Protecting low-income communities through climate insurance

Achievements from the InsuResilience Investment Fund

InsuResilience Investment Fund

BlueOrchard Impact Investment Managers | Member of the Schroders Group

CelsiusPro

BMZ Federal Ministry for Economic Cooperation and Development

KFW

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Foreword

Dr Maria Flachsbarth, Parliamentary State Secretary to the Federal Minister for Economic Cooperation and Development, Germany, and Co-Chair of the InsuResilience Global Partnership.

Climate change is one of the most significant threats facing the world today, with extreme weather events occurring more frequently. Poor and vulnerable people in developing countries are hit hardest by climate change, whilst being least prepared to cope with its consequences. Climate risk financing and insurance is an effective and reliable way to reduce the vulnerabilities of individuals to climate shocks, enabling them to better absorb and recover from the financial burden of extreme weather events. To deliver on the fundamental promises of the Paris Agreement, the 2030 Agenda for Sustainable Development, and the Sendai Framework, fast, coordinated action is required.

In order to scale up climate and disaster risk finance and insurance solutions for the poor and vulnerable in developing countries, the German government and its G7 partners initiated the InsuResilience Initiative in 2015, which in 2017 evolved into the InsuResilience Global Partnership. It unites more than 80 members – V20 and G20 countries and representatives of the private sector, multilateral organisations, civil society and academia – behind one vision: to protect, by 2025, an additional 500 million poor and vulnerable people in developing countries against extreme weather events.

Building on a broad coalition of stakeholders, bold financial commitments from the private sector and a determined approach to implementation, the Partnership is uniquely placed to deliver transformative change in the climate risk finance and insurance sector. Under its umbrella, the German Federal Ministry for Economic Cooperation and Development (BMZ) supports a range of national, regional and global programmes. One of them is the InsuResilience Investment Fund (IIF) set up by KfW Development Bank, which has been in operation since 2015. IIF invests in microfinance, insurance and technology companies that help to mitigate climate-related risks by providing financing to investees that offer insurance solutions for weather events and natural disasters. Through its investments in twenty-one investee companies in Africa, Asia, and Latin America, which amount to USD 133 million to date, IIF is estimated to reach 25 million beneficiaries (as of December 2020).

This report illustrates the substantial progress which IIF has made since its inception. It highlights how the Fund has supported its investees in reaching the poorest and most vulnerable communities with innovative climate insurance products. And it shares valuable knowledge and transferable lessons relevant to the InsuResilience Global Partnership as well as to the wider climate risk finance and insurance community.

M. Flachsbarth

Dr Maria Flachsbarth

Contents

Executive Summary

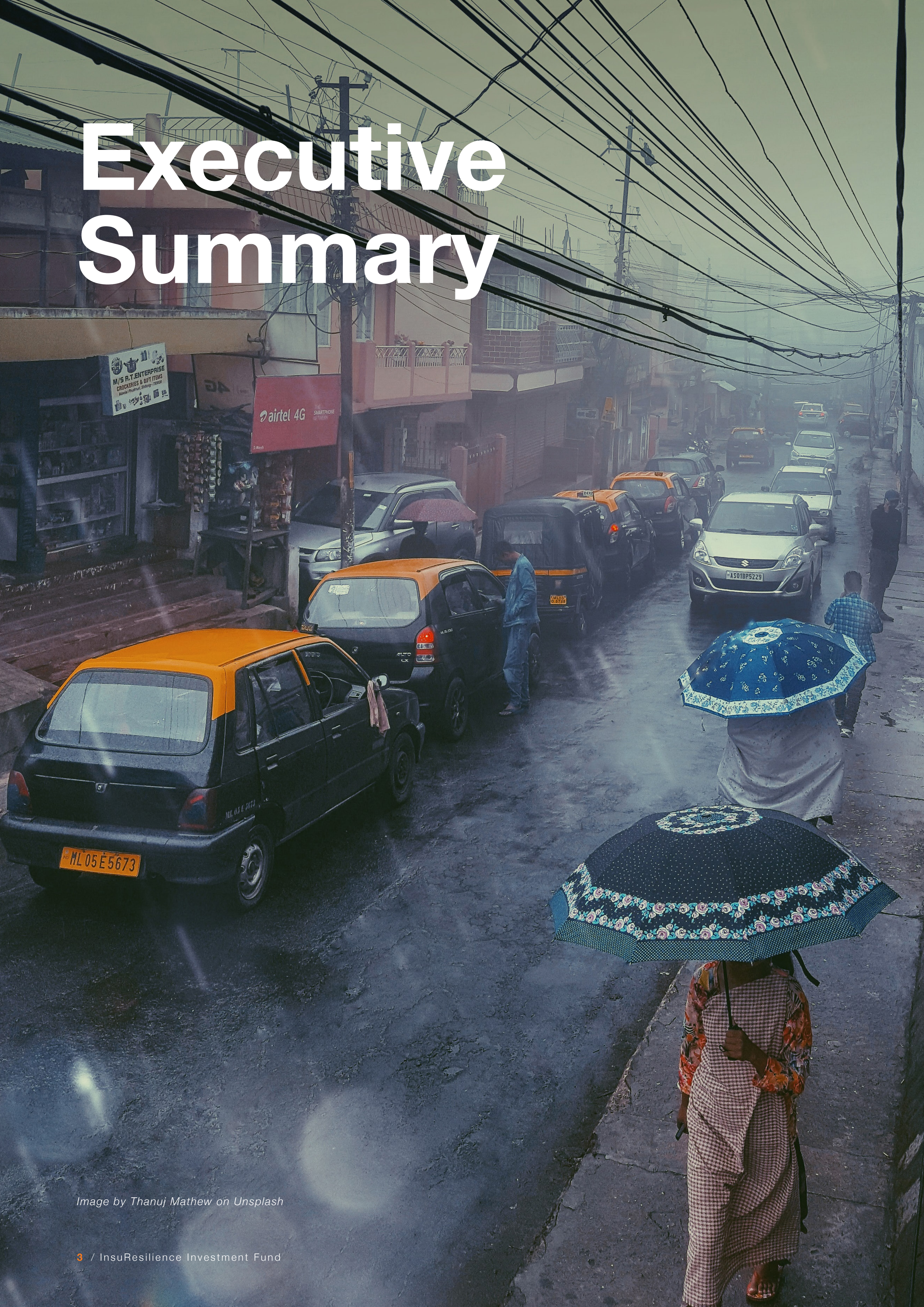


Image by Thanuj Mathew on Unsplash

Executive Summary

We are already living with the effects of climate change. Extreme weather events such as floods and droughts are increasing in intensity and severity around the world, resulting in economic losses estimated to be USD 2 trillion over the last decade.[1] These climate impacts disproportionately affect poorer people in developing countries, especially those engaged in climate-sensitive sectors such as agriculture.[2] Taking action to adapt to climate change is necessary to protect the lives and livelihoods, and to meet the objectives of the UN Sustainable Development Goals (SDGs). The insurance sector has a pivotal role to play in facilitating adaptation to climate change. When suitably applied, insurance can become a crucial instrument to prepare for and withstand adverse events.

The InsuResilience Investment Fund (IIF) was launched in 2015 with a mission to improve access to insurance for poor and vulnerable households as well as micro, small and medium enterprises in developing countries to reduce their vulnerability to climate change. As the only programme under the G7 InsuResilience Global Partnership to both raise private capital and invest in the private sector, the IIF is strategically important to global efforts to increase resilience through insurance.

As the IIF has now reached the halfway point in its lifetime, this report takes stock of its achievements and shares valuable lessons from its first six years of operation. Since its inception, the IIF has successfully established a unique structure that has delivered important results. As of September 2020, the Fund has invested USD 133 million in 21 investee companies based in 14 countries. Thanks to their collective endeavours, 25 million people in 25 different countries now benefit from the protection offered by climate insurance and related risk transfer products and services. Working with a diverse range of investees across different country contexts, IIF has built considerable expertise on how best to identify and close transactions in the complex, emerging field of climate insurance for developing countries.

Based on surveys and interviews with IIF's investees, this report shows that the foundation of the Fund's success comes from its commitment to strategically investing in companies that create sustainable impact on insurance markets in their respective countries of operation. IIF's principal achievement has been establishing a pioneering model that works to support climate insurance development holistically. Taking a whole-system approach, the IIF enables an ecosystem of insurance market entities to emerge, increasing climate-resilience for InsuResilience target beneficiaries. It does this by using a blended finance model, combining public and private capital to invest through its two separate sub-funds. The Debt Sub-Fund offers private debt funding to microfinance institutions and aggregators, whilst the Equity Sub-Fund supports insurance companies as well as data and software providers.

Investees report that IIF's investment and engagement have provided tangible benefits. For example, capital injections and liquidity in local currency have enabled them to offer new products, serve new client groups and invest in new technologies. IIF's financial investments are complemented by its Technical Assistance Facility (TAF) which helps investees with business strategy and planning, product development, and with client education and marketing. This has enabled them to overcome barriers to market penetration, such as low market awareness and negative perceptions of the value of climate insurance, high transaction costs, and difficulties in distributing insurance products to target groups. Selected investees have also started to receive temporary subsidies through IIF's Premium Support Facility (PSF), which reduces insurance premiums, allowing new products to get a foothold in nascent climate insurance markets. IIF's investees reported that this support has been catalytic in supporting their outreach to clients.

IIF expects to reach between 90 and 145 million beneficiaries by 2025, a number which was projected to be reached by the end of 2020. The slower-than-expected pace of growth is a result of several factors, not least that it takes a considerable amount of time for investee companies to develop, achieve regulatory approval for,

1 Swiss Re (2020) sigma 2/2020: Natural catastrophes in times of economic accumulation and climate change: https://www.swissre.com/institute/research/sigma-research/sigma-2020-02.html

2 Food and Agriculture Organisation of the United Nations (2017) Leaving no one behind. Addressing climate change for a world free of poverty and hunger., s.l.: s.n.

launch and distribute novel climate insurance products. Other unexpected events have also disrupted investees' progress, including the time it has taken to forge strategic partnerships with insurers or distributors, regulatory changes affecting the time it takes for their products to reach the market, technical challenges with product design, and the recent impacts of COVID-19.

Despite these challenges, the IIF's future growth in beneficiary numbers is now fast-tracked. Over one-third of IIF's investees are currently working on launching their climate insurance products or have done so only recently. IIF's investees operate in markets with huge growth potential, and insurance products could scale rapidly as market conditions become more favourable. Furthermore, the Fund expects to add up to 15 additional investees in the coming years.

The Fund's ability to achieve real impact whilst continuing to raise private capital demonstrates that it can balance its mission-driven approach with sound financial management. It has used its public funds – EUR 57.3 million (USD 64 million) from BMZ – to reduce risk to private investors and has invested carefully in well-run businesses with good growth potential. This has allowed IIF to attract impact-minded private investors to channel much-needed capital into markets and institutions, where they would otherwise not have invested. By the end of 2020, the Fund expects to have mobilised approximately USD 166 million in capital in addition to the initial BMZ funds, USD 100 million of which from private investors.

Whilst there is more work to do in the coming years, the Fund has built solid foundations, to achieve its goals, forging strong relationships with investees and other institutions in the target markets. Whilst the IIF's approach is not quickly scalable; it does provide a real and lasting impact in building resilience through climate insurance. This is a significant achievement, and investees already report that their clients are benefiting from the insurance cover that they provide, driving financial inclusion and allowing them to recover from climate-related disasters more quickly. The millions of dollars in payouts received by IIF beneficiaries over the past six years is a testament to its impact.

THE INSURESILIENCE INVESTMENT FUND

As of September 2020 IIF has reached a wide range of **climate vulnerable beneficiaries** and has the potential to grow substantially in the coming years.

100% beneficiaries are poor or vulnerable to climate change.

The insurance products that have been brought to market by IIF investees are having **real and positive impacts** on the lives of the beneficiaries around the world.

The IIF has invested **USD133 million** in 21 investee companies.

To date, the IIF has reached **25 million** beneficiaries.

Increased investment is required in order to develop climate insurance markets around the world.

IIF is a prime example of a **blended finance fund**, bringing together public and private investors to achieve impact.

By 2025, the IIF is projected to reach up to **145 million** people.

The IIF has **2** separate sub funds: Debt & Equity.

4 million insurance clients covered.

The IIF has been active for **6 years.**

About this report

The InsuResilience Investment Fund (IIF)[3] was established in 2015 with the mission to reduce the climate vulnerability of low-income households, as well as micro, small and medium enterprises (MSME) in developing countries. The end of 2020 marks the mid-point of the Fund and time to take stock of its results to date. This report presents the IIF's achievements thus far along with insights from the Fund's experience in launching such an ambitious project and offers an outlook on the expected impact for the next five years.

This assessment of the Fund explores how investment activities, combined with the additional support instruments from IIF, are contributing to building higher levels of climate resilience of the Fund's target group (Chapter 1). The assessment methodology is based on a mixed-methods approach outlined in Box 1 below.

Chapter 2 introduces the IIF's current investment portfolio. This is followed by an analysis of how the combination of IIF's investments and capacity building activities has strengthened companies across the insurance value chain from service providers to insurers to microfinance institutions. The chapter presents insights on how the Fund has worked with investees to increase the availability and suitability of climate insurance products in developing countries. It shows how IIF has strengthened institutions to facilitate climate insurance market development.

Chapter 3 explores IIF's impact thus far. The chapter presents data on the number of families and individuals who benefit from climate insurance thanks to IIF's investments, followed by an analysis of the day-to-day realities and concrete benefits that those insurance clients have experienced.

Chapter 4, provides insights into the management of the Fund, including how it has successfully mobilised capital from private investors and balances delivering sustainable impact with attractive and stable financial returns for investors.

Finally, Chapter 5 summarises the key strengths of and lessons from the Fund, drawing conclusions from the analysis presented in the previous chapters.

Box 1: Report methodology

The findings in this report are based on a combination of qualitative and quantitative research, conducted between July 2019 and October 2020. The analysis draws on the following sources of information:

- Core governance, monitoring and reporting documents of the Fund
- Interviews with IIF's key decision-makers
- Survey results from eleven IIF investees, conducted in December 2019
- Interviews with nine IIF investees conducted between July 2019 and February 2020
- Interviews with 120 end-clients of IIF investee, Kashf Foundation

Various data points across the IIF's Debt and Equity Sub-Fund portfolios were gathered. These were validated and disaggregated by investees to reveal trends and patterns that then informed the qualitative research design. Interviews and surveys explored the impact of IIF's investments and broader engagement with investees and their beneficiaries. This approach enabled evidence to be gathered on the wider impact of the Fund, including qualitative improvements to the livelihoods of beneficiaries, as well as the assessment of the quality and performance of the climate insurance products. This report has been prepared in collaboration with a consortium of two independent consulting companies – Acclimatise and Climate Finance Advisors – along with contributions from the research company 60 Decibels.

3 Formerly known as the Climate Insurance Fund (CIF).

Building climate resilience: IIF's contribution

Image by Karan Mandre on Unsplash

1. Building climate resilience: IIF's contribution

The insurance sector has a pivotal role to play in facilitating adaption to climate change - a part that is explicitly acknowledged by the Paris Agreement in 2015. At the G7 summit in the same year, member states agreed to launch the InsuResilience Climate Insurance Initiative, which became the InsuResilience Global Partnership at the 2017 UN Climate Conference. This Partnership, of which IIF is a member, focuses on increasing the availability and use of disaster recovery and risk transfer products to enable people to adapt to climate impacts, especially in developing countries.

