DWS RESEARCH INSTITUTE

May 2019 / Discussion paper

Expanding access to micro and climate insurance, improving gender equality & climate risk resilience through microfinance funds

Discussion paper for the Principles for Sustainable Insurance, the Insurance Development Forum & UN adaptation finance action track

Summary

The insurance company members of the Insurance Development Forum (IDF) and the Principles for Sustainable Insurance (PSI) aim to support the G7 Climate Risk Insurance Initiative. The G7 aims to expand access to climate risk solutions and markets for 400 million people, including microinsurance for at least 100 million people in vulnerable countries by 2020.

At the same time, there are 1.7 billion adults (particularly women) and 65 million micro, small and medium enterprises (SMEs) who lack access to financial services, with a financing gap of USD170 billion for individuals[1] and USD5.6 trillion among micro/SMEs[2].

While microfinance investment continues to grow rapidly, the creation and delivery of financial services for women is still challenging. Women are also more vulnearable to the impacts of climate change[3]. Microfinance Institutions (MFIs) could benefit from public support to help their beneficiaries to become more resilient to climate impacts and support womens' roles as 'Environmental Stewards[4]'.

Investors, particularly insurers, should recognise the strategic benefits of increasing microfinance investment: the low correlation with traditional investments, as a way to expand micro and climate insurance offerings and to enable economic growth and the Sustainable Development Goals[5].

As part of the September 2019 UN Climate Summit's Resilience Action Agenda, and to support PSI/IDF goals, investors could commit to increase investment in microfinance funds. Partnering with fund managers could improve uptake of microinsurance and accelerate action on the SDGs.

Public sector institutions and the wider development community could commit to partnering with microfinance funds to accelerate the mutually beneficial growth of micro/climate insurance and microfinance, while improving physical climate resilience, gender equality and to support progress towards the G7 climate insurance coverage goal.

Public private partnerships could include more capacity building and risk mitigation solutions for MFIs and their beneficiaries on physical climate risk, and stronger support for women.

[1] Defined as lending USD100 per borrower to the USD1.7bn people without access to financial services
[2] World Bank 2018, IFC 2018 and DWS analysis 2018
[3] InsuResilience Global Partnership 2018 "Applying a Gender Lens to Climate Risk Finance and Insuarnce"
[4] UNDP/GEF 2018 "Women as Environmental Stewards"
[5] CGAP 2016

Introduction to the microfinance sector

A growing area of investment for institutional investors

Characteristics of the Microfinance Sector

Microfinance is broadly speaking the provision of financial services to low-income households and small informal businesses. Almost half of all working age adults (2 billion people) have no access to financial services according to the World Bank (2018). The scope of the microfinance sector has grown significantly since its 1970s origins in Bangladesh.

Microfinance studies show that improving access to financial services (financial inclusion) not only spurs economic activity but also reduces income inequality (Cull 2012). Approximately ~12% of the world's population experience extreme poverty, with an income of less than USD1.25/day. Research between 1998 and 2013 concluded that a 10% increase in the gross microfinance loan portfolio could reduce the number of people in poverty by 1.26% (Zhang May 2017).

From the early days of solely focusing on microcredit, (small loans to low income entrepreneurs), the microfinance sector now includes the provision of savings instruments, payment systems, electronic cash and microinsurance. Efforts are underway to increase the penetration of low-cost digital payment systems as technology becomes a significant facilitator in the development of the microfinance sector.

Traditional microcredit loans have been unsecured loans, which have typically targeted women beneficiaries in rural areas where the majority of the global poor reside. Loan amounts have tended to be very small with short contract terms (e.g., 3–6 months) and frequent repayment schedules (e.g., weekly), which gradually increase according to credit worthiness.

Historically microlending programmes were initially started by nongovernmental organisations (NGOs), such as Save the Children or CARE, and bilateral aid organisations such as USAID. Over time, and as local microfinance laws were passed, these organizations required their microlending programmes to be spun into separate formal entities.

Later, developing countries' laws evolved to define pathways for these non-commercial lending entities to transform into for-profit entities that could offer a wider range of products, with more active regulatory supervision, which would eventually allow these entities to apply for a deposit license or transform further into a bank. With the surge in transformations came the opportunity for external investors to enter the shareholding structure of microfinance institutions (MFIs), bringing in a range of social investors. This contributed to faster growth in the sector, which invited lending from microfinance funds (microfinance investment vehicles - MIVs), who in turn lend to MFIs who then provide financial services to micro-beneficiaries.

As of December 2017, the Symbiotics survey estimates that there were 111 microfinance investment vehicles (most of which are debt funds) with ~USD16bn in assets. The microfinance sector has grown rapidly (2017 growth of 18%, highest growth since 2012).

