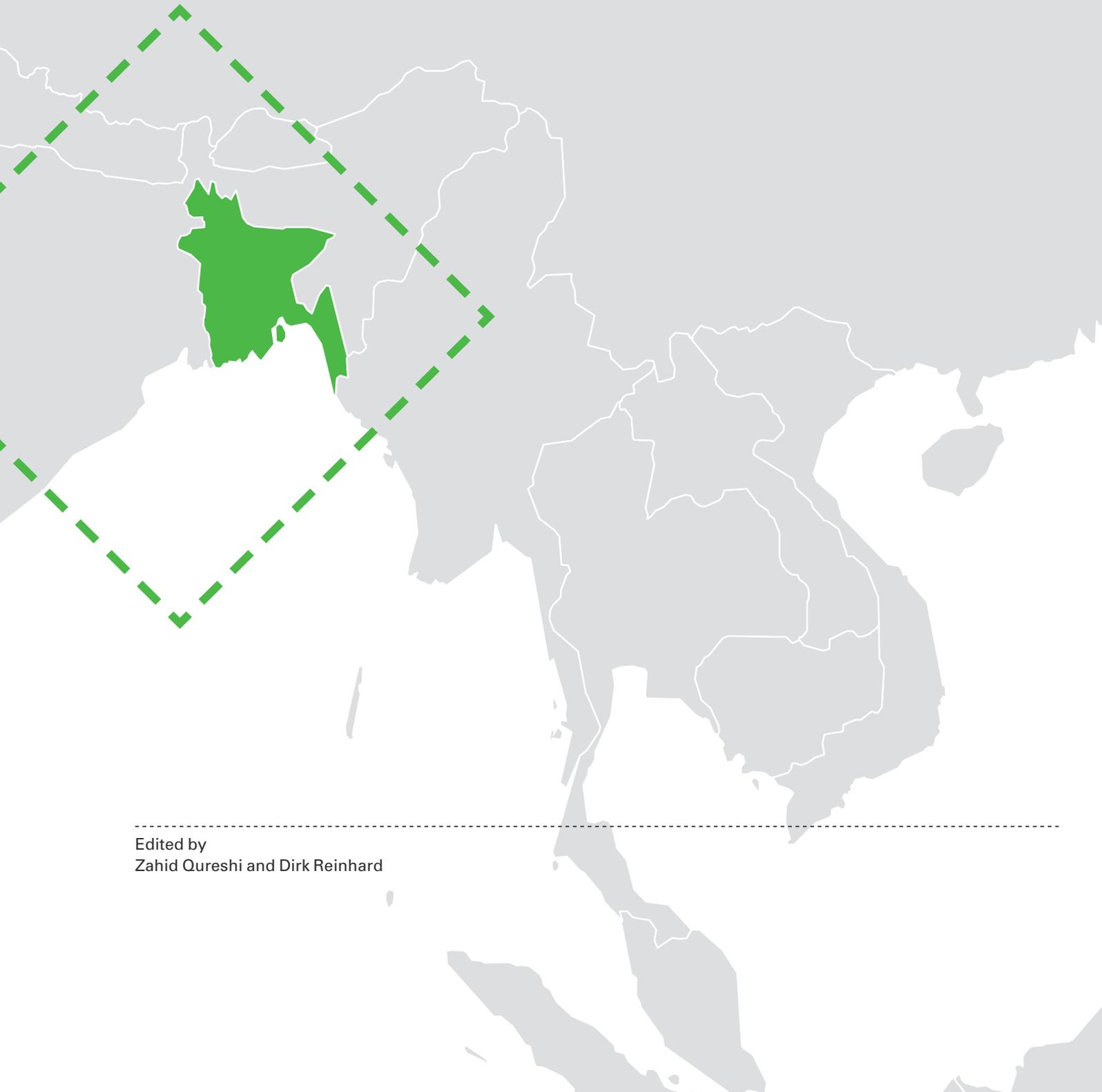

Report

15th International Conference on Inclusive Insurance
Coping with Climate Risk

5–7 Nov 2019

Dhaka, Bangladesh



Edited by
Zahid Qureshi and Dirk Reinhard

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Conference documents and presentations are available online at: www.inclusiveinsurance.org

Links:

Munich Re Foundation
www.munichre-foundation.org

Microinsurance Network
www.microinsurancenetworg.org

BIA – Bangladesh Insurance Association

This report is the summary of the 15th International Conference on Inclusive Insurance that took place in Dhaka, Bangladesh, from 5 to 7 November 2019.

As the styles of the sessions varied, so too do the styles of the individual summaries. Readers, authors and organisers might not share all opinions expressed or agree with the recommendations given. These, however, reflect the rich diversity of the discussions.

Foreword

In April 2018, Bangladesh Insurance Association (BIA) was offered the opportunity by Munich Re Foundation to host the 15th International Conference on Inclusive Insurance (ICII) in November 2019. Upon completion of certain formalities, it was declared at the 14th conference held in Zambia that BIA would be the host of the 15th ICII. After that, Bangladesh Insurance Association started making the necessary arrangements and finally hosted the 15th ICII with the title “International Conference on Inclusive Insurance – Coping with Climate Risk” in collaboration with Munich Re Foundation, Germany and Microinsurance Network (MiN), Luxembourg.

Bangladesh has been recognised as a role model for developing countries. One of the core visions of Bangladesh is to make the country hunger-free by 2030. It is also one of the core principles of SDG. The main focus of the conference was “Inclusive Insurance – Coping with Climate Risk”, which was very relevant and attracted the attention of all quarters. Bangladesh is a disaster-prone country. Disaster is a great obstacle to a flourishing economy. Bangladesh is affected regularly by cyclones, floods, droughts and storms, and more and more people are becoming victims of these disasters. Every year we have to face different natural calamities and various health hazards.

To achieve higher economic growth and inclusive growth will require appropriate economic ways and means to face the natural calamities and different hazards. Microinsurance is one of the tools to mitigate the risk factors. Inclusive insurance mechanisms can help to mitigate the adverse impact of losses caused by natural calamities. Microinsurance can support vulnerable people to survive properly in their daily lives.

The concept of microinsurance is not new in Bangladesh. Since the beginning of the insurance companies, insurers working in Bangladesh have shown a keen interest in the development of microinsurance. In Bangladesh, microinsurance is of great importance to the poor and underprivileged people. Financial inclusion vis-a-vis inclusive insurance can help to eradicate poverty and enhance economic growth.

During the conference, we had a great opportunity to share valuable ideas of experts from both home and abroad and to formulate a prudential guideline for developing and enhancing the microinsurance sector in a greater form for the well-being of the poor and the underprivileged people of Bangladesh. About 580 participants from 42 countries attended the conference. A good number of participants from Bangladesh also attended. There were 26 sessions in the conference and a field trip was arranged during the three-day event.

Bangladesh Insurance Association is extremely grateful to the Honourable Prime Minister of the People’s Republic of Bangladesh, Sheikh Hasina, for her generous presence in inaugurating the conference.

I extend my special thanks to the Honourable Minister for Finance for his kind support. I also extend my whole-hearted thanks to Mr. Asadul Islam, Senior Secretary, Financial Institution Division, Ministry of Finance and Mr. Shafiqur Rahaman Patwari, Chairman, Insurance Development and Regulatory Authority, Bangladesh for their active and sincere support in holding the conference successfully.

I also thank Mr. Thomas Loster, Chairman, Munich Re Foundation, Germany; Mr. Dirk Reinhard, Vice-Chairman, Munich Re Foundation, and Doubell Chamberlain, Chairman of the Board, Microinsurance Network, Luxembourg for their kind presence at the conference.

I also express my gratitude to resource persons, the distinguished guests, participants, media friends, the Core Committee members, my fellow colleagues, Chairmen and CEOs of all insurance companies and all others involved in organising the conference.

Sheikh Kabir Hossain,
President, Bangladesh Insurance Association

Dhaka, April 2020

1 — Sheikh Kabir Hossain,
President, Bangladesh Insurance Association



Foreword

Exposure to the increasing risks represented by climate change has been front of mind for the insurance community for some time, as the public and private sector, multi-lateral organisations, non-government and civil society organisations strive to find solutions to fill the ever-widening protection gap.

Building resilience for vulnerable households calls for intervention at sovereign, meso and micro levels, particularly in low-income countries most exposed to the impact of climate change. In Bangladesh, rising sea levels and shifting rainfall patterns cause crop losses and cyclones are becoming more devastating and more frequent, destroying 300,000 houses a year on average¹.

It was therefore fitting that the 2019 International Conference on Inclusive Insurance, the 15th annual event of this kind, focused on *Coping with Climate Change* and was held in Bangladesh, seventh most vulnerable country in the world to natural disasters. The Bangladeshi government's commitment to supporting the development of the national insurance sector and to working with international partners to deploy risk management solutions that can improve the resilience of the country's 165 million people was highlighted by Her Excellency Sheikh Hasina, Honourable Prime Minister of Bangladesh, during the opening ceremony.

The conference was exceptionally well attended by national insurers who were keen to learn how they might expand their services to millions of households that have emerged from poverty but remain vulnerable to shocks that could easily reverse their fortunes. 580 experts from 42 countries gathered to share experiences and insights into best practices, making this a truly international event.

Head of the InsuResilience Global Partnership, Astrid Zwick, provided delegates with the initial findings of a new Landscape of Climate and Disaster Risk Insurance (CDRI) in Asia and the Pacific, emphasising the need for climate and disaster risk financing to be integrated and for a holistic approach to solving regulatory, data and technological challenges that call for more collaboration between stakeholders and across different ministries. Her call for increased collaboration – and above all for meaningful strategic action – was reiterated throughout the 26 diverse sessions held over three days.

The success of this event was made possible by the enthusiastic support of delegates and speakers, but above all by our hosts, Bangladesh Insurance Association, and the exceptional commitment of Dirk Reinhard, Vice-Chair of the Munich Re Foundation, who has spearheaded the conferences since 2005. I would also like to take this opportunity to thank Thomas Loster, Chair of the Munich Re Foundation, for his long-standing support for the conference, which has been co-organised by Munich Re Foundation and Microinsurance Network since its inception.

We are confident that our next conference, to be held in Jamaica in November 2020, will continue the legacy of shared knowledge and partnership to scale up access to insurance and build the resilience of vulnerable households and small businesses around the world.

Katharine Pulvermacher,
Executive Director, Microinsurance
Network a.s.b.l.

Luxembourg, March 2020

2 — Katharine Pulvermacher,
Executive Director, Microinsurance
Network a.s.b.l.



¹ <https://undp-adaptation.exposure.co/bracing-for-climate-change-in-bangladesh>

Acknowledgements

The 15th International Conference on Inclusive Insurance was the fifth conference to take place in Asia and it was the second largest conference in the history of the event. The great success of the conference would not have been possible without the hard work of the Bangladesh Insurance Association (BIA) and the national Organizing Committee. I would like to express special thanks to Nishith Kumar Sarker, Secretary General of BIA, and to all the members of the Bangladesh Organizing Committee. Thanks to the hard work of BIA, the conference saw a large number of participants from the Bangladesh insurance industry as well as governmental representatives and distribution channels. The willingness to discuss barriers for the development of an inclusive insurance market in Bangladesh was one of the pillars of the success of the conference. We were therefore very grateful for the support by the President of BIA Sheikh Kabir Hossain, Professor Rubina Hamid, First Vice-President of BIA, and Shafiqur Rahman Patwary, Chairman of IRDA. A special thank-you goes to Farzanah Chowdhury, Managing Director & CEO of Green Delta Insurance, who helped to make the initial contacts to BIA. Her support and promotion of the conference was truly outstanding and we thank you for all your guidance and inspiration.

A special thank-you goes to Doubell Chamberlain, Chairman of the Board of the Microinsurance Network, Katharine Pulvermacher, Executive Director of the Microinsurance Network, and the entire team of the Network's secretariat for its great support. The Microinsurance Networks is the main partner of the International Conference on Inclusive Insurance and another pillar of the success of the event. The main topic of this conference was "coping with climate risk." The InsuResilience global partnership played a crucial role in the organisation of this event and we would like to thank Astrid Zwick, the Head of the InsuResilience Secretariat, and her team for all their support.

I would also like to thank other content partners and supporters of the 15th International Conference on Inclusive Insurance – A2ii, CEAR, Cenfri, GIZ on behalf of BMZ, FSD Africa, ILO's Impact Insurance Facility, MCII, Microinsurance Master, the Microinsurance Centre at Milliman, Munich Re and the World Bank Group as well as all the insurance companies from Bangladesh that were sponsoring the event.

The 15th International Conference on Inclusive Insurance brought together some 580 participants from 42 countries. My thanks go to them for sharing their knowledge and experience. On behalf of the organisers, I would also like to thank the members of the Conference Steering Committee. This event would not have been possible without its work in identifying suitable speakers and presentations from the large number of applications submitted for the conference.

Furthermore, I would like to make special mention of the team of rapporteurs and authors led by Zahid Qureshi – who volunteered and summarised the key messages and lessons from the various sessions of the 2019 conference. In addition, I would like to extend my thanks to the Munich Re Foundation conference team – Thomas Loster, Torsten Kraus and Julia Martinez – as well as the staff of the local event management agency.

At the same time, I would like to welcome the participants to the 16th International Conference on Inclusive Insurance which will take place in Jamaica. Together with the Insurance Association of Jamaica, we are looking forward to the next event, set to take place from 10 to 12 November in Kingston.

Dirk Reinhard, Vice-Chairman
Munich Re Foundation, Germany,
Chairman of the Conference
Steering Committee

Munich, February 2020

3 — Dirk Reinhard, Vice-Chairman,
Munich Re Foundation, Germany,
Chairman of the Conference Steering
Committee.





4



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6

4 — 580 participants from 42 countries attended the 15th International Conference on Inclusive Insurance.

5–6 — The conference created a space to meet, discuss and cooperate in the exhibition area and the entire venue.