Established in 2015, the IIF occupies a unique position in global efforts to increase the resilience of low-income and climate-vulnerable households and MSMEs. Using a blended finance approach, the IIF is mandated to use public funds to leverage private capital to improve access to and use of climate insurance in developing countries. As outlined in section 1.2.2, IIF's model is designed to unlock the expertise and innovation of insurers, brokers, microfinance institutions, and other providers along the insurance value chain.

1.1 How climate insurance increases climate resilience

Climate insurance enhances climate resilience as it protects against the financial impacts of extreme weather events. It does this by providing financial resources for post-disaster reconstruction and investing in adaptation. This protection is needed now more than ever due to three main factors: i) the increasing frequency and intensity of adverse climate events, ii) the large financing gap for climate adaptation measures, and iii) a lack of insurance provision in developing countries.

Unavoidable loss and damage from climate change:

Extreme weather events such as storms, flooding and droughts are increasing in intensity and severity in most regions of the world and are likely to continue getting worse (Figure 1). Whilst non-climate related extreme events such as earthquakes have mainly remained constant, climate-driven events have doubled from an average of under 300 events per year in the 1980s to over 600 per year since 2010. This has continued to drive economic losses, affecting practically all sectors.

According to Swiss Re, the last decade has been the costliest on record with economic damages from natural disasters totalling over USD 2 trillion.[4]

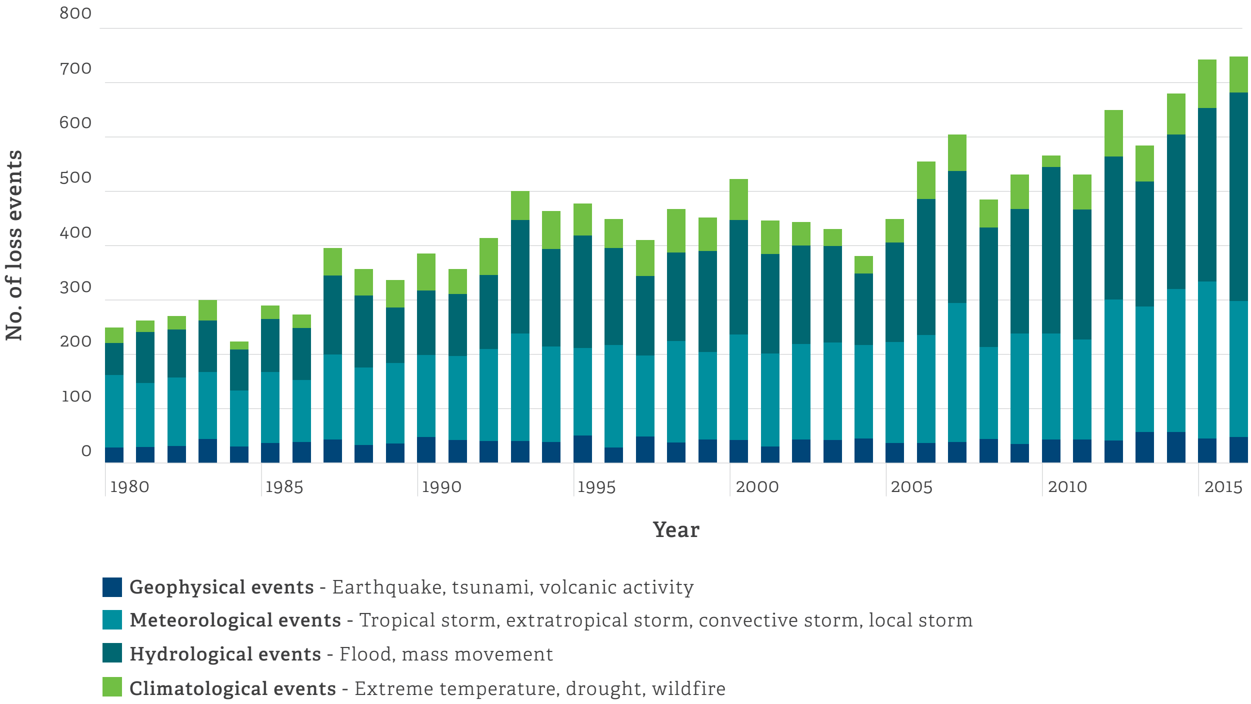
Climate impacts also disproportionately affect the poor and vulnerable in developing countries. According to the Notre Dame Global Adaptation Initiative's Climate Vulnerability Index, Low and Lower-Middle Income Countries tend to be both more exposed and more sensitive to climate change and its impacts.[5] This is exacerbated by the fact that the livelihoods of large numbers of people in these countries are reliant on climate-vulnerable sectors such as farming, fishing, or tourism.[6]

4 Swiss Re (2020) sigma 2/2020: Natural catastrophes in times of economic accumulation and climate change: https://www.swissre.com/institute/research/sigma-research/sigma-2020-02.html

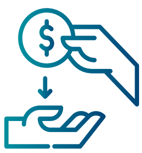
5 ND-GAIN (2018) University of Notre Dame Global Adaptation Index Country Index. https://gain.nd.edu/our-work/country-index/rankings/

6 Food and Agriculture Organisation of the United Nations (2017) Leaving no one behind. Addressing climate change for a world free of poverty and hunger., s.l.: s.n.

Figure 1: Number of loss events[7] 1980-2016.



Source: Munich Re NatCatSERVICE 2016

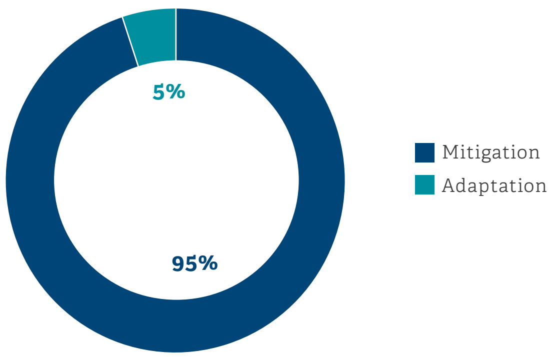


Closing the adaptation finance gap:

Meeting international obligations to cut greenhouse gas emissions and adapt to climate impacts will require significant investment. The Global Green Growth Institute estimates that this will require USD 16.8 trillion to be invested by 2030.[8] Whilst it is hard to measure the current levels of climate finance accurately, estimates suggest that total global investments reached an annual average of USD 579 billion in 2018; leaving a substantial gap to be filled.[9]

Of this, only a fraction (approximately 5 percent) of total climate finance currently goes to climate adaptation (Figure 2). The UN estimates that climate adaptation

Figure 2: The proportion of climate finance flows dedicated to climate change adaptation and mitigation.



Source: UNEP, 2018.

7 A 'loss event' is defined as an event causing significant insurance losses. The significance of an event is determined on an inflation adjusted and normalised basis, according to Munich RE NatCatSERVICE's categorisation. More information on Munich RE's methodology can be found here: https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/natural-disasters/innovative-ways-analyse-historical-loss-events.html

8 Global Green Growth Institute, (2016) Mind the Gap: Bridging the Climate Financing Gap with Innovative Financial Mechanisms, s.l.: s.n

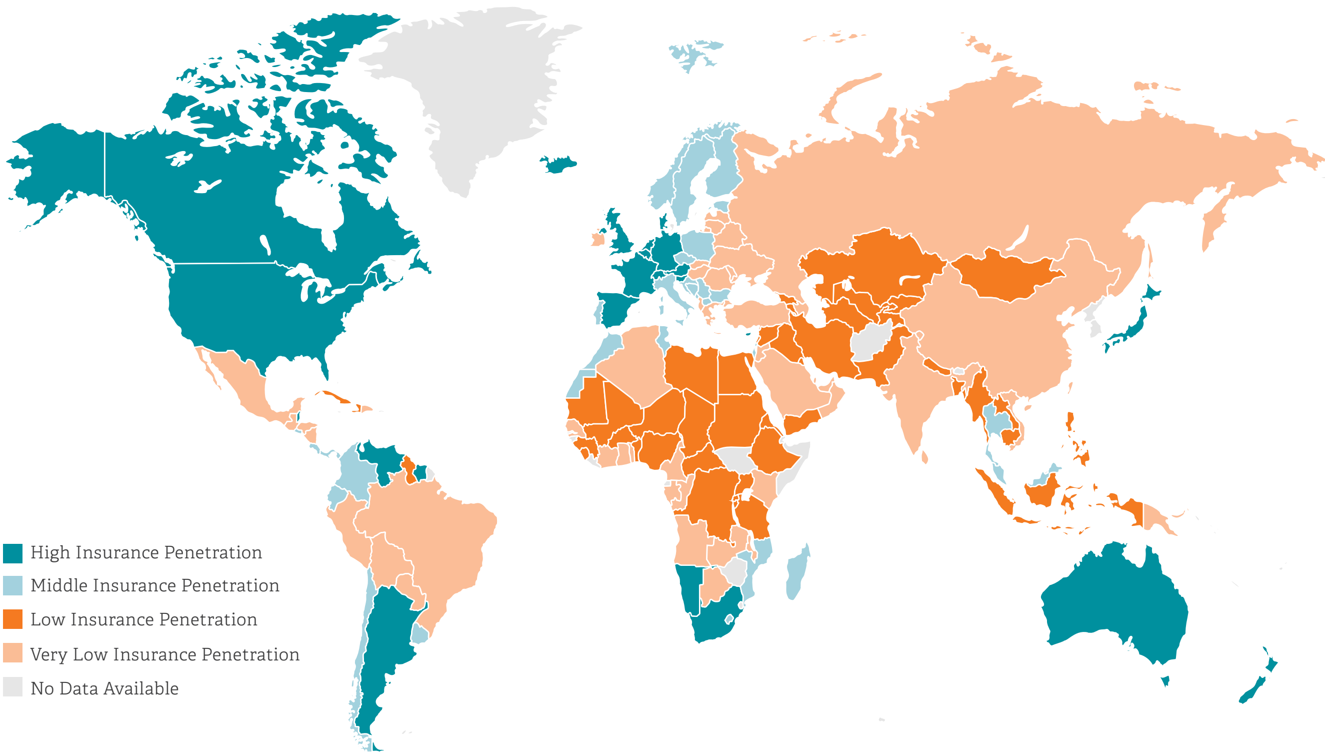
9 Climate Policy Initiative (2019). Global Landscape of Climate Finance 2019, https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2019/

finance totalled USD 22 billion in 2016, well below the USD 210-300 billion needed per year between 2010 and 2030.[10] This estimate is also based on the assumption that the world successfully limits warming to below 2°C compared with pre-industrial levels. Should that target be missed, adaptation costs will increase substantially. The scale of the investment need cannot be met by government spending alone. Scaling up private sector investment alongside public sources in climate resilience initiatives is therefore essential.

Closing the insurance protection gap:

The majority of economic losses generated by climate-related extreme events are not covered by insurance, resulting in a protection gap[11] of USD 280 billion in 2017 and 2018.[12] This gap is not the same all over the world (Figure 3). Whilst this gap is being addressed in upper-middle to high-income countries, there has been little progress in lower to middle-income countries, where the protection gap persistently exceeds 95 percent.[13]

Figure 3: Property and casualty insurance premiums per capita.



Source: Munich Re NatCatSERVICE 2016; IFC EM Compass 2016

10 UNEP, 2018. The Adaptation Gap Report 2018, Nairobi: United Nations Environment Programme.

11 The insurance protection gap is the proportion of economic losses that is not covered by insurance, expressed as a percentage of total losses.

12 Swiss Re (2020) Natural catastrophes: Closing the protection gap together: https://www.swissre.com/risk-knowledge/mitigating-climate-risk/natcat-2019.html

13 The Geneva Association (2018) Understanding and Addressing Global Insurance Protection Gaps https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/understanding_and_addressing_global_insurance_protection_gaps.pdf

Increasing the availability and use of insurance products can help people recover from shocks more quickly. Recent evidence suggests that even a 1 percent increase in insurance penetration reduces the disaster recovery burden on developing countries by 22 percent.[14]

Increasing market penetration in developing countries will quickly build the resilience of poor and vulnerable households and businesses. As insurance coverage increases in these markets, it is likely that technological innovation, awareness, and acceptance of climate-related insurance products are also expected to grow, cultivating more favourable market conditions. IIF aims to lay the foundation for these market transformations and increase the level of financial inclusion of poor and vulnerable households and MSMEs through access to climate insurance products.

1.2 About the InsuResilience Investment Fund

The overall objective of the IIF is to contribute to the adaptation to climate change by improving access to and the use of insurance in developing countries. The specific objective of the Fund is to reduce the vulnerability of MSMEs and low-income households to extreme weather events. Through its activities, the IIF expects to reach between 90 and 145 million beneficiaries by 2025 and is thereby contributing to seven UN Sustainable Development Goals.

The IIF contributes to seven of the UN Sustainable Development Goals, directly and indirectly. These are:

1.2.1 The Fund's composition

IIF is made up of four distinct elements – two investment sub-funds and two grant facilities – which complement each other to maximise its impact potential (Figure 4). The sub-funds have public capital from the German Federal Ministry of Economic Cooperation and Development (BMZ) which acts as "first-loss capital". This means that, in the event of portfolio losses, private investors are only indirectly impacted. These investment funds are accompanied by the Technical Assistance Facility (TAF) and a Premium Support Facility (PSF), which are both funded entirely by BMZ.

Debt Sub-Fund: One of the biggest challenges to providing climate insurance in developing countries is in reaching small-scale farmers or micro and small business owners. They often live in remote locations and have limited or no experience with climate insurance products. This is where aggregators, such as microfinance institutions and cooperatives, play a vital role in connecting insurers with those who need insurance most.

IIF's Debt Sub-Fund invests in aggregators who already offer micro-insurance or intend to introduce such products. It provides senior and subordinated debt, with the typical loan size between USD 5 and 10 million with a tenor of between 2 and 5 years. Of the Sub-Fund's USD 150 million,[15] USD 32 million is from public funds and provides first loss protection for the other investors.

Equity Sub-Fund: This sub-fund invests in companies along the entire insurance value chain – from insurers, brokers or data and software providers, including agri-tech or fintech companies that offer climate insurance products or related services. Only companies that have (or aim to have) low-income and vulnerable households and small businesses as part of their customer base are eligible for investment. Through this vehicle, IIF acquires significant minority stakes in investees and takes a Board seat. The typical investment size is between USD 5-10 million. As with the Debt Sub-Fund, the USD 80 million Equity Sub-Fund includes USD 32 million of public capital which provides partial downside protection to private investors.

