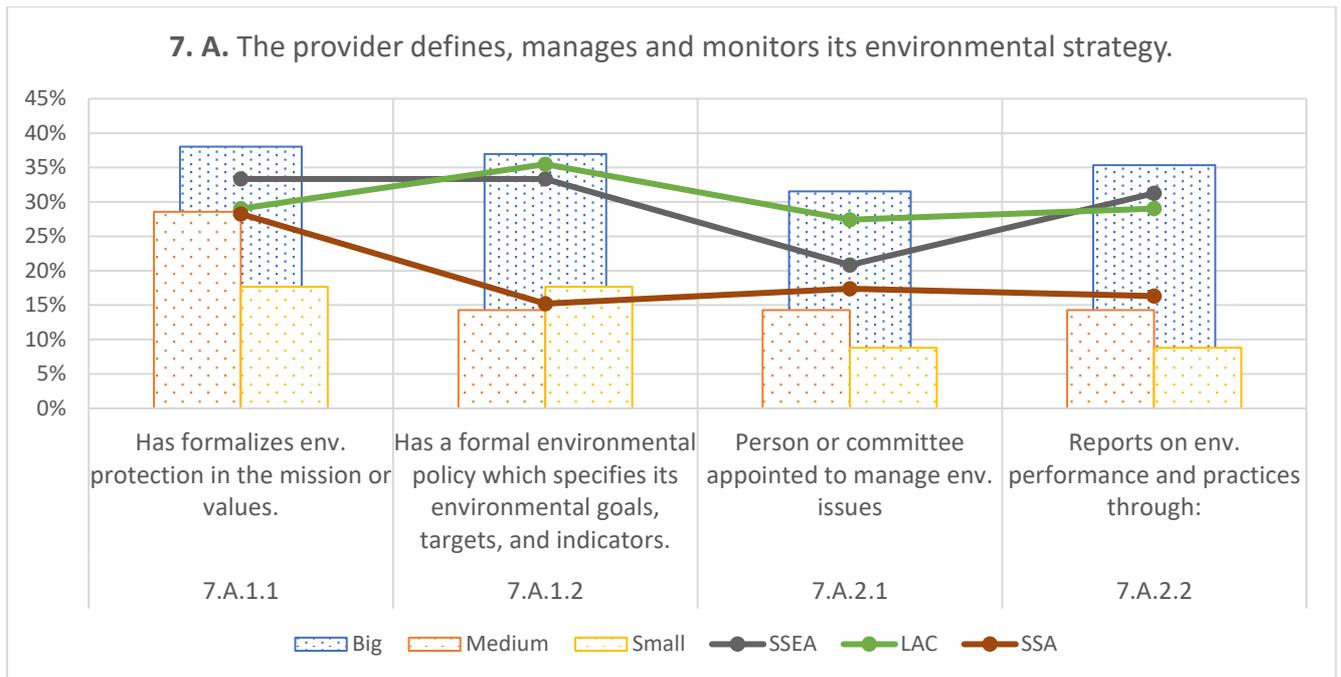


Figure 9 Source: Green Index ATLAS data : Pillar A of Green Index

The formalization of environmental protection in the mission or values of an MFI is often the first step taken by a company to increase the awareness of the stakeholders regarding their environmental involvement at low costs. It is therefore surprising not to find this subcategory scoring higher in this first dimension, regardless of size and regions categories. Defining of clear environmental indicators and objectives finds a higher response in LAC and SSEA. On the opposite, MFI size has a direct impact on more costly actions such as reporting on environmental performance or having a special employee in charge of following their evolution. Even if scores are low, formalizing environmental policy seems to be among the major actions taken by MFIs to communicate about their environmental concerns. However, as underlined in the results of a survey conducted through (European Microfinance Platform & MIX, 2016), “a formal environmental policy is not a warranty of green actions by the MFIs”, especially for large structures that are not tracking their performance and actions through reports. Without any quantitative indicators to analyze related to their environmental actions (green loans, energy consumption...), it is however impossible to develop the analysis in this direction.

On this pillar, size has an influence as medium and small MFIs seem to focus mainly on the formalization of their environmental protection in the mission and values, while they have very low score in the other subcategories. Contrastingly, big MFIs have the same score (+/- 35%) in each one.

Second Pillar: B. The institution manages its internal environmental risks (actions and monitoring of the internal footprint)

This second pillar (global score = 36%) has for objective to assess the management, optimization and following of the environmental impact of the institution' internal activities (energy/paper consumption, carbon footprint of employers, waste produced...).

This pillar seems to be independent from the size of the MFIs. It yields interesting findings when looking more in details at how the different regions of the world are managing their internal environmental impact.

Implementing actions to reduce the internal footprint by focusing on energy efficiency and waste reduction have a direct impact on the optimization of operational expenditures and therefore on the global financial result of the institution. Combining financial and environmental performance should therefore be a priority for every structure and it is thus not a surprise to find this second pillar scoring the highest in the Green Index.

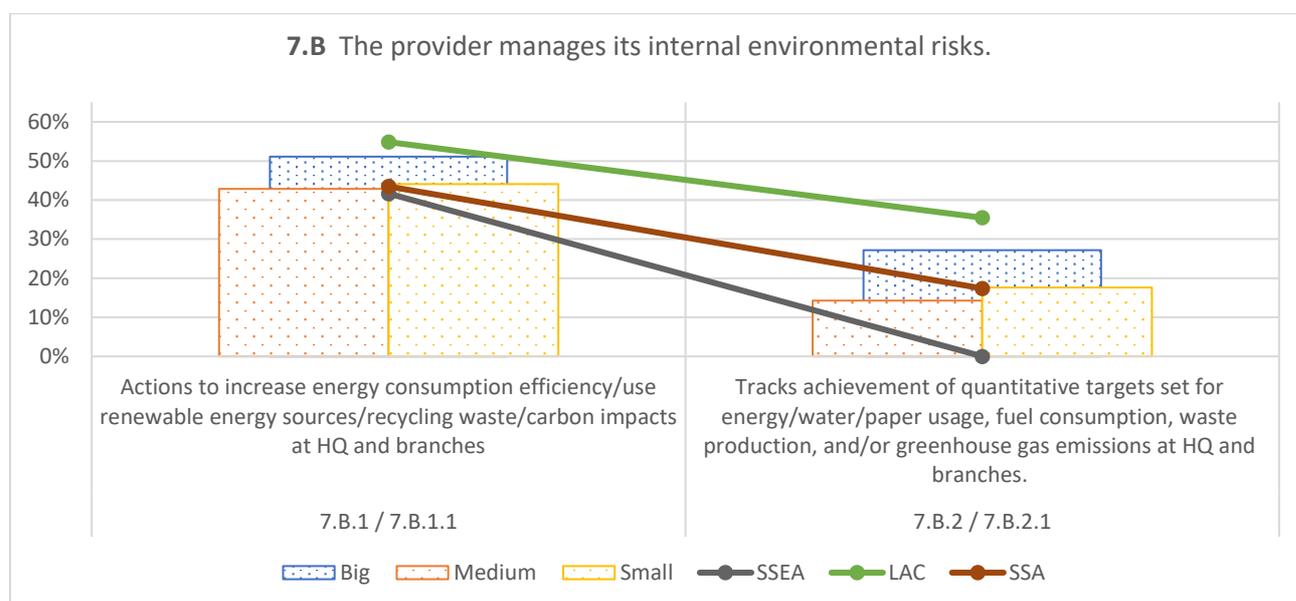


Figure 10 Green Index ATLAS data : Pillar B of Green Index

On the other hand, it is interesting to underline once again that monitoring and following the achievement of these actions are not a priority for the same MFIs, as we can see an important gap between 7.B.1. and 7.B.2. We can infer that it involves additional costs in resources that are not seen as bringing enough positive impact on the institution activities, especially in South East Asia, where surprisingly none of the

audited MFIs are implementing such tracking (0% on 7.B.2). This very low score has a direct impact on the global score of this second pillar.

LAC have the highest scoring on this dimension, way above the global score of the GREEN INDEX, proving that this region is advanced in terms of internal environmental risks management and overall in tracking it for stewardship purpose. From a more global stand point, all regions have a much higher score on 7.B.1.1 layer (between 40% to 55%) than the global score of the GREEN INDEX (32%).

Third Pillar : C. The provider manages its external environmental risks

This pillar (global score = 36%) seeks to analyze to what extent the institution is taking into consideration the environmental impact of its portfolio and all external investment done with its assets. This pillar is subdivided into 3 categories. The first one will assess the communication of the institution to its clients and employers related to the environmental problematic that the global economy is facing (client awareness, loan officer trainings) and how to possibly handle them. The second one is focusing on the actions taken by the MFI to assess its portfolio environmental risks and the third one will assess practically if the institution takes into consideration the environmental risks of the client's activities in its loan process validation.

7.C The provider manages its external environmental risks.