Microfinance funds are the largest part of the impact investment market and institutional investors provided 55% of MFI capital in 2017[6]. Since 2006, the participation of institutional investors in the micro-finance market has registered a 27% compounded annual growth.

Each MFI serves an average of over 650,000 active beneficiaries, a significant increase from 2009 where the average number of beneficiaries per MFI was under 85,000. Average loan size ranges from USD 1,600-2,430. Rural beneficiaries (55%) and women (69%) continue to be prime underlying beneficiaries.

According to volume, around three quarters of MIVs are categorized as fixed income funds, where more than 85% of their total non-cash assets are invested in debt instruments. The remainder are split roughly equally in volume terms between mixed funds and equity funds

[6] Symbiotics MIV Survey 2018 https://symbioticsgroup.com/wp-content/uploads/2018/10/Symbiotics-2018-MIV-Survey.pdf

with equity funds holding at least 65% of their total non-cash assets in equity instruments.

At the end of 2017, MFIs reached an estimated 139m beneficiaries with loans totalling USD114bn. The total size of the microfinance industry is estimated at USD70bn, serving over 200m beneficiaries. Microfinance funds grew 18% in size from 2017-18 to reach USD 16bn[7].

Microfinance Investment as an Enabler of the SDGs

Financial inclusion is an enabler of many of the Sustainable Development Goals. It is explicitly mentioned in seven of the SDGs with four financial inclusion indicators in the SDGs.

A report from CGAP (2016) found that access to financial services can help achieve the first five of the SDGs relating to basic needs namely, eliminating extreme poverty, reducing hunger and promoting food security, achieving good health and well being, fostering quality education and promoting gender equality. Additional evidence shows that access to financial services can also support SDG #6 on water/sanitation, #7 on energy, #8 shared economic growth, #9 innovation and sustainable industrialization and #10 and #16 regarding equitable and peaceful societies.

Microfinance funds have low correlation with traditional bond/equity investments

Microfinance should be seen as an attractive investment diversification strategy for asset owners. This diversification benefit has sustained even during the financial crisis.

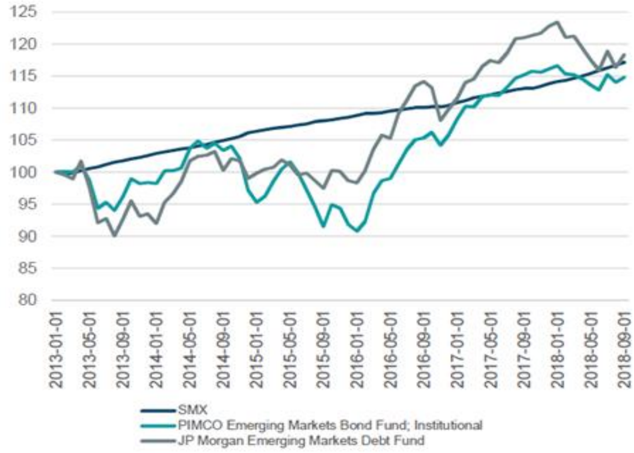
Figure 1 shows the returns of the Symbiotics Microfinance Index (SMX Debt) compared with major debt benchmark indices. The SMX was created in 2003 and tracks the monthly net asset value of a selection of microfinance funds majority invested in fixed-income instruments. The funds are equally weighted and have been providing a guide for evaluating microfinance funds in USD, EUR and CHF since 2004.

There is negative or negligible correlation of SMX microfinance returns against benchmark fixed income, equity, commodity indices[8]. Additionally, the SMX has only had a few instances of monthly negative returns (maximum 0.3% drawdown).

Microfinance investment vehicles have historically shown a very low and stable level of annual write-offs of 0.1-0.6%. Based on these past default levels average MIV portfolio assets can be compared to BB rated assets[9].

FIGURE 1. MICROFINANCE RETURNS HAVE HAD VERY LOW VOLATILITY AND CORRELATION WITH BOND INDICES

SMX vs EM debt total return (2013=100 as of 1 Jan 2013)



Source: Bloomberg (2018), Symbiotics (2018), DWS (2018)
Past performance is not indicative of future returns

[7] Microfinance Barometer 2018
[8] DWS analysis Feb 2019. Past performance is not indicative of future returns
[9] Symbiotics 2018 and DWS 2018. Past performance is not indicative of future returns

Potential to replace negative yielding debt

Investing in low correlated microfinance debt funds could also be attractive if investors have exposures to negative, zero and/or very low yielding bonds.

Figure 2 shows that the value of negative yielding bonds still remains high at USD 9 trillion, after declining from a 2016 peak of almost USD 12 trillion.

FIGURE 2. USD9 TRILLION NEGATIVE YIELDING BONDS IN THE MARKET

Source: Bloomberg Finance LP, Deutsche Bank Global Research, Feb 2019
Past performance is not indicative of future returns.