14 Lloyds (2018) A World at Risk: Closing the Insurance Gap https://www.lloyds.com/news-and-risk-insight/risk-reports/library/understanding-risk/a-world-at-risk

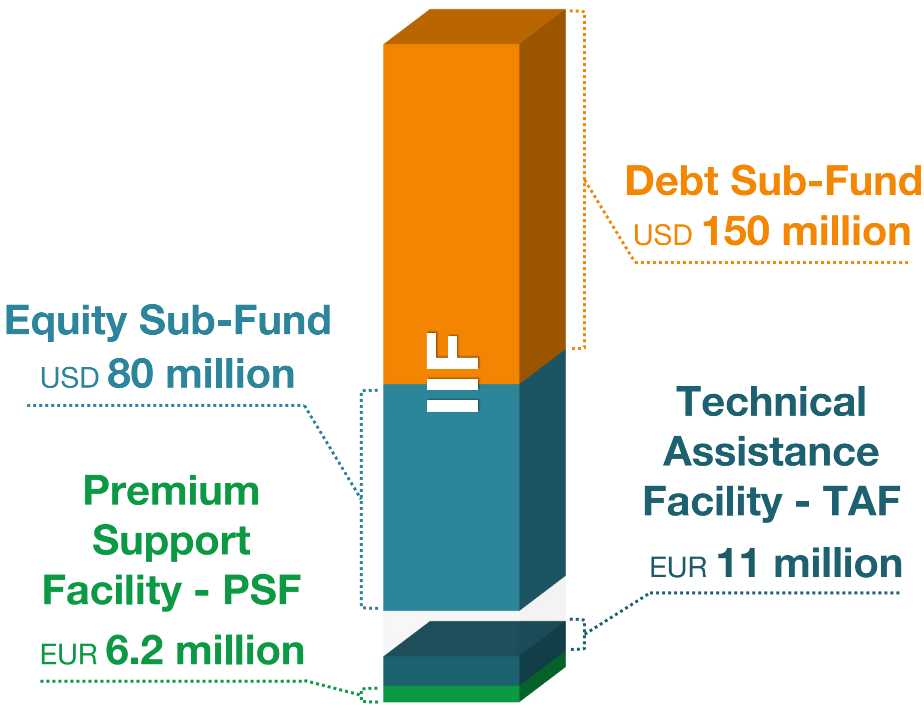
15 Of the USD 150 m, approx. USD 50 m was in final stages of closing investor commitments at the time of writing this report

Technical Assistance Facility (TAF): Each of the IIF's investees can also benefit from focused capacity-building support, which is organised and funded by the TAF. The TAF is funded separately by the BMZ and has a commitment of EUR 11 million (USD 13 million). It helps to launch and boost investee's climate insurance by offering international expertise in conducting feasibility studies, sourcing data, insurance product design and operations support, as well as advising on how to market and distribute products. The TAF also supports accessibility and market growth by educating investees, their clients, and other relevant stakeholders, in climate insurance. As of October 2020, 25 technical assistance projects have been delivered.

Premium Support Facility (PSF): The PSF is a EUR 6.2 million (USD 7.3 million) facility also funded by the BMZ. It provides temporary subsidies to reduce insurance premiums that are paid by the clients of selected IIF investees. For example, premium subsidies help make climate insurance policies more affordable in the introductory phase, when pricing uncertainty and transaction costs drive premiums up. They also help overcome initial information asymmetries between the insurance company and its clients on the value of insurance product. The PSF aims to increase demand for climate insurance products so that they reach a critical mass to make the products financially sustainable.

IIF partners: The IIF seeks to amplify its impact by working with a range of partners. For example, the Fund has an educational partnership with the International Labour Organisation's (ILO), whose Impact Insurance Academy[16] offers participatory workshops for IIF's investees to share best practice and discuss ways of developing inclusive insurance. IIF has a cooperation agreement with the International Fund for Agricultural Development (IFAD). It also has reinsurance business partnerships with Swiss Re, Munich Re, and Hannover Re to help to increase reinsurance underwriting capacity, improve its technical assistance to scale up insurance products, and to increase the network of industry contacts for its investees.[17]

Figure 4: Elements of the InsuResilience Investment Fund



16 ILO (2020) Impact Insurance Academy. http://www.impactinsurance.org/tools/impact-insurance-academy

17 See the IIF website for more details: https://www.insuresilienceinvestment.fund/reinsurance-business-partners/

1.2.2 The IIF's approach to investment

The IIF's approach has three defining characteristics: a blended finance model, a focus on the poor and climate-vulnerable in developing countries, and support for private sector entities along the entire insurance value chain.

A blended finance approach:

The IIF combines public-concessional and commercial-impact driven funding with commercial private capital to unlock investment opportunities. The IIF uses a layered fund structure which means that risk is distributed and mitigated in different ways for different investors. The German government provided approximately USD 84 million[18] in public capital and grant-funding across the two sub-funds and the two grant facilities; the TAF and the PSF. This resulted in enhancing development outcomes whilst also significantly reducing the risk to private investors, all of which has important implications for developing countries. These countries have considerable market barriers, such as poor sovereign ratings, immature insurance markets, and high transaction costs that can easily deter private investment. However, thanks mainly to its blended finance approach, the IIF has also mobilised USD 129 million from private investors and foundations (Chapter 4) to invest in developing countries.

Targeting the poor and vulnerable:

Reaching poor or vulnerable populations is a core criterion for the IIF in selecting investees.[19] The Fund only invests in companies that are active in countries that are eligible to receive Official Development Assistance (ODA),[20] and only counts poor and vulnerable households in its beneficiary numbers.

Supporting the whole insurance value chain:

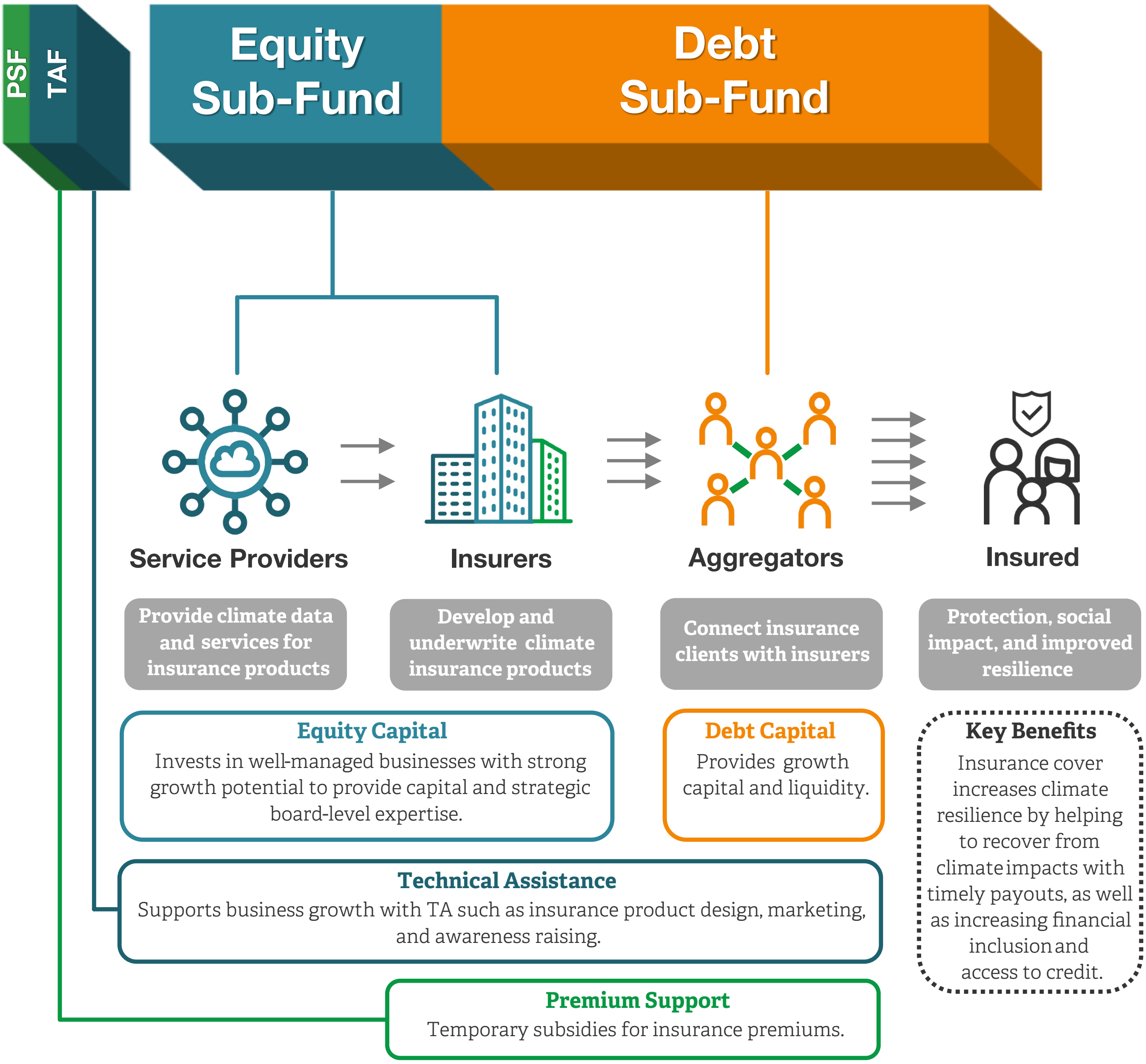
Supporting the whole insurance value chain: By strengthening the entire insurance value chain, the IIF cultivates the sustainable, long-term uptake of climate insurance products (Figure 5). The majority of IIF's investees are aggregators and distributors. They sell insurance products to the target beneficiaries and play an essential role by connecting clients with insurers. These aggregators and distributors, such as microfinance banks or other lenders, are especially important in developing countries where there is little insurance penetration. IIF also invests in insurers, who underwrite the climate insurance policies, develop new insurance products and help drive market demand. Finally, IIF invests in service providers who supply information that is used to assess and understand the risks of climate change. Service providers also create technological solutions to deliver climate data at a suitable resolution and timescale for informing risk pricing and triggering payouts. As new data become available, they can spark innovation in insurance products that are better suited to the needs of poor and vulnerable populations.

18 The public capital is allocated as follows: Debt Sub-Fund USD 32 million, Equity Sub-Fund USD 32 million. The public grant funding is allocated as follows: TAF EUR 13 million PSF EUR 7.3 million

19 Poor is defined as having an income of less than USD 3.10 Purchasing Power Parity (PPP) a day. "Vulnerable" is defined as having an income of less than USD 15.00 PPP a day, and either i) residing in high climate risk areas (as defined by the Global Climate Risk Index, as "the level of exposure and vulnerability to extreme events, which countries should understand as warnings in order to be prepared for more frequent and/or more severe events in the future") and/or ii) having income that is heavily impacted by extreme weather events. This includes policy holders whose main economic activity is agriculture. Whilst IIF investees may reach policy holders that are not poor or vulnerable, only those that meet this definition are eligible to be counted as IIF beneficiaries.

20 Countries and territories eligible to receive official development assistance (ODA) as defined by the OECD

Figure 5: How the IIF supports entities across the insurance value chain



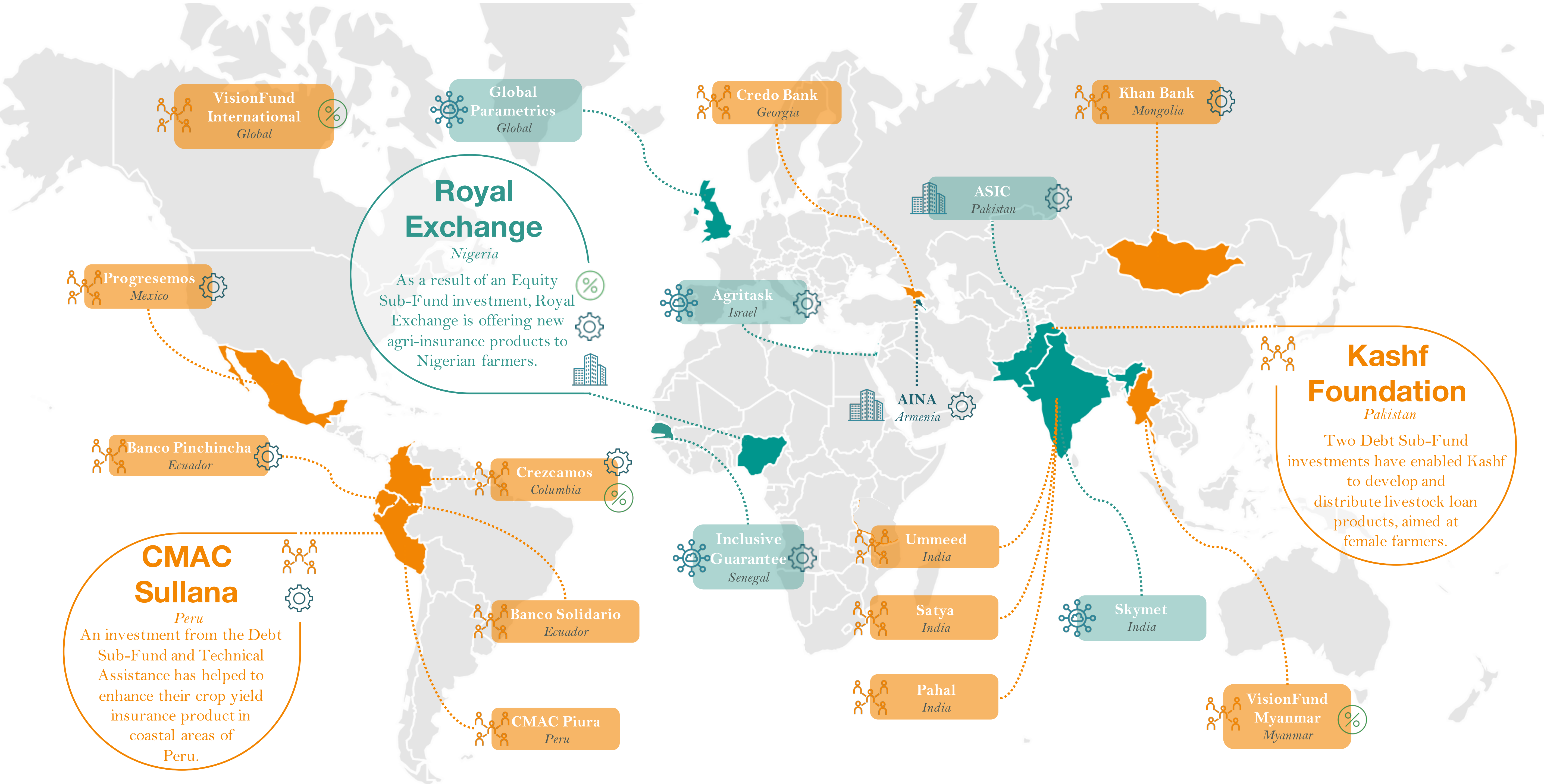
1.2.3 How IIF achieves change

The IIF deploys a complementary range of products and services: financing, capacity building and insurance support. This whole-system approach enables the IIF to achieve measurable impact. The theory of change is the underlying intervention logic of IIF, showing how IIF brings about the desired change (Figure 6).

Figure 6: IIF's Theory of Change

INPUTS	• Initial capital from BMZ for each of the sub funds • Grant funds from BMZ for TAF and PSF • Fund management, investment and technical assistance expertise with focus on climate insurance
ACTIVITIES	• IIF raises capital from private sources using a blended finance approach • IIF invests in private sector entities in developing countries • IIF invests along the insurance value chain • IIF provides capacity building support through its TAF • IIF allocates grant money for temporary premium subsidy through the PSF
OUTPUTS	• As a result of raising capital, more investable capital is available to support broader outreach of the Fund across its target markets • As a result of the investment activities, financial institution and insurance companies have more liquidity available to serve poor and vulnerable households and small businesses with climate insurance products • As a result of allocating TA money, capacity building activities are implemented to increase climate insurance awareness, market intelligence, availability of data, and increase capacity of IIF's investees • As a result of the premium subsidy allocation, new or innovative products can be introduced and can grow faster
OUTCOMES	• IIF investment helps investees to scale up their services to reach more clients • The adaptation finance gap is reduced • IIF's TA supports investees to provide high quality products and services and grow their portfolios • As a result of the premium subsidy, climate insurance products are more affordable • IIF helps to build a sustainable insurance market ecosystem that is able to provide and deliver products to meet the needs of poor and vulnerable populations • By focusing specifically on the poor and climate vulnerable IIF ensures that product innovation in the private sector accounts for this hard-to-reach group
IMPACT	• An increase in the number of poor households and small businesses that are covered by climate insurance making them more able to recover from climate related shocks and stresses

Introducing IIF's investees



Legend

Investment type: Debt Sub-Fund | Equity Sub-Fund

Additional support: Technical Assistance | Premium Support

Investee type: Service Provider | Insurer | Aggregator

Map showing the locations of IIF investees with outstanding loans as of 30th September 2020.