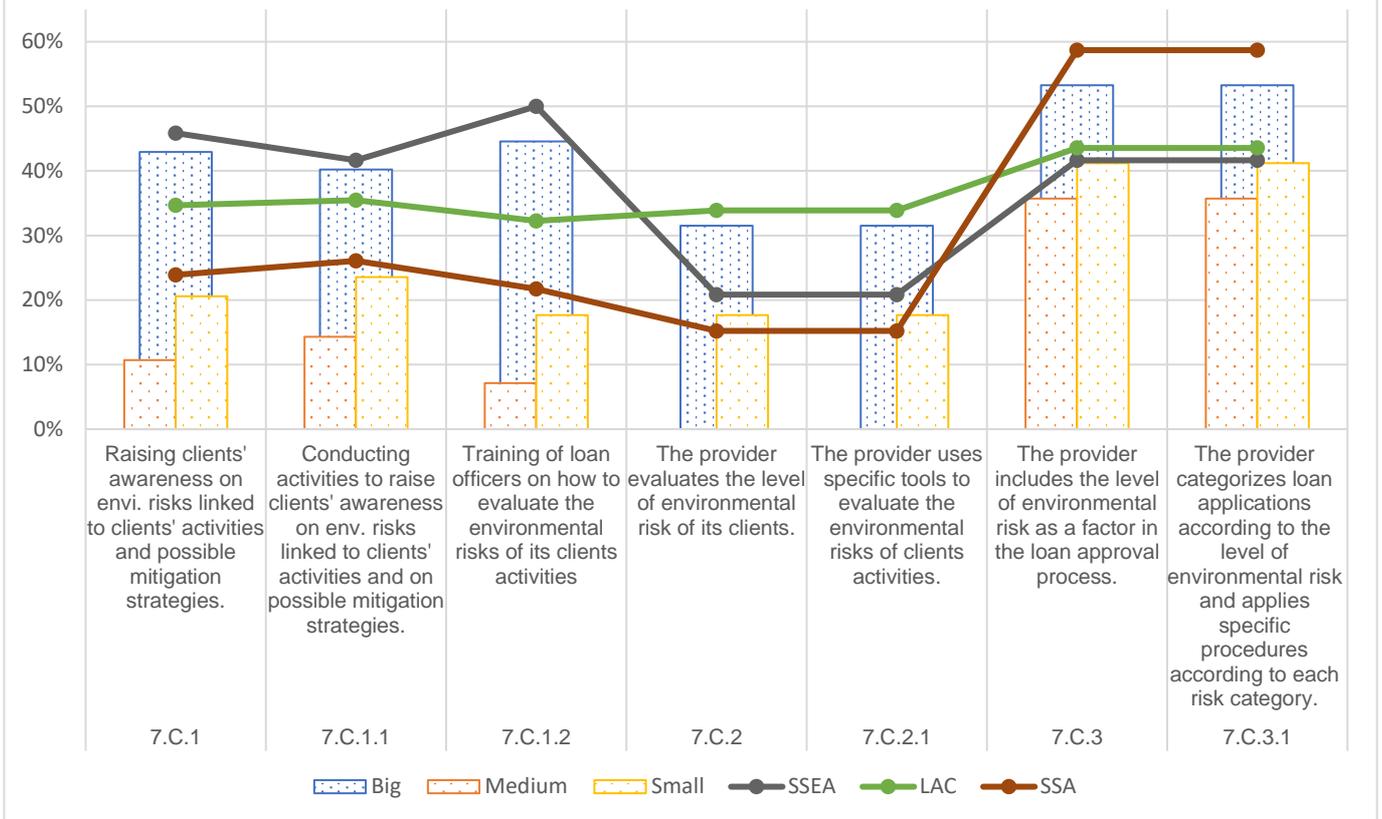


Figure 11 Source : Green Index ATLAS data : Pillar C of Green Index

At first sight, it is interesting to notice that the best score is to be found in the third subcategory (trainings for loan officers), proving that MFIs have a real interest in taking into consideration the environmental risk in their loan approval process, regardless of the size or region of the MFI, to mitigate this risk. This statistic is linked to the very high percentage of rural loans (from 50% to 70% of total gross loan portfolio) and therefore more exposed to climatic threats.

The two other subcategories present differences between regions. First, it is surprising to observe that only few MFIs in SSA and SSEA regions, even if they are including the environmental risk level in their loan approval process, answered that they have no specific tools to evaluate them. This should be an alarm for the management, as it could directly impact the risk's assessment quality, especially for medium size MFIs that showed a 0% score.

Secondly, the awareness of the environmental risks due to their clients activities and the possible mitigation strategy is bigger concern for big size institutions than for smaller ones that are much more concentrating their efforts on their clients environmental risk assessment, which could also be linked to a higher need of

resources to put in place these kind of actions. SSEA have a much higher score in this category than any other regions, especially on the training of loan officers' question. This could show interesting ways of managing priorities regarding environmental risks.

SSA have an impressive high score on the third layer related to the assessment of their client's environmental risks.

In this pillar, the 7.C.3 sub-pillar score (between 45 to 60 %) is way above the global score of the Green Index (32%).

Fourth Pillar: D. The provider fosters green opportunities

This fourth pillar is much more complex and has a surprisingly equivalent low score compared to the other pillars (36%).

The market for green opportunities is wide and fast-moving as it requires innovations in order to adapt to the current climate change threats and the associated demand from the market. Moreover, green opportunities are often linked to external non-banking skills (energy providers, agro-forestry experts...) and therefore require additional resources (suppliers, NGO, ...) in order to develop profitable and adaptable business models. From a financial and economical point of view, green opportunities are as promising as risky, and complex to implement. Most of them need financial investment with mid-term to long-term return models. The global score of 36% can appear very low for MFIs that are environmentally involved in their activities.

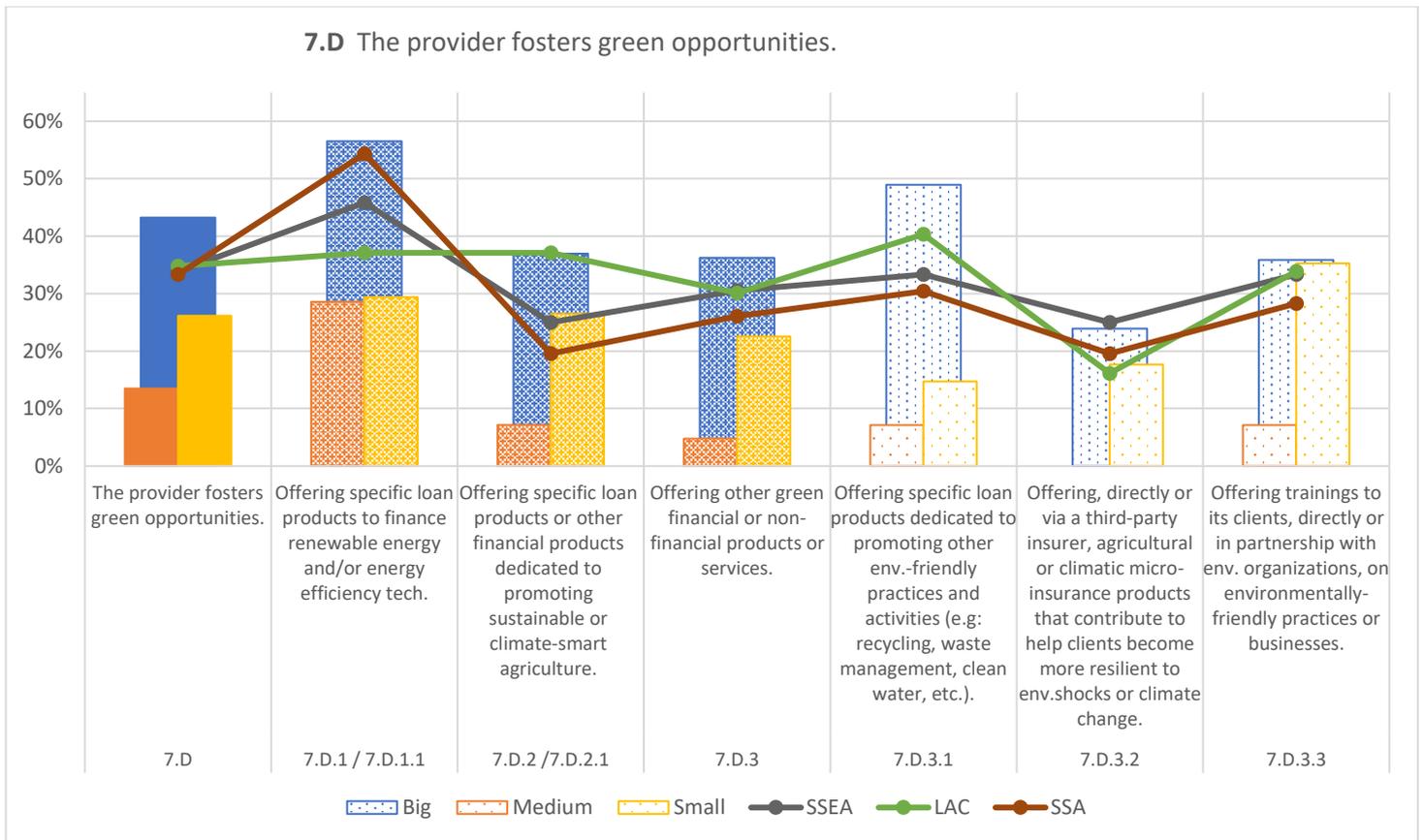


Figure 12 Green Index ATLAS data : Pillar D of Green Index

Green opportunities can have the ability to increase profitability by targeting new markets and niches that could lead to interesting financial performance on mid or long-term.