Agenda

4 November 2019

<p>17th Consultative Forum on Climate and Disaster Risk for insurance supervisory authorities, insurance practitioners and policymakers “Climate and disaster risk: building resilience, bridging the protection gap in Asia”</p>	<p>Pre-conference session: Climate Risk Insurance – Asia and the Pacific fosters inclusive prosperity amidst uncertainties</p>	<p>CEAR 2019 Pre-conference on Academic Research: from buying greenhouse insurance to selling greenhouse insurance</p>
<p>Hosted by the Microinsurance Network, IAIS, InsuResilience and A2ii</p> <p>Poor and vulnerable people in the developing world are affected most by natural disasters. They suffer disproportionately due to their higher vulnerability and exposure and lower ability to cope and recover. In 2019, our Consultative Forums explored how insurance providers, policymakers, insurance regulators and supervisors can collaborate to reduce the protection gap and help to build resilience in the face of climate risk and natural disasters. The 17th Consultative Forum provided a platform for dialogue between these stakeholders, as well as the opportunity to meet with and learn from colleagues and experts involved in climate change from Asia and other regions.</p>	<p>Hosted by GIZ RFPI Asia</p> <p>This Learning Session on Climate Risk Insurance (CRI) presented the various programmes and initiatives by the public and private insurance sectors that aim to solve the insurance-related dilemmas impelled by climate change. It discussed how each global, regional, and national insurance player can strengthen their roles to participate in achieving the aspiration of closing the protection gap, starting with the G7 Climate Risk Insurance Initiative’s target of 400 million of the most vulnerable covered by insurance.</p>	<p>Hosted by CEAR</p> <p>This pre-conference reviewed insights from CGE models for characterising the climate change problem as well as designing policies to mitigate it, with special attention to the role of insurance. In the first part of the workshop the focus was on reviewing the last 30 years of developments in computable general equilibrium (CGE) models for the descriptive characterisation of climate change. In the second part, participants turned to discussing the ways in which CGE models have been used, and could be used, to normatively evaluate policies seeking to mitigate the effects of climate change.</p>

17th Consultative Forum on Climate and Disaster Risk for insurance supervisory authorities, insurance practitioners and policy-makers “Climate and disaster risk: building resilience, bridging the protection gap in Asia”

By Hannah Grant and Teresa Pelanda (A2ii) and Katharine Pulvermacher and Noelia Garcia (MiN)

This Consultative Forum discussed the roles and responsibilities of each stakeholder to reduce the protection gap in climate risk/nat cat insurance and the urgent steps they have to take to make this happen.

Climate change is increasing the already massive impact natural disasters have on the poor and vulnerable. Insurance as part of an integrated risk management package can play a vital role in building greater resilience and protecting individuals and communities; however, it is currently falling short, and there remains a significant insurance protection gap to address.

Hosted by the International Association of Insurance Supervisors (IAIS), Access to Insurance Initiative (A2ii), Microinsurance Network (MiN) and InsuResilience Global Partnership².

According to Munich Re, only half of the global losses resulting from catastrophes in 2018 were insured. The situation is even worse when looking at just emerging and developing countries – there are regions where the gap exceeds 90%. Asia is particularly prone to natural disasters, registering the highest frequency of such events of any continent, accounting for 43% of all events worldwide and for 74% of fatalities related to these events in 2018. Overall losses came to US\$ 59bn³. Nowhere is this more true than in Bangladesh, one of the most disaster-prone locations in the world largely due to its monsoonal climate and coastal morphology. A 2017 study published in the STM Journal reports that since 1972 the country has experienced a total of 297 climate and geophysical disasters, with flood and storm being the most common events. The same study reports that approximately 230,000 people have lost their lives as a result of these catastrophes.

7 — Hannah Grant, Head of Secretariat, A2ii, Germany, opens the 17th Consultative Forum.



² The InsuResilience Global Partnership, which includes 70 members from both vulnerable and donor countries, has set a target of 500 million people insured against climate shocks by 2025.

³ <https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/natural-disasters/the-natural-disasters-of-2018-in-figures.html>.

On 4 November, around 60 insurance regulators and supervisors, policy-makers, insurers, reinsurers, brokers, climate change experts, aggregators and international development professionals put their heads together in Dhaka, Bangladesh to address two key questions: *what are the roles and responsibilities of each stakeholder to reduce the protection gap in climate risk insurance? What are the urgent steps that they have to adopt to make this happen?*

During the event, both industry as well as public sector representatives discussed current approaches and the challenges they face in implementing these solutions.

The insurance sector plays a crucial role in protecting and mitigating the impact of climate change. However, insurance is only one building block of a comprehensive disaster risk management framework. Considering this, the *World Food Programme's R4 programme*, an integrated micro-insurance approach, includes not only insurance for assets, but also risk reduction and risk transfer mechanisms. A key success factor in implementing a programme like R4 is the buy-in and understanding of local stakeholders as well as long-term investment in consumer awareness.

CARD Pioneer offers different products to help protect individuals against climate risk in the Philippines. These packaged, bundled microinsurance products cover life, property and even damage to crops and other sources of livelihood. Not only does this contribute to building longer-term resilience at the individual household level, it also strengthens independence from government dole-outs and international aid. However, lack of data and pricing are key challenges for *CARD Pioneer*, especially because of the huge discrepancy in taxes for life – 2.2% – and non-life – 25–27% – insurance products. These challenges, however, did not hinder *CARD Pioneer* from pursuing microinsurance.



8 — Left to right: Md. Mohsin, Additional Secretary, Ministry of Disaster Management and Relief, Bangladesh; Syed Moinuddin, Additional Managing Director & Company Secretary, Green Delta, Bangladesh; Luc Noubissi, Senior Insurance Specialist, CIMA, Gabon; Carl Hiralal, Toronto Centre, Canada; Augusto Hidalgo, Practice Leader, Willis Towers Watson, Philippines

9 — Interactive working groups were part of the Consultative Forum.



17th Consultative Forum on Climate and Disaster Risk for insurance supervisory authorities, insurance practitioners and policy-makers “Climate and disaster risk: building resilience, bridging the protection gap in Asia”

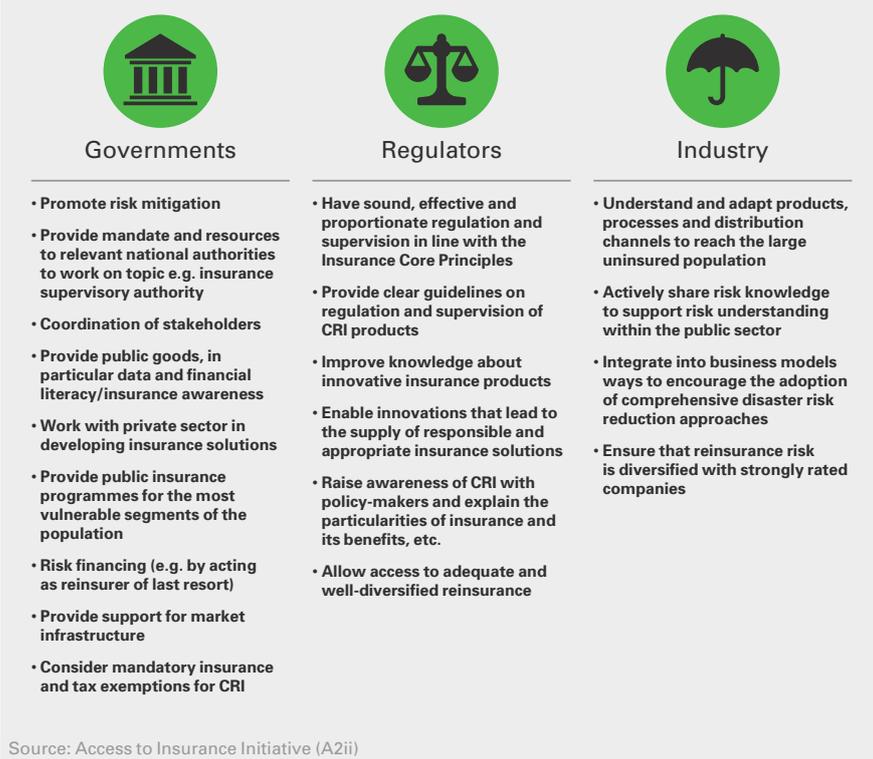
Along with the private sector, the public sector can contribute to more resilient societies by ensuring political support and recognising the important role governments can play. This does not only include the provision of subsidies. In Bangladesh for example, part of a recent **paradigm shift from disaster relief to preparedness** is the current revision of disaster risk management policy documents to ensure insurance is explicitly included. However, among 46 insurance companies in the country, only one, Green Delta, is currently working on climate risks.

CIMA, the Inter-African Conference of Insurance Markets in West Africa, is currently drafting a climate strategy to ensure better advanced planning and that supervisors are more involved in climate-related topics. In addition, CIMA is looking at how climate risk can be better addressed through its activities, for example in areas such as consumer education, reporting and disclosure, scenario analyses as well as a test-and-learn approach to the approval of new products and schemes in the climate context. Some risks which individuals face in the context of climate change may also **call for governments to consider more mandatory insurance products** to be included in regulatory frameworks.

Key messages and lessons learnt

- A comprehensive risk management strategy is needed to better deal with risk related to climate change and disasters. It must include measures for risk reduction, prevention and mitigation. Insurance is only one piece of the puzzle, but nevertheless a fundamental one.
- While the industry has a role to play in developing products that are easily accessible, affordable and understandable, the insurance supervisor needs to make sure that regulations enable the growth of insurance to cover climate-related risks, rather than create unnecessary barriers.
- Greater engagement and support from policy-makers is required for the potential of insurance to be fully realised. Policy-makers should include insurance supervisors in national policy debates on climate risk and take the lead in coordinating stakeholder efforts. Subsidisation might also be required to make products viable.
- Climate risk is an extraordinary risk that cannot be addressed by either the insurance industry or government alone; a joint approach between different countries is also needed to tackle this important topic. Supervisors, policy-makers, the private sector, donors and consumers – they all have to engage in active dialogue to design and implement tools to bridge the protection gap (see Figure 1).

Figure 1
Different stakeholders and their potential roles in climate risk insurance



Pre-conference workshop: Climate risk insurance – Asia and the Pacific fosters inclusive prosperity amidst uncertainties

Hosted by GIZ RFPI Asia

By Prechhya Mathema

The workshop discussed the vital role climate (disaster) risk insurance (CDRI) plays within the Disaster Risk Management system. It shared insights into the level of adoption of climate risk solutions in Asia and the Pacific, and focused on the Mutual Exchange Forum on Inclusive Insurance (MEFIN) and GIZ inclusive insurance development projects.

Though nascent, there is **increasing recognition of the importance of CDRI as an integrated tool, not a stand-alone solution against climate risk**. Its growth can help governments achieve their sustainable development goals.

Many countries in Asia and the Pacific are exposed to frequent catastrophic or extreme weather events. Bangladesh is the world's 7th most risk-prone country, while Vietnam, Indonesia and the Philippines have high exposure to residual risk.

Commitment from government, strong engagement of private stakeholders and effective use of technology can help build resilience against extreme weather events by delivering sustainable climate risk solutions. A case in point is the Philippines, where these success factors are buttressed by a strategic role played by the insurance regulator. And in Bangladesh the government aims to have a long-term strategy against climate risk as part of the Delta Plan 2100.

The CDRI landscape

A study conducted by GIZ RFPI with support from the InsuResilience Secretariat focused on 22 countries in Asia and the Pacific region, with special focus on Bangladesh, Indonesia, the Philippines and Vietnam (see Box 1). It found that **disaster risk management frameworks (DRMFs) are present and implemented in the region, with 14 of the 22 countries having some form of contingency funds** (an estimated US\$ 5 billion for ex-ante responses in the last 6 years), **but dependency on international aid is high** (estimated at US\$ 9 billion in the same period). However, **for the majority of the countries CDRI is not part of the integrated DRMF and there is no regulation specific to CDRI**.

Key challenges in developing viable CDRI products are a lack of an enabling regulatory environment, of state incentives, of access to reliable data, and of reliable weather monitoring, physical infrastructure and technical capabilities. Governments and policy-makers have critical roles in incentivising the industry, supporting the necessary infrastructure, and raising awareness of micro CDRI solutions. International cooperation and exchange of knowledge are also important, and platforms like the InsuResilience Global Partnership and MEFIN (Mutual Exchange Forum on Inclusive Insurance Network) have key roles to play.

10 — Antonis Malagardis,
Program Director, GIZ-RFPI,
Philippines



Pre-conference workshop: Climate risk insurance – Asia and the Pacific fosters inclusive prosperity amidst uncertainties

Box 1

Landscape of Climate and Disaster Risk in Asia

- Asia is highly exposed to catastrophe events.
- 19 of the biggest catastrophes caused losses of US\$ 140 billion, but insurance only accounted for US\$ 20 billion, 14.2% of the total loss.
- 25 CDRI interventions directly or indirectly covered over 212 million people, about 8.5% of the region's population.
- There are 5 sovereign risk transfer and 6 disaster risk insurance programmes (Pacific Catastrophic Risk Insurance Company, South East Asia Disaster Risk Insurance Facility, The Philippines City Disaster Insurance Pool, World Bank Catastrophe Bonds for the Philippines and Maldives, CAT DDO and PEM facility).
- The region has 5 state-supported agriculture insurance programmes covering 40 million farmers and more than 43 million hectares of farmland, with an estimated annual premium of US\$ 3 billion and a premium subsidy of 80% or more.
- 9 private-sector-led agriculture insurance plans reach 95,000 farmers with premiums totalling US\$ 1.3 million.
- The trend is toward index insurance solutions. Limited client-facing technology is still a challenge.

Source: Pandey, Manoj. Presentation "The CRI Landscape Study." 15th International Conference on Inclusive Insurance 2019.

Integrated systems

An Integrated Climate (and Disaster) Risk Management Framework aims to address the social, economic and ecological impacts of extreme events through five phases: prevention, risk retention and transfer, preparedness, response, and recovery. The workshop's emphasis was on the development of an effective residual risk transfer mechanism (i.e. CDRI), and the roles of various stakeholders in integrating these five phases into their plans and priorities.

MEFIN was formed in 2013 as a platform for knowledge exchange and public-private dialogue, with assistance from GIZ. MEFIN aims to transform the CDRI knowledge exchange into the implementation stage and support capacity development at all levels. MEFIN is supported by the GIZ Regulatory Framework Promotion of Pro-Poor Insurance Markets in the Asia III Program, which has five pillars:

- Policy and Regulation,
- Business Model Development,
- Use of Technology Platforms,
- Knowledge Exchange among MEFIN country members, and⁴
- CRI for MSMEs



11 — Left to right: Manoj Pandey, Senior Manager, MicroSave Consulting, India; Shayne Rose Bulos, Senior Advisor, GIZ-RFPI, Philippines

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There are seven member countries of the MEFIN Network: Indonesia, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam.

The GIZ RFPI III project plans to develop the Vietnam, Indonesia and Philippines (VIP) Engine as a data hub, acting as a climate risk data repository. The basic data is going to be made available on an open source basis. There are further plans to add modelling capabilities to quantify the impact of climate risks and provide detailed insights. This will help initiate dialogues between key stakeholders in understanding risks and costs. The VIP Engine can support the development of climate risks solutions and help governments make risk-informed decisions on climate resilient projects.

Microinsurance providers are facing challenges of affordability, lack of trust from vulnerable communities, absence of reinsurance support, authenticity of claims in index insurance and lack of an automated database. **Choosing the right distribution partners was identified as a key factor in reaching vulnerable communities.**

Other challenges found in MEFIN member countries are: limited data or reliable data sources, complicated product information and high basis risk (in index insurance), high cost with low returns diminishing private sector appetite for CDRI products, and poor geographical connectivity to rural populations.