Regulatory capital charge treatment of microfinance funds

DWS is pioneering in creating a portfolio notes structure for its latest microfinance fund, which allows insurers to use a lower regulatory capital charge rate of 15-20% on a case by case basis.

In comparison, most open-ended microfinance funds have a SICAV structure and require a capital charge rate of 100%. Open-ended funds also have to have higher cash allocations to manage potential investor capital withdrawals.

With the Insurance Development Forum examining the capital charge treatment of infrastructure investments, it may also be useful to examine the appropriate regulatory cost treatment of microfinance.

For instance, a World Bank senior advisor found empirical evidence[10] that the experience of credit risk and therefore the appropriate capital charge for unrated infrastructure bonds and loans in developed and emerging economies are 60-80% below the 2019 planned insurance capital standard for infrastructure of 12.7%.

A similar examination could examine if even lower capital charges microfinance funds would be appropriate, given microfinance investment vehiches' very low and stable levels of annual write-offs of 0.1-0.6% and the low correlation with other asset classes.

[10] Andy Jobst, World Bank, 13 February 2019. Presentation to Insurance Development Forum/Bank of England.

Microfinance & microinsurance synergies

Mututally supportive actions to contribute to the SDGs

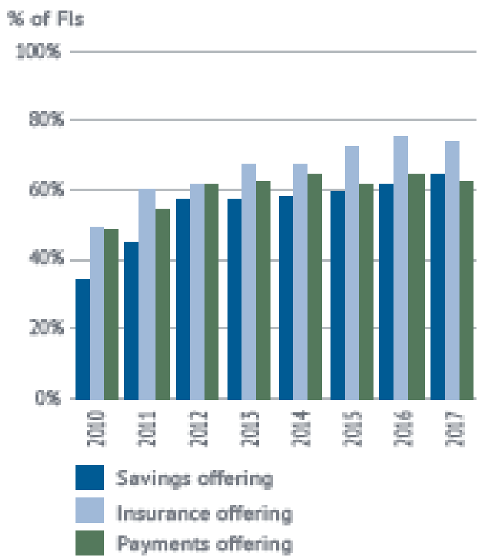
Improved access to financial services is a way to improve resilience to the physical impacts of climate change, by improving individuals' and small businesses' financial capacity to save and borrow.

Improved financial literacy, which may come through the process of opening a bank account and/or taking out a loan, may also increase the likelihood that an individual or SME may also take out an insurance product.

An individual or small business may also be more likely to take out a micro/climate insurance product after their financial well-being and financial security improves during the course of their interaction with a MFI (for instance as a business expands thanks to a loan).

One of the main channels for distributing microinsurance products has been MFIs[11]. **Figure 3** shows how financial institutions offering insurance products has grown from ~50% of the market in 2010 to 70% in 2017.

FIGURE 3. PROVISION OF NON-CREDIT PRODUCTS BY MICROFINANCE INSTITUTIONS



Source: Symbiotics 2018. For illustrative purposes.

Improving the financial capacity, local regulations, size and sophistication of MFIs could strengthen their capacity to support a micro/climate insurance market by including insurance policies as part of their product offerings.

Further capacity building or training to MFIs could contribute to the growth of microinsurance products that cover different risks.

Insurance companies who are active in microinsurance could partner with microfinance fund managers to help connect with a wide range of MFIs and create a platform for insurance companies to test microinsurance product types and preferences of beneficiaries.

Insurance companies' long term goals of expanding insurance amongst the poor and supporting the G7 climate insurance goals, matches well with like minded microfinance fund managers' goals to broaden access to various financial services for the poor as an important way to improve well being.

As well, McKinsey[12] concludes that expanding access to financial services in emerging markets could create a number of macro-economic benefits as shown in **Figure 4**.

For instance, McKinsey (2016) estimates that expanding access to financial services (including digital financial services) by 2025 could lead to a 6% increase in global GDP (USD 3.7trn – which is around the size of Germany's GDP in 2017) and create 95m new jobs.

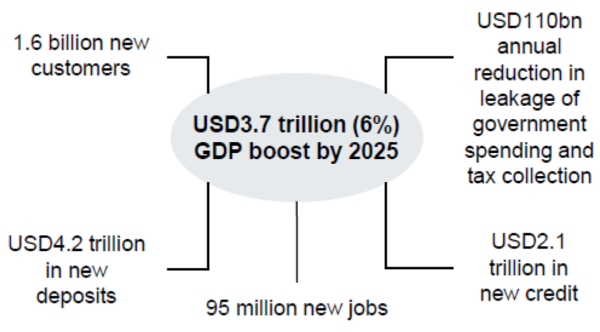
This increased economic growth could also be seen as supporting climate resilience goals. McKinsey estimates that EM financial services expansion could reduce the leakage of government spending and tax collection by USD110bn annually. This improved government revenue could be used to support action on the Sustainable Development Goals including improving resilience to climate change.