It is therefore interesting to thoroughly analyze the compositional elements of this fourth pillar, which should instinctively be of high importance for any investor. The major green opportunities and products found on the market are renewable energy products and energy efficiency technology (highest demand from the market, highly supported by investors and subsidized programs) which gets the highest score from this pillar (7.D.1 : 35 to 55%). Green energy products have a real support from the international market, as carbonized energy sources can have strong negative impact on the environment (wood cutting, high carbon impact...) and health (lungs disease, intoxication...). Green energy products are therefore finding international funds and grant programs for their development. The region specifications have a direct impact on the regional scores. The demand from the micro-renewable energy market is related to grid electrification development, the importance of rural areas in the countries and price of carbonized energy sources. It

is therefore logical to find a higher score for the region matching these characteristics, especially while MFIs have a high part of rural customers if their portfolio (such as SSEA in our sample) or for MFIs working in very low-density areas with low level or grid electrification (SSA).

LAC is known has a pioneer in renewable energy programs in microfinance, but its score here is the lowest. This can be explained by the diversification of its sample compared to other regions, which is reflected by more stable average scores on every category (30 to 35%).

The second most popular green products are related to loans promoting environmental-friendly practices and activities (recycling, waste management, clean water...).

Green opportunities have important positive impacts for local communities and households, but aside from some green micro-insurances, they are usually giving a low financial return for MFIs and can be costly to put in place (non-financial services). Digital innovation is however a game changer for energy loans, with the pay-as-you-go model, developed mostly in Africa and Madagascar but that might be developed in other regions of the world in the post-COVID19 economies.

Comparison with MIX Market Social Environmental Performance indicators

The global low score of the 7th Dimension can be compared to the global score on Mix Market for Social “Environmental” Performance. Both scores are very similar (32% on SPI4 vs 31 % on Mix Market) which shows, on a larger scale, that MFIs seem to have the same involvement in environmental issues and associated actions.

Big MFIs also have the highest scores in every indicator, and MFIs seem to have a higher interest in the specific loans linked to environmentally friendly products regardless their size (energy, climate smart products...), and the activities raising the awareness of environmental impacts as they respectively have a score of 39% and 35% which is higher than then Green Index score. However, for the MFIs answering to the Green Index, their score is between 40 to 60% on the integration of the environmental risks in the loan process approval, while only 23% declared including that kind of criteria in the client’s loan application and 27% using tools to evaluate and categorized the environmental risks of client’s activities.

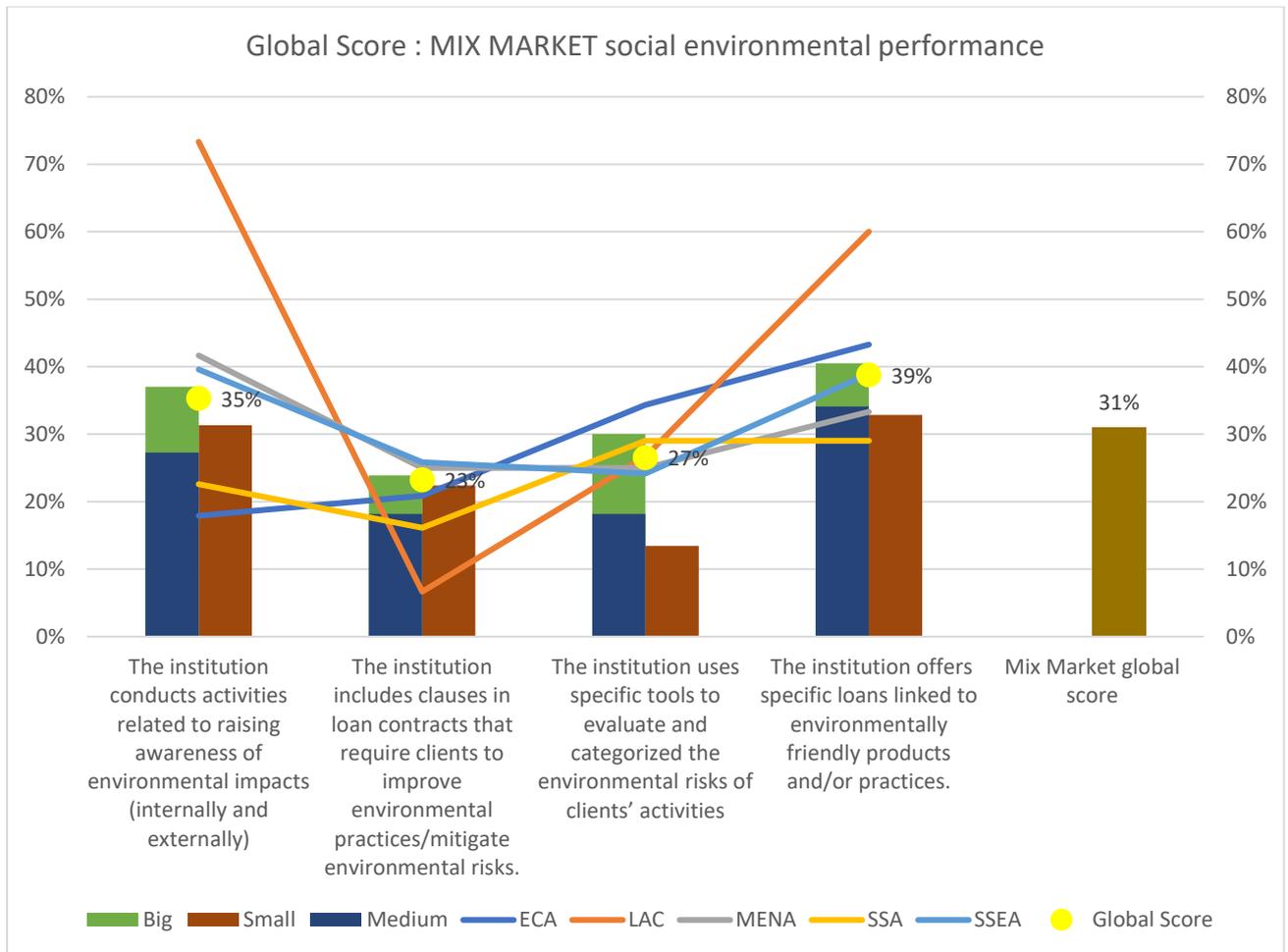


Figure 13 Mix Market : Global Score of Social Environmental Performance

Findings: Databases

In conclusion we can see that from a global standpoint, MFIs are focusing on 3 major actions in their green strategies:

- 7.B.1.1 : Actions to increase energy consumption efficiency/use renewable energy sources/recycling waste/carbon impacts at HQ and branches
- 7.C.3.1 : The provider categorizes loan applications according to the level of environmental risk and applies specific procedures according to each risk category
- 7.D.1.1 Offering specific loan products to finance renewable energy and/or energy efficiency tech.

While they are in general less involved in:

- 7.B.2.1 Tracking s achievement of quantitative targets set for energy/water/paper usage, fuel consumption, waste production, and/or greenhouse gas emissions at HQ and branches
- 7.A.2.1 appointing persons or a committee to manage environmental issues
- 7.D.3.2 Offering, directly or via a third-party insurer, agricultural or climatic micro-insurance products that contribute to help client to become more resilient to environmental shocks or climate change.

Through these findings, one can observe that MFIs are focusing their efforts and resources on actions that combine economical and financial benefits (cost efficiency, risk management, new products and markets) with environmental objectives. These actions are the most interesting ones for external stakeholders as they can have a short-term impact on the operational expenditures, interesting market expansion for investors and increasing climate risks mitigation for loans disbursement.

However, they seem to neglect the tracking and monitoring of quantitative objectives in order to follow up their progress in this field, and ultimately use these data in their Business stewardship. The reason here can be found in the difficulties to have clear, and easily collected quantitative indicators that would give an accurate vision of the impact of the actions. In addition, nominating a person or a committee appointed to manage environmental issues is certainly reserved to major structures, with large organigrams and delegated responsibilities.

The last one over the micro-insurance products is however a surprise as this product can have powerful impact on clients. This green financial product has seen a growing interest from the microfinance sector these last years illustrated by the next European Microfinance Award 2020 subject which is “Micro-insurance against climatic change’. This might be very new to many MFIs and this score could increase significantly in the next Green Index reports.