Growing climate insurance: How IIF strengthens institutions and builds markets

Image by NeilPalmer, CC BY-SA 2.0

2. Growing climate insurance: How IIF strengthens institutions and builds markets

As of September 2020, the IIF has supported 21 investees with debt and equity investments totalling USD 133 million. Combined with support from the TAF and the PSF, this investment has created tangible benefits for the climate insurance market. Investees can seize opportunities for growth via the injection of liquidity, capacity development is improving the understanding and application of climate insurance products, and subsidies reduce the cost-related barriers associated with introducing and scaling new products. IIF carefully selected a diverse range of investees to strengthen the whole climate insurance value chain across many geographies and markets (see the map on page 16). More information about IIF's investees can be found at the end of the report.

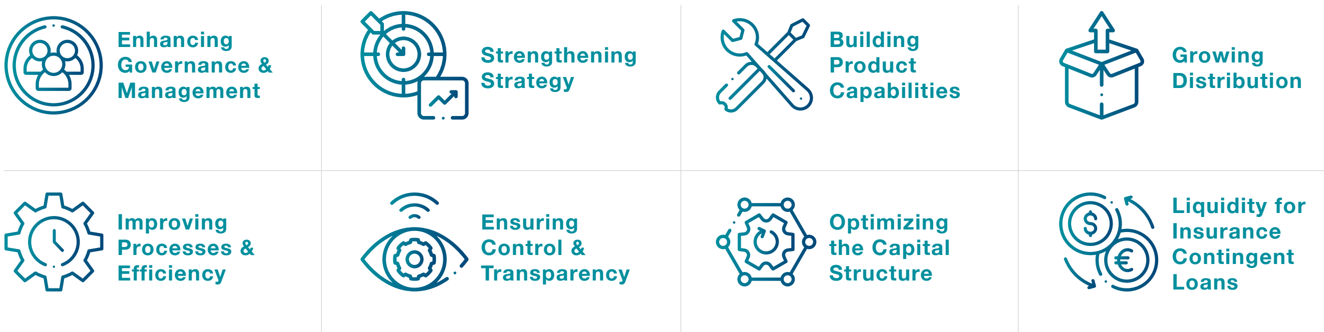
2.1 How IIF strengthens investees

The IIF focusses on driving holistic value for its investees, which includes:

- Developing new and improve existing climate insurance product offerings, tailoring them for specific clients;
- Scaling operations, allowing them to expand into new markets and reach more clients;
- Reducing transaction costs by making capital investment in new technology and strategic planning; and
- Improving business governance and reputation, which has enabled them to access new investment.

2.1.1 Tailored insurance products to reach the poor and vulnerable

IIF's investments have enabled investees to launch innovative insurance products and significantly improve existing offerings, making them more suited to the needs of poor and vulnerable clients. For many investees, product innovation has been driven by new technology and access to data. Insurers and aggregators are increasingly turning to digital solutions that



can be downloaded onto phones or computers, track climate and weather data at high spatial resolutions, integrate information from surface-based and satellite observations relating to vegetation loss or soil moisture levels, make risk calculations for individual farms or clusters of farms, and then trigger and deliver payouts automatically to farmers. These advancements have helped investees to launch index-based products based on near real-time climate data. For example, an equity investment in 2017 enabled the Indian climate data and software company Skymet to invest in 2,100 new automated weather stations in Maharashtra state. Skymet now operates more than 6,000 surface-based automatic weather stations across India, generating higher quality and timely data that are vital for developing climate insurance products.

"Maharashtra is the largest state in the Indian insurance market", explained Skymet CEO, Yogesh Patil. "The entire agricultural insurance settlement for the state is now happening through Skymet's data set. IIF's investment allowed us to commit sufficient resources to this single project and expand our weather station coverage. We now have the capacity to undertake pilots in the state and provide data to support anything on the reinsurance side." The Maharashtra State contract now provides 25% of Skymet's revenues from its climate services, and the company has reached an estimated 12.5 million beneficiaries as of September 2020. Data and software providers like Skymet are vital in providing the foundations for product innovation throughout the value chain, particularly when traditional state-funded national meteorological services have been unable to provide the required spatial coverage. These improved services have then driven the use of index-based insurance products by clients in IIF target markets. IIF's investment helped the Asia Insurance Company (ASIC) to launch two weather index insurance products (for wheat and cotton crops) with payouts that go directly to offset farmers' loans when their region experiences drought or flooding. These products aim to reduce the transaction costs for policyholders and insurers as there is no loss-adjustment required. Their speedy payouts to offset farmer's loans also help farmers to recover faster.

IIF has also spurred innovative product development by orchestrating opportunities for collaboration between investees. One example of this is through IIF's equity investment in Royal Exchange General Insurance, Nigeria, as outlined in the case study below (See Royal Exchange case study on pages 22 and 23).

"Maharashtra is the largest state in the Indian insurance market. The entire agricultural insurance settlement for the State is now happening through Skymet's data set."

– Yogesh Patil, CEO, Skymet

2.1.2 Scaling existing products

IIF investment has also enabled investees to scale up their existing products. Investment from IIF's Debt-Sub Fund, for instance, facilitated growth in Mongolia's Khan Bank index-based Livestock Insurance (IBLI) linked loan product. The climate risk protection product for livestock in Mongolia (offered by two banks including Khan Bank), protects farmers by automatically paying out if livestock deaths in their province surpass 6 percent. Whilst Khan Bank has offered IBLI-linked loans to customers since 2013, an estimated 90 percent of livestock herders remain without coverage, presenting a significant opportunity to grow the customer base. The insurance, offered by Mongolian Re JSC, allows Khan Bank to provide loans at a lower interest rate compared to the standard herder loan product, as the risk is lower than borrowers that are not insured. Prior to IIF's investment in 2016, the bank financed the IBLI loan product with own funding source. With IIF's loan, the bank was able to increase the size of the IBLI-linked loan portfolio from USD 0.5 million in 2015 to over USD 6.7 million by the end of September 2020. This has helped the bank grow IBLI clients from about 290 in 2015 to over 3,300 at the end of September, 2020.

Another example of how IIF's debt investments have supported product development is in how it enhanced the crop insurance offering of Georgia's Credo Bank.

> **“ Our digital tool is very important, as it empowers us to dispense insurance services and monitor weather and climate risk thresholds. Automation is the only way we can be competitive and keep a sustainable agribusiness risk portfolio in the long term.”**
>
> – Chukwuma Kalu, Head of Agriculture & Business Development, Royal Exchange

IIF’s investment was provided in the local currency, allowing Credo Bank to reduce currency-induced credit risk and hence offer a more affordable product to its clients. This benefit is offered to all IIF’s investees, allowing institutions to access local currency funding that may otherwise not have had access to liquidity, and it reduces the risk associated with currency devaluations of both the investees and their final borrowers. By mid-2020, about 50 percent of IIF’s debt portfolio is provided in hedged currency loans, with the remaining loans provided in the Fund’s currency, US dollars.

2.1.3 Reducing transaction costs

Developing countries typically have large numbers of micro and small business clients with low or seasonal incomes. This makes marketing and distributing insurance products more difficult and therefore presents a significant transaction cost to IIF’s investees.

Investees identified three main ways to reduce cost: Firstly, they find aggregators to be essential in accessing clients and reducing transaction costs. Credit institutions, such as microfinance providers, can offer a combination of products, like coupling a loan with an insurance product. Loan-linked insurance products benefit financial institutions by mitigating adverse client selection[21] and reducing costs to sell insurance.[22] Secondly, product innovation (section 2.1.1), especially with regards to index-based products, has substantially reduced the costs of loss adjustment and administration. Finally, costs can be reduced by technological advancement as investees can deliver insurance products directly to customers and manage portfolios via digital channels and customised software.

In Nigeria, IIF’s private equity investee Royal Exchange delivers its products to aggregators at the meso-level, involving agro-processors, financial institutions and farmer’s cooperatives, via Agritask’s digital platform. “In Nigeria, 80 percent of the market is predominantly smallholder-farmer driven with less than five hectares of land” explained Chukwuma Kalu, Head of Agric Insurance & Emerging Business at Royal Exchange. “It is expensive having boots on the ground given the large number of farmers operating at dispersed geographies; therefore, technology is very important for us in driving farmers’ enrolment for ag-insurance, farm monitoring and claims payout during the insured period.”

“We also realise the need to think inclusive in our approach of dispensing insurance services to the agricultural last mile. Part of what we are doing is leveraging on the existing relationship with our sister company – Royal Exchange Microfinance - to promote the creation of digital wallets for smallholder farmers insured by Royal Exchange. This move enables us to make claim payouts quicky and directly to farmers when they suffer a loss, providing them with a way of withdrawing payouts from local mobile banking agents, rather than travelling long distances to access conventional banking services. Our digital tool is very important, as it empowers us to

21 Adverse selection refers to situations in which an insurance company extends insurance coverage to an applicant whose actual risk is substantially higher than the risk known by the insurance company. The insurance company suffers adverse effects by offering coverage at a cost that does not accurately reflect its actual risk exposure.

22 Holzheu, T. and Turner, G. (2018), ‘The Natural Catastrophe Protection Gap: Measurement, Root Causes and Ways of Addressing Underinsurance for Extreme Events’, The Geneva Papers, 2018, 43(1): 37–71

dispense insurance services and monitor weather and climate risk thresholds. Automation is the only way we can be competitive and keep a sustainable agribusiness risk portfolio in the long term."

2.1.4 Governance, processes and reputation

The IIF's TAF delivers training that includes peer-to-peer learning events, where investees from across the value chain gather and share their experience and knowledge, and develop good practices to improve their operations. A recent training event, sponsored by the IIF in both 2019 and 2020, was the International Labour Organisation's (ILO) Impact Insurance Academy, where IIF investees spent a week in interactive workshops and training sessions (See Box 2, page 26).

IIF investees repeatedly mentioned governance improvements and reputational benefits as being essential components of added value. Investee survey respondents – especially those that were new entrants to the insurance market – found that their IIF investment reassured regulators and were often able to access further financing more easily.

Global Parametrics, a UK-based pioneer for disaster risk management services, found that it has benefited from many forms of support from IIF beyond the investment capital which was first invested by IIF in July 2016. IIF has provided experienced individuals to serve on the board of directors, has reviewed business plans and plans for fund-raising and has introduced Global Parametrics to other portfolio companies and contacts, actions that, together with IIF's public involvement with the company, have served to enhance Global Parametrics' strategy, governance, and reputation.

Angus Kirk, General Counsel and Operations Officer at Global Parametrics, described IIF's involvement with Global Parametrics as having been "thoroughly catalytic" when IIF first invested in Global Parametrics alongside the UK's Foreign, Commonwealth and Development Office (FCDO). "For them [the FCDO] to be a shareholder of record of a for-profit entity is an unusual position," said Kirk. "IIF being there, bringing knowledge of how investments work, was invaluable. It helped to give the British Government confidence that Global Parametrics was an investible concept." Global Parametrics, in early 2018, launched the Natural Disaster Fund, a risk-transfer vehicle which is backed by risk capital committed by FCDO and by BMZ (through KfW) and which has subsequently secured additional risk capacity in a risk sharing partnership with Hannover Re.

Inclusive Guarantee, the leading microinsurance broker in West Africa and pioneer of index crop insurance in the region, also benefited from an IIF equity investment in 2016. The investment helped to take their products into new markets. IIF also helped to restructure the company's board, facilitating a board composition to improve its expertise in West African insurance markets, as well as assisting in the selection of a new CEO. Since the investment, the company has seen new customer numbers for its crop insurance product increase by around 260 percent from 2017 to 2018, now reaching approximately 70,000 clients. The company's credit insurance customers also increased by 3.4 percent to 312,000 clients by 2018, helping business revenues to rise by 19 percent over the same period.

" IIF's knowledge of how investments work was invaluable. It gave the British Government confidence that Global Parametrics was an investible concept."

– Angus Kirk, General Counsel and Operations Officer at Global Parametrics

IIF supports Royal Exchange in moving into Nigeria's agricultural insurance market

A USD 10 million, equity investment with technical assistance and premium support from the IIF, is helping Royal Exchange transition into the climate insurance market in Nigeria. As a long-established and successful insurance company, Royal Exchange has rapidly developed a suite of innovative agricultural insurance products tailored to suit the needs of the country's 30 million registered smallholder farmers.

ROYAL EXCHANGE

INVESTEE PROFILE

Name: Royal Exchange General Insurance Company.

Type: Insurance company selling to meso-level entities.

Location: Lagos, Nigeria

IIF investment: USD 10 m

Date of investment: October 2019

Other IIF support: Technical assistance and premium subsidy.

Climate insurance products: index-based insurance for smallholder farmers protecting crops from droughts and excess rain.

Operating in Nigeria for almost 100 years, this general insurance subsidiary company has been a major player in the industrial and oil and gas sectors. However, with the oil and gas market becoming increasingly volatile, and the industry experiencing a global transition to low-carbon energy, Royal Exchange decided early to diversify into other markets.

The company identified the agriculture insurance sector as a significant growth market. Since 2013, the Nigerian agri-insurance market has gradually opened up for private-sector insurers, after being dominated by a state-run monopoly for three decades. At the same time, Nigerian banks started increasing their loan book for farmers assisted by government intervention lending schemes for smallholder farmers. Improvements in agricultural farming practices in the country, such as the use of improved farm inputs and better grain storage, reduced the risk of loans defaulting. This also led to rapid increases in aggregator activities, including microfinance companies and agricultural cooperatives. The proliferation of these meso-level players catalysed Royal Exchange's efforts to serve smallholder farmers[23] with agricultural climate insurance products. Farmers having access to insurance services reduces the protection gap, improves asset protection, increases farm business and generally drives community resilience. The market growth potential is considerable, as only a fraction of smallholder farmers are protected with climate insurance.

In 2014, Royal Exchange ran a weather-index insurance pilot project in Kaduna, in the North Central of Nigeria. This early move into the agri-insurance market caught the attention of IIF. This was an opportunity to help facilitate the successful transition of a major insurance company into an agricultural insurance market, whilst also reaching out to small and vulnerable businesses with tremendous growth potential. IIF was first engaged in 2016, and through the IIF TAF, they were able to provide the company with strategic advice on their business planning and growth strategy. Thanks to its pilot project, Royal Exchange realised that it required a technological solution to deliver its climate insurance products to its clients at scale. To realise this, IIF introduced Royal Exchange to another of its investees, Agritask, a company offering high-tech satellite remote sensing solutions for weather and agriculture data.

Since 2019, Agritask has worked with Royal Exchange to provide an agri-insurance platform that delivers relevant climate data in real-time. The platform allows Royal Exchange to provide its customers (i.e. aggregators) with an insurance dashboard accessible by a web-browser as well as a mobile application. "Users can see, in real-time, farm data location and the

23 With less than 5 hectares of land

weather conditions including temperature, and levels of precipitation", said Chukwuma Kalu, Head of Agric Insurance & Emerging Business at Royal Exchange, adding that users could also check "historical climate records for their farms over the past forty years."