GIZ RFPI's and MEFIN's strategy is to promote the development of CDRI by integrating CDRI in national and local plans, developing public-private partnerships, increasing participation from local and international reinsurers, creating an enabling regulatory environment and utilising the shared economy. In addition, the plan is to use technology to access data, improve execution and reduce costs.

Lessons learnt

- Asia's geography and dense populations make it highly vulnerable to climate risk; there is an urgent need for CDRI.
- The development of CDRI is at an early stage but integration of CDRI within the DRMF is critical.
- Governments and policy-makers can play a significant role in creating a better regulatory environment, supporting necessary infrastructure development and providing incentives to the private sector.
- International cooperation can enhance country-level knowledge and technical capabilities.

Figure 2
Integrated Climate (and Disaster) Risk Management



Source: Malagardis, Antonis. Presentation "Climate Change in Asia & the Integrated Climate (and Disaster) Risk Management System." 15th International Conference on Inclusive Insurance 2019.

Pre-conference workshop on academic research: from buying greenhouse insurance to selling greenhouse insurance

Hosted by CEAR

By Jeff Blacker

The session introduced simulation models as a method to characterise climate change and design policies to mitigate it. A study of Mexico's Fund for Natural Disasters (FONDEN) was presented, as well as a modelling example in developing countries based on Ethiopia's eucalyptus production.

CGEs, IAMs, and the social cost of carbon

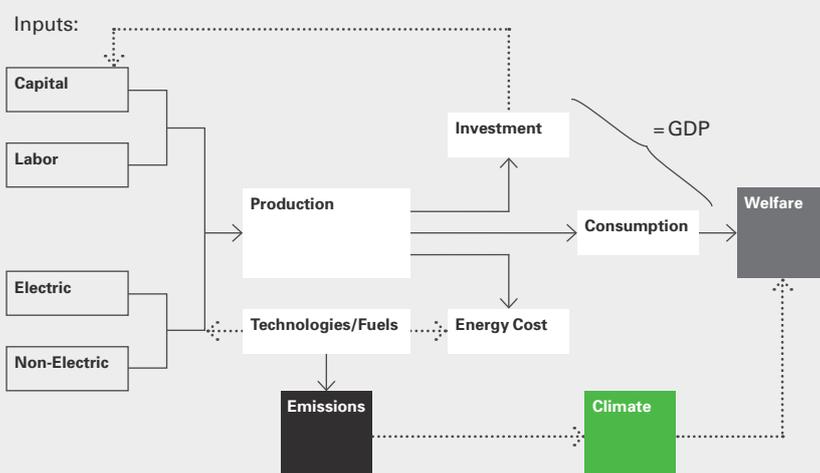
CGE (Computable General Equilibrium) simulation models, which can be used for climate change, are a class of models that use actual economic data to estimate the effects of changes in policy, technology or other external factors. The progression of CGE models includes significant landmarks such as the advent of powerful programming languages and global databases. There are several reasons to consider CGE models for climate change:

- Explicit statement of production technologies, consumer preferences, government policies, trade flows, and environmental impacts.
- Integrated CGEs build in models of climate change caused by human activity.
- Economic interactions are factored in.
- Results go straight to individual welfare for households and social welfare for regions.

Integrated Assessment Models (IAMs) evolved as researchers added interactions of the economy with "nature" to the CGE model. IAMs provide a framework for assessing alternative approaches to the climate problem. They are useful for measuring the extraordinarily complex interaction between climatic and economic outcomes. IAMs perform a useful role in policy dialogue by focusing policy discussions on issues that matter (see Figure 3).

One drawback of IAM is potential misrepresentation or misunderstanding of the modelling by policy-makers. Another disadvantage is that it requires detailed understanding of the underlying economic theory, climate dynamics and energy technologies.

Figure 3
IAM Climate Feedback Dynamics



Source: Rutherford, Thomas. Presentation "Integrated Assessment Modelling and Policy Over the Last 30 Years." 15th International Conference on Inclusive Insurance 2019.

12 — Left to right: Thomas Rutherford, Department of Agricultural and Applied Economics, University of Wisconsin, United States; Alejandro Del Valle Suarez, Professor, Georgia State University, United States



Impact of indexed disaster funds on shock coping in Mexico

FONDEN Mexico

Number of people insured
affected populations in the country receive emergency, rehabilitation and reconstruction assistance

Insured risks
natural disasters (e.g. earthquake, hurricane, flood, drought, forest fires)

Premium
is funded entirely by federal government

Mexico’s Fund for National Disasters (FONDEN) became operational in 1999 to mitigate the economic losses generated by extreme weather. Claim costs are pre-financed, and a rules-based approach is used for disaster response (see Figure 4).

The presentation on FONDEN compared areas that received support to others that did not, from 2004 to 2012. Night-time light, captured by satellites before and after events, was used as a proxy of economic activity to measure the decline and then the recovery of those areas.

There was a significant difference in economic activity between areas that received FONDEN payouts and those that did not for the first year after a weather event. There was not a significant difference 18 months after an event, which suggests that the FONDEN impact is not permanent, but helps areas recover their economic activity more quickly. Was there any manipulation or corruption? No evidence was found, suggesting that FONDEN’s rules shield resources from political abuse.

The positive impact on GDP in the FONDEN regions was estimated to be US\$ 6.1 billion, which is roughly 96% of the costs of FONDEN. Significantly, this US\$ 6.1 billion estimate does not include some other potential meaningful benefits of FONDEN such as reduced mortality.

However, for FONDEN the downside basis risk remains a problem – meaning that there are areas with real economic losses after weather events that do not meet the threshold for FONDEN payouts.

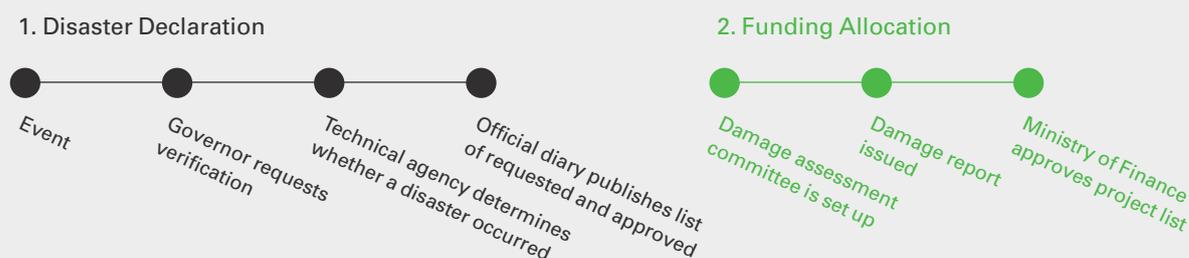
Stochasticity in integrated assessment models

The session also examined stochasticity (such as the lack of predictability), discount rates, hedging, and modelling the reduction in emissions required to avoid catastrophic losses.

If significant climate impacts will not occur for decades, the present value of those impacts using a 5% discount rate is relatively small. This makes it difficult to justify the cost of meaningful changes today to mitigate climate change. This challenge can be solved using bilevel optimisation which uses separate social discount rates and private discount rates in IAMs. A low social discount rate is justified by intergenerational equity, or the importance of the lives of grandchildren and future generations.

It is impossible to know how climate change will occur in the future. Decisions made early on are based on assumptions that may change in the future. Hedging assigns probabilities to many assumptions and runs scenarios to help choose the near-term optimal abatement policy using stochastic control.

Figure 4
FONDEN’s Rules-Based System



Source: Del Valle, Alejandro. Presentation “Rules for Recovery: Impact of Indexed Disaster Funds on Shock Coping in Mexico. 15th International Conference on Inclusive Insurance 2019.

Pre-conference workshop on academic research: from buying greenhouse insurance to selling greenhouse insurance

The reduction in emissions that is necessary to avoid catastrophic losses will be greater if policy-makers wait to learn first and then act. "Act then learn" is required when modelling climate tipping, which is disconcerting as it is unlikely that modellers know the distribution of risk with sufficient precision.

Risk management and the normative evaluation of climate change policy

The session then considered whether it is feasible to develop either global policies or insurance covers for the effects of climate change that do not create winners and losers.

Calculating individual welfare for insurance requires consideration of an individual's risk aversion. The optimal design or premium level for one person will not be optimal for everybody. There is a similar challenge when creating global policies because the priorities of a developing country will not be the same as a developed country. To say it another way, the willingness to pay to abate CO₂ emissions will differ among countries. Joint implementation may require that developed countries subsidise the cost for developing countries to abate.

Modelling Ethiopia's eucalyptus production using spatial equilibrium datasets

A concrete example of how to apply modelling in developing countries is based on Ethiopia's eucalyptus production. Problems with eucalyptus expansion include the heavy consumption of soil nutrients, removal of too much water from streams and underground wells, and exhaustion of once productive farmland. Ethiopia's land tenure laws are one of the key drivers of eucalyptus expansion.

One model considered notes areas where rainfall is likely to increase, concentrations of crops by location, and the cost to transport crops based on travel time. The model utilises the Spatial Production Allocation Model (SPAM) and Google's Distance Matrix.

Four scenarios were run through the model, representing hypothetical policy reforms that could be enacted regarding land tenure. The model output included the potential crop concentrations following each policy change (see Figure 5).

Lessons learnt

- IAMs are useful in climate policy dialogues by focusing discussions on issues that matter.
- Design comprehensive, ex-ante approaches to disaster recovery such as FONDEN.
- The reduction in emissions that is necessary to avoid catastrophic losses will be greater if policy-makers wait to learn first and then act. Act then learn is required when modelling climate tipping.
- Feasible global policies must embrace Joint Implementation (e.g. international side payments).

Figure 5
The 5 Ws of Climate Change Policy



Source: Rutherford, Thomas. Presentation "Stochasticity in Integrated Assessment Models." 15th International Conference on Inclusive Insurance 2019.

13 — Glenn Harrison, C.V. Starr Chair of Risk Management & Insurance, Robinson College of Business, Georgia State University, United States



Agenda

5 November 2019 Morning sessions

**Pre-conference session:
ILO's Impact Insurance
Forum 2019 –
Insurance for women:
Opportunities for insurers**

Hosted by ILO's Impact
Insurance Facility and the IFC

The 2019 Impact Insurance Forum focused on the topic "Insurance for women: Opportunities for insurers". Globally, the socio-economic status of women and their power to make decisions and influence household spending is increasing. Women now tend to earn more and to have better control of their assets, which significantly impacts their ability to help their families and communities and to contribute to economic growth. Yet, women's ability to mitigate risks remains low, and can even be worsened by the impacts of climate change. How can the insurance industry play a role in addressing the financial protection and risk mitigation needs of women? The Forum presented the business case for why insurers should address the women's market, how the risks women face differ from those of other segments and shared the most effective strategies for engaging with and selling insurance to women above and beyond traditional distribution channels.

**CEAR 2019
Pre-conference
on Academic Research
(continued)**

Hosted by CEAR

For details see
agenda 4 November 2019

ILO's Impact Insurance Forum

Insurance for women: opportunities and challenges

Hosted by ILO's Impact Insurance Facility and the IFC

By Camyla Fonseca

The 2019 ILO's Impact Insurance Forum, organised in partnership with the International Finance Corporation (IFC), focused on the theme "Insurance for women: Opportunities and challenges".

Citing insights from the **SheForShield report**⁵, the session explored why insurers should serve the women's market (see Figure 6) and presented the experiences of companies that have taken steps towards reaching women customers. 1st for Women, Green Delta, AXA Indonesia and People's Education and Development Organization (PEDO) were the organisations invited to share their knowledge.

Parallel group discussions focused on how to design better insurance solutions for women. Discussions revolved around four main topics: addressing women's health risks, distribution to better reach women, serving women entrepreneurs, and life and long-term savings for women.

Globally, the socio-economic status of women and their power to make decisions and influence household spending are improving. Overall women are living longer, are more integrated in the labour force, are earning more than before and their level of education is increasing, all of which significantly influences their ability to have positive impacts on their families, communities and, consequently, on economic growth.

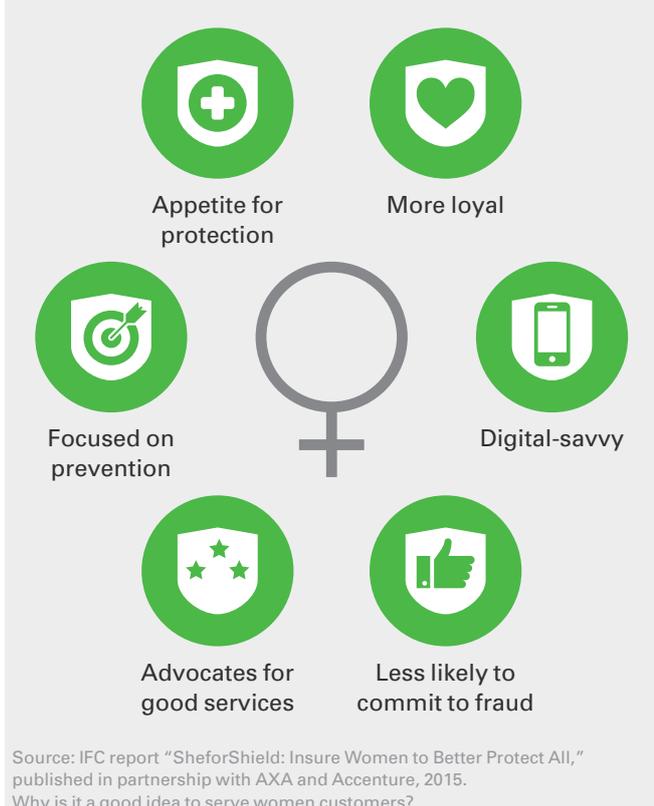
This constitutes a great opportunity for insurers. Women want protection for themselves and for their families and are willing to invest a large portion of their income back into their households. They are also less likely to submit fraudulent claims and are loyal customers, which makes them an essential target market for insurers that want to promote impact insurance, i.e., insurance that contributes to social economic objectives. Protecting women has never been more relevant to protecting society.

However, women do not constitute a homogeneous group – their risk mitigation needs vary by income, age and context, but also by lifecycle events, such as marriage, becoming part of the workforce, having children, divorcing or retiring. Understanding these differences is vital for insurers that want to service this market effectively.

Women, climate change and insurance

Women and men are affected differently by climate change due to their socially constructed behaviours, norms and relationships. Despite recent improvements, women still have more limited rights and mobility than men, as well as fewer resources and less decision-making power. All this makes them more vulnerable to disasters.

Figure 6
Women: Valuable clients



5

IFC report "SheforShield: Insure Women to Better Protect All," published in partnership with AXA and Accenture, 2015.