While we look at the Green Index scores analysis and the potential correlation between financial and social indicators, we can clearly see that institutions with bigger structures (based on the gross loan portfolio, number of clients and Total

assets) are the ones declaring higher involvement in environmental issues. Diversification for risks mitigation, new markets and new customers for new profits and market shares, reputation or investors requirement are direct events which can lead a large part of big structure to develop their environmental performance. However, this conclusion is based on statistics that are strongly related to the composition of the sample. Smaller MFIs might have strong interest and involvement in environmental issues but are much less represented in these data.

Surveys

Analyzing those databases gives us an interesting understanding of which aspects of the environmental strategies MFIs were focusing their resources on before the crisis (2016 to 2019). To have a better vision of the potential impact of COVID-19, we will analyze the results of two surveys that were conducted during June/July 2020.

These results will give us a better understanding of the impact on the monitoring and the actions taken in relation with green strategies.

Survey : Maximilien Pary : Impact of the current COVID-19 on Green Microfinance strategies

Presentation

This survey has been conducted in order to get insights from the market, and particularly from MFIs whose activities already involve them with regard to environmental issues, on the impact this crisis is yielding on their green strategies. It is composed of 27 questions in 3 languages (French, Spanish and English) which have been developed with the 4th dimension of the Green Index as a basis. The estimated time needed to fill in the survey was aimed at 10 minutes and it has been filled in by 12 MFIs amongst 250 MFIs (5%) contacted giving a surprisingly low interest in the topic by stakeholders. Stakeholders were also contacted for interviews to support answers, however, it was also very difficult to find people willing to share their views on the situation, as we are still in the heart of the crisis, and most of MFIs,

investors and other actors are mostly only focusing on their current survival financial situation.

Categorizing questions were asked at the beginning and were focusing on the average gross loan size, the number of clients, the PAR30 and their world regional location. We will describe and analyze the result of this survey based on their size and region, to remain in line with the previous analysis done in this paper, associated to the Green Index pillars.

It is fair to underline some inconsistency in the responses, as, for example, some institutions declared having no green products or associated services but however answered that their demand for green products decreased. The designation of “Green Products and services” is common in Europe as we deal with this kind of vocabulary and categories in our daily activities in many different professional sectors, as well as in our daily life. This “green” vocabulary might not be used in every part of the world and can sometimes create some misunderstanding of the questions.

The entire set of survey questions can be found in Annex 3 with excel results sheets can be given on demand.

Results

First Pillar: A.: The provider defines, manages and monitors its environmental strategy.

The following questions were asked in order to assess the potential impact of the crisis on their green strategies:

Table 3 Questions from survey: Impact of COVID19 on Green Microfinance strategies: Pillar A of Green Index

Questions	Global score (% YES)
1. Has the COVID-19 crisis had an impact on your institution's overall environmental strategy?	100%
2. What impact has the COVID-19 crisis had in terms of changing your investors' interest in and objectives regarding the environmental impact of your institution's activities?	83%
3. What impact has the COVID-19 crisis had on your clients' awareness and interest in the environmental impact of their activities?	50%
4. What impact has the COVID-19 crisis had on employees' interest in the environmental impact of their activities?	75%
5. Have your institution's environmental goals and targets been reviewed due to the COVID-19 crisis?	75%

6. Were your institution's environmental indicators changed/reviewed due to the COVID-19 crisis? If yes, specify the indicator below.	25%
7. If applicable, have the responsibilities of the person or committee in charge of sustainability / green strategy been impacted by the COVID-19 crisis?	33%

Without any surprise, 100% of the participants answered that the global environmental strategy had been impacted by the crisis. However, when going further on the potential positive or negative impact that it had on different stakeholders (investors, clients and employees), 50 % of the participants answered that it had a positive impact, for 19 % negative and 31% judging it had a neutral impact.

Taking into consideration that participants are already highly involved in green microfinance, and therefore might have a higher probability of reporting to green investors, almost 60% answered that the crisis had positively impacted their

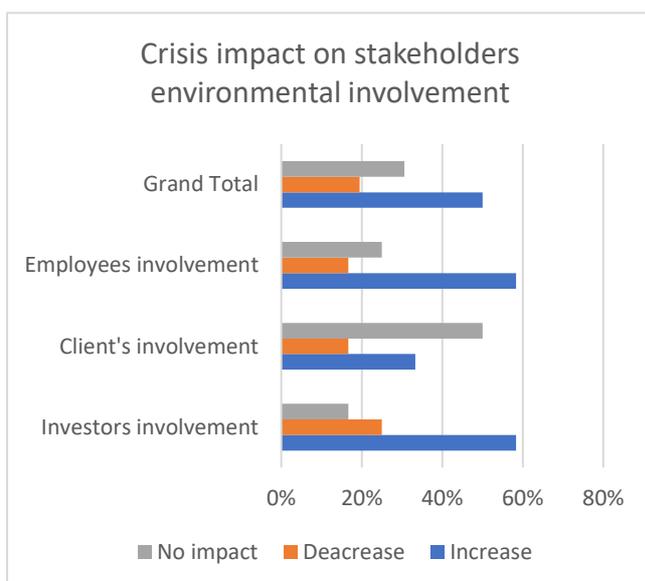


Figure 14 Survey: Impact of COVID19 on Green Microfinance strategies: Impact on Stakeholders

investors interests in environmental issues, regardless of the size of the MFI, while 25% declared it had been negatively impacted (environmental impact assessment and related actions postponed).

This positive impact has been described as the “right time to rethink or rejuvenate the environmental-related strategies and activities”, resulting in a proof of increasing interest in taking into consideration the environmental concerns into the

economic recovery plans. Aside from the economic crisis, climate change is still an awaiting global economy the coming years and it will not go away as this bio-sanitary crisis is finally tackled.

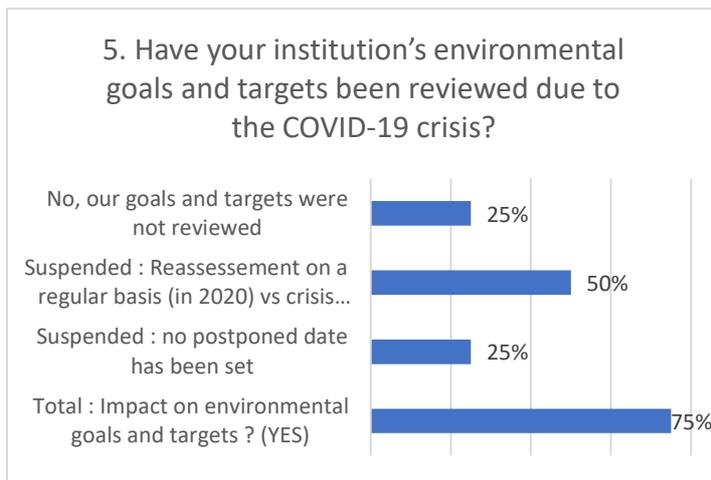


Figure 15 Survey : Impact of COVID19 on Green Microfinance strategies : Zoom on goals and targets impacts (Question 5)

Environmental issues awareness has been also reported as highly impacted by the situation (50% for clients and 75% for employees), positively at 60% for the employees.

Without any doubt, goals and environmental objectives have been reviewed for 75% of the participants, with 100% of the big MFIs having suspended until next

year or postponed their goals observing the evolution of the economic situation.

Regarding the budget allotted to committee(s) or person(s) monitoring the environmental impact on the MFIs, (only big ones have this kind of structure), 67% answered that the situation didn't change while 33% explained the budget was cut until further analysis of the current situation. However, all environmental responsibilities associated to these departments were maintained, while new projects were postponed.

This first dimension had therefore been strongly positively impacted by the COVID-19 crisis, with a clear positive impact on the awareness and interest in environmental issues from every stakeholder, especially from the investor point of view, while around 20% declared a decrease in their environmental involvement. While the crisis increased the interest of the stakeholders, on the operational side, objectives and budgets were strongly negatively impacted, with 75% of the goals and targets suspended (25% with no postponed date for reevaluation) and 33% had cut their budget. However, if the environmental related activities were clearly reduced, MFIs have not given up on their environmental responsibilities and a certain involvement persists.

Second Pillar: B. The institution manages its internal environmental risks (actions and monitoring of the internal footprint)

The following questions were asked in order to assess the potential impact of the crisis on this dimension:

Table 4 Questions from survey : Impact of COVID19 on Green Microfinance strategies : Pillar B of Green Index

Questions	Global score (% Yes)
8. Has the COVID-19 crisis had an impact on your reporting methods (internally and externally) on environmental performance and related practices?	25%
9. Has the COVID-19 crisis had an impact on your institution's monitoring of its internal environmental footprint in 2020?	67%
10. Has the COVID-19 crisis situation had an impact on your institution's actions to reduce its internal footprint in 2020?	33%
11. Has the COVID-19 crisis had an impact (positive or negative) in terms of the quantitative targets and objectives set to reduce your institution's internal footprint?	67%

From a global standpoint, COVID-19 had an impact for 45% of the participants on the actions and monitoring of their internal environmental footprint and associated risks.