[11] According to the International Labour Organisation's (ILO) Protecting the poor: Microinsurance Compendium Volume II (2012)

[12] McKinsey Global Institute How digital finance could boost growth in emerging economies (September 2016)

The following case study gives an example of a fin-tech company developing a software solution that could benefit both microfinance and microinsurance.

FIGURE 4. MACRO BENEFITS OF EXPANDING ACCESS TO FINANCIAL SERVICES



Source: McKinsey Global Institute Sept 2016
For illustrative purposes only.

Case study: Technology is broadening MFI product range and offering

Under 6% of adults in sub-Saharan Africa are covered by regulated credit bureaus, while microfinance institutions are helping 20% of adults (100 million people) with access to financial services (awamo 2019).

Many MFIs rely on paper based, non-transparent processes which are immobile and inefficient. As well, many people in emerging markets do not have valid identification documents and the associated fraud risk. For instance, an individual could apply for loans from multiple MFIs in different locations.

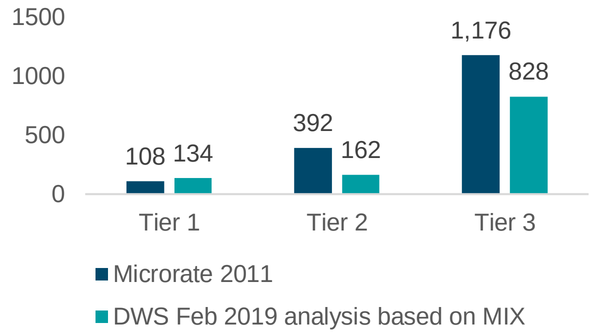
The need to help improve the sophistication of MFIs, can be seen in analysis which 'tiers' MFIs into three or more categories. One classification system (Microrate April 2011) for MFIs used a combination of financial indicators (return on assets), size (total assets) and transparency (level of regulation/reporting). Micorate (2011) analysis of the maturity of MFIs in 2011 suggested that from a sample of 1,676 MFIs, only 30% were the most mature Tier 1/2 as shown in **Figure 5**.

ResponsAbility (2015) estimated that there are ~100 Tier 1 MFIs and ~400 Tier 2 MFIs that were 'investable'.

There are perhaps as many as 10,000+ Tier 3 and Tier 4 MFI like organisations which are run by NGOs or are informal member borrower organisations.

In February 2019, we updated the analysis of MFI tiering/maturing using MIX, a leading source for financial inclusion data. It appears that MIX has a lower coverage of MFI institutions compared to the 2011 assessment from Microrate, however the tiering appeared roughly similar.

FIGURE 5. TIERING MICROFINANCE INSTITUTIONS



Source: Microrate April 2011. DWS analysis based on MIX Feb 2019. For illustrative purposes only.

Symbiotics' (2018) annual survey of MFIs shows that over the last few years, MFIs are growing and maturing and moving up in MFI tiering (note that Symbiotics uses a slightly different tiering classification primarily based on total assets).

A start-up fin-tech company called 'awamo'[13] aims to create a digital, mobile banking platform and credit bureau specifically designed for MFIs. Awamo has received support from the German and UK governments, the European Commission and KfW/DEG. They aim to improve access to financial services and share credit information, thus improving access to affordable finance and creating new opportunities for the base-of-the-pyramid population. Their software also includes biometric technology that aims to protect client data and reduce fraud. The software is optimized for low bandwidth speeds which are often present in rural areas.

[13] Source: awamo February 2019; As of the writing of this discussion paper, DWS has no business relationship with awamo.

By increasing the coverage of credit data in a country, the software aims to help lower tiered MFIs to develop high quality products and services that can attract more beneficiaries. In addition, the credit data created and tracked through the software could support MFIs offering more appropriate insurance products.

The company's experience with close to 260,000 beneficiaries in their database (as of April 2019) and a monthly transaction volume of around EUR 4m suggests that benefits can be created for beneficiaries, lenders, governments and regulators.

In one of its studies, awamo found that loans were processed faster, with more consistency to support eligible beneficiaries to expand their businesses and allowed MFIs to reduce their paperwork costs.

It was also observed by awamo that some MFIs using their system were reducing their interest rates for beneficiaries due to these benefits. By establishing a standardised solution, awamo believes that competition between MFIs will increase and that this will help reduce interest rates in favour of end beneficiaries.

A technology company such as this could be an area of cooperation between microfinance investors, microinsurance providers and government/DFI supports, aiming to bring a fuller span of financial services to more people in emerging markets.