Besides, in many cultures women are the ones responsible for activities that are deeply affected by extreme weather events, such as food gathering and production and water collection. This means that climate change significantly influences their livelihoods. By choosing to target women customers, insurers can have an important role in combating the climate challenge.

Addressing women's health risks

Since women live longer than men, they are more likely to face higher health expenses over their lifetime. Besides, women have unique health concerns such as pregnancy, childbirth, fertility treatments and birth control, all of which are linked to their reproductive health and can be expensive to address.

Higher healthcare costs mean that uninsured women may avoid or delay treatment due to an inability to pay, or in order to save. Therefore, addressing the health insurance gap and exploring how to link health products to preventative services constitute important business opportunities for insurers.

Distribution to better reach women

Traditional sales approaches may pose some challenges for reaching the different segments of the women's market. Research shows that women tend to prefer advisors – who can provide solutions to daily and future issues – to pushy sales agents. They also prefer dealing with agents that they know or come highly recommended from family, friends and even social media.

Besides providing gender-sensitive training to distribution channels – so that they know what women clients value the most – and leveraging groups and digital platforms to which women already belong in order to promote insurance, another solution insurers can explore is to engage and empower more women in their sales force. Some insurers have witnessed a positive relationship between the percentage of women in the sales force and the percentage of women clients, something which is worth further exploration.

Serving women entrepreneurs

Women entrepreneurs often face many risks that do not affect men. For instance, their business and personal lives are highly interlinked – pregnancy, childbirth and maternity leave significantly influence their income-generating potential. The fact that in most countries women are still in charge of domestic work and child-care duties despite recent improvements also means that they face more barriers to build and maintain a successful business. Lastly, women are more likely to have their homes serve as the place of work for their SME, which reinforces the link between business and household risks.

One potential way insurers can address these challenges is by offering business interruption insurance, including coverage for life events, such as childbirth. This would supply women entrepreneurs' need for income protection against shocks that affect their business.

An effective way to target women entrepreneurs may be through women's entrepreneurship associations. This enables insurers to have access to a large number of women clients and provide them with group rates on life and health covers.

14 — Plenary discussion facilitated by Craig Churchill, Chief of ILO's Impact Insurance Facility (standing on the right)



ILO's Impact Insurance Forum
**Insurance for women:
 opportunities and challenges**

Life and long-term savings for women

Women are often concerned about their children's financial security in case they pass away. This presents a huge opportunity for insurers: by addressing the life insurance gap, they can increase revenue while addressing women's needs.

Life insurance policies that offer a savings or retirement component will tend to become more relevant to this market. Reasons include an increase in women's life expectancy and the fact that childcare responsibilities prevent women from formally working as many years as men (which consequently leads them to contribute less to pension funds).

Lessons learnt

- Realising the full potential of the women's insurance market can have influence beyond the insurer's bottom line, increasing women's economic empowerment and economic growth.
- By choosing to target women customers, insurers can have an important role in improving women's capacity to mitigate the impacts of climate change.
- Addressing women's health insurance gap constitutes an important business opportunity for insurers.
- Engaging and empowering more women in the insurance sales force can improve distribution and proximity to women clients.
- Women entrepreneurs' life events deeply affect their income-earning potential. Business interruption protection covering life and household events can help.
- As a result of an increase in women's life expectancy, life insurance covers that offer a savings or retirement component will become more important to this segment.

15 — Interactive working groups are part of ILO's Impact Insurance Forum.



Agenda

5 November 2019 Afternoon sessions

National opening ceremony

Sheikh Kabir Hossain
President, BIA
Bangladesh

Prof. Rubina Hamid
First Vice-President, BIA
Bangladesh

Doubell Chamberlain
Chairman of the Board,
Microinsurance Network
Luxembourg

Thomas Loster
Chairman,
Munich Re Foundation
Germany

Shafiqur Rahman Patwary
Chairman, IRDA
Bangladesh

Asadul Islam
Senior Secretary,
Financial Institutions Division
Ministry of Finance
Bangladesh

Welcome note

Mustafa Kamal
Finance Minister of Bangladesh

Chief guest

Sheikh Hasina
Prime Minister of Bangladesh

Plenary 1

Making inclusive insurance work for the most vulnerable

Keynote

Dr. Atiur Rahman
Professor of the Department
of Development Studies,
University of Dhaka
Bangladesh

Astrid Zwick
Head of InsuResilience
Secretariat, InsuResilience
Global Partnership
Germany

Lea Müller
Head of Consulting,
CelsiusPro
Switzerland

Ashok Shah
Group CEO,
Apollo Investments
Kenya

Facilitator

Thomas Loster
Chairman,
Munich Re Foundation
Germany

Opening ceremony

By Shamim Ashraf

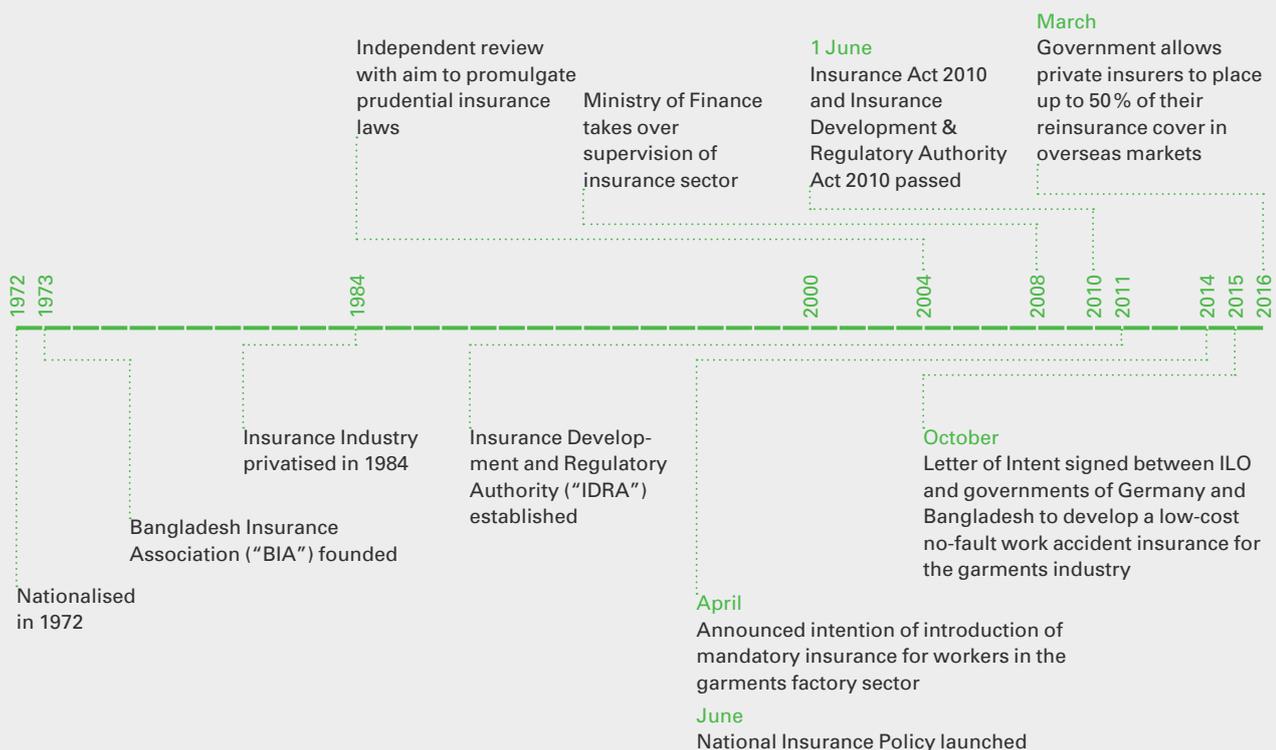
Some 580 delegates from 42 countries attended the 15th International Conference on Inclusive Insurance 2019 in Dhaka, Bangladesh.

The need for insurance to play a more effective role in protecting the economic development of Bangladesh was universally communicated by all speakers. In the past decade, Bangladesh has reduced poverty from 41% to 21% while annual GDP growth has averaged 8.7%, of which the insurance industry's contribution is currently < 1%, with < 2% insurance penetration.

The development of insurance has taken important strides since the initial nationalisation in 1972 (see Figure 7), and each speaker reaffirmed the government's intention to take the necessary steps to further mature this sector.

"The focus of this conference is to share and exchange the knowledge and ideas of professionals, scholars and experts of different countries regarding how microinsurance mechanisms can insure lives of marginal people, provide security in times of disasters, and ensure good health of people to stimulate the overall economic development of the country," said **Professor Rubina Hamid**, 1st Vice-President of BIA. **"Marginal people in particular are vulnerable to climate events, hence the importance of accessible, affordable insurance products."**

Figure 7
Timeline of key developments within the Bangladesh insurance industry



She and other speakers representing the industry made a number of recommendations to achieve this goal:

- Government should mandate that organisations such as banks, MFIs, commercial service providers provide insurance for clients, employees and members.
- Company group insurance for all types of organisations should also be mandatory.
- Life/non-life bundling should be permitted.
- Health/agro insurance should be encouraged.
- The Insurance Act should be amended to incorporate micro-insurance-specific legislation.

Thomas Loster, Chairman of Munich Re Foundation, then spoke of the importance of partnerships. **Governments must engage with private sectors, NGOs and MFIs to promote and partner up to grow microinsurance.** “With insurance penetration of less than 2% in Bangladesh, formation of strong partnerships is crucial, and this conference provides a singular opportunity to talk about the insurance solutions available and to learn from prior failures.” He also mentioned the importance of findings from a key content partner this year, InsuResilience Global Partnership, which promotes insurance solutions worldwide to avert, minimise and address climate and disaster risks.

The InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions was launched at the 2017 UN Climate Conference in Bonn, Germany. It now has over 70 members, and its aim is to strengthen the resilience of developing countries and protect the lives and livelihoods of poor and vulnerable people against the impacts of disasters.

Doubell Chamberlain, Chairman of the Microinsurance Network, highlighted the stark reality and importance of climate change insurance in Bangladesh. “Bangladesh is the 7th most vulnerable country in the world to natural disasters. From 1960 to 2010, 58 cyclones affected Bangladesh. While this accounts for less than 1% of the world’s tropical storms, it accounted for 53% of deaths from cyclones.” He encouraged participants to **“probe new ideas, try solutions and learn from them rapidly and try again,”** adding: “We should share strategies with people we don’t usually share them with, in different parts of the country and specialities, to deal with the complexity of problems facing low-income people.”

On behalf of the Microinsurance Network he thanked the government of the Duchy of Luxembourg for its support over the past 10 years and its intention of continued funding for the next 5 years. He reminded participants that membership of the Network is open to individuals as well as organisations.



16 — Left to right: Thomas Loster, Chairman, Munich Re Foundation, Germany; Doubell Chamberlain, Chairman of the Board, Microinsurance Network, Luxembourg; Asadul Islam, Senior Secretary, Financial Institutions Division, Bangladesh; Mustafa Kamal, Finance Minister of Bangladesh; Sheikh Hasina, Prime Minister of Bangladesh; Sheikh Kabir Hossain, President, BIA, Bangladesh; Shafiqur Rahman Patwary, Chairman, IRDA, Bangladesh; Prof. Rubina Hamid, First Vice-President, BIA, Bangladesh

 Opening ceremony

Shafiqur Rahman Patwari, Chairman of Bangladesh's Insurance Development & Regulatory Authority (IDRA), spoke of the need for microinsurance to be well administered, cost-efficient, and delivered on a large scale if it is to be beneficial to the poor and insurers which provide it. IDRA, he said, is working on framing the rules and regulations to establish an appropriate structure for microinsurance. He also spoke of the vital role insurance will need to play to protect the country's multi-diversity, especially in the Delta (Sundarbans) as Bangladesh has the largest delta in the world.

Asadul Islam, Senior Secretary, Financial Institutions Division, Ministry of Finance, spoke of how his officials are working with the insurance industry and the regulatory body IDRA, to introduce weather-index-based crop insurance, coverage for migrant workers and protection for people with disabilities. He reiterated the challenges and importance of reaching scale. "Many companies are introducing microinsurance products but have yet to reach the volumes in demand."

Sheikh Kabir Hossain, President, BIA, said one of the core visions of Bangladesh is to make the country hunger-free by 2030. "With the economy growing fast at 8.13% GDP growth (2018–19) and per capita income of US\$ 1,910, **maintaining economic growth as well as inclusive economic ways and means to face the natural calamities and several health hazards**. Microinsurance is one of the tools to mitigate these risk factors."

A featured speaker was **A. H. M. Mustafa Kamal**, Minister of Finance. He said that to **encourage higher adoption and greater use of financial services among the majority of the population**, insurance companies and providers need to ensure their products are designed to fit the unique financial needs of the poor. "They need to understand the distinct circumstances of the majority of the population and develop appropriate products to meet those specific needs."

Last to address the delegates in the opening session was the keynote speaker, **Sheikh Hasina**, Prime Minister of Bangladesh (see next page).



17 — Welcome note by Mustafa Kamal, Finance Minister of Bangladesh

Keynote

Undertake effective and realistic measures to address climate risk through inclusive insurance

Excerpts from the address at the conference by Sheikh Hasina, Prime Minister of Bangladesh

I welcome you all at the inaugural ceremony of the 15th International Conference on Inclusive Insurance in Bangladesh.

My father, Bangabandhu Sheikh Mujibur Rahman, was involved with the insurance industry. Assuming office after independence, he worked for the development of the insurance industry in our country.

Realising the important role of an actuary for the insurance industry, he recalled the only actuary of Bangladesh at that time, Shafat Ahmed Chowdhury, from London and appointed him the Controller of Insurance in 1973.

The insurance industry helps reduce the invisible risk of individuals, families and organisations. It provides financial guarantees to minimise potential risk. It also provides protection against loss of life and property. It helps create funds for the country's capital and investment sectors. Everyone needs insurance, regardless of whether they are rich or poor.

Considering the importance of the insurance industry in the socio-economic development of the country, the present government has given due importance to the modernisation and development of this sector. Our government has been trying to develop the insurance industry. We promulgated a new Insurance Act 2010 in place of the age-old Insurance Act 1938. We have also established an autonomous regulatory body, the Insurance Development and Regulatory Authority (IDRA), dissolving the office of the Chief Controller of Insurance.

The IDRA has taken several effective steps to ensure inclusive insurance. I will mention the most notable of these.

To take into account the farmers affected by sudden floods in the "Haor" region and tackle the risk of climate change as a whole, agriculture insurance is being introduced to reduce financial losses of farmers in the primary stage. (The Haor region in northeastern Bangladesh is known for its wetland ecosystem and frequent flash floods.)