In terms of monitoring, 33% of the participants declared that their internal reports were changed in terms of frequency, while 60% of the big ones declared that they also changed the format of their external reports.

67% of the participants declared an impact amongst whom 42 % reported that they increased or simply started monitoring their internal environmental risks.

We can assume that this increase is mostly motivated by financial facts.

From a financial standpoint, monitoring its internal footprint can have direct positive consequences on the operational expenses, and therefore reduce costs and charges which are highly scrutinized in financial crisis situation.

Indeed, 67% of the participant declared that their quantitative indicators also witnessed a positive trend as they decreased their energy, paper, fuel, water consumption and their waste emission, mostly due to the diminution of their workforces (60% in LAC).

However, 25% declared that it had a negative impact, as the bio sanitary situation had a direct increased effect on their water consumption (hygiene).

Regarding this second dimension, the crisis might therefore indirectly develop an increased awareness of an internal environmental impact (energy consumption and waste emissions) under-managed or under-monitored on daily institutions activities. Reducing this impact and therefore improving internal footprint can have a positive financial and environmental impact.

Third Pillar : C. The provider manages its external environmental risks

In order to assess the potential impact of the current situation on the institutions strategy to define and monitor their external environmental risks and footprint, the three following questions were integrated in the survey:

Table 5 Questions from survey : Impact of COVID19 on Green Microfinance strategies : Pillar C of Green Index

Questions	Global score (% YES)
12. Has the monitoring of the external environmental footprint changed due to the crisis?	42%
13. Has the crisis had an impact on your institution's actions to reduce its external environmental footprint?	75%
14. Has the COVID-19 crisis changed the way your institution assesses the environmental impact of its clients' activities? (ex: loan officers' evaluation of clients' environmental risk; priority on activities with less negative impact on the environment)	58%

Regarding question 12, going over the monitoring of the external footprint of the institution, 42% answered that the crisis had an impact (positive or negative), while 50% of the answers indicated that the crisis yielded no changes and 8 % underlined that they did not monitor this in their institution.

25% of the global survey participants took the advantage of this current situation to start monitoring their external environmental footprint while respectively 8% increased or decreased it. The crisis has therefore prompted an action for 33% of the participant for this particular factor.

While analyzing the answers with respect to the actions taken by the institutions on this topic, 75% of them indicated at least one impact, 17% that all actions will be kept as before and 8% not planning any action to reduce their external environmental footprint. Amongst the different possibilities given (see table 6), the major impact was registered on the loans approval based on environmental criteria's

(33%) and in second position the integration of client's activities in circular economy models (25%).

Table 6 Questions from survey : Impact of COVID19 on Green Microfinance strategies : Pillar C of Green Index

a. Assessment of the impact of our portfolio activities on biodiversity/eco-system
b. Loans approval process based on environmental criteria's (environmental risks, environmental impact, carbon footprint)
c. Assessment of the environmental risk of outstanding loans
d. Evaluation of the integration of our portfolio activities in a circular economy model
e. Development of trainings provided to our clients upon their environmental impact
f. On green products offer (energy loans, micro-insurances ...)

The results show a negative impact for 33% of the participant stating that the actions were suspended on a temporary (17%) or on a long-term basis (17%), which show that, even if institutions have an increasing awareness of the need to take into consideration environmental issues in their external activities, the current liquidity crisis creates a strong uncertainty for actions implementation. The other 67% thus claim a positive impact (starting or increasing the monitoring).

Finally, observing the statistic on the question relative to the loan officers' actions, 58% declared a direct impact. 16% of them reported a direct negative impact as all environmental risks and environmental impacts criteria were removed from the loan process validation by loan officers. However, 42% declared that they began to integrate this criterion in the discussion with clients. Amongst the 42% declaring it has no impact, most of them were already integrating these criteria's in their loan process and still do with the crisis.

The global result of this dimension also shows a positive trend on the monitoring of the external environmental footprint and associated risks from institutions. Assessing the environmental risks of client's must be seen as an advantage for the institutions, as it can mitigate the credit default risks from environmental direct consequences. In this liquidity crisis, institutions must better

select their clients projects, and therefore need a stronger risks assessment. If this increase in environmental risks assessment can be positive for the institution, it should not be at the disadvantage of the market, and innovation in financial and non-financial product design must be found in order to adapt to these risks and not exclude them.

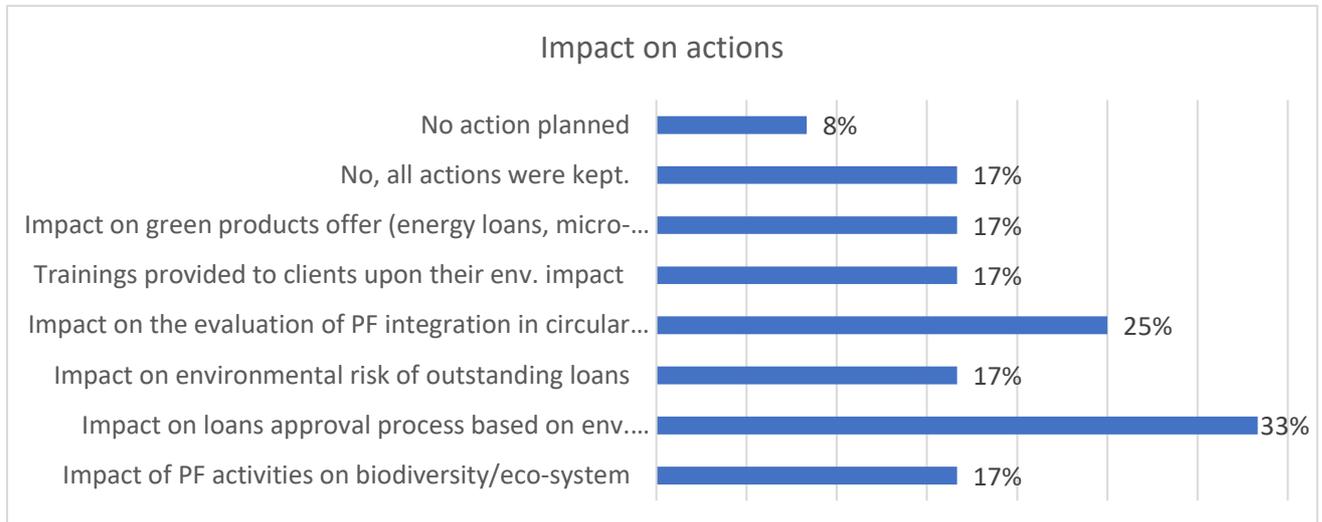


Figure 16 Survey : Impact of COVID19 on Green Microfinance strategies : Impact on actions

We can however underline that 33% answered that all their actions were suspended temporarily or on a long-term basis, which once again shows that, even if institutions acknowledge the need to take into consideration environmental issues in their external activities, their primary goal is to maintain their company afloat, even if it means downsizing or delaying these environmental activities.

Fourth Pillar: D. The provider fosters green opportunities

As stated before, developing green opportunities can be a real challenge for institutions, and, most of the time, business models at the microeconomy level can encounter strong challenges to meet profitability as economies of layer do not easily apply in this case. To this day, green opportunities are therefore a fast-moving market, where innovation is prone to find models in line for with the triple bottom line expectations from stakeholders.

This survey provided simple questions in order to detect first trends in the market, but interviews should be conducted in the coming months to have a better view of the evolution of the green market situation.

Table 7 Questions from survey : Impact of COVID19 on Green Microfinance strategies : Pillar D of Green Index

Questions	Global score (% YES)
15. Were the green products/services (loans, micro-insurance, green non-financial products/services...) offered by your institution reviewed due to the COVID-19 crisis?	42%
16. Has your institution rejected at least one loan application due to environmental criteria since the beginning of the COVID-19 crisis?	25%
17. Has your institution offered at least two micro-insurance products to increase clients' environmental resilience since the beginning of the COVID-19 crisis?	33%
18. Has your green product portfolio been more impacted than the non-green product portfolio? (e.g. due to higher default risks)	42%
19. Has the institution postponed investment in at least one green product/service due to the COVID-19 crisis?	25%
20. Did you have to change the business model for one or more of the following green products?	33%
21. Has the market demand for clean energy products decreased during the crisis?	83%
22. Has the market demand for specific financial products for sustainable or climate-smart agriculture decreased during the crisis?	100%
23. Has the market demand for other green financial or non-financial products or services decreased during the crisis?	92%
24. Does your institution benefit from financial support from public programs?	17%

In the studied sample, 17% reported that they don't offer green services or products, all of them based in SSA. For the others, 7 MFIs out of 10 declared that their green products/services portfolios were impacted by the crisis, and that their overall budget or strategy were suspended due to the crisis and will be reassessed on a regular basis in 2020 until the global economic situation recovers.