For instance, Awamo has an ambition that their system could in future give MFI business partners access to broader business opportunities such as crop insurance that goes with an agro loan as well as other business and donor/NGO benefits.

Supporting entrepreneurial women

"Women are more vulnerable to the impacts of climate change with implications for their mortality, morbidity and adaptive capacity. This is due to social norms such as their levels of economic participation, role in agriculture, unpaid care responsibilities, and access to information, as well as their childbearing role"[14].

At the same time, there are many examples of women being strong environmental stewards, helping to inprove sustainable development while challenging traditional gender norms[15].

While women continue to be the largest group of microfinance beneficiaries, women continue to be under-represented in the leadership of leading companies and financial institutions and their specific needs continue to be unfulfilled.

We believe that the microfinance and microinsurance sectors, in combination with public-private partnerships, can do more to empower women and provide insurance and climate risk insurance solutions that have meaningful positive impacts and contribute to the SDGs.

Observations from 20+ years of experience

Deutsche Bank was the first global financial institution to establish a microfinance fund in 1997, helping kick-start the impact investment market. Over the last 20+ years, our funds, now run by DWS's Sustainable Investment team, have lent ~USD400m to 150+ microfinance institutions and alternative financial services companies, helping millions of entrepreneurs in 50+ developing countries improve their lives and their communities while creating investor returns.

[14] InsuResilience Nov 2018. Applying a Gender Lens to Climate Risk Finance and Insurance

[15] UNDP/GEF 2018 "Women as Environmental Stewards"

DWS's Sustainable Investments team has expanded over time to include other social and environmental areas of focus. For instance, DWS led Deutsche Bank's UN Green Climate Fund accreditation and the team is developing a strategy for off-grid solar investment in Africa.

While women continue to be the largest MFI client segment, we have seen through our microfinance investments how women continue to be under-represented in the leadership of leading companies and financial institutions and how their specific needs as beneficiaries continue to be unfulfilled in many cases.

Our data and market observations have shown that the microfinance industry has broadened its target clientele from a focus on women to a larger market of people (men), excluded from mainstream financial services.

This transition has coincided with a drive for increased regulation and professionalism among microfinance institutions (MFIs). Both trends are in response to the introduction of commercial investment capital into the microfinance sector.

While these directions have been a broadly positive trend for the large numbers of financially excluded individuals in the developing world, we have still seen some women left on the sidelines or their potential not being fully realised. We observe numbers of female beneficiaries in certain markets stagnanting after earlier periods of growth, and small and diminishing number of women-owned and women-led microfinance institutions.

In DWS's investments directly into SMEs to specific sectors, such as agriculture, energy, or health, we see even smaller numbers of women represented among the leadership of these companies. We also see a lack of attention to women as a distinct client segment by companies and local banks.

DWS's previous microfinance funds

DWS has raised and invested several pioneering mciro-finance funds that also aimed to collect and report on data on women as entrepreneurs, i.e.:

Global Commercial Microfinance Consortium II B.V. [16] **(USD100m microfinance fund)** and **Deutsche Bank Microcredit Development Fund**[13] **(USD5m microfinance fund)** each collected information on the percentage of women beneficiaries of the institutions in the portfolio.

— As of 2018Q1, Consortium II lent to 43 MFIs serving 12.5m borrowers. Compared to the baseline, these MFIs increased the number of beneficiaries by 3m or 51%

— Of the funds' end-borrowers, women represented 90% with rural borrowers representing 87%

Essential Capital Consortium B.V.[13] **(USD50m social enterprise fund)** worked with USAID to identify metrics that allow DWS to consider our investments through a gender lens, i.e. percent of women in management; percent of women-ownership; number of women full-time employees; if SMEs have sexual harassment policies in place or provide childcare.

Universal Green Energy Access Program for Africa[17]**,** aims to raise USD500m in partnership with the UN established Green Climate Fund and will have a job creation gender target as part of its goals to expand off-grid access to renewable energy. While it is not a microfinance fund, it will have the capacity to lend to local banks.

Global Microfinance III[18] - aims to raise USD500m for a fund for microfinance and SME finance, which aims to track the number of women beneficiaries served and other gender-disaggregated data.

Potential ways to address the gap

A number of government, development agency and development finance institution facilities exist for financial institutions to "on-lend" to women entrepreneurs but bottlenecks remain, including:

— Many women entrepreneurs run asset-light businesses, often in the services industry, and therefore lack the collateral that many banks require. Banks perceive such SMEs as higher risk and less desirable beneficiaries.

— There are few female-run or oriented local private equity fund managers, which results in less equity available for women entrepreneurs. Without access to equity or debt funding, SMEs struggle to grow.