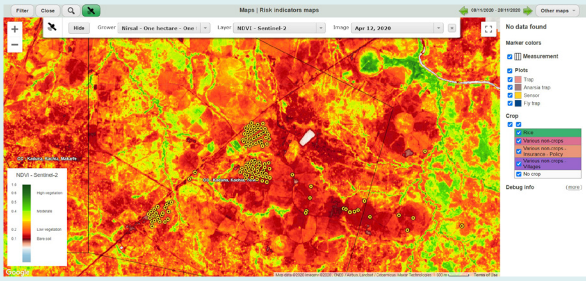
The platform is a vital tool for engaging with farmers and distributing Ag-insurance products. Clients can check the details of their cover, purchase new products, receive alerts and information. This includes notification of when climate risk thresholds have been breached and if they are eligible for a payout. It also provides farmers with valuable information about climate and weather events that they can then use to inform and improve their farming practices, helping them to adapt and become more resilient to changing conditions.

IIF's investment in Royal Exchange has helped to facilitate the development of the tool. It allowed the company to upgrade its IT systems to ensure that it can scale-up the tool across its business lines and deal with the rising demand for climate insurance products in the country. The upgrade has been particularly significant during the COVID-19 pandemic as it has allowed Royal Exchange to continue to grow its customer base despite restrictions on face-to-face meetings.

The IT upgrade, along with IIF strategic support and introductions to meso-level entities, has been catalytic for the company. "We are bullish about the prospects in the agriculture segment," says Chukwuma, "it accounts for 25 perecent of the county's GDP - we are a market leader and believe that we are very well positioned in the market." In the next couple of years, Royal Exchange hopes to be able to underwrite at least a million Nigerian farmers.

Over the last three years, Royal Exchange has launched an impressive range of agri-insurance products. These include their weather index insurance product and livestock indemnity products. Additionally, in collaboration with Swiss Re, they have developed a first-of-its-kind, Hybrid Multi-Peril Crop Indemnity Index insurance product that merges weather index indices (rainfall, temperature or soil moisture triggers) with indemnity protection cover for non-weather-related risks. They are also developing a livestock index insurance product that incorporates vegetation index information to serve as drought insurance protection to smallholder pastoralists.

Image 2: Screenshot from Agritask's agri-insurance platform showing vegetation cover over Kachia, Nigeria



The products currently on the market provide the benefits of climate insurance to an estimated 99,000 beneficiaries across Nigeria as of June 2020. As IIF continues to support Royal Exchange, these numbers will build rapidly in the coming years, including through providing targeted premium support through the IIF PSF. This support will help Royal Exchange's insurance products stay competitive and will ensure that they remain more impactful than government-subsidised insurance products. In the meantime, Royal Exchange will continue its efforts to educate clients about the real cost and value of climate risk insurance. "The government subsidy provided agricultural insurance at an equivalent transaction cost of 2 percent while the actual cost of providing that insurance is more like 4.5 percent" explains Benjamin Agili, Managing Director, Royal Exchange General Insurance. "We have been making a lot of market sensitisation efforts, including workshops, to demonstrate the true value of these products."

Beyond the direct benefits from the capital injection and TA support, Royal Exchange believes that IIF is driving a change of mindset and approach in the market. "Insurance companies are now looking closely at their social impact metrics", says Benjamin, "We want to reach a million farmers in the next three years, and our social impact is now an important part of our approach to achieving that".

Mr Kalu agrees, "IIF has a deeper relationship with its investees, and prioritises things like training of grassroots and smallholder farmers. This would not be the case with venture capital investment that would be looking for fast returns. IIF's social impact investing model can be better described as 'patient capital'".

2.2 How IIF contributes to insurance market building

Through its investments and capacity building activities (see Box 2), IIF has also benefitted the insurance markets in which investees operate. Market conditions influence how quickly investees can grow. In India, for example, a pre-existing market condition was that agricultural insurance was compulsory for farmers in order to take out an agricultural loan. This created a strong demand for insurance products that serve smallholder farmers, benefitting companies like IIF's investee Skymet. Conversely, in Armenia, the IIF TAF contributed to establishing regulatory framework conditions for climate and agriculture insurance, which was then followed by designing weather insurance products from scratch.

However, demand-side barriers to insurance market penetration remain in IIF's target markets. These typically relate to a lack of awareness about the products, and the perceived value of insurance, low levels of consumer trust, cultural, and other financial factors.

“ To date, more than 1,000 relationship managers are certified to provide consulting on insurance products including IBLI. They offer IBLI insurance product and low rate herder loans to herder clients”

– Ms. Bolortuya Bazar, Head of Investor Relations Department at Khan Bank

2.2.1 Awareness and financial education

A lack of financial education and insurance awareness was cited frequently by IIF investees as presenting barriers to insurance penetration with their target clients. Education and awareness-raising activities are vitally important for achieving suitable insurance cover. Inclusive Guarantee found that the two main factors influencing the number of people covered in their microinsurance programmes were the extent of awareness-raising activities during the year and the number of actual payouts on claims in the previous year.

Aggregators including Credo Bank, CMAC Sullana, CMAC Piura, and Kashf Foundation, all use their networks to engage directly with prospective policyholders. Credo Bank, for example, has a network of over 800 loan officers and 1,000 village counsellors who promote and explain insurance products. Khan Bank found that despite having the largest network of rural branches in Mongolia, customer education remained a challenge when the product was first introduced to the market. “We train the relationship managers in-house at the bank, then each relationship manager has to get licensed from Financial Regulatory Commission. To date, more than 1,000 relationship managers are certified to provide consulting on insurance products including IBLI. They offer and sell the IBLI insurance product and low rate herder loans to herder clients” notes Ms Bolortuya Bazar, Head of Investor Relations Department at Khan Bank. Such education programmes require considerable time and investment to reach the desired number of clients.

However, technology has enabled communications and awareness-raising to be delivered far more effectively. In Armenia, Agriculture Insurers' National Agency (AINA) for example, has found social media to be a useful channel for engaging with farmers, specifically through the Prime Minister of Armenia's Facebook page, which is one of the most popular in the country.

2.2.2 Trust, cultural and social factors

Closely connected with awareness-raising is developing levels of trust in insurance products. Other cultural and social factors present barriers to the widespread take-up of insurance, such as religious beliefs, and must be taken into consideration. In northern Nigeria, Royal Exchange tailors its products and communications so that they are sensitive to and fulfil cultural and religious requirements. People or states that follow Shariah-law will not accept conventional inclusive insurance products, so we are continually designing products that reflect these philosophies and that meet their business requirements and religious preferences.

Another way of developing trust is to provide evidence that the insurance product works in practice. For example, payouts were cited by several investees as a vital component of engendering trust for policyholders. Indeed, rapid payments in the event of disasters or loss events demonstrate value and are seen by others in the community. To build trust, these payments must also be of high enough value to cover the cost of recovery, and therefore seen as a worthwhile investment. Kashf Foundation's livestock insurance product has given payouts to 73 female policyholders since its launch in 2017. When payments are made, the organisation makes a personal visit to the farmer, discussing with her about how she will reinvest the money, which in turn demonstrates to others in the community that the product is beneficial.

2.2.3 Affordability

Affordability influences insurance demand in any market but is crucial for IIF beneficiaries, as they earn less than USD 15 per day (see Box 3, page 28). Price sensitivity of insurance demand, therefore, is very pronounced in developing countries where budget constraints may require trade-offs in other expenditure to afford insurance premiums.[24] Research from India has found that the overall take-up of microinsurance remains low, even when prices are significantly below the actuarially fair level.[25] It may therefore take significant levels of subsidy to stimulate market demand, or to ensure that low-income households and small business can continuously access insurance protection. The experience of IIF's investees appears to bear this out. In Georgia, where Credo Bank operates, the government pays up to 70 percent of crop insurance premiums.

Similarly, the Armenian government has created a specific budget line to subsidise agricultural insurance for small scale farmers, and in Colombia, up to two-thirds of smallholders' premium prices are covered by the government. IIF's PSF can help to test clients' ability to afford insurance and help in increasing their willingness to pay for a product. To do so, the PSF is designed as a subsidy which is overtime phased-out. A product needs to be embedded in a local subsidy environment or be able to stand on its own commercially following the premium support phase.

As mentioned above, affordability of premiums can be improved by using technology to help reduce transaction costs (see section 2.1.3), offering index-based products that lower premium costs through innovative product design. Credo Bank, for instance, offers clients interest-free loans to afford the crop insurance premiums, and Kashf Foundation's livestock insurance product can be paid in monthly instalments to reduce up-front costs to prospective policyholders.

24 Schanz, K-U (2018) 'Understanding and Addressing Global Insurance Protection Gaps'. The Geneva Association. https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/understanding_and_addressing_global_insurance_protection_gaps.pdf

25 Cole, S., Giné, X., Tobacman, J., Topalova, P., Townsend, R. and J. Vickery (2013) 'Barriers to household risk management: Evidence from India', American Economic Journal: Applied Economics, 5(1): 104–135.

Box 2: The IIF Technical Assistance Facility (TAF)

Spotlight on IIF's Technical Assistance Facility

When asked about the TAF, IIF investees said its service offer was one of the Fund's strengths. With its wealth of experience in insurance markets, the IIF TAF assists by offering tailored advice on, for example, how best to develop a weather index insurance product, or how to reach and explain insurance benefits to clients.

IIF TAF also supports investee and prospective companies by delivering workshops and hosting networking opportunities. Examples of the support that the TAF has provided include:

- **Pre-investment education workshops:** The TAF has conducted ten education workshops with companies to create a shared vision for climate insurance, and to discuss specific challenges and opportunities in their market context. The workshop provides an excellent opportunity to bring together key stakeholders from inside the company with external market stakeholders.
- **ILO Impact Insurance Academy:** The IIF TAF co-sponsors the ILO Academy which enables representatives from its investees to meet and exchange their expertise, lessons learned, and establish best practice approaches for developing climate insurance in their respective countries. In 2019 over 60 participants (8 from IIF) attended the second ILO Academy in Turin Italy. In 2020, over 70 participants (9 from IIF) participated in the virtual sessionsb from ILO's Insurance for Development.
- **Marketing and distribution support for climate insurance products:** Over 50 percent of IIF's investees have accessed IIF TAF support for marketing and distribution support, making it the most widely accessed form of support. This includes the design of distribution models, advice on customer access and use of aggregators as a distribution channel, and help with developing marketing material.
- **Awareness-raising:** The TAF has conducted 18 training sessions for investees to help build their capacity in communicating the advantage of insurance products for their customers, helping to increase financial literacy in target markets.
- **Insurance product design:** Having worked with investees in many different market contexts, the IIF possesses substantial experience and expertise concerning product design and development. This is highly beneficial for investees, particularly those who are inexperienced with climate insurance products, and parametric products that are driven by climate and weather data.
- **LatAm dataset:** The TAF has also delivered special stand-alone projects that provide market-wide benefits to entities along the value chain. In Latin America, the facility had provided funds to develop a new set of rainfall data to address the region's specific climatic challenges. The dataset provides the basis for introducing parametric insurance that can better manage extreme weather risks throughout the continent. Farmers, local insurance and reinsurance companies, public entities, and academic institutions are expected to be the primary users of the dataset.

Image 2: Participants in the ILO Academy 2019.

Reducing vulnerability: How IIF benefits insurance clients

Image by Rodrigo Flores on Unsplash

3. Reducing vulnerability: How IIF benefits insurance clients

As an impact-driven fund, the IIF regularly reports on the impact of its investments and in particular on the number of beneficiaries in its portfolio. The IIF has achieved a lot in its first six years, however, at its inception, it set out bold projections for beneficiary growth, hoping that the Fund would reach 100 million beneficiaries by the end of 2020. This chapter explores why, despite significant progress, the increase in beneficiary numbers has not been as fast as expected. Looking ahead, it also shows how IIF expects beneficiary growth to accelerate over the next five years, allowing it to reach between 90 and 145 million people by 2025.

3.1 Number of beneficiaries reached

As of September 2020, IIF estimates its portfolio at 25 million beneficiaries. The method for estimating beneficiaries is explained in Box 3 below.

Box 3: IIF methodology for estimating beneficiary numbers

The IIF measures its impact by estimating the number of poor and vulnerable people it has reached through its investees. Only policyholders who are recognised as being poor or vulnerable to climate change are eligible to be included in IIF's beneficiary numbers:

- **Poor** is defined as having an income of less than USD 3.10 PPP[26] a day; and
- **Vulnerable** is defined as having an income of less than USD 15.00 PPP a day, and they:
  - Reside in **high-risk areas** (as defined by the Global Climate Risk Index, as "the level of exposure and vulnerability to extreme events, which countries should understand as warnings in order to be prepared for more frequent and/or more severe events in the future"[27]); and/or
  - Have an income that is heavily impacted by extreme weather events. This includes policyholders, whose main economic activity is agriculture.

The impacts of climate insurance policies go beyond just benefiting policyholder themselves, but also extend to the rest of their household. The average household size is assumed to be six people,[28] meaning that for every eligible policyholder, it is reasonable to expect there to be a total of six beneficiaries. As such, the IIF estimates the number of beneficiaries as being:

Number of beneficiaries = Number of eligible policy holders x household size

26 Purchasing power parity

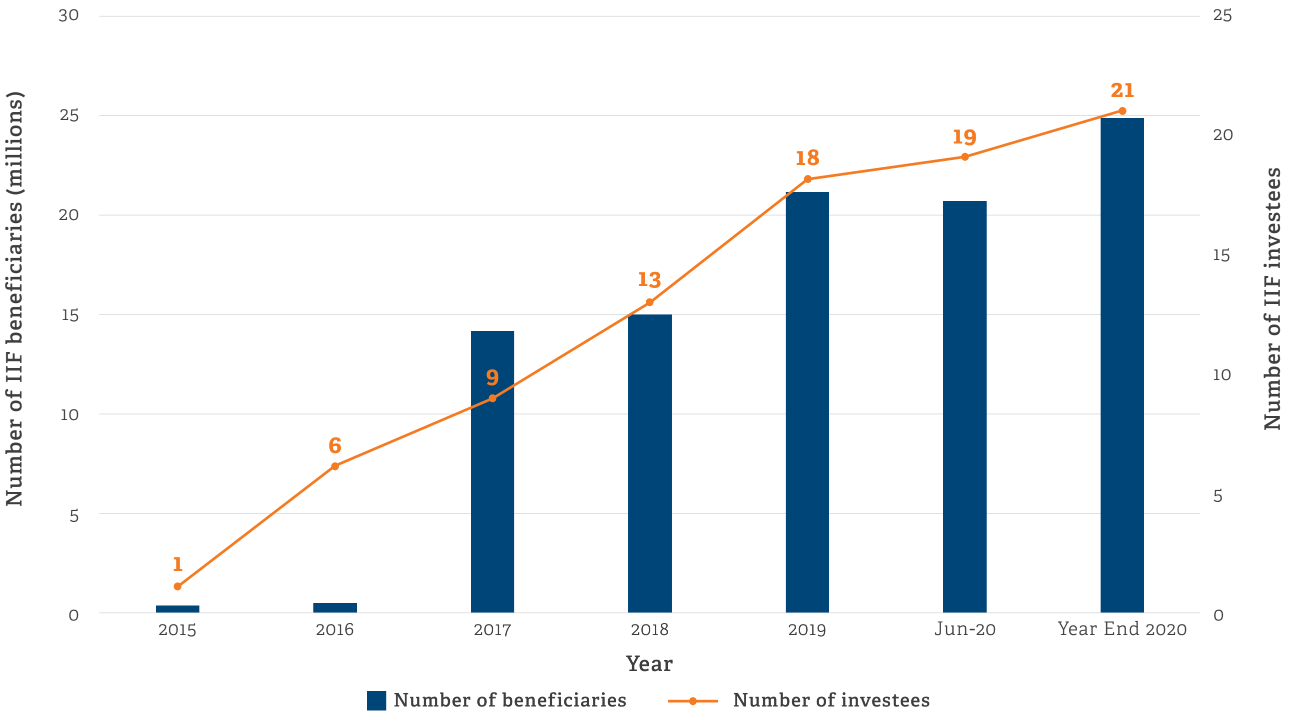
27 Germanwatch (2020) "Global Climate Risk Index 2020,"

28 This approach is used in "Making Climate Risk Insurance Work for the Most Vulnerable: Seven Guiding Principles," United Nations University Institute for Environment and Human Security (UNU-EHS) Publication Series Policy Report 2016 No.1, UNU-EHS, October 2016.