This impact concerns mostly big MFIs with 71% of the sample studied.

From a more practical viewpoint, 25 % of the participants still refused at least 1 loan on environmental criteria's during the crisis, and 33% signed at least 2 climate resilience micro-insurances showing that, even in this survival crisis, environment was still a concern for their activities. Most of the MFIs offering green products before the crisis had to review their business models, especially for climate-smart products related to agriculture (credits and micro-insurances).

On a financial perspective, 42% reported that their green loans portfolio had more exposure to default risks than other financial products offered. These same participants showed the highest PAR30 of the survey, however, it is difficult to draw any firm conclusion only based on these figures, but it can still show that green

opportunities can have a higher risk to be taken into consideration when designing the products.

From the capital expenditure point of view, 25% reported that their institutions will postpone green investments related to energy products from 2020 to an undetermined date (43% of all big structure).

While analyzing the impact of the crisis based on financial indicators such as the demand from the market for the different products, it is not surprising to see that all markets demands were negatively impacted (decrease for energy products, climate-smart agriculture, other green financial or non-financial products or services). However, the results cover the whole spectrum of decrease percentage, from slight decrease < 20% (25%) to a total decrease between 90 to 100% (25%), with no link to the size of the institution or the regions.

Each market and each client portfolio have their proper specific features, and it is not possible, based on this survey, to identify the actual reasons for this spread. However, we can assume that, for each of them, demand is linked to the portfolio quality and composition (types of products, risks etc...), the global energy prices situation (kerosene, other carbonized sources...) (Bishop, 2020) or the overall macroeconomic (country or regional) situations. We can however underline that LAC is the region which is most impacted by this decrease from the market. The green opportunities development is globally suspended in every region, all of them waiting to observe the evolution of the current financial situation in order to have a better understanding of the future evolution of the market.

Finally, an interesting point would have been to understand if governmental support could have had an impact on the green strategies. However, only 17% declared being supported by their government in their environmental strategy, and none of them claimed that this support had a direct impact on their green strategies.

Survey : Q9 : ADA & Fondation Grameen Crédit Agricole : Enquête auprès des IMF partenaires sur l'impact de la crise liée au covid-19, Juin 2020 (ADA & Fondation Grameen Crédit Agricole,, 2020)

Presentation

The second survey was conducted by ADA and Fondation Grameen Crédit Agricole

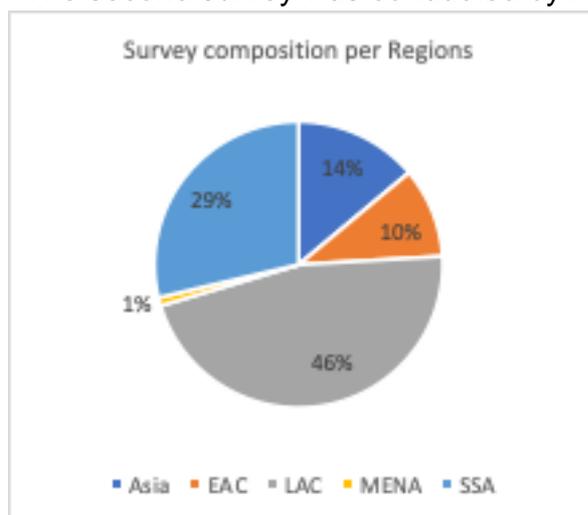


Figure 17 Survey : Impact of COVID19 on Green Microfinance strategies : Sample composition per Regions

in June 2020 (ADA & Fondation Grameen Crédit Agricole,, 2020), with their partners. The sample analyzed is related to opportunities MFIs are still projecting to develop (non-green and green products) regarding the current impact of the crisis on the microfinance sector.

This survey is strongly related to the 4th dimension of the Green INDEX focusing on green opportunities and will help us to complete the first survey results on this

topic.

The survey is composed of 108 MFIs, ranked by regions and size (LMDF Tiers and Symbiotics Tiers methods). They answered 15 binary questions, with two open questions asking for the reasons why given products (agricultural or health micro-insurances, health financial products, digital products...) will still be developed despite the crisis.

We will follow the same methodology applied to the previous analysis, analyzing the results per regions and size (based on the Total Assets Symbiotics Tiers: Tier 1 > 100m\$ > Tier 2 > 10 m\$ > Tier 3) for each question related to Green Products (3) and we will draw key conclusions based on the answers.

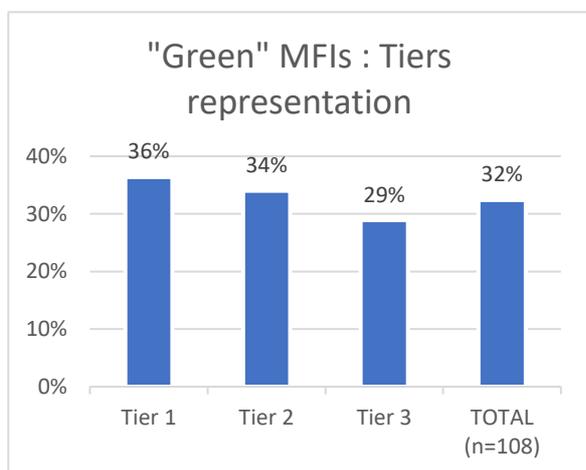


Figure 18 Survey : Impact of COVID19 on Green Microfinance strategies : "Green" MFIs : Tiers representation

After reviewing the global score of each MFI and their comments related to their products development strategy for the second part of 2020, we can identify three major trends in their strategy, regardless of the Tiers categories (1/2/3) they belong to.

As a direct consequence of the general lockdown and social contacts limitation around the world, the first trend is related to digital technology and all associated

products, with 48 % of the MFIs announcing their intention to develop new products in this category. Financial crises and economy crashes are not new phenomena and will not disappear after the one occurring now. However, what's new is the social distancing prompting the research of new communication means.

The second trend is for MFIs to focus on their client's financial education. The objective is to ensure an overall better financial flow education from their portfolio in order to better self-manage their cash flow and face emergency prompted by the financial crisis.

Aside from those two specific trends, the third one is more global. MFIs are declaring being on the lookout for diversification of their products portfolio and adaptation to emergency and new needs created by the COVID-19 crisis.

Green Products

Amongst ADA & Fondation Grameen Crédit Agricole' survey, three questions were associated to green strategies, which are :

Table 8 Survey : ADA & Fondation Grameen Crédit Agricole: Types of New Green Products that will be developed

	Total	Tier 1 (Big)	Tier 2 (Med)	Tier 3 (Small)
Nous envisageons de lancer des produits financiers pour faciliter l'accès à l'énergie verte	22%	29%	19%	22%
Nous envisageons de lancer des produits financiers plus spécifiquement dédiés à l'agriculture durable/responsable envers l'environnement	19%	18%	19%	19%
Nous envisageons de lancer des produits financiers dédiés à des activités (autres que l'agriculture) respectueuses de l'environnement (éco-tourisme, recyclage, etc.)	13%	18%	12%	14%

Based on the input of all ADA partners that participated to the survey, 32% of the MFIs reported at least one green product development, with still a strong LAC partners proportion (34%) and SSA ones (35%).

While looking in more details the kind of products partners foresee to development in this period, green products come way after others possibilities. Digital products (48%), educational programs (36%) or better product design targeting women (26%) are the three main opportunities while the first foreseen green product development is related to sustainable and environmental-friendly financial products with 22 % (ranked 5th in %).

Results

One third of partners who participated to the survey are involved in green microfinance, regardless their size (35 % for Tier 1, 33% for Tier 2, 30% Tier 3) which could be in line with the previous databases analyzed. However, this survey was done amongst a most diversified portfolio of MFIs, which didn't exhibit a similar social orientation (and therefore have a higher probability to be environmentally friendly) to the SPI4 sample.

While analyzing the comments given by each partner ("Green Sample" = with at least 1 green product foreseen to be develop) related to their 2020 green products development strategy, we can find two kinds of MFIs as shown in this chart.

Table 9 Survey : ADA & Fondation Grameen Crédit Agricole: Reasons given for developing Green Products

Reasons given for developing new green products	Diversification /adaptation to the crisis (Green Sample)	environmental responsibility given (Green Sample)	Total Score on global sample: % environmental reason given
Asia	50%	25%	7%
EAC	33%	0%	0%
LAC	29%	47%	16%
MENA	0%	0%	0%
SSA	55%	9%	3%
Grand Total	40%	29%	9%

First of all, only 29% of the “Green sample” are stating an environmental reason in the comment on “Reasons of this new product development” while 40% are giving a global reason for product diversification and adaptation to customer needs due to the crisis.

The first category is therefore environmentally driven when developing their products while the second one is integrating its green products in a global business development strategy. We can see that 50% of LAC partners who answered at least one green product positively are putting forward the environmental situation as a reason to do so, which goes down to 16% on the global sample, still much higher than any other part of the world. One institution from LAC didn’t answered that they will develop financial green products but explained in the comment that they will focus their resources on financial and environmental education which can have a greater impact on the environment.