[16] These funds are not open to new investors.
[17] This fund may not be available in all jurisdictions. For institutional investors only.
[18] This fund may not be available in all jurisdictions. For institutional investors only.

— Typical financial products from local banks and microfinance institutions are not ideally suited to women in the developing world.

— The InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions, concludes that "*gender-sensitive climate risk insurance has the potential to play a role in adaptation as part of a wider risk management strategy.There is a need to increase access to climate risk insurance solutions among vulnerable populations, especially women"*[19].

This is why DWS suggests that there is a need for governments and development finance institutions to increase the cooperation with microfinance funds. We see two opportunities:

— Technical assistance grants for MFIs could be used to design and establish delivery for financial services tailored to women borrowers and supporting growth of women-owned and women-led microfinance institutions. Grants could also support the creation and stronger distribution of of microinsurance and particularly climate risk insurance solutions.

— Improved measurement of outcomes for women. This has been a continuous discussion point and challenge in the microfinance industry as appropriate measurement of female empowerment is very difficult as it is not a single dimension issue.

The Women Entrepreneurs Finance Initiative (We-Fi) was established as an outcome of the 2017 G20 meeting and raised more than USD325m in donor funding, with the intent to mobilize more than USD1 billion in financing from private investors. Other governments and development finance institutions have similar goals or programs.

By partnering with experienced microfinance funds, donor governments and DFIs could help bring greater support to female entrepreneurs, leveraging additional private sector capital into communities to specifically assist entrepreneurial women.

Physical climate risk, resilience, microfinance and microinsurance

Microfinance institutions and their borrowers' exposure to physical climate risk could undo decades of social progress – but there are ways to improve resilience

One growing issue, but, also an opportunity for the microfinance sector is how to support their beneficiaries in adapting to the impacts of climate change.

Many of the countries most at risk of physical climate risk are also countries that have low levels of financial inclusion.

As floods, droughts and other disasters become more frequent and intense, MFI beneficiaries will be negatively impacted. The poorest countries and people have done the least to cause climate change, but, face the highest risks as they are most exposed to its impact on their livelihoods when extreme weather becomes more frequent and intense.

MFIs thus need to be more aware of potential climate impacts in their geographies. In cooperation with governments and development finance institutions, MFIs have an important role to play in supporting training and financial solutions that help beneficiaries adapt to and reduce exposure to climate risks (Fenton 2016).

Two years ago, a research paper examined how MFIs in southern Bangladesh are affected by and responded to flooding (Fenton, Tallontire and Paavola March 2017). The research found that MFI branch managers are unable to screen beneficiaries for climate risk for ethical, practical and financial reasons and have limited capacity to manage aggregated risk.

For instance, most MFI branch managers simply stop collecting loan repayments during flood events. This is viewed by the MFIs as being flexible/responsive when it is more likely that beneficiaries simply cannot repay.

[19] InsuResilience Nov 2018. Applying a Gender Lens to Climate Risk Finance and Insurance

The researchers suggest that MFIs are not yet actively aiming to help their beneficiaries reduce their vulnerability, despite the strong potential to do so.

Loan product innovation could facilitate underlying beneficiaries' adaptation to climate hazards. For instance, MFIs could provide disaster management loans, loans for alternative income-generating activities and incorporating relevant adaptation knowledge and training to reduce client vulnerability.

Indeed, Fenton (2011) argues that microfinance and community based adaptation could be a 'win-win partnership'. Community-based adaptation[20] is a community-led process based on communities' own priorities, needs, knowledge and capacities. It combines poverty reduction with livelihood improvements, empowering communities to plan for and cope with the impacts of climate change.

In one example, the Canadian government-supported International Development Research Centre has created an 'adaptation catalogue' of many different types of actions which have been applied around the world. These actions could be examined for feasibility and application by specific microfinance institutions and their beneficiaries.

Microfinance institutions could become important institutions to bolstering small businesses, communities and individuals in becoming more resilient to climate impacts. However, significant capacity building with MFIs and beneficiaries will likely be necessary.

Meso-level insurance for MFI borrowers[21]

In addition to MFIs cross-selling of microinsurance (discussed earlier in this paper), meso-level insurance is an alternative way by which microfinance institutions can support their beneficiaries' adaptation to climate risks[22].

The policyholder in a meso-level insurance contract is the risk aggregator or intermediary – in this case the MFI – which provides services to individuals. As a result, meso-level insurance enables large target groups to be protected from natural disasters and climate risks.

For instance, beneficiaries could be organised in different ways ranging from associations and cooperatives to retailers and agricultural input suppliers, which extends the applicability of meso-insurance beyond financial services.