An insurance policy has been introduced to make insurance available to our workers working abroad. It will be possible to take the insurance risk of about 12 million workers. Under this insurance, a worker will get a maximum insurance benefit of BDT 500,000 (US\$ 5,800).

Insurance claim settlement is a problem in the insurance industry. Huge initiatives have been taken to solve the problem for the insurance industry and to safeguard the interest of consumers. As a result, the insurance industry has settled prior insurance claims of BDT 80 billion (US\$ 925 million) during the last 2 years. Due to the zero tolerance policy of the authority on claim settlement, the rate of claim settlement has significantly increased.

Inadequacy of information is a major problem for insurance customers. As a result, customers are in the dark about how many instalments have been deposited and whether the instalment money has actually been credited to the head office. So, consumers' confidence in the insurance industry decreases. Sometimes customers are deceived also. The Unified Messaging Platform (UMP) process is under way to overcome this problem.

Insurance companies are participating in development fairs in various parts of the country every year to raise public awareness. In addition, IDRA is organising insurance fairs with all insurance companies in different divisions of the country every year. In the meantime, a day-long seminar has been organised to increase public awareness in several divisional cities of the country.



18 — Sheikh Hasina, Prime Minister of Bangladesh, opens the conference.

Keynote

Undertake effective and realistic measures to address climate risk through inclusive insurance

We will turn Bangladesh into a middle-income country by 2021 and a developed-prosperous one by 2041, *inshallah*. With the country's huge economic development, numerous high-rise buildings are being constructed in different cities. Initiatives have been taken to provide building insurance to protect against risks arising from fire in these buildings.

The deadline of December 2019 is set to float 27 insurance companies that are not yet listed on the capital market.

To bring transparency in transactions into the insurance industry, a directive has been issued. All transactions above BDT 1,000 (US\$ 11.6) must be through a bank. All insurance companies have been instructed to show their updated insurance claims on their own website.

The activities of the BDT 6.32 billion (US\$ 73.2 million) project under the joint financing of the government of Bangladesh and the World Bank have been under way since 2018 to increase the capacity of the Insurance Development and Regulatory Authority, the Life Insurance Corporation, the General Insurance Corporation and the Bangladesh Insurance Academy.

The 'Bangabandhu Education Insurance' is under way to continue the education of school-going students in the absence of parents.

A proposal has been made to declare 1st March as 'National Insurance Day', the day Bangabandhu Sheikh Mujibur Rahman joined the then Alpha Insurance as regional chief.

Extreme natural disasters like cyclones, storms, floods, droughts, rain, earthquake, etc. are common phenomena in various parts of the world. These disasters are getting worse day by day. Asia and the Pacific region is the most natural disaster-prone area in the world.

Having the largest delta in the world, Bangladesh is one of the most vulnerable nations to climate change. Cyclones, storms, floods, droughts, rain, earthquake, etc. have occurred here round the year at different times. These natural disasters greatly harm the grassroots-level people. According to a recent study, Bangladesh is the 7th most natural risk-prone country in the world. The Bangladesh government plays the prime role in handling the risk. Voluntary organisations and NGOs have also been working proactively and they have taken various praiseworthy initiatives.

Insurance can play an effective role for tackling natural disasters. But application of insurance is very limited in covering the risks resulting from natural disasters. As a result, it is possible to compensate losses and severe/large damage but it is still impossible to reach the micro-level people. In that case a special insurance ecosystem can play an impressive role in addressing climate risks. However, this form of insurance system is a new type of initiative. It has been introduced in a few countries and it is in a pilot stage in some countries.

During our tenure we have been successful in alleviating poverty from our society. The insurance sector also makes a contribution towards poverty alleviation because the insurance sector helps to generate investment through savings from the people of every sector. As a result, jobs are created and eventually poverty is beaten.

Insurance companies need to play a more effective role in keeping production and the economy out of risk. I urge the insurance company owners to make a profit as well as to emphasise the importance of social responsibility. I think, the insurance industry will be used for humanitarian welfare.

Economic activities are being strengthened at the grassroots level for sustainable development. By doing this it will be possible to improve the lower-income people of the country. If we launch a specially designed microinsurance scheme to tackle the risk of climate change, lower-income people affected by natural disasters will benefit.

I hope that experts from different countries in this conference will play a role in sharing mutual experiences which will help create more effective and realistic programmes to address climate risk through inclusive insurance.

Plenary 1

Making inclusive insurance work for the most vulnerable

By Jeff Blacker

The plenary discussed the latest research about access to climate risk insurance in Asia, the role of different stakeholders and practical steps to increase the availability of insurance in developing markets. Panellists shared additional experience from Bangladesh, Kenya and South Africa.

Bangladesh and the regional landscape

Bangladesh is one of the fastest-growing economies in the world, with an annual GDP growth rate of over 7% since 2016. In the last decade, the per capita income has increased from US\$ 700 to 2,000, and the percentage of the population living in extreme poverty has reduced from 22% to 11%. Financial inclusion, including insurance, is pivotal for resilience and sustainability. Insurance protects not only the most vulnerable; it also protects the macro-economic gains already achieved. Climate change causes migration of affected refugees from vulnerable rural areas to city slums. Insurance can help these families, but there are challenges to reach them.

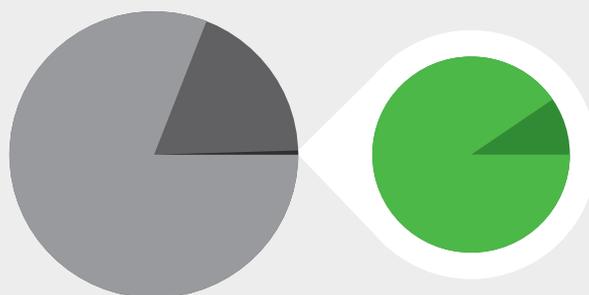
One of the greatest challenges for inclusive insurance is raising awareness and increasing financial literacy. Products need to be well understood by the market. Another challenge is a lack of confidence and trust. Insurers need to be credible, and one way to build trust is to pay claims. Another way to build trust is by reaching the market through aggregators already in the community.

The “Landscape of Climate and Disaster Risk Insurance (CDRI) in Asia and the Pacific” was nearing publication at the time of the conference (see Figure 8). The study was supported by the InsuResilience Global Partnership, GIZ RFPI Asia and the MEFIN network, and it provides four key findings:

19— Keynote speaker Dr. Atiur Rahman, Professor of the Department of Development Studies, University of Dhaka, Bangladesh



Figure 8
Landscape of CDRFI in Asia-Pacific Region:
Direct/indirect outreach (212 million individuals covered)



- Sovereign risk transfers
171.8 million
- State-supported insurance programs
40.53 million
- Disaster risk insurance solutions
890,000
- Private-sector-led agriculture insurance
94,000

Population 22 countries: 2.47 billion (World Bank),
Coverage: 212 million = 8.5% of total population
→ Protection gap: 91.5%

Source: Zwick, Astrid. Presentation “Landscape Study: South Asia, Southeast Asia, and Oceania.” 15th International Conference on Inclusive Insurance 2019.

Plenary 1

Making inclusive insurance work for the most vulnerable

1. Regulatory authorities need to provide an enabling environment. Some countries in the region do not yet recognise index-based insurance. Government subsidies, where available, increase the attractiveness and affordability of insurance cover.
2. Access to reliable weather data enables modelling and insurance product development.
3. Technical capacities need to improve in terms of risk modelling, analysis, distribution, and marketing.
4. CDRI needs to be integrated into disaster risk frameworks that exist already. Comprehensive solutions could include combinations of insurance, credit, and savings. This requires better collaboration across different stakeholders and ministries. Alliances like the InsuResilience Global Partnership that is dedicated to strengthening the resilience of poor and vulnerable people can support as an element of a comprehensive risk management approach through implementation and further development of climate and disaster risk finance and insurance solutions.

Insurance examples from Kenya and South Africa

APA Insurance Kenya

Number of people insured

KAIP agriculture insurance cumulatively has reached over 900,000 smallholder farmers since 2016. KLIP livestock insurance covers close to 18,000 people.

Insured risks

Crop and livestock

Premium average

KES 850 (US\$ 8.38) per annum

In **Kenya** a public-private partnership helps government provide income security to farmers through the Kenya Agricultural Insurance Program (KAIP) and the Kenya Livestock Insurance Program (KLIP). The two plans are administered as a pool, with APA Insurance leading a consortium of seven private insurers and five reinsurers.

APA overcomes many challenges by pooling crop and livestock experience with other insurers. This approach builds capacity because insurers work together instead of competing for business.

Pooling also helps when negotiating with reinsurers by assuring the reinsurer that the group will exist for a long time. Similarly, the pooling concept backed by the government builds trust with partners such as international development organisations and local aggregators. A fourth benefit of the pool is that the stakeholders share resources making it easier to achieve scale.

20 — Facilitator of the plenary:
Thomas Loster, Chairman,
Munich Re Foundation, Germany



To develop the financial literacy of farmers and overcome the obstacle of explaining index insurance or yield products, the insurer takes farmers with them during the crop cut samples at the end of the season to measure yields. This helps the farmers understand the process – which builds trust.

In **South Africa**, an index-based insurance plan for smallholder farmers, allowing faster payouts and relief in case of a drought, has been launched by InsuResilience Solutions Fund, parametric weather and climate insurance specialist Celsius Pro, and South African Land Bank Insurance Company. It aims to cover some 240,000 people in two years.

South African Land Bank Insurance Company and Celsius Pro, co-funded by InsuResilience Solutions Fund

Number of people insured

The venture is designed to protect 40,000 policyholders (240,000 beneficiaries) by 2021

Insured risks

Crop and livestock

Premium range

7% of sum insured

Strong partnerships with technology providers, such as Celsius Pro, offer advantages to insurance solutions. Technology provides data for the product design. Satellite data is available worldwide, making data less of a restricting factor than in the past.

The Celsius Pro approach in South Africa can be replicated in other regions. Technology can create platforms for selling products through websites and mobile phone operators, as well as platforms for quick claim payouts. Technology helps keep costs low, which is important when the premium needs to be affordable.

Lessons learnt

- Create awareness of climate risk insurance among the poor, because it can change lives.
- Bundle insurance with products so the client does not need to make a separate insurance purchase.
- To achieve scale and build capacity, pool with other insurers, technology providers and local aggregators.
- Regulators need to help maintain the trust of the stakeholders. If there are separate regulatory bodies for microfinance and insurance, they need to work together.

21 — Left to right: Dr. Atiur Rahman, Professor of the Department of Development Studies, University of Dhaka, Bangladesh; Astrid Zwick, Head of InsuResilience Secretariat, InsuResilience GlobalPartnership, Germany; Ashok Shah, Group CEO, Apollo Investments, Kenya; Lea Müller, Head of Consulting, CelsiusPro, Switzerland



Agenda

6 November 2019
Morning sessions

Plenary 2	Parallel session 1	Parallel session 2
<p>The challenge of reaching the bottom of the pyramid: distribution</p> <p>Hosted by Microinsurance Master</p> <p><u>Lorenzo Chan</u> CEO, Pioneer Insurance Philippines</p> <p><u>Richard Leftley</u> CEO, MicroEnsure United Kingdom</p> <p><u>Mark Robertson</u> Head of strategy and analytics, Hollard Life South Africa</p> <p>Facilitator <u>Bert Opdebeeck</u> Founder, Microinsurance Master Belgium</p>	<p>Understanding the role of the different stakeholders</p> <p>Hosted by the BIA</p> <p><u>Asadul Islam</u> Senior Secretary, Financial Institutions Division Ministry of Finance Bangladesh</p> <p><u>Prof. Rubina Hamid</u> Chairman, Sun Life Insurance Bangladesh</p> <p><u>Farzanah Chowdhury</u> Managing Director & CEO, Green Delta Insurance Bangladesh</p> <p><u>Tanvir Rahman Dhaly</u> Head of Operations, BRAC Bangladesh</p> <p><u>Dr. Mosharraf Hossain</u> Member, IDRA Bangladesh</p> <p>Facilitator <u>Michael J. McCord</u> Managing Director, MicroInsurance Centre at Milliman United States</p>	<p>Developing insurance markets for SMEs</p> <p>Hosted by GIZ</p> <p><u>Kristian Mangold</u> Public sector business developer, AXA France</p> <p><u>Jeremy Gray</u> Senior Engagement Manager, Cenfri South Africa</p> <p><u>Sara Jane Ahmed</u> V20 Finance Advisor, Office of the Advisor and Representative – Climate Vulnerable Forum and V20 Philippines</p> <p>Facilitator <u>Gregor Sahler</u> Advisor, GIZ Germany</p>
<p>Parallel session 3</p> <p>Make change happen – Learn & Act session</p> <p>Hosted by ILO's Impact Insurance Facility and FSDA</p> <p>Facilitator <u>Craig Churchill</u> Team Leader, ILO's Impact Insurance Facility Switzerland</p> <p>Facilitator <u>Thomas Wiechers</u> Assistant Director Insurance, FSD Africa Kenya</p>	<p>Parallel session 4</p> <p>Scaling up Climate Risk Insurance: Gender-inclusiveness as an opportunity</p> <p>Hosted by InsuResilience</p> <p><u>Hannah Grant</u> Head of Secretariat, A2ii Germany</p> <p><u>Christina George</u> Gender Advisor, African Risk Capacity Italy</p> <p><u>Vener Abellera</u> President/CEO, CARD MRI Insurance Agency Philippines</p> <p>Facilitator <u>Katherine Miles</u> Consultant, InsuResilience Global Partnership United Kingdom</p>	

Plenary 2

The challenge of reaching the bottom of the pyramid: distribution

Hosted by Microinsurance Master

By Shamim Ashraf

Microinsurance products face a number of unique challenges compared to traditional insurance products, from underlying data, product design, and policy management to claims processing and distribution. This plenary focused on distribution, with three panellists who combined have enrolled 85 million microinsurance policies globally to date.

Is distribution the toughest nut to crack?

"Distribution is by far the hardest part of microinsurance and commonly overlooked. I have seen great products fail and poor products succeed purely because of distribution," said a panellist. Commonly, microinsurance products are designed ground-up: (1) what is the customer willing to pay; (2) how much of this is risk premium; (3) apply loadings such as tax; (4) what is left for distribution?

MicroEnsure (UK)'s experience has been that this approach tends to leave very little for distribution – resulting in products not reaching scale, thus long-term sustainability. Instead, its approach is to reverse the process: (1) what is the retail price for the customer; (2) customer journey – how to market and get the product launched and serviced; (3) how much is left to provide what sort of product and coverage levels; (4) finally ask: is the product valuable enough to the customer to buy?