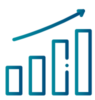
At the end of its first year of operation in 2015, the IIF had approximately 1,700 beneficiaries,[29] a number which had grown to 25 million by September 2020. On average, the IIF has added over 4 million beneficiaries per year. This increase can be attributed to IIF's investees launching and scaling their climate insurance products and to IIF increasing the number of investees in its portfolio.

Figure 7 shows the increase in beneficiary numbers along with the rising number of investees in IIF's portfolio. The IIF has, on average, gained five new investees per year, totalling 21 investees by September 2020. The large increase in beneficiaries in 2017 is primarily due to IIF's equity investment in a service provider that increased beneficiary numbers by over 12.5 million. Growth in beneficiary numbers has been slower than anticipated in 2020, with a slight fall from 2019 to June 2020. This is because investees launching new products in 2019 and early 2020 have suffered slower than expected growth due to COVID-19 and other factors (see section 3.4). Similar to 2017, the strong growth in the latter half of 2020 is primarily due to a substantial rise in beneficiaries (4.5 million) from a single investee.

Figure 7: The number of beneficiaries in IIF's portfolio each year since 2015 against the number of investees in that year. Year End 2020 figures are projections.



By September 2020, 25 million beneficiaries reached



Up to 145 million beneficiaries expected by 2025

100% of beneficiaries are poor or vulnerable to climate change

Over 4 million insurance clients covered

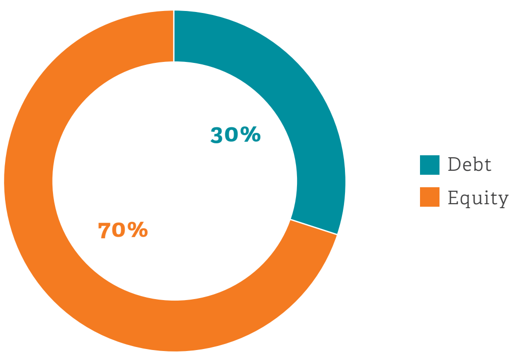
29 The IIF beneficiary reporting counts increase in beneficiaries from its investees since 2015 irrespective of the date of IIF investment.

3.2 Beneficiary distribution within the portfolio

Beneficiaries are distributed unevenly amongst IIF investees, in fact, by September 2020, the six investees under the Equity Sub-Fund account for roughly 70 percent of IIF's beneficiaries (Figure 8). This is due to the characteristics of IIF's investees under each sub-fund. Most Equity Sub-Fund investees are service providers who reach large numbers of beneficiaries by offering meteorological data and related services to insurers and other relevant entities. They accrue large numbers of beneficiaries as they count multiple insurers and aggregators amongst their clients and can operate more easily across numerous countries. IIF's Debt Sub-Fund investees are financial institutions that distribute climate insurance products directly to clients and generally operate in just one country.

This varied distribution of beneficiaries amongst IIF's investees underscores the Fund's commitment to its objective of building climate resilience for poor and vulnerable households and MSMEs. The Fund recognises that to achieve large-scale beneficiary growth, it needs to support a thriving ecosystem of entities across all stages of the insurance value chain. Service providers cannot exist without insurers and aggregators to buy their products, and insurers in developing countries require a healthy pool of distributors to be able to extend insurance to IIF's target beneficiaries and take climate insurance products to scale.

Figure 8: Beneficiary distribution between the Debt and Equity Sub-Funds at year end 2020.



3.3 Beneficiary projections to 2025

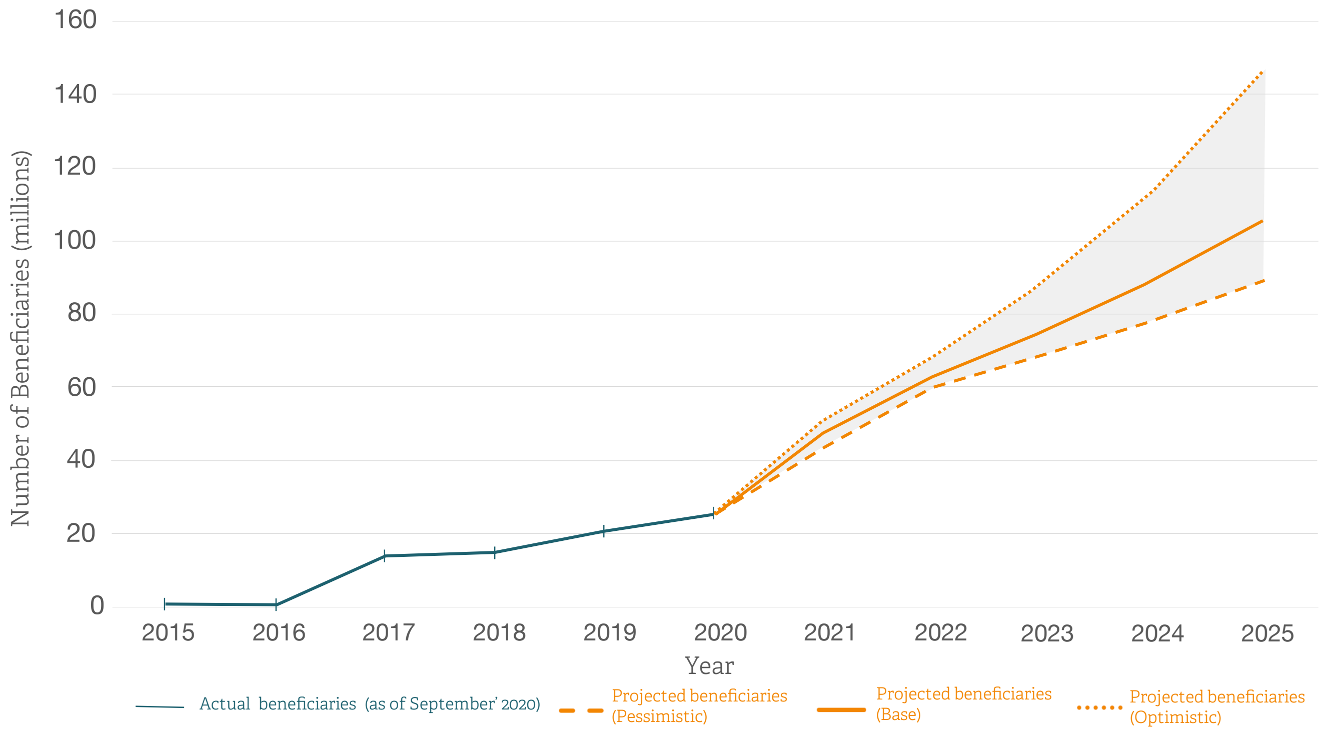
Many IIF investees have only recently launched their inclusive climate insurance products, and some are still in the process of developing their offering. As these products become available, the IIF estimates that beneficiary numbers will reach between **90 million and 145 million** by the end of 2025.

IIF will make an additional 12-15 new investments, expanding its investee numbers by between 50 and 70 percent

Figure 9 shows the number of IIF beneficiaries from 2015 to 2020 and the projected numbers to 2025. Looking ahead, the IIF expects growth to remain moderate in 2021 due to the ongoing impact of COVID-19. From 2022 onwards, the effects of COVID-19 may have lessened, and projected annual growth rates are expected to increase, ranging from between 5 to 20 percent for the Debt Sub-Fund, and 15 to 30 percent for the Equity Sub-Fund. The Fund also expects growth to accelerate as existing investees will have had more time to launch and grow their climate insurance products. As of the end of 2020, over one-third of IIF investees are yet to launch their climate insurance products or have done so only within the previous 18 months.

In addition, the IIF plans to increase the size of its portfolio, expecting to make 12-15 additional investments over the remaining lifetime of the Fund, representing a 50-70 percent increase in the number of investees compared to the end of 2020. Should these projections prove accurate, the IIF will reach its target of 100 million beneficiaries in 2025 under the base scenario and in 2024 under the optimistic scenario. Under the pessimistic scenario, beneficiaries will reach 90 million by 2025.

Figure 9: Projections of IIF beneficiary numbers to 2025.



3.4 Challenges to growing beneficiary numbers

The IIF has developed a detailed understanding of the hurdles that have to be overcome by investees in reaching climate insurance clients. This section explores these challenges in more detail, and shares insights gained by the IIF in the first six years of operation.

3.4.1 Developing insurance products

Launching new climate insurance products can take considerable time, depending on the specific market context in which the investee operates. Several investees reported that it took them around 18 to 24 months to develop and launch their climate insurance products. Investees also reported that achieving licenses and regulatory approval for new climate insurance products was especially time-intensive and often required them to demonstrate the viability of the product through small-scale pilot projects. They also found that launching index-based climate insurance products requires engagement and partnership building with entities across the insurance value chain. For example, partnerships with data service providers to make sure they can meet the specific needs of their clients, as well as developing suitable distribution arrangements.

Even market-ready insurance products take considerable time to realise their full growth potential. A challenge facing all investees is the need to raise awareness about climate insurance products and then how to distribute the products at scale. Across IIF's portfolio, all investees consider their climate insurance products to be relatively new or to have considerable future growth potential as insurance markets mature. This further supports IIF's projections for non-linear growth in beneficiary numbers (see Figure 9) as more than one-quarter of investees partnered with IIF after January 2019, and are therefore still in the early stages of their growth trajectory.

3.4.2 Predicting beneficiary growth

On the path to taking an insurance product to scale, IIF's investees have faced challenges and revised their projected beneficiaries downwards. Several reasons were cited for these adjustments, including delays in launching new products and results from pilot projects indicating the need for revisions to be made to underlying methodologies. These types of uncertainty affect investees in the earlier stages of their business development.

In other cases, projected beneficiary totals were also reduced by investees already in the commercialisation stage and with positive revenues. Similarly, a wide range of reasons were cited, including changes to the regulatory environment. For example, one investee saw the government offer loan waivers to banks, which resulted in a reduction in the number of farmers with outstanding bank loans that had insurance attached. In another case, the government required all commercial banks and microfinance institutions to verify farmers' land titles as part of their agricultural lending procedures, to make sure that premium subsidies went to the right beneficiary. As a result, most microfinance institutions and some commercial banks stopped distributing crop insurance as many farmers were unable to demonstrate title ownership.

Since early 2020, investee's operations have been affected to a varying degree by the COVID-19 pandemic, limiting their ability to reach beneficiaries. For example, one investee, which sells its products through local branches, has been forced to postpone their product roll out as a result of the pandemic. Its product is now only available in 22 branches, as opposed to the expected 34.

3.5 Driving financial inclusion and responsible practices

Climate insurance offers financial protection in the wake of extreme weather events. This protection is reflected in payouts by insurers, validating the premise of climate insurance for many policyholders: eight IIF investees reported paying out a total value of USD 4.75 million with over 18,000 claims since 2015. The majority of IIF's beneficiaries are farmers, who are particularly exposed to extreme weather events causing damage to crops, livestock, and their land and buildings. These payouts improved beneficiaries' lives by helping them to recover assets and access new lines of credit. This is particularly important for farmers as their livelihood is a capital-intensive activity. They often take out loans at the beginning of the season to purchase farming inputs such as seeds, fertiliser, or farm equipment. IIF's work in extending climate insurance to millions of poor and vulnerable people has not only delivered tangible benefits when disaster hits, but it also improves access to funds in the first place and ensures this access is sustained.

Eight IIF investees reported paying out a total value of USD 4.75 million with over 18,000 claims since 2015

One particularly interesting example of anticipating adverse climate effects at portfolio level has been developed by VisionFund International (VFI). In a partnership with Global Parametrics, VFI provides recovery loans with the financial benefits of the ARDIS programme. When shocks occur, the ARDIS programme enables borrowers to access microcredit by providing VisonFund's MFIs liquidity to clients and capital to support such lending, the restructuring of loans and grace periods. The new recovery lending enables clients to invest in recovery for their livelihood activity, the proceeds from which allow borrowers to pay back non-performing loans, whilst mitigating their negative disaster coping mechanisms. An external evaluation of the ARDIS pilot programme showed that it had supported 14,500 families in poor rural communities in Kenya, Malawi and Zambia to restore their livelihoods following the severe droughts and floods in 2015/2016. USD 3.3 million in recovery lending was disbursed, which allowed clients to diversify and focus on activities that are less affected by drought such as horticulture, small livestock, and retail. The monitoring report highlighted that over-indebtedness was not a significant issue with only a handful of instances, whilst this recovery loan portfolio had a risk below the norm in each country. [30]

30 Vision Fund (2018) Recovery lending in Africa: Helping the Affected Communities to Recover Faster From Negative Effects of A Disaster: https://www.visionfund.org/sites/default/files/2019-09/Recovery percent percent20Lending percent percent20in percent percent20Africa_FINALREPORT.pdf

IIF investees report that clients receive a range of benefits, including financial support provided by insurance payouts, improved or continued access to credit, and increased financial security. Climate insurance products have also helped to improve clients' resilience to climate change by enabling access to loans. For example, Peruvian microfinance lender Caja Sullana offer insurance-linked loans to small businesses in urban areas. One such beneficiary, Maria Chiroque Yarleque, owns a small grocery shop in the town of Cucungara in the north-western coastal region of Cura Mori, Peru. Mrs Chiroque took out a loan equivalent to USD 7,500 to buy merchandise for her shop. Attached to the loan was USD 2,900 in multi-risk insurance provided by insurance company La Positiva. In 2017, the Pacific Coast of Peru was battered by intense rainfall, triggering landslides and widespread river flooding across the region. Mrs Chiroque's business was flooded, and she lost most of her merchandise. However, the insurance settlement meant she could repay her loan on time and access a new loan to help replenish her stock and reinforce the roof of her shop. Since IIF's investment, Caja Sullana's clients have received 268 payouts helping them to recover from such disasters.

By combining insurance products with loans, lenders can increase their ability to offer loans to poorer and more climate-vulnerable people. In Pakistan, for example, Kashf Foundation's livestock insurance product "Kashf Maweshi Karza"[31] is attached to micro-loans and covers the loan amount if the animal dies. This product has now been provided to over 9,500 clients (See case study on page 34 for more details).

31 Kashf Foundation (2020). "Kashf Maweshi Karza". https://kashf.org/kashf-animal-insurance/

Kashf Foundation reaches 9,500 women farmers with climate insurance-linked livestock loan in Pakistan

Kashf Foundation is a non-banking microfinance organisation that has grown to become the largest distributor of micro-insurance solutions in Pakistan. A mission-driven non-profit, Kashf used IIF's debt investment to expand its livestock loan product, increasing the resilience of the livelihoods of poor and vulnerable households in rural areas.

Established in 1996, as the first specialised microfinance institution in Pakistan, Kashf now provides insurance-policies to over 1.5 million customers, primarily for health and life insurance. In 2017, Kashf launched its first rural product, a livestock loan for dairy and meat cattle. The livestock loan, known as the "Kashf Mahweshi Karza" includes insurance, which compulsory for dairy cattle, to cover the cost of repayments should the cow fall sick or die. The payouts enable the farmers to purchase new animals and prevents them from default and accruing a poor credit rating. This type of safety net is especially important in the face of climate change, as increases in impacts such as drought, flooding, and disease affect livestock mortality rates.