For MFIs, climate risk impacts their default rates, profits and sustainability, however they often don't understand their exposure to climate risks as it's not tracked separately. Despite the potential of meso-level insurance, the products are currently very expensive, which might result in MFIs just taking the risk or rationing their credit allocations in the economy. Hence, there is a big gap for meso products for MFIs, to address their exposure to climate risk, making insurance projects more available and affordable.

The Microinsurance Catastrophic Risk Organisation is a reinsurance provider that provides meso-level catastrophe and weather index insurance to MFIs[23]. Following the 2010 Haiti earthquake, MiCRO partnered with local microfinance institution Fonkoze to insure over 60,000 women-owned microenterprises. Claims payouts aide the MFI to recapitalise borrowers that are negatively affected by a catastrophic event. The financial protection from adverse disaster risk events gives Fonkoze the cover needed to increase lending to its beneficiaries.

This successful initiative could be replicated with other MFIs in other markets.

Supporting climate resilience at a fund level

At a microfinance fund level, there are also opportunities to help manage physical climate risk and to improve resilience.

For instance, when a disaster occurs, a portion of a financial institutions' lending portfolio may be written off. The financial institution is likely to reduce their lending and the cost of borrowing may increase as the MFIs and their investors could withdraw or from communities after a disaster. This is the opposite of what is needed – after a disaster, more capital is needed.

Global Parametrics is a for profit social venture with investment from the German and UK governments, KfW and the Rockefeller Foundation. They offer innovative risk management solutions and capacity to increase resilience and expedite recovery from natural disasters in emerging economies.

[20] IIED 2009 http://pubs.iied.org/pdfs/14573IIED.pdf

[21] We are grateful to Cenfri, the think-tank for financial inclusion, for their observations and input regarding meso-level insurance and microfinance

[22] ILO 2012, Protecting the poor: a microinsurance compedium Volume 2, p93 – 98;

[23] World Bank 2011, Microinsurance catastrophe risk organisation Haiti; Munich Climate Risk Insurance Initiative November 2016

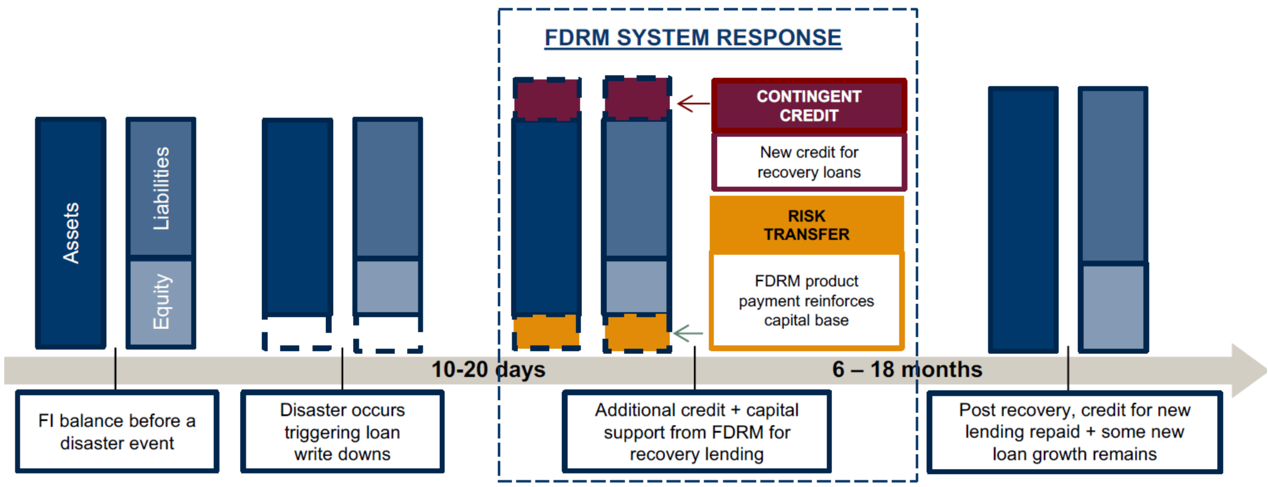
Global Parametrics developed an alternative approach to instead support financial institutions to reinforce their existing beneficiaries and to expand lending with post-disaster recovery loans. Evidence suggests that loans after disaster events can be high performing and are important to rebuild communities.

Global Parametrics developed a Financial Disaster Risk Management program to help emerging market financial institutions rebuild their balance sheet (via risk transfer products) and to become active players in the recovery of their communities following natural disaster events (via contingent credit products). The development of the program was supported by the InsuResilience Investment Fund, DfID, Asian Development Bank, the Rockefeller Foundation and FMO.

The first application of this program was announced by the microfinance fund VisionFund International[24]. The structure provides VisionFund with pre-committed liquidity to help them respond to natural disasters that impact their MFIs and borrowers. In its first year, protection will be provided to VisionFund's beneficiaries in Kenya, Malawi, Mali, Zambia, Cambodia and Myanmar (80% of whom are women).