From the perspective of **Pioneer** (the Philippines) the challenge of distribution is foremost, and two-fold in magnitude for traditional insurers who tend to wonder why one needs to change or tweak the model when approaching a different market. In such environments, "internal champions" within the organisation are necessary to drive the change and coordinate/challenge key departments such as finance, actuarial and marketing whose support is required to develop the traditional mindset.

Hollard South Africa is in a perhaps not unique but unusual position in that its shareholders have a very strong inclusivity/social impact drive, which influences the purpose and culture of the organisation, including how it thinks about distribution.

Among options, going where the customer goes can work

The distribution evolution of microinsurance products tends to start with "business to business" (B2B) models, such as working with a microfinance institution where the insurance (e.g. life insurance) is bolted onto a loan provided by the institution. Under this model, no selling is involved and the insurance uptake is mandatory for obtaining the loan. As the option of insurance becomes voluntary, the model evolves to a "business to business to consumer" (B2B2C), where for example a call centre is used as the intermediary to sell insurance. Under this model, it is common for the call centre to leverage the brand of the partner, for example Grameenphone. The eventual distribution option for microinsurance is "business to consumer" (B2C), selling directly to the consumer and not using someone else's brand or payment gateway.

MicroEnsure is making the B2B2C model work, but its long-term goal is B2C. Hollard in comparison goes B2C, with most direct, Hollard-branded life business sold through its physical channels. Additionally, Hollard has been successful with leveraging partnerships (e.g. with retailers) for distributing life products. Its products do not serve strictly micro customers, but a range of income groups; and the company aims to not offer just one product but multiple covers combined with cross-selling and upselling. These help to ensure the sustainability of the distribution channels.



22 — Left to right: Mark Robertson, Head of strategy and analytics, Hollard Life, South Africa; Lorenzo Chan, CEO, Pioneer Insurance, Philippines; Richard Leftley, CEO, MicroEnsure, United Kingdom

Plenary 2

The challenge of reaching the bottom of the pyramid: distribution

For Pioneer, the journey has been varied, with flexibility a key to success. Once it used a comic book to promote insurance and savings among young children. The comic book was a success but not the uptake of insurance! Pioneer now believes the critical need is to identify the target market, leverage off partnerships the customers trust and ultimately go where the customer goes. If, for example, an insurer has in its sight the families of overseas workers who regularly send money back home, it should form a partnership with remittance centres.

What to look for in a partner

The following came out as the critical factors to consider:

- Equality in partnership. A partnership where one partner needs the other more will more often fail than not in the long term.
- Purpose/value alignment – what the motivation of the partner organisation is and what it wants out of this venture over what time horizon.
- Embedded payment mechanism – collection of premium and payment of claims.
- Ability to solve the partner's business problems.

Overall, alignment is required across all levels of the partner organisation, not just the senior level. This across-the-board approach will identify and address any "key person risk" that may exist.

Box 2

How to nurture a successful partnership

- Alignment of key performance indicators (KPIs) and governing structure.
- Frequency of meetings and willingness to share beyond the partnership requirements.
- The need and ability to demonstrate the priority given and efforts contributed to the joint undertaking.
- Creating depth of relationship across the organisation from senior to junior levels – the importance of account management.
- Resilience – knowing that many partners will say "this is not working" as a default to negotiate better terms.

Shared and aligned purpose and value generate compatibility. *Chemistry* – a strong connection and mutual understanding – is also important in a partnership. But personal chemistry, between a handful of senior managers, should not be the touchstone of a business partnership. Beyond compatibility, organisational chemistry requires trust and open, ongoing communication.

Lessons learnt

- Is distribution the toughest nut to crack? The general consensus is "yes".
- Internal set-up is key in the choices to make in distribution channels such as B2B, B2B2C, B2C.
- What to look for in a partner: trust, openness, alignment in values, purpose and long-term perspective.
- What to bring: solve a problem for the partner, underpromise and overdeliver, and add value in alignment and incentives.



23 — Facilitator of the plenary:
Bert Opdebeeck, Founder,
Microinsurance Master, Belgium

Parallel session 1

Understanding the role of the different stakeholders

Hosted by the Bangladesh Insurance Association (BIA)

By Prechhya Mathema

The session discussed the role of different stakeholders in increasing microinsurance coverage in Bangladesh. It looked at strategies from multiple stakeholders' perspectives. Panellists highlighted the importance of effective collaboration, clear understanding of customers' needs and customer-centricity rather than product-centricity.

Bangladesh is the 7th most vulnerable country in the world to climate change and extreme weather events, yet the insurance coverage, particularly among lower-income segments, is very low. There is, however, a strong commitment from senior government officials to positively change this situation. They also recognise that expanding inclusive insurance requires effective engagement and participation of all stakeholders (government, private sector, NGOs and MFIs) to tackle challenges at a holistic level.

The outcome of a high-level supply-side landscape study conducted by Milliman involving 33 microinsurance providers in Bangladesh (see Figure 9) indicates a positive and encouraging environment for the development of inclusive insurance, with key constraints noted as the lack of investment capital and technical capabilities.

Target 2025

Increasing insurance outreach to 35% of the population (over 50 million people) of Bangladesh by 2025 is possible.

- Asadul Islam, Senior Secretary, Financial Institutions Division, Ministry of Finance, Bangladesh scale.

Raising awareness and building trust

Among the biggest challenges of inclusive insurance is **to raise awareness and build trust**. This is the responsibility of both the government and insurance industry. To have trust, the customer needs to understand the product and insurance process; and this journey starts with creating awareness.

Insurers should **actively engage with customers to understand their needs and communicate how insurance can benefit them**. The Regulator and the BIA can help create demand by delivering **financial literacy programmes** and promote, at scale, the concept of insurance. Educating the younger generation via topics such as insurance and financial education in the academic curriculum is also important.

Insurers providing good service and paying claims promptly via a simple and easy process are also key factors in **building trust**.

Figure 9
Perspectives on the supporting environment for microinsurance in Bangladesh*



Parallel session 1

Understanding the role of the different stakeholders

Regulatory and legal landscape

In Bangladesh the Regulator can play a critical role in **creating an enabling yet robust regulatory environment** that fosters innovation to help vulnerable communities get access to insurance while ensuring consumer protection. A key element is the draft Microinsurance Regulation whose final version needs to be expedited.

Adopting either prescriptive or principle-based regulation will be a key factor in motivating informal or commercial insurers to legally provide microinsurance services. There is also a clear need for the IDRA to **formalise the legal definition of microinsurance**. There is no precise definition at the moment and there is still a debate as to whether making microinsurance mandatory, though it might achieve scale, would deliver the right product.

The Ministry of Finance (MoF) has a vital role in developing the right policies, enhancing technical expertise and facilitating **better coordination between different regulatory bodies**. The Insurance Institute needs to help build capacity by training professionals and agents in the industry.

Different distributors are currently governed by different laws and regulations and this needs to be addressed. Further, the regulator can **provide infrastructure support and set up a regulatory sandbox** where insurers can test products, services, business models and delivery mechanisms in a more controlled environment.

It was also noted that the current compliance requirements to access international climate finance are too onerous for countries like Bangladesh. Though Bangladesh has created a Climate Trust Fund from its own national budget, some form of international coverage for vulnerable communities affected by climate change still needs to be made available to Bangladesh. But it was made clear that Bangladesh should not wait for such international coverage as its issues are urgent.

Product design and affordability

Customer-centricity should be at the heart of a product design. Insurers need to develop innovative products that are simple, affordable and impactful in bringing solutions to the low-income segments.

It is also essential to design products and develop processes around partners **as shared values between insurers and partners are important** in ensuring sustainability. Given the extensive experience of MFIs in Bangladesh working with vulnerable communities, insurers should work with them to design and deliver the right solutions. Bundling the insurer's product with the partner's core product might be an efficient way of distributing products. Panellists made the point that **MFIs should not be taking on their own insurance risk but rather should be working with insurers**.

More research is required to understand the needs of women – the most unserved part of the population – and tailor insurance products accordingly.

24 — Facilitator of the session:
Michael J. McCord, Managing
Director, MicroInsurance Centre
at Milliman, United States



Distribution channel

Partnering with the right distributors is key to achieving outreach. Currently, the majority of microinsurance products are sold via agents. There is an urgent need to **find alternative distribution models**, such as third-party aggregators like utilities, mobile operators and bancassurance.

The BIA, insurers and government need to enable distribution at scale with regulations allowing a broader range of distributors. Collaboration between regulators, such as the utility and telecommunication authorities, is becoming increasingly important.

Role of technology

Technology can add value across the entire value chain of microinsurance delivery, while **making the operation more sustainable by reducing costs**. It can also increase transparency, improve the customer experience and build trust.

Mobile technology, in particular, can overcome infrastructure challenges in remote areas. It can provide options for premium collection and claims payment for communities which do not have access to bank accounts. Information on insurance products, reminders for renewals and status of policies can be sent via SMS. It can also support data collection and provide immediate access to data to all involved parties.

Insurers should take bold steps to explore new technologies but significant commitment is required for all parties involved. Insurers, regulator and the BIA need to collaborate with relevant government agencies to establish and expand the required technology, particularly mobile, infrastructure.

Lessons learnt

- Collaboration between government entities, private sector and development agencies is required to build a sustainable ecosystem for inclusive insurance.
- Significant commitment from senior government officials is essential to achieve inclusive insurance goals.
- An enabling regulatory environment is necessary for different partners to work collaboratively.
- The regulator should support innovation, including in mobile technology.
- Expansion of distribution is needed to achieve scale. Insurers should leverage knowledge and experiences of MFIs, and invest in new channels.

25 — Left to right: Shameran Abed, Senior Director, Microfinance, BRAC, Bangladesh; Prof. Rubina Hamid, Chairman, Sun Life Insurance, Bangladesh; Asadul Islam, Senior Secretary, Financial Institutions Division, Bangladesh; Farzanah Chowdhury, Managing Director & CEO, Green Delta Insurance, Bangladesh; Mosharraf Hossain, Member, IDRA, Bangladesh



Parallel session 2

Developing insurance markets for SMEs

Hosted by GIZ

By Jeff Blacker

This session focused on the small and medium enterprise (SME) insurance market. SMEs are important to national objectives such as employment and economic growth. When SMEs fail, it affects the entrepreneur, employees and dependants. The panellists discussed the importance of SMEs, characteristics that make SMEs more likely to fail than other businesses, and how insurers, governments and other stakeholders can better serve SMEs.

The IFC estimates that in emerging economies, SMEs are responsible for at least 70% of job origination, while facing a financing gap of more than US\$ 5 trillion. In emerging markets, roughly 40% of the GDP comes from SMEs, according to the World Bank.

Challenges of the SME market

SMEs are exposed to various risks such as personal accidents, fires, and natural disasters. Small businesses rely on informal risk management techniques, but as SMEs grow, the informal techniques become insufficient to address the risks.

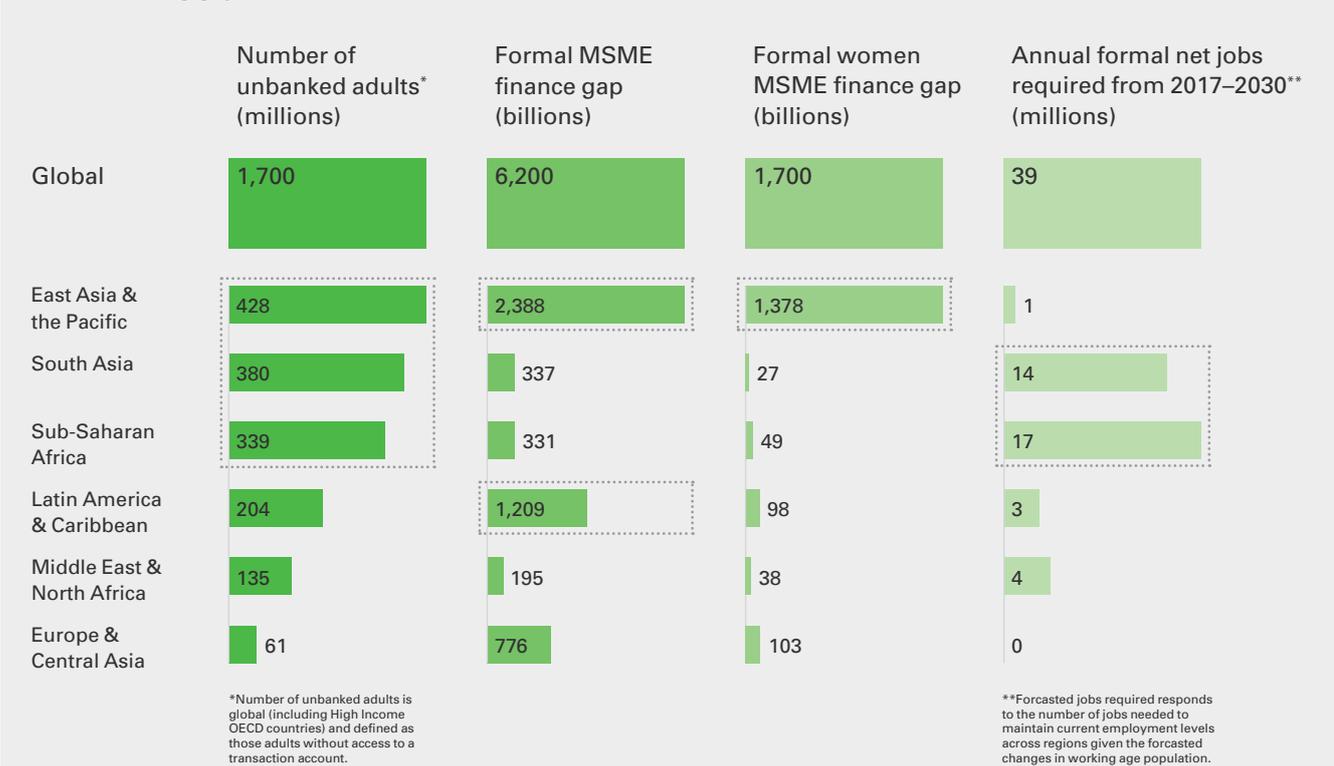
SMEs typically lack access to insurance and when they do have access they may face budget constraints that make insurance unaffordable. They also face high transaction costs when partnering with service providers. And they may lack financial literacy and entrepreneurial literacy.

Approaches to meet the SME challenges

Insurance providers need **qualitative data about SMEs**, because each business faces a unique set of risks, cashflows, and economic cycle. Simply shrinking a traditional corporate insurance product will not meet the needs of most SMEs. To obtain qualitative data, insurers can talk with SMEs about their risks or learn about them from aggregators or their distribution channel. Consider using a third party to collect SME data so the results are not biased by the insurer.

After gaining an **understanding of the needs, design product solutions that meet those needs**. Day-to-day cashflows are common among many SMEs, so fast settlement of claims may be a requirement. Consider bundled insurance which covers not only medical expenses but also replaces business cashflow if the SME has to close because of a disaster or illness.