The key learning from this survey is that, even during the COVID-19 crisis, some MFIs are still considering expanding on the market with green products, very few however with a direct environmental motivation. Actions are planned, but however, we can assume that their implementation will depend upon the financial health of the MFIs as we have seen in the first survey described that most of green budgets were suspended or canceled.

Findings : Surveys

The results of these two surveys give us an interesting view on the current situation of green strategies, with regard to the current COVID-19 crisis occurring all over the world, but also on the global interests in the environmental issues.

From a general standpoint, the crisis is affecting all 2020 strategies and expectations, and it is therefore not surprising that all green strategies, with target and objectives associated, were directly impacted, reviewed and revisited.

This crisis is strongly impacting every financial situation and the key priority for MFIs is to ensure enough liquidity reserves that will allow them to survive through the coming months, rescheduling their debts and their outstanding customer loans as much as they can to avoid bankruptcy.

On this basis, we could anticipate that investors will lower their environmental involvement in order to concentrate their investment on more short-term profitable products, less risky and with short pay-back period, until the global situation stabilizes and improves.

Most of the participants stated a positive impact on the interest and involvement of their stakeholders in the environmental issues, increasing their awareness in these concerns and rejuvenating the way of thinking about recovery strategies. Even if it is only qualitative information based, it shows that most of them have integrated that climatic threats and environmental risks must be considered for a sustainable recovery, even if the financial and social situation is still the key priority (budgets for actions are mostly all suspended or decreased). A minority of the participants declared that the environmental aspects of the activities were not a concern anymore, as they focus only on financial and social topics. As most of the participants were big structures, this could also be linked to the financial and liquidity power and international investors.

This global awareness translates into an increase in internal and external environmental risks and impact monitoring. Some of the MFIs started this monitoring during the crisis. This increase in interest can also be associated with potential financial opportunities for the institution.

On the one hand, monitoring and optimizing one's internal footprint can have significant positive consequences on operational expenditures related to daily activities. As a result, most of the MFIs declared having decrease their global internal footprint even if a large part of this reduction has been possible by a diminution of the workforce, which would therefore be canceled while staff will increase. It still shows management and employees the important financial impact, and true environmental consequences, that can be related to this matter.

On the other hand, the crisis is compelling MFIs to increase their knowledge of their external working environment in order to better adapt their recovery strategies to their markets and review their products designs and business models in accordance to their needs. With the financial crisis, MFIs will have to better assess the projects they will invest in, as their low liquidity level will not allow them a high-risk appetite. But aside quality project assessment, a deeper analysis of their environmental risk's portfolio can also be a good basis to increase the global awareness of their clients on this topic, providing them environmental trainings which could indirectly mitigate the associated risk of their projects. This win-win situation could be an interesting and positive impact of the COVID-19 crisis on this paradigm.

The results show that a strong motivation to integrate environmental concerns remains in the daily activities of the institutions, especially for big MFIs and located in LAC region. Nevertheless, the crisis is taking its toll on their financial situation and most of the budget allocated for actions or investments related to environmental footprint and green products have been suspended, decreased or totally canceled. These budget costs are also in line with the overall steep decrease of the market demand for green products, financial and non-financial, regardless of the regions or the size of the MFIs.

MFIs that were already highly exposed to green products will therefore continue to develop their markets, but suspending new investments or new products until the situation improves and gives them a better vision of the coming months/years of the market evolution, above all where external financial support for green products such as solar panels were suspended until further analysis of the economic situation.

The surveys give us insights on potential new markets and products development for the post-COVID situation. There is still a place for them in strategies with the motivation to diversify products portfolios and find new cash in-flow or increase market share to improve their liquidity situation. However, we can assume that these products and especially green opportunities will go through a strong risks and profitability analysis in order to lower the risks associated as much as possible and avoid endangering the fragile financial balance of the institutions.

Moreover, over the 255 MFIs, country microfinance associations and stakeholders contacted for the survey, only 5% participated to the results of the COVID19 survey (+/-10min). Taking into consideration that almost 50% of the contacts were already involved in green strategies, we can conclude that the sector is facing a lack of interest in the topic, maybe mainly driven by the critical financial situation. On the same trend, dozens of mails were sent for interviews over the impact of COVID19 on Green Microfinance. Answers were very difficult to get, while most of them explained it was too early to define real impact as many MFIs were in “survival mode”. On this basis, we can conclude that the priorities remain therefore clearly given to financial and social objectives.

Analysis: Impact of COVID-19 over Green microfinance strategies

The 4 pillars of MFIs Green microfinance strategies will face various impacts due to the COVID-19 crisis, depending upon the reasons why MFIs were involved in the green MF, their size associated to their financial strength and the macro-economic situation of their region. At the time of this research, all regions of the world have been impacted to a similar extent and emerging countries are deepening in the crisis and been facing more or less the same level of consequences (partial lock-down) with a lot of uncertainty in the future. Still, we need to keep in mind that in the coming months, each country may be differently impacted with regards to both, the measures initially taken at the beginning of the crisis (restrictive lock-downs or no social distancing), and now the new measures taken to face some resurgences of the pandemic (new lock-downs, severe social distancing instructions,...).

As said, this sanitary worldwide crisis will affect MFIs on a financial basis. Every stakeholder will face high financial pressure due to a global decrease of GDPs related to a crash on macro-economy and local businesses trade volumes which

results in liquidity shortage. On short term, this will force MFIs to prioritize their financial responses, in order to avoid insolvency and bankruptcy, while in the meantime, ensuring emergency loans for the very vulnerable part of their portfolio and anticipating future pessimistic evolution of lockdown situation by defining mid-term recovery strategies, such as investing in digital services to maintain direct contact with their customers, or education to increase clients cashflows management abilities.

In this “survival” context, we will observe a strong negative impact on budgets allocated to green strategies, even if big MFIs are the most involved in green microfinance and should therefore have better liquidity buffer. Two types of effects are to be foreseen on the market. First, MFIs and investors which were not in total alignment with their environmental objectives, or strategies that were not fully linked to founders or charismatic CEO beliefs, will make the choice to abandon their engagements in this field, on a short-term and mid-term basis, and concentrate on the financial and social issues. However, they might take back into consideration this matter if the situation gets back to normal. The second category, composed of MFIs strongly involved in social and environmental performances, suspended or decreased their budgets, but will reassess this decision on a regular basis, following the evolution and stabilization of their financial situation. Environmental concerns will therefore still be on the agenda while working on, short, mid or long-term recovery plans, but to what extent?

We have seen in the literature review that green strategies actions have the most impact when the stakeholders are strongly involved (board, top management and employees), that MFIs are social responsibility based and environmental beliefs are core-values of the institution.

On a short-term basis, as stated, every budget, action, goal or objective related to green strategies will be likely suspended, postponed or abandoned regardless of the size of the MFI. This had therefore a massive and negative impact on green capital expenditures and green products developments that have important financial upfront fees or high operational costs for few returns. This reaction is easily understandable as green strategies have difficulties to prove alone their positive financial impact on institutions financial statement. The only way for the management not to directly cut in green budget must go through governmental support. Integrating environment in the global strategies cannot be seen as a local issue or challenge,

and therefore cannot be limited to local actions. Government must support and reward the best-in-class industries and institutions and to do so, must put rewarding programs based on quantitative data collected and analyzed at a state level.

All analyzed data in database and survey are qualitative one, and it is therefore impossible to see the true impacts of those green strategies, defend their results and say to which level of impact the COVID19 will have.

The crisis has consequently a huge impact on global 2020 green strategies for MFIs, especially medium and small ones characterized by lower financial strength and liquidity reserves. Still, all pillars of green strategies don't need the same amount of financial investment, and MFIs can still work on their environmental impact through other initiatives. Indeed, in the majority, responsibilities on internal and external ecological risks assessments were kept, and we can witness an increasing trend in the stakeholder's awareness of their environmental footprint.

Thus, while investigating for costs optimization and reduction, monitoring its internal environmental footprint can have a real positive financial impact. This action was already strongly integrated in green strategies before the crisis (Atlas and Mix market database), but it gave the opportunities for some MFIs to start, and for other to increase monitoring these variables related to operational expenditures (energy, waste emission...). This pillar will therefore be positively impact by the crisis, and might give incentives for board and top management to work on quantitative goals for their internal environmental impact on mid or long-term green strategy.

The decrease in risks appetite from MFIs due to lack of financial reserves and economic uncertainty have also a direct impact on short-term external environmental risk's assessment of their portfolio. Climate change and environmental risks (associated to health and hygiene also) can have important consequences on client's activities (floods, droughts, culture diseases...), and therefore increase their risks of defaults. Most of MFIs are therefore increasing or starting assessing the environmental risks for their client's projects and/or outstanding loans in portfolio. Integrating risks assessment and environmental criteria in loan process approval was already in place before the crisis (Atlas and Mix market). The situation therefore increases the interest of the MFIs in this field, and new markers or Critical Success Factors (CSF) could enrich loan officer trainings to improve their assessment on mid and long-term strategies. Moreover, the crisis seems to also have had an impact on the training offers by MFIs to their clients. Increasing their awareness of

environmental risks and consequences of their activities (i.e on biodiversity) or explaining the virtuous cycle for the integration of their activities in circular economy models through education is a powerful low-cost way of indirectly strengthening the cases for action and mitigating the risks at the same time, a welcome move in an unstable economic environment.