This appears to be an efficient solution to manage a portfolio of weather and seismic risks and help to spur new loan growth opportunities for the network's MFIs and broader portfolio. **Figure 6** shows the outline of this program.

FIGURE 6. A NATURAL DISASTER RISK MANAGEMENT SOLUTION FOR MICROFINANCE



Source: Global Parametrics, October 2017. For illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

Measuring microfinance fund outcomes

Proposing to advance best practices

DWS's previous microfinance funds have led initiatives for the promotion of borrower protection standards which enhance the positive impact of microfinance for small businesses and individuals. For instance:

— Since 2008, DWS has been an active participant in the Social Performance Task Force (SPTF), a membership organization promoting standardization of and creation of social performance monitoring.

— In 2011, we became one of the earliest adopters of the IFC exclusion list for our microfinance funds, aiming to avoid business with harmful sectors

[24] VisionFund International, Jan 2018

— Since 2011 we have encouraged social environmental management systems among our investees

— In 2012, we launched a microfinance fund with a Technical Assistance Facility sponsored by the Swedish International Development Agency (Sida) to support MFI certification under the Smart Campaign. Smart Campaign is a global self-regulation effort, housing a code of conduct for MFIs to ensure strong client protection practices. This facility assisted more than 12 of the fund's borrowers in becoming Smart Campaign certified and re-certified.

— Since 2013, DWS, with the support of Sida, sponsored a program to study microfinance credit saturation levels known as MIMOSA, which measures credit saturation which may increase the risk of over-indebtedness among end borrowers

DWS's microfinance strategies target expansion of financial access to the underserved in a safe and secure manner and aim to contribute to:

I. Growth in business and assets
II. Strengthening resilience and vulnerability
III. Empowerment and gender equality

We continue to emphasize the importance of positive outcome on end cilents so we will pilot a project to collect select information on a sample of end beneficiaries in our social outcomes project.

DW's Sustainable Investments team constructed a "Theory of Change" in relation to their latest microfinance fund (Global Microfinace III fund - GMF III) to map a series of outputs that are connected to the financing provided to financial intermediaries, which could be reasonably expected to result in a set of outcomes and ultimately, impact.

Measuring outcome can enhance the ability for MFIs to assess its results into product development and to enhance sustainable business growth and also to provide investors insight regarding the outcome of their investments.

We understand that outcome management is still a new field of study. It is our aspiration to establish a practical approach to collect and report outcomes that GMF III is interested to explore with its Outcomes Project.

From launch, DWS's Global Microfinace III fund (GMF III) propose to run a pilot that aims to test out this new concept and approach to outcomes management with voluntary investees collecting end-beneficiaries outcome data for the duration of their loan agreement (i.e. up to three years). GMF III is well-suited to test such a methodology due to its proposed reach of a large number of countries and MFIs. It is envisaged that the results of a successful pilot may enable the participatants to draw more conclusions around the benefits of Financial Inclusion.

Additional indicators could be envisaged if a partnership is created to expand access to microinsurance and physical climate risk adaptation.

<u>Potential Indicators that may be tracked within the pilot:</u>

Output

- Outreach – the number of micro-borrowers financed
- Gender –percentage of direct beneficiaries that are women
- Rural coverage – percentage of direct beneficiaries that are living within rural communities

***Select Outcomes* - Micro-borrower / enterprise**
- Number of formal jobs within the household
- Total household income / savings / spending
- Total household borrowings
- Resilience indicators:
  - Improved financial resilience – education and health
  - Improved household food intake

SMEs
- Number of employees
- Total SME borrowings
- Total revenues
- Total assets

Conclusion

With the Global Commission on Adaptation (GCA) publishing its major report at the September 2019 UN Climate Summit and working to encourage action, there is a clear opportunity for insurance companies (and other institutional investors) to accelerate investments that can expand access to financial services and micro/climate insurance and improved climate risk resilience.

We suggest investors should understand the strategic benefits of microfinance investments:

- contributing to the Sustainable Development Goals and economic growth,
- fostering gender equality and resilience of beneficiaries and microfinance institutions in many of the most exposed developing countries against climate risks,
- as a tool to help expand the microinsurance market,
- creating investment returns that have a low correlation with a traditional portfolio.

As part of the September 2019 UN Climate Summit's Action Agenda, insurers and other investors could commit to increase investments in the microfinance sector. Public sector partners could support this objective with capacity building and public-private climate risk mitigation strategies for microfinance funds, MFIs and their beneficiaries, in particular women.

We recommend insurance companies and other instituionals investors and public sector partners commit to examine the feasibility of these suggested goals.

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