Figure 10
MSME financing gap (US\$)



An **effective distribution** for SMEs may include sales agents to provide a human touch that helps with sales and claims management. Insurers may increase scale by aggregating together SMEs that face similar needs and offering them similar solutions. SMEs may choose to aggregate themselves as a coalition to improve access and reduce costs of insurance and other financial services. Bundling insurance with supplies or credit so the insurance does not require a separate purchase is another suggestion for attaining scale.

A last suggestion is for insurers to realise that insuring SMEs is an **investment in a potentially huge opportunity**. It may be worth taking a loss early by paying claims and removing exclusions to build trust. Allow experimentation and innovation to meet the needs of the SME market.

Box 3

Making change happen

Improvements in SME efficiency can help SMEs have additional capacity to purchase insurance protection. For example, in Kenya, sensors were added to cocoa containers which reduced spoiling by 20–25%.

Government activity affects SMEs

Investments in infrastructure and good planning by the government (e.g. flood drainage) can improve the risk profile of SMEs and make them more insurable against natural disasters. Investments in satellites and rain gauges provide valuable data for crop and livestock insurance development.

Progressive insurance regulation, such as enabling telcos to sell insurance, increases the availability of insurance coverage. Some regulators permit a “sandbox” approach, which allows providers to pilot innovative insurance and distribution solutions.

To conclude, **government stop-loss coverage** helps protect insurers and insureds from catastrophic events.

Lessons learnt

- Be willing to experiment, pay claims and take losses early on as an investment in the SME market.
- Talk with SMEs and aggregators to learn about the SMEs and their risks.
- SMEs can join together to improve access to financial services.
- Bundle insurance with supplies or credit, so insurance does not require a separate purchase.
- Offer products which cover not only medical expenses but also lost income if the business must close temporarily.



26 — Left to right: Gregor Sahler, Advisor, GIZ, Germany (Facilitator); Kristian Mangold, Public sector business developer, AXA, France; Jeremy Gray, Senior Engagement Manager, Cenfri, South Africa; Sara Jane Ahmed, V20 Finance Advisor, Office of the Advisor and Representative – Climate Vulnerable Forum and V20, Philippines

Parallel session 3

Make change happen: Learn & Act session

Hosted by ILO's Impact Insurance Facility and FSDA

In this interactive workshop, participants discussed each of the six steps of a systematic change management process and took part in a group review of two cases of insurers in Africa embarking on a journey of transformation to serve the inclusive insurance market.

Change is necessary to serve the low-income market which has its own characteristics: irregular and unpredictable incomes; reduced access to infrastructure and services; greater vulnerability to risk; little experience with insurance; and different socio-economic networks. Aside from understanding the needs of this segment, an insurer needs to reach clients through different distribution points, manage expenses to accommodate lower margins per policy, and build systems to tackle larger volumes of transactions. Implementing such a change requires that the process is managed carefully with a systematic approach. Presenters outlined the change process's six steps, citing their use by Britam (Kenya) and SUNU (Ivory Coast) and encouraging participants to think about how they might apply to their own organisations.

Step 1: Define the desired future

"If you don't know where you are going," said Yogi Berra⁶, "you might not get there." The organisation's future which is aimed at should be: clear (with meaningful business objectives); SMART (specific, measurable, achievable, realistic and time-bound); broken into milestones (to guide the path towards the future); and grounded in the current situation (revealed by an analysis like SWOT – strengths, weaknesses, opportunities and threats).

Step 2: Secure buy-in

Buy-in – the understanding, acceptance and ownership of the change by people and entities responsible for its implementation – should: involve partners (identifying effects across the value chain); be strategic (aligning the change agenda with the organisation's objectives); and be operational (countering fear of change and creating value for staff).

⁶ Lawrence Peter "Yogi" Berra (1925–2015), New York Yankees' coach, known for his yogi-isms like "It ain't over 'till it's over." and "The future ain't what it used to be."

Step 3: Organise for change

This involves creating a structure for change, removing obstacles and developing incentives and accountability (see Figure 11).

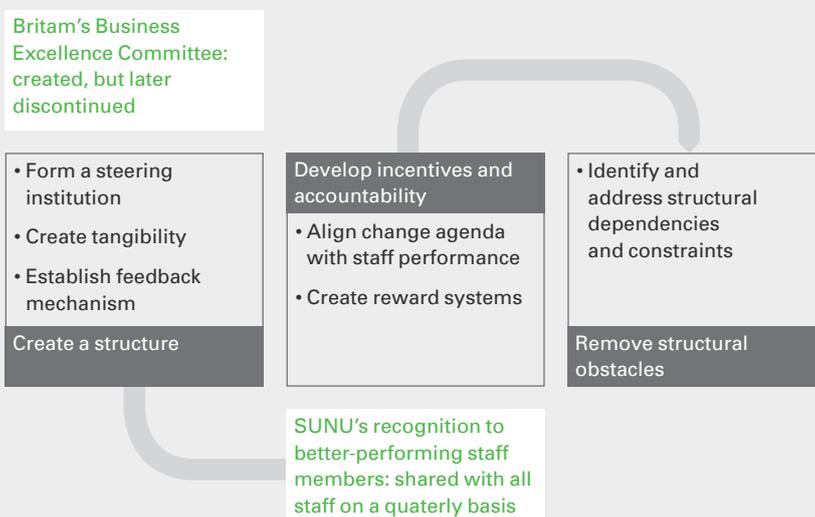
Step 4: Implement

This step should begin with a focus on priority activities, recognising that there is never enough budget and staff to implement all changes at once. Priorities include building customised systems for the low-income market, sourcing the internal and external resistance, and agility in managing risks and failures.

Step 5: Communicate success

Achieving and communicating small wins makes the change tangible and helps maintain stakeholders' buy-in. Change faces the strongest resistance when information is confined to a small group like the project team or senior management.

Figure 11
Pathway towards organising for change



Source: Churchill, Craig. Presentation "Make change happen: getting insurers ready to serve low-income and emerging markets – Learn and Act." 15th International Conference on Inclusive Insurance 2019.

27 — Craig Churchill, Team Leader, ILO's Impact Insurance Facility, Switzerland, on of the two moderators of the workshop

28 — Thomas Wiechers, Assistant Director Insurance, FSD Africa, Kenya



27



28

Step 6: Mainstream changes

This involves embedding the change into existing structures (some job descriptions will evolve while other new roles are created), anchoring it into the culture (for new behaviours), and reverse-innovating (reporting outputs of new tools to bring about similar changes in other lines of business). The case of Britam serves as a good example: it is using market segmentation studies and product factsheet and design templates for microinsurance in other departments.

A gradual approach

SUNU’s case brings out the importance of having a gradual approach to achieve the desired objective (see Figure 12).

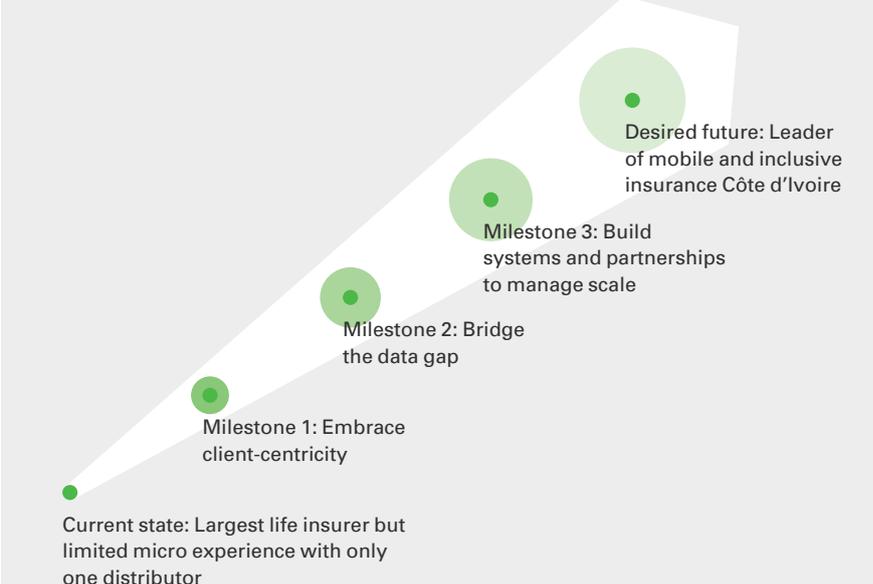
Looking into the current situation made it clear that not only were its clients not used to savings and insurance, SUNU itself was not comfortable handling high-volume/low-ticket transactions. It decided to start with a simple life product to test the ground, gain expertise and collect consumer data. Left for later was a life product with a hospital cash benefit.

SUNU also found that the cross-functional team it created was ideal during the brainstorming and planning phases, but less effective for implementation when each unit had to undertake assigned tasks. So SUNU embedded the team back into the functional organisation chart. It applied for a microinsurance licence and set about simplifying the policy vocabulary, seeking a wider network of partners as distributors and designing enrolment and administration procedures adapted to the lifestyle of vulnerable communities.

Lessons learnt⁷

- To serve the low-income and emerging markets effectively, insurers need to go through a systematic change process. They must improve operations and enable staff; secure new partnerships; and improve governance, organisational structure, and risk management.
- Change is slow and inevitably comes up against obstacles and constraints. Efforts must be made to identify and resolve such constraints.
- Change is about people. A structure, such as a cross-functional team, is needed to drive the process. Incorporating change activities into staff members’ priorities and performance measurement systems will help create ownership and accountability.
- Failure is part of change. Many of the planned changes may not work or take longer than planned. It will be important to identify and communicate small wins in order to maintain buy-in at the strategic and operational levels.
- Change is possible. A systematic change effort that is planned and implemented properly can be effective.
- Change is never complete. The organisation’s desired future needs to be validated on a regular basis and may need to be adapted as the context in which it operates, changes.

Figure 12
SUNU’s vision and milestones



Source: Churchill, Craig. Presentation “Make change happen: getting insurers ready to serve low-income and emerging markets – Learn and Act.” 15th International Conference on Inclusive Insurance 2019.

7 Source: Churchill, Craig. Presentation “Make change happen: getting insurers ready to serve low-income and emerging markets – Learn and Act.” 15th International Conference on Inclusive Insurance 2019.

Parallel session 4

Scaling up climate risk insurance – gender-inclusiveness as an opportunity

Hosted by InsuResilience Global Partnership

By Shamim Ashraf

Women are at the forefront of climate risks, with a disproportionately high exposure to their health, education, food security and livelihoods. At the same time, they are more excluded than men from formal financial systems. This session discussed the gender dimensions of climate risk insurance (CRI), looking into gender-sensitive approaches and identifying solutions and concrete actions for greater gender-responsiveness.

Integrating gender aspects into CRI models

The session reviewed findings of a study commissioned by InsuResilience Secretariat, “Integrating Gender Considerations into Different Models of Climate Risk Insurance (CRI),” published in December 2019. It analyses CRI models at micro, meso and macro levels.

A focus on women is called for because climate change and resulting disasters generally hit women harder. They have higher levels of mortality (see Table 1) and their childbearing role can increase their morbidity. Social norms spill over into an unconscious bias in distribution of relief, even though women are poorer to begin with, have lower levels of economic participation, and carry out unpaid care work. Their economic activity is concentrated in sectors most impacted by disasters such as agriculture, and their adaptive capacity can be lower, with lower levels of financial inclusion and of resources and assets including land ownership. Besides, fewer women are covered by formal sector social protection.

Female death rate

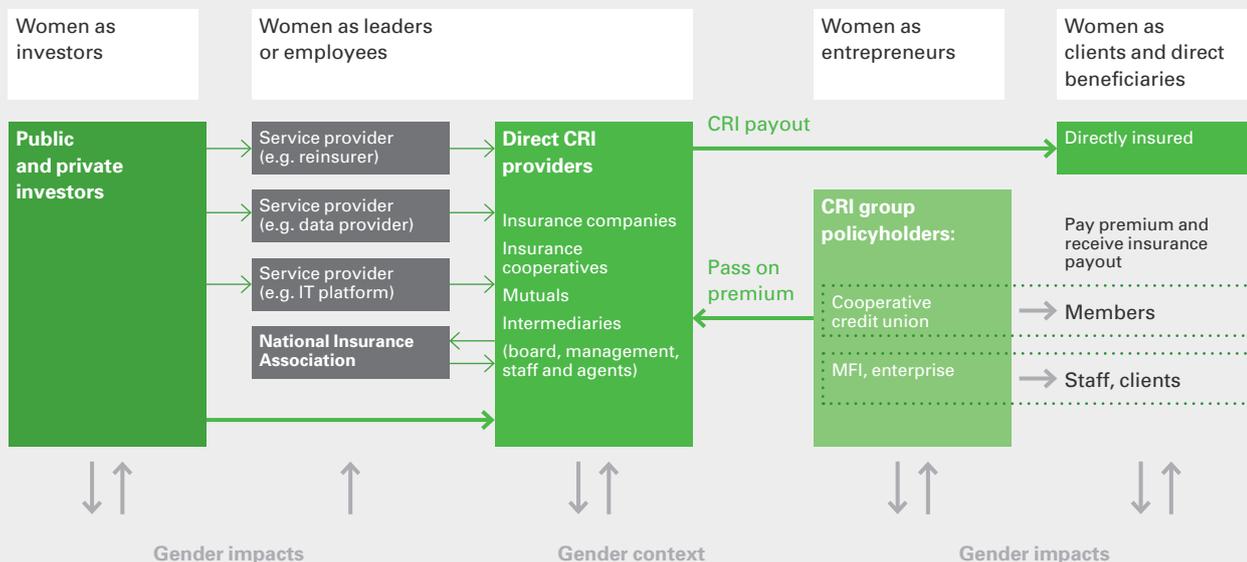
- 91% in 1991 cyclone in Bangladesh
- 61% in 2008 cyclone Nargis Myanmar
- 70% in 2004 Asian tsunami

Source: Miles, Katherine. Presentation “Scaling up Climate Risk Insurance Gender-Inclusiveness – an Opportunity.” 15th International Conference on Inclusive Insurance 2019.

The study looked at business cases from different perspectives – investors, policy-makers, leaders, employees and clients – at macro, meso and micro levels (see Figure 13).

- At the macro level, CRI has a government entity as the policyholder.
- Meso-level CRI has indirect insurance that facilitates the business continuity of its institutional policyholders.
- At the micro level, CRI covers for people or MSMEs are generally offered by the private sector or a commercial government insurance company.

Figure 13
Micro-level gender impacts



Source: Miles, Katherine. Presentation “Scaling up Climate Risk Insurance Gender-Inclusiveness – an Opportunity.” 15th International Conference on Inclusive Insurance 2019.