Based on qualitative data, this third pillar seems therefore to have also been positively impacted by the crisis, as increasing its knowledge about the client portfolio environmental exposure and raising the associated client awareness can have positive financial consequences for the MFIs, and could lead to increase market demand for green products on mid and long-term. However, quantitative data should confirm these hypotheses.

On one hand, the three first pillars related to the green policy and the monitoring and tracking of internal and external environmental footprint from daily activities seem therefore to have been partially positively impacted by the COVID-19. However, without quantitative data, it is hard to conclude on the real impact. We can assume that these actions will not face any reverse trend if positive financial results are observed. Moreover, combining footprint reduction and market awareness of environmental issue with budget for green businesses developments and green investments, could lead to higher market demand for those products.

On the other hand, green products and services with high risks exposures or low profitability (such as green non-financial services) will face an important slow down due to the budget cut and low cash inflow from the market. Before the crisis, MFIs were declaring putting their resources in financing “energy and energy efficiency technologies”, “loans for promoting environmentally friendly practices” and “offering trainings”.

Those kinds of actions have a hidden benefit for the global planet and is hardly quantified at a financial level, above all at a micro level. Sustainable development models must be seen at a much higher level and therefore, without any external financial support from the government or the United Nations, we can assume that this part of the strategies will be strongly affected by the crisis, on short term of course, but also midterm or long term, depending upon the evolution of the bio-sanitary situation combined to the stabilization of the economy.

Quantitative indicators should be put in place in order to assess the true impact and demonstrate the benefits of green strategies actions. We can list some ideas here such as:

- Positive evolution assessment of the carbon footprint from internal and external client's activities on a regular basis and financially rewarded while negative ones should be penalized by the government. For example, based on those carbon data collection, sustainable agricultural projects (agro-forestry, crop diversification, organic farming...) and energy loans and related services should benefit from carbon credits on the carbon finance market as carbon capture/storage and carbon reduction actions.
- Quantitative data analysis should be done regarding waste optimization and emissions levels, but also on direct environmental chemical pollution for fertilizer-users (for example level of azote in lakes, rivers and soil around projects) from client's activities and rewarded for positive evolution
- Incentives given for MFIs to develop circular economy models in their portfolio activities (optimization of every stages of business to avoid any wasted resources) should be rewarded
- Quantitative indicators on the level of resources consumption for each activity (ex: evolution of water consumption in activities), and financial or other rewards to encourage a reduced consumption of resources thanks to the use of new technologies.
- Support from the government to develop local economy supply chain that will reduce the global environmental impact of the country, making local business competitive with big company relying on big economy of scale based on fossil energy

All those quantitative indicators will have only meanings if there is a financial benefit for the MFIs at the end, and this can only be given at a macro level, as this concerns not only local markets and microprojects, but the overall planet, and should therefore be integrated in a global governmental strategy.

Without any governmental support, new investments and new products development might therefore be partially suspended, waiting for the demand to pick up again as it decreased drastically for almost every green product, even if some MFIs are still declaring that they will continue to develop these offers in their

strategies, mostly driven by competitiveness and portfolio diversification to find new market opportunities. Green business models that are well implemented in MFIs portfolio have no reason to be put aside on mid or long-term, as far as they are profitable and not at risk of any external suppliers' bankruptcy.

Last but not least, based on qualitative data, the first three pillars of the Green Index that composed Green strategies will therefore be positively affected by the current COVID-19 crisis, on short, mid and long-term basis while the fourth one related to green opportunities development might be correlated with the macro-economic (evolution of the demand, external support from government or other, GDP evolution...) conditions of each institution location.

Based on this analysis and in order to strengthen the global evaluation of the benefits associated to green strategies, while increasing in parallel the level of interest from stakeholders in the environmental performances of their activities, we would recommend to prolong and complement present work in the following areas:

- Run again the survey over the impact of the COVID19 on green strategies in few months' time, say in autumn, in order to have a better vision of its impacts, increase the number of participants for a more relevant data sample by regions and to confirm the trends identified in this thesis

- Collect data related to environmental strategies using proposed indicators given for financial analysis, in order to quantify the true direct financial impact of actions taken but also indirect impacts for the global benefit of the local communities and the planet (biodiversity, amount of potential CO₂ captured and stored, positive impact on CO₂ emissions, water consumption, level of pollution of fertilizer used...). Those quantified impacts will increase and support the integration of green strategies with financial strategies even under strong financial pressure.

- Analyze and identify for each countries the potential organizations such as governmental/United Nations/European Union/... ministries and/or international foundations that would be able to support and reward financially the positive impacts and evolution of the institutions base on quantitative data of their environmental performances.

Developing those three points will be key to contribute to demonstrate pioneer companies applying green strategies are progressing towards a mature stage, using

financial and analytical tools, and Key Performance Indicators (KPIs) similarly to the ones used in the classic economy, but integrating new elements such as the environmental impact of their initiatives, and overall making their global performance easier to understand and steward, and eventually appreciate and overall support. This self-reinforcing mechanism will ensure the durability of the green approach.

Conclusion

The economic world is currently undergoing a very significant challenge, with the attack of the old Business model based on the “take-make-consume-throw away” approach, not any longer acceptable due to its environmental and social consequences. New models are emerging, like the “circular economy model”, with a more encompassing approach, specifically taking mankind and the planet survival needs into account. Economic actors can’t no longer justify their existence with the simple objective to “make money”, but are held accountable about the way they are doing it. Their social role and the level of sustainability of their Businesses are more and more scrutinized, and a new norm of “doing Business” is being developed. The term “green Business” has been coined to succinctly describe this new way of doing Business.

The very same trend is at work in the Micro Finance, where social and environmental aspects of activities receive increasing attention, and the underlying question is the following: are the current fundamentals of MicroFinance strong enough to weather a crisis like the one generated by the COVID-19, and more specifically, will the “green” activities better resist the crisis or on the contrary be adversely affected?

It is fair to say that Business people mindset is not entirely sold on the idea that making money is not the one and only primary goal of economic actors.

A way to address this point is to say that making money is a “necessary” condition, but not a “sufficient” one any longer.

Another element to consider is the fact that, for a given economic actor, making money is a very visible and specific achievement that can be easily quantified. Data are easy to collect and analyzed and its benefits are quickly perceptible and monitored.

The environmental and social contributions of each economic actor are less easy to pinpoint. They fall into a global “achievement”, at the level of a town, a region or a country, and the generally small contribution of each actor is therefore diluted in the big picture. It is less rewarding and easier to shy away from it...and don't make any contribution at all! This is a situation where governmental incentives or investors willing to influence the market towards environmentally and socially friendly initiatives have to step in. The other side of the coin is for governments or investors to apply penalties for the worst achievers in an attempt to make everybody contribute to the general welfare.

Coming back to MicroFinance, the same pattern applies. Therefore, the Covid-19 has played an indicator role to measure the robustness of the different kinds of Businesses, and especially those trying to develop a green business.

This has been seen in the analysis of the database and the potential impacts on green strategies observed in the surveys.

We can conclude that Microfinance activities have mostly suffered from the COVID19 impact, and owners have often retreated to the basic “making money” goal, or at least “not losing” one, focusing on traditional activities while dropping or cutting into their green business initiatives.

This means that green initiatives in MF are not robust enough - therefore the need to better identify opportunities and analyze them using indicators or Critical Success Factors to measure their robustness and their level of risk (see Analysis : Impact of COVID19 over Green Microfinance strategies paragraph).

This means as well that there is not yet a supportive enough external economic environment, with appropriate financial incentives, for this kind of initiatives in the Microfinance world.

The global interest in the impact of our activities on the planet was growing these past years, and the bio-sanitary crisis have been an economically expensive wake-up call on how human activities and their development are tightly associated with nature and earth biodiversity. MFIs and investors with strong environmental involvement before the crisis seem to try to find ways to transpose this crisis as positive influences on the environmental impacts' actions in their recovery strategies. As financial stability, solvency, liquidity and social emergency needs from low-income people are still the major priorities, the crisis might have an important negative impact on green investments and development of new green opportunities

that are most risky or less profitable than other products. Green strategies have been assimilated to unprofitable models for many years in microfinance.

This financial crisis might therefore be key in order to review associated business models and find new ways for a sustainable development of the economy, combining financial, social and environmental stability... but without support at a macro-level (governments, United Nations, international funds) associated with financial rewards or penalties, will those new triple bottom line business models have the true expected renewal and impact in the future ?

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