Beneficiary impact

Kashf Foundation reported that insurance payouts were most frequently used to repay existing loans, allowing clients to then reinvest in new animals through new loans. This finding was supported by research conducted with 120 of Kashf's livestock loan clients, 48 percent of whom reported that their quality of life improved because of Kashf's loan and insurance. Of those respondents, 62 percent bought livestock with their loan, and 58 percent said that it improved their access to finance.[32]

Climate insurance benefits: Two-thirds of survey respondents had experienced a climate shock in the past 24 months, with pests and disease and heavy rainfall being the most common shocks experienced (Figure 10). Those who made claims were more likely to rely on their savings (45 percent vs 18 percent) and less likely to sell an asset (39 percent vs 49 percent) as a way to cope with the shock. As a result, claimants were over twice as likely to have recovered to their pre-shock levels of welfare compared with those who did not make a claim (50 percent vs 19 percent).

Clients invest payouts in their business: Payouts from insurance were largely reinvested in beneficiaries' businesses, suggesting the product is serving its purpose in allowing clients to recover from climate shock. All eight respondents who received an insurance payout said they would spend the money either on business or farm-related expenses such as fertiliser or other inputs or investments such as machinery.

INVESTEE PROFILE

Name: Kashf Foundation

Type: Non-banking microfinance company

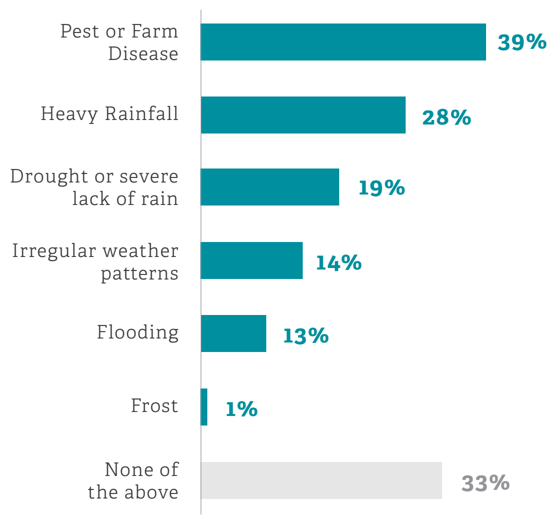
Location: Pakistan

IIF investment: USD 7.5 m debt investment[33]

Date of investment: July 2020

Climate insurance product(s): "Kashf Mahweshi Karza" Livestock loan with linked insurance targeted at female farmers.

Figure 10: Most common climate shocks experienced by Kashf beneficiaries in the last 24 months (Oct 2018-Oct 2020)



32 Research conducted in September 2020 by 60 Decibels: https://www.60decibels.com/

33 This loan is the second IIF loan to Kashf Foundation. The first was a USD 4 million loan in September 2018.

Nadia Rubaa, a livestock loan customer, said that she had seen significant improvements in her quality of life as a result of both the loan and insurance. She recommends Kashf as a company saying, "The loan is easy to get. Even if we are not able to pay instalments on time, they do not pressurise us. People working in Kashf are very caring and helping." With the loan, she was able to purchase a cow, and when her cow died, she received a payout for her claim immediately. She believes that had she not had this insurance, she would have required a new source of income to support her family. Based on her experience, she would now be willing to purchase livestock insurance even if it were not linked to a loan.

Developing the product

Kashf's mission is to drive financial inclusion by providing sustainable microfinance services to low-income families, enhancing their financial capabilities, and reducing household poverty. To reach this goal, the organisation targets explicitly female beneficiaries and requires that at least 55 percent of the loans across Kashf's entire portfolio must be distributed to female-headed businesses. This is especially important in Pakistan, which is ranked 151 out of 153 countries in the World Economic Forum's 2020 Global Gender Gap Index.[34]

Their focus on women is especially relevant in the context of climate resilience, as women's livelihoods tend to be more dependent on natural resources that are threatened by climate change.[35] In Pakistan, rearing cattle and other livestock remains mostly the domain of women, with other farming activities being taken on by men. At the same time, women face greater social, economic, and political barriers, limiting their coping capacity. In rural Pakistan, 67 percent of Pakistani women in the labor force work in agriculture,[36] yet very few have land or assets. "Women are a big part of the rural economy" explains Zainab Saeed, Head of Research and Development, Kashf Foundation, "but they are essentially just wage labourers with few assets to their name". This disenfranchisement is partly due to Islamic laws of inheritance, as well as patriarchal structures, whereby women are only entitled to half a share of inheritance, compared to the full share given to male relations, which over time, deprives women comparatively of property.

Understanding the needs of their target beneficiaries is at the heart of Kashf's approach, and the secret of its success in driving insurance penetration in Pakistan. Being able to service your debts is especially important in Pakistan, where there is a deep cultural commitment to repayments. At a funeral, for instance, the next of kin are expected to ask if the deceased has settled their debts. "One of the things that women would say to us was 'a person who dies still owes his debts'" said Zainab. Because of the cultural factors surrounding borrowing in Pakistan, the product itself had to be very carefully designed to meet the needs of women farmers. "When it comes to taking on debt, women tend to be more risk-averse than their male counterparts." Said Zainab, adding, "they do not typically like to spend large sums upfront, so we worked with the insurance company to refine the product so that the premiums can be paid in affordable instalments". Therefore, typical premium repayments are around USD 2 each month - an affordable sum for rural households.

Another example of how they tailored approaches relates to how they tag insured cattle. The standard method is to attach a plastic tag into the ear of the animal. However, after consultation with women farmers, Kashf realised that they were uncomfortable with this process, so they developed a bracelet that attaches to the foot of the cow instead, which has proved to be more popular.

Scaling products

Once Kashf saw that they had a viable product, they wanted to expand the number of rural branches that offered the livestock loan. In 2018, the IIF provided USD 4 million[37] in debt capital, which financed a greater lending capacity, and allowed Kashf to open 22 rural branches - which would have increased by a further ten branches, had it not been for the COVID-19 pandemic. "IIF's investment has helped us scale the product at greater speed - we now reach 9,500 clients with the product", said Syed Yasir Arjumand, Kashf Foundation's Head of Finance.

After working with IIF to finance the loans, Kashf recognises the value that the Fund provides beyond the capital investment. "Initially we thought that IIF was a one-off lender for us, providing money for a specific product," said Yasir, "however, their expertise was very reassuring for us. They were working in so many areas, and in so many places. If we faced any problems, we felt that we could always consult with IIF".

Yasir remains confident that, despite the COVID 19 pandemic, the livestock loan product will continue to grow. "When things are settled down, we expect this product to grow from approximately 1 percent of our total portfolio today to 15 percent in 3 to 5 years. This would mean we would reach 100,000 clients." After a successful engagement with IIF, Kashf is now looking to develop further climate insurance products, including an insurance-linked agricultural loan.

34 World Economic Forum (2020) Global Gender Gap Index Report 2020: http://www3.weforum.org/docs/WEF_GGGR_2020.pdf

35 UN Woment (2018) Rural Women in Pakistan Status Report 2018. https://asiapacific.unwomen.org/-/media/field%20office%20eseasia/docs/publications/2018/08/status-of-the-rural-women-in-pakistan-report.pdf?la=en&vs=3739

36 Ibid

37 In 2020, another loan worth USD 7.5 million was provided from IIF to Kashf Foundation

Blending for impact: How IIF uses private capital

4. Blending for higher impact: How IIF uses private capital

The Fund's impact-focused approach presents a unique combination of complementary financing instruments. IIF's blended finance approach uses public funds to attract private investors and channelling their capital into markets and institutions where it otherwise would not have been placed. By being strategic in the careful allocation of capital and grants, IIF has developed robust evidence on how to achieve social and environmental impact alongside a financial return.

4.1 Capital mobilisation and placement

The overarching ambition for a mission-driven fund like IIF is to demonstrate a positive investment track record. This unlocks private capital for impact-driven objectives. Endowed with a total of EUR 57.3 million (USD 64 million) in public money from BMZ, IIF set out to attract further investors to increase the Fund's outreach and magnify its impact.

The IIF is split into Junior and Senior tranches, a capital structure that has allowed the Fund to leverage precious public funds to attract private investors In the case of IIF, the initial public investment of USD 64 million, serves as the Junior "first loss" tranche. The Junior tranches, financed by BMZ, reduce the credit risk of the Senior tranches, which are mainly designed for private investors. If the IIF suffers losses, from an investee defaulting, for example, the Junior tranches take the hit before the Senior tranches are affected.

This first-loss component of the Fund has been especially important in attracting private investors, who typically prefer investments a lower risk profile. A prominent concern of private investors relates to currency risk arising from managing the various currencies with which IIF works. The Fund mitigates this risk with hedging instruments in the Debt Sub-Fund, and with sufficient geographic diversification in the Equity Sub-Fund. The IIF's 'impact risk' – the possibility of missing the Fund's impact goal – is mitigated by the close monitoring and reporting of the impact measurement requirements at both investee and portfolio levels.

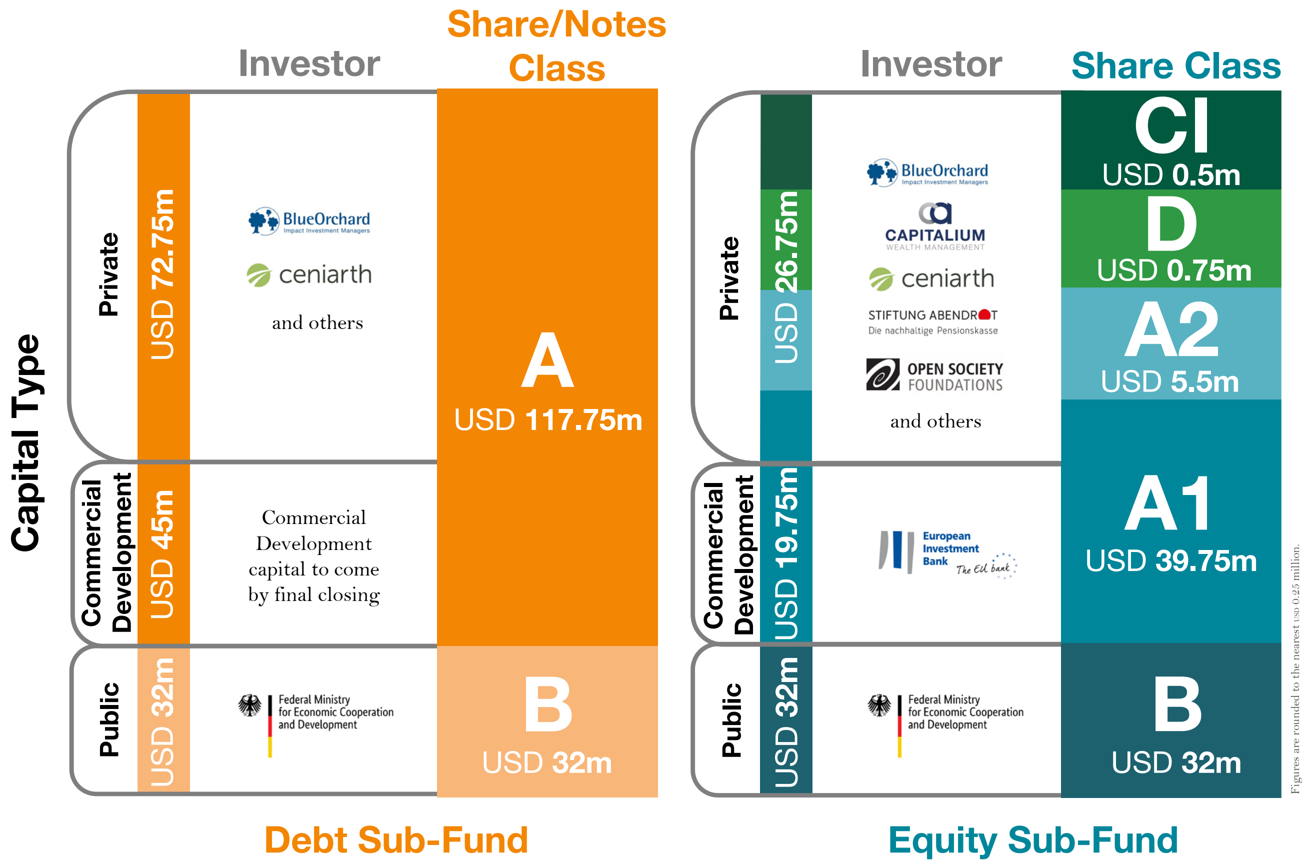
IIF has been successful in attracting a diverse group of like-minded investors committed to enhancing climate change adaptation in developing countries, including international finance institutions, asset managers, pension funds, private foundations, as well as family offices. By year-end 2020, the Fund expects to have mobilised approximately USD 166 million.

With an initial capitalization target of USD 250 million, the IIF will close its two sub-funds at a total size of USD 230 million by the end of 2020 (USD 150 million for the Debt Sub-Fund and USD 80 million for the Equity Sub-Fund). The IIF has therefore established a successful investment track record for private investors in a developing and underserved market.

Overall, many investors have been drawn to the IIF for its clear focus on climate change adaptation. This sets IIF apart from other climate-related investment opportunities, most of which focus on climate change mitigation. Investors have been particularly interested in the Fund's potential to develop a new and innovative market for micro-and meso-insurance in developing countries.

Investors were also attracted by the portfolio diversification that comes alongside gaining exposure to climate insurance, as well as the impact of investing in a range of new investees and markets that otherwise would have been out of reach.

Figure 11: Composition of the Debt and Equity Sub-Funds.[38]



4.2 Financial returns and sustainable impact

To continue to place capital and drive investment in climate insurance, IIF must achieve both sustainable impact with its investment, and attractive financial returns for its private shareholders. Delivering positive financial returns necessitates a careful selection of target investees. IIF strives to create a mixed portfolio of markets and institutions, incorporating investees who can contribute stronger returns and others who contribute higher impact. During its first six years, the Fund has adapted its strategy for identifying and closing transactions in the complex, emerging field of climate insurance. Its experience will be highly valuable for successfully placing the remaining capital in IIF target markets.

The experience of the Debt Sub-Fund: The IIF Debt Sub-Fund has already provided attractive and stable returns to its investors, who have been paid their target coupons as planned. To secure stable returns at an acceptable level of risk, the Debt Sub-Fund selected countries with nascent insurance markets so that there is a greater likelihood of investees growing their insurance portfolios. The financial success of the Debt Sub-Fund portfolio has been primarily driven by the selection of stable financial institutions, as well as through the placement of senior and subordinated loans. The private sector companies financed by the IIF Debt Sub-Fund have displayed solid portfolio growth and good portfolio quality and have translated into a comfortable portfolio return. These results send a positive signal to existing and potential investors and provide further evidence of the efficacy of the IIFs model, management and approach.

38 The Share Classes as shown in the graphs each represents different risk and return profiles

The experience of the Equity Sub-Fund: Building a niche equity pipeline like the IIF's requires careful selection of companies that can deliver both impact and financial returns across the portfolio. This approach needed a delicate balance of investment criteria and a thorough selection process to find a sufficient number and variety of suitable investee companies. IIF had to strike a balance between investees that can deliver impact and returns across the portfolio: a prospective investee might be a good fit from an impact perspective, for example, but may fail to reach the targeted financial return. This, in combination with low awareness of climate insurance amongst emerging market insurers and lack of government support, resulted in a narrow investment universe. Hence, the deployment of equity capital at first proceeded more slowly than anticipated.

Since early 2020, a growing awareness of climate resilience amongst insurers and government has begun to expand the investment options. Given that about half of the Equity Sub-Fund remains to be placed, it is still too early to assess the financial performance of the portfolio. However, the operational and financial resilience of the portfolio companies has been strong, even in the face of the Covid-19 crisis.

Building on learnings: How IIF can further scale up resilience

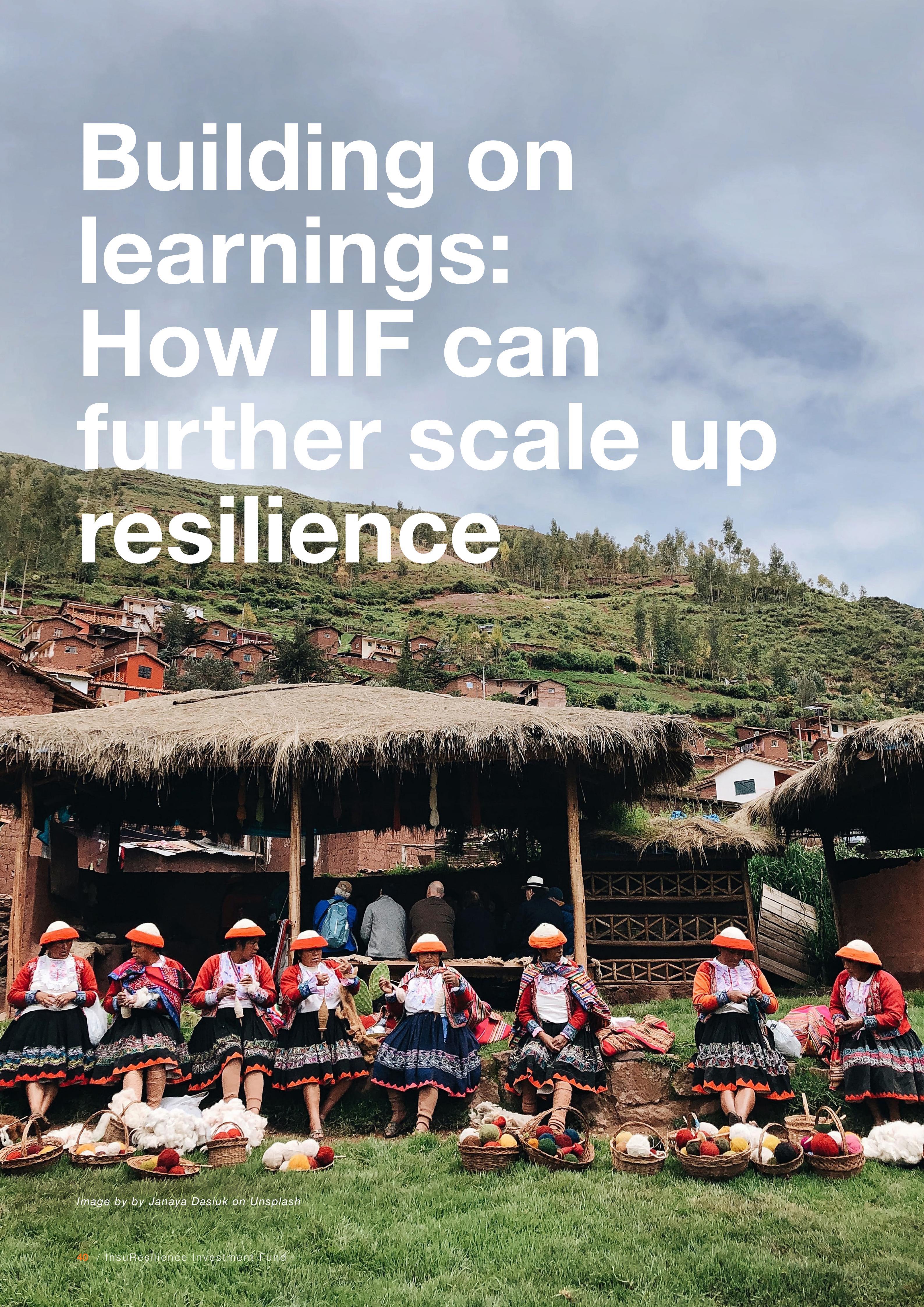


Image by by Janaya Dasiuk on Unsplash

5. Building on learnings: How IIF can further scale up resilience

When assessing the relative success of the IIF from 2015 to 2020, it is important to consider the nature of its mandate. The Fund's experience has shown that reaching poor and vulnerable households in developing countries with novel insurance products is a market-building exercise. As the only programme under the G7 InsuResilience Global Partnership to both raise private capital and invest in the private sector, the IIF is strategically important and innovative in reducing the climate adaptation finance gap and increasing climate resilience through insurance.

Since 2015, the Fund has successfully raised a total of investment capital amount of USD 166 million, which is a mix of private and commercial development finance capital. IIF has invested USD 133 million in 21 investees around the world, implementing 25 technical assistance projects and four premium support schemes. The time and resources required for investees to launch and grow their climate insurance products and services in the emerging and frontier markets targeted by the Fund have been underestimated. The progress made thus far indicates that the IIF can reach up to 145 million beneficiaries by 2025.

IIF's principal achievement has been establishing a pioneering model that works to support climate insurance development holistically. The Fund works along each part of the insurance market value chain via a wide range of investee business models and a combination of complementary financing and TA instruments. This approach has the potential to be transformative in creating an ecosystem that facilitates investees to successfully provide insurance coverage to clients in developing countries and ensure the outreach to a growing number of beneficiaries.

Taking such an approach has enabled the Fund to provide far more value to its investees building strong partnerships on both the Debt and Equity Sub-Funds. The Fund has been able to leverage its contacts and experience to make connections between investees, introducing insurers and MFIs to technology providers and therefore increasing its outreach significantly. This has allowed them to overcome some of the most significant barriers to market penetration, such as reducing transaction costs to ensure products are affordable. Similarly, the Fund has connected investees to aggregators and distributors who have helped extend the reach of their products to poor and vulnerable people.

IIF's commitment to working with its investees to overcome the considerable barriers to reaching their clients is encapsulated by its TAF and PSF, which provide game-changing support. Investees reported benefitting hugely from this engagement as it was tailored to their needs, covering everything from business strategy to product design and marketing. The interviews and survey responses from the investees confirmed that the IIF model has been catalytic in supporting their outreach to clients.

IIF's model helps to create ongoing impact by building self-sustaining networks of private sector entities who deliver climate insurance solutions to poor and vulnerable people. Once such structures exist, more companies and investors can be expected to follow, thus contributing to a growing climate insurance market, that is inclusive and diversified in its footprint in developing countries.

Operating within the InsuResilience Global Partnership, the IIF has the opportunity to further expand its impact by sharing its experience and expertise and by collaborating with other programmes that are working towards complementary objectives. Such programmes include the Centre for Disaster Protection, which is working to advance the quality and use of data modelling in climate insurance; the World Bank's Global Risk Financing Facility (GRiF), which operates at the sovereign level to strengthen the financial resilience of vulnerable countries through market-based instruments including insurance; and the InsuResilience Solutions Fund, which provides financial and technical support to encourage partnerships between insurance market entities on the demand and supply side.

Over the next five years, the Fund expects its beneficiary numbers to increase at a faster rate. It is anticipated that the IIF will reach its full investment level by 2022 by investing in up to 15 additional institutions. Secondly, the Fund's model is now fully established and functioning effectively, meaning that the IIF will benefit from a broad range of lessons learnt while identifying and supporting investees. Thirdly, IIF's existing investees will continue to expand their climate insurance products into markets that will undoubtedly become more favourable for climate insurance penetration. Allocating its grant funds carefully through the tailored support of the TAF and PSF will also accompany IIF's investees in overcoming barriers to market penetration with customised capacity building.

Crucially, the IIF has delivered tangible benefits to its final target group. The Fund has successfully ensured that over 25 million people now benefit from climate insurance protection. Investees already report that their clients are benefiting from the insurance cover and linked-loan products that they provide, thus contributing to financial inclusion and allowing them to recover from climate-related disasters faster. The millions of dollars in payouts that have already been made by IIF over the past six years are a testament to its impact.

The IIF's success in raising private capital further validates its model. A clear commitment to building the climate resilience of poor households and MSMEs attracted considerable capital from development finance institutions too, confirming the Fund's status as an innovative instrument for enhancing climate insurance penetration in developing countries. This has been possible because of IIF's combination of expertise at the Fund level, with experts in insurance, fund management, disaster risk finance and risk assessment. Ultimately, IIF's successes are founded on the quality of its relationship building with its investees and with other institutions in its target countries. Whilst this approach is not quickly scalable, it does provide a real and lasting impact in building resilience through climate insurance.

Looking ahead, the IIF is confident that its approach will achieve its objectives. IIF's experience shows that there is no 'silver bullet' solution to building climate insurance coverage in developing countries. Its success is built on a patient and highly strategic approach to investing, putting considerable efforts into supporting a nascent climate insurance market by selecting and accompanying the right investees to achievelasting impact alongside financial returns.

IIF's investees[39] – Debt Sub-Fund

BANCO PICHINCHA En confianza.	• Banco Pichincha is the largest microfinance provider in Ecuador. • IIF helps expand the bank's service offerings to its customers by intermediating climate insurance products.
Caja Sullana	• CMAC Sullana has a large percentage of its portfolio – specifically its agricultural portfolio – located on the coast of Peru. • The IIF loan aims at enhancing the commercialization of a crop yield insurance.
crezcamos Compañía de Financiamiento	• Crezcamos is a microfinance provider in Colombia. • The IIF loan finances 1) the expansion of its crop insurance and 2) the launch of a new parametric insurance tailored to meet the specific needs of the agricultural market.
KHAN BANK	• Mongolia's largest commercial bank and a key agent of financial inclusion in the country. • The IIF loan is to support the expansion of the index-based livestock insurance program, related to herder loan products.
CREDO	• Credo Bank is a leading bank in the Georgian microfinance market. • Credo offers crop insurance to clients toprotect their agricultural yields against risks posed by environmental conditions.
PAHAL A NEW BEGINNING	• Pahal Financial Services is a microfinance institution in India. • With the loan from IIF, Pahal will launch a new loan product focused on financing livestock bundled with insurance covering climate risks.
CAJA PIURA	• CMAC Piura is the fourth largest specialized microfinance institution in Peru. • IIF helps to expand the portfolio of loans bundled with a multi-risk insurance policy, including climate insurance risks.
Solidario conmigo	• Banco Solidario's provides financial products targeted at micro-entrepreneurs and salaried workers.
VisionFund MYANMAR	• Vision Fund Myanmar and International work to financially support micro businesses, small holder farmers.
PROGRESEMOS	• The purpose of the IIF loan is to support Progresemos in developing a climate insurance product for its direct and indirect clients.
Kashf FOUNDATION	• Kashf is a microfinance provider with the objective of alleviating poverty and empowering women. • IIF financing is used to extend loans to farmers with climate risk insurance.
SATYA MicroCapital Ltd.	• Satya is a microfinance institution in India, focusing primarily on servicing women. • Building on Satya's strong focus on agriculture lending, IIF will support the launch of a new livestock loan product bundled with insurance, which will cover climate risks to protect the livelihoods of its farmer clients.
UMMEED HOUSING FINANCE	• Ummeed offers affordable housing financing to low and middle-income segments of the Indian population. • Next to loans to purchase, build or repair and renovate properties, Ummeed offers home insurance together with its loans which cover the borrower against climate risks. IIF has extended a loan to Ummeed to further grow its climate insured housing portfolio.

Equity Sub-Fund

skymetweather	• Skymet Weather Services Private Ltd provides weather and crop-yield related information services to the insurance sector in India withover 6,000 automatic weather stations (AWS) across the country. • The IIF investment helps expand its AWS network and secure new contracts in both weather data and crop yield measurement. Through its activities, the company is reaching more than 2,000,000 farmers.
asiaINSURANCE Company Ltd. We've Got You Covered	• Asia Insurance Company Ltd is an insurance company in Pakistan. It is a leading player inagriculture, livestock and farm implements micro-insurance. • The IIF investment aims at increasing the company's risk capital and supporting its underwriting capacity in agriculture, hereby extending its outreach to low income farmers.
Inclusive Guarantee	• Inclusive Guarantee is a leading microinsurance broker in West Africa and a pioneer in climate insurance products. Inclusive Guarantee promotes socially inclusive insurance products with a current focus on farmers and index-based crop insurances. • The IIF acquired a 29.1% equity stake in Inclusive Guarantee, with an initial investment in February 2016.
GP GLOBAL PARAMETRICS	• Global Parametrics, established in the UK in 2016, is a for-profit social venture start-up with IIF as a founding investor. • The company seeks to catalyze the development of markets for Financial Disaster Risk Management (FDRM) solutions in low and middle income countries to benefit poor and vulnerable populations.
Agritask	• Established in 2008, Agritask is a leading Ag-tech company providing data-driven decision support tools for end-to-end agronomic management of businesses throughout the agriculture eco-system. • The IIF invested USD 8 m in Agritask in May 2019. The investment will help it to scale up its global expansion, and to spur development of agriculture insurance markets, extending its outreach to small-scale farmers.
ROYAL EXCHANGE	• Royal Exchange offers the full range of general and special risks insurance products. With 100 years in the Nigerian market, Royal Exchange has an enviable reputation for reliability, integrity, professionalism, technical competence and financial strength. • The IIF and Royal Exchange have signed an agreement according to which the Fund will acquire a 39.25% equity stake and appoint nominees to the Board of Directors. The investment will help Royal Exchange extending its outreach to low income farmers.

39 As of 30 September 2020

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InsuResilience Investment Fund
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Fund Manager: BlueOrchard Finance Ltd
Technical Assistance Facility Manager: CelsiusPro

About InsuResilience Investment Fund
Luxembourg-based InsuResilience Investment Fund has been set up by KfW, the German Development Bank, on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). The overall objective of the InsuResilience Investment Fund is to contribute to the adaptation to climate change by improving access to and the use of insurance in developing countries. The specific objective of the fund is to reduce the vulnerability of low-income households and micro, small and medium enterprises (MSME) to extreme weather events. The InsuResilience Investment Fund has been set up as a public-private-partnership for qualified investors and combines private debt and equity investments in two separately investible sub-funds as well as technical assistance and premium support. The fund aims at both financial return and social impact. For further information, please visit: www.insuresilienceinvestment.fund

About BlueOrchard Finance Ltd
BlueOrchard is a leading global impact investment manager and a member of the Schroders group. The firm is dedicated to fostering inclusive and climate-smart growth in emerging and frontier markets, while providing attractive returns for investors. BlueOrchard was founded in 2001, by initiative of the UN, as the world's first commercial manager of microfinance debt investments. The firm has built a distinct track record in offering premium impact investment solutions, including credit, private equity, and sustainable infrastructure. Being an expert in innovative blended finance mandates, the firm is a trusted partner of leading global development finance institutions. BlueOrchard has invested to date more than USD 7bn for sophisticated global private and public clients, enabling tangible social and environmental impact. For additional information, please visit: www.blueorchard.com

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CelsiusPro is a Swiss InsurTech company specialized in providing technology to structure, execute and administer parametric insurance solutions mitigating the financial impact of adverse weather, climate change, and natural catastrophes for over a decade. CelsiusPro's White Label Platform is highly scalable across various geographical regions, perils, products, insurers, and re-insurers. Their systematic but flexible approach covers tropical cyclones, earthquakes, agricultural yield, and weather products globally. CelsiusPro's consulting services include feasibility studies, product design, insurance scheme design, individual risk assessments, process digitalization, and education services. CelsiusPro manages the Technical Assistance Facility of the InsuResilience Investment Fund to protect local communities and small businesses from extreme weather and climate change. www.celsiuspro.com

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