Table 1
Recommendations of the
InsuResilience Global Partnership
study “Integrating Gender
Considerations into Different Models
of Climate Risk Insurance (CRI)”

Short-term 2020–21

- Form the Gender Working Group within the InsuResilience Global Partnership.
- High-level corporate statement on gender.
- Sex-disaggregate Vision 2025 target of 500 million poor and vulnerable people.
- Provide guidance to collect gender and sex-disaggregated impact data of schemes.

Medium-term 2021–24

- Establish multi-disciplinary gender technical advisory facility to support different types of CRI schemes.
- Create and deploy a fund to support the research and collection of learnings and emerging good practices on gender.
- Aggregate resources and evidence on gender-responsive strategies and approaches to CRI.
- Incorporate gender-lens investment criteria in the InsuResilience Solutions Fund decision framework and the InsuResilience Global Partnership’s Program Alliance funding mechanisms for CRI.

- Fund insurance solutions that address social norms-driven gender differences in the climate impact of disaster and access, usage and control of CRI.
- Provide leadership training and create a peer network of women climate risk insurance fund managers or professionals.
- Advocate for gender diversity in the national DRM and Climate Change bodies.
- Adapt existing data infrastructure to capture disaggregated data.

Long-term circa 2025

- Ensure disaster data is sex-disaggregated for V20 countries. See <https://www.v-20.org/about/> – The Vulnerable Twenty (V20) is a dedicated cooperation initiative of economies systemically vulnerable to climate change.
- Incorporate gender considerations and use sex-disaggregated data in insurance risk price modelling, existing disaster databases, and to support the creation of vulnerability maps. Risk modelling references the pricing of insurance products. The majority of current inclusive insurance products ignore gender stipulating a “lack of data”.

Formalising a gender strategy

The **African Risk Capacity (ARC)**, a macro-level CRI provider, outlined its challenges since 2018 in formalising a gender strategy and putting in place the framework for a gender policy for ARC and ultimately its member countries. Two key highlighted areas were:

1. Getting the right people into the room – for example from the Ministry of Gender along with Ministries of Agriculture and Finance – when discussing the design of CRI products.
2. Explaining the importance of gender differentials – gender is not in the ordinary person’s mind, and people are not able to grasp the concept easily.

CARD MRI Insurance Agency of the Philippines, 95% of whose 6 million insured members are women, is pursuing its sole aim of “empowering women”. It offers a range of products covering personal accident, funeral, sickness and rehousing resulting from damage due to fire and natural catastrophes (e.g. typhoons, floods and earthquakes). Gender sensitivity is a focus of training literature it has developed for its agents.

29 — Katherine Miles,
 Consultant, InsuResilience
 Global Partnership, United
 Kingdom, Facilitator of the
 session



Parallel session 4

Scaling up climate risk insurance – gender-inclusiveness as an opportunity

A2ii works with worldwide associates such as the IAIS, local insurance supervisors and implementation partners. In its experience, regulation needs to be “flexed” to cater for the unique circumstances facing women in challenging environments. Two examples are:

- The use of alternative distribution channels such as local self-help groups to provide insurance instead of traditional formal financial institutions (supervisors are gradually amending regulations to address this).
- For female customers without an ID such as a driving licence, the agent can simply tick a “know customer” box to confirm they are not laundering money.

The **Financial Action Task Force** (FATF, also known as Groupe d’action financière) is an intergovernmental organisation founded in 1989 on the initiative of the G7 to develop global policies and standards to combat money laundering. It has also set standards for financial inclusion, and women are among the disadvantaged and under-served groups whose access to financial services is limited.

As a first step this FATF drive has led to the development of “no frills” financial products in Bangladesh to help women secure loans. The focus on women’s specific needs is increasingly drawing insurers’ attention to offer similar products for insurance.

Lessons learnt

- Varied levels of understanding of gender dimensions and responsive approaches exist in macro and meso-level CRI but there is a need to develop more women-specific micro-level CRI offerings.
- CRI solutions should specifically address the impact of disasters on women’s unpaid care burden.
- There is a guidance gap on gender-responsive approaches to CRI. Many have been successful but can be piecemeal.
- Donors’ gender policies have, at best, narrow implementation.
- Sex-disaggregated data is often not analysed or used to inform product design.
- More awareness of the benefits of gender-responsive CRI is required, and there is a lack of good-practice evidence and data on existing gender-related practices.



30 — Left to right: Vener Abellera, President/CEO, CARD MRI Insurance Agency, Philippines; Hannah Grant, Head of Secretariat, A2ii, Germany; Christina George, Gender Advisor, African Risk Capacity, Italy

Agenda

6 November 2019
Afternoon sessions

Parallel session 5	Parallel session 6	Parallel session 7
<p>Creating awareness for micro-health insurance</p> <p>Hosted by BIA</p> <p><u>Pranav Prashad</u> Senior Technical Officer, ILO's Impact Insurance Facility Switzerland</p> <p><u>Dr. Mosharraf Hossain</u> Member, IDRA Bangladesh</p> <p><u>Prof. Shibli Rubayet</u> Chairman, Shadharon Bima Corporation Bangladesh</p> <p><u>Sajid Rahman</u> CEO, Telenor Health Bangladesh</p> <p>Facilitator</p> <p><u>Sultan-ul-Abedine Molla</u> Managing Director, Academy of Learning Bangladesh</p>	<p>Developing weather index insurance markets</p> <p>Hosted by the IFC</p> <p><u>Dr. Md. Shameem Hassan Bhuiyan</u> Weather Data Scientist, Independent Consultant Bangladesh</p> <p><u>Abdul Momen</u> Head of SME Banking, BRAC Bank Bangladesh</p> <p><u>Md. Masum</u> Chairman, Supreme Seeds Company Bangladesh</p> <p><u>Farzanah Chowdhury</u> Managing Director & CEO, Green Delta Insurance Bangladesh</p> <p><u>Vijaysekar Kalavakonda</u> Senior Financial Sector Specialist, IFC United States</p> <p>Facilitator</p> <p><u>Prerna Saxena</u> Operations Officer, IFC Bangladesh</p>	<p>Agriculture</p> <p>Microinsurance as the initiator of integrated risk management to cope with climate risk issues for sustainable farming – Lessons learnt from Indonesia</p> <p><u>Jakub Nugraha</u> Division Head, PT Asuransi Central Asia Indonesia</p> <p>Scaling participatory approaches for index insurance</p> <p><u>Daniel Osgood</u> Lead Financial Instruments Sector Team, Columbia University United States</p> <p>Facilitator</p> <p><u>Dirk Reinhard</u> Vice-Chairman, Munich Re Foundation Germany</p>
<p>Parallel session 8</p> <p>Evolution of insurance distribution models</p> <p>Hosted by ILO's Impact Insurance Facility and FSDA</p> <p><u>Saurabh Sharma</u> General Manager Microinsurance, Britam Kenya</p> <p><u>Richard Leftley</u> CEO, MicroEnsure United Kingdom</p> <p>Facilitator</p> <p><u>Thomas Wiechers</u> Assistant Director Insurance, FSD Africa Kenya</p>	<p>Plenary 3</p> <p>The role of policy, regulation and supervision in enabling climate risk solutions</p> <p>Hosted by A2ii</p> <p><u>Teresa Pelanda</u> Advisor, A2ii Germany</p> <p><u>Kristian Mangold</u> Public sector business developer, AXA France</p> <p><u>Yegnapriya Bharath</u> Chief General Manager, IRDA India</p> <p>Facilitator</p> <p><u>Andrea Camargo</u> Technical Expert, A2ii United Kingdom</p>	

Parallel session 5

Creating awareness for micro-health insurance

Hosted by BIA

This session heard presentations on inclusive healthcare from the Bangladesh Insurance Development and Regulatory Authority (IDRA) and the state-owned General Insurance Corporation of Bangladesh. It also featured findings from the ILO's Impact Insurance Facility on evolving trends in micro-health insurance, and how a digital health company in Bangladesh is increasing public awareness of this most sought-after product in the market.

The Bangladesh IDRA view

With a population of 165 million, Bangladesh has 13 micro-health insurance schemes. The micro-health schemes in Bangladesh face many challenges: demand (lack of affordability and more weight to present consumption); supply (lack of continuum of care); provider (lack of full-fledged private hospitals); and regulatory (any MFI or NGO offering insurance must have a contract with a registered insurance company).

To create awareness for micro-health insurance, IDRA's recommendations include:

- increase confidence in insurance;
- ensure a rapid claim payment culture;
- introduce universal health insurance in the future; and
- government should subsidise health insurance instead of safety-net programmes.

One of the IDRA's recommendations is already on the government's legislative agenda. The country's health financing strategy 2012–2032 has a roadmap to achieve universal healthcare (UHC) in another 12 years, with micro-health insurance identified as a transitional mechanism.

For people below the poverty line, the government is piloting a social health protection scheme called SSK (Shasthyo Surokhsha Karmasuchi), with financial support of the German government (BMZ and KfW). The plan now covers around half a million people in more than 100,000 households against 78 diseases.

As the state-owned insurer sees it

The insurance industry of Bangladesh was nationalised in August 1972 and two corporations were set up: Jiban Bima (life insurance), and Sadharan Bima (general insurance). The industry was privatised in 1984 but the two corporations continued to operate alongside private companies entering the market.

Figure 14

Health insurance – client perspective



Among those serving the health insurance sector is Sadharan Bima and it has been offering two notable products: dread disease, and personal accident. A more recent offer is its People’s Personal Accident policy for “the underprivileged and low-earners like rickshaw-pullers and day labourers.” This micro-health product provides a cover of BDT 100,000 (US\$ 1,180) for an annual premium of BDT 69 (US\$ 0.81).

Sadharan (aka Shadharon) Bima

People’s Personal Accident Policy for the underprivileged and low-earners

Insured risks

Personal accident

Sum insured

BDT 100,000 (US\$ 1,180)

Premium average

BDT 69 (US\$ 0.81)

Sadharan Bima is also planning a broader reach into micro-health insurance, targeting low and middle-income customers of two telecom companies with a cover for medical expenses against cancer and kidney disease. The premium, charged every month from the mobile account balance, will be BDT 22 (US\$ 0.25).

Sadharan believes that health insurance awareness among people is quite low, and dedicated initiatives are needed, including:

- the government, through IDRA, should launch literacy campaigns to remind people of the rising costs of medical expenses and how they could protect themselves with insurance.
- providers should simplify the policy to maximise its acceptance and offer value-added services like call centres for counselling, a smart card for hassle-free medical treatment, and group meetings in local communities to amplify awareness.
- community hospitals, clinics and other service providers should reduce the bureaucratic complexity in file and compensation processing.

The global perspective

According to the ILO’s Impact Insurance Facility, an alarming percentage of people in the developing world have little or no access to cover and where they do, the quality is often poor. 56% of the global rural and 22% of the global urban population have no health cover at all. No surprise then that health insurance – of any kind – is most in demand. Increasing awareness, without addressing access, would be as unproductive as pursuing business viability without client value (see Figures 14 and 15).

31 — Andrew Smith, Co-Founder and Chief Commercial Officer, Telenor Health, Bangladesh



Figure 15
Client value and business viability



Source: Prashad, Pranav. Presentation “Inclusive health insurance: issues and challenges.” 15th International Conference on Inclusive Insurance 2019.

Parallel session 5

Creating awareness for micro-health insurance

Taking a holistic view of the needs of the low-income sector, ILO's Impact Insurance Facility envisions a complementary drive to increase financial inclusion as well as micro-health insurance awareness and take-up. Financial services providers (FSPs) can be powerful distribution agents and can bundle non-financial solutions, such as value-added health services, with ALL savings and loans products. When designing products and solutions, providers need to carefully consider gender dimensions, that is, covering the additional specific health concerns of women.

Aside from public-private partnerships and value-added services, the Facility's research shows a third evolving trend: the use of technology, particularly mobile technology or mHealth.

Transformational potential

A digital health company in Bangladesh is demonstrating what mHealth can enable its clients to do: make an appointment in seconds, talk to a doctor in minutes, anywhere any time; order prescriptions and pick up medicines from a local pharmacy; access clinical records, available instantly.

The company, Telenor Health, in 2016 launched a mobile-based comprehensive health and wellness services platform called Tonic through its mobile operator in Bangladesh, Grameenphone. The platform is available exclusively to Grameenphone's 57 million customers.

Telenor Health/Grameenphone

Free or opt-in services, such as:

- Access to immediate medical advice on basic health topics via phone at a rate of BDT 5 (US\$ 0.05) per minute.
- Exclusive discounts on key services at more than 50 popular hospitals across Bangladesh.
- Cash of BDT 1,000 (US\$ 11.77) if a member is hospitalised for three consecutive nights or more, paid directly to his or her mobile banking wallet. Members can claim Tonic Cash up to four times a year, and no diseases or medical issues are excluded.



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32 — Khalil Ahmed, ED, IDRA, Bangladesh

33 — Prof. Shibli Rubayet, Chairman, Shadharon Bima Corporation, Bangladesh

34 — Left to right: Pranav Prashad, Senior Technical Officer, ILO's Impact Insurance Facility, Switzerland; Sultan-ul-Abedine Molla, Managing Director, Academy of Learning, Bangladesh (Facilitator)

Telenor Health and its provider partners now form the country's largest health ecosystem (see Figure 16).

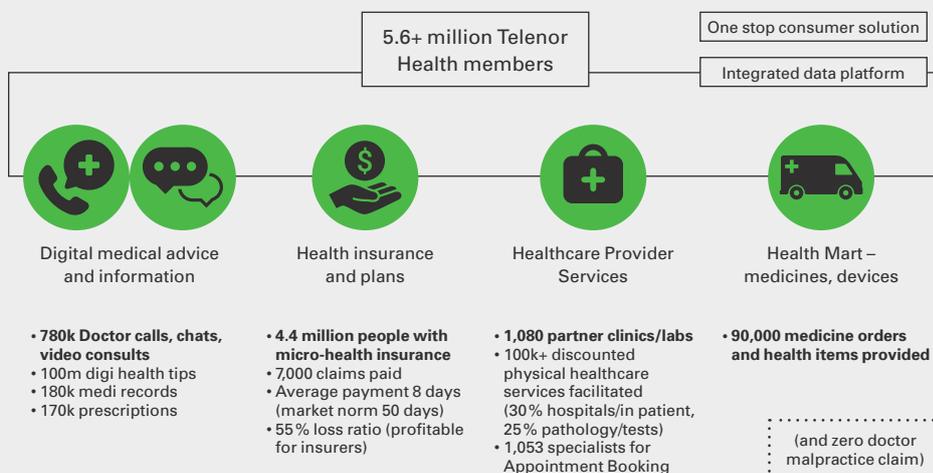
Education and awareness underpin Telenor Health's diagnostic and treatment services in markets that are mostly low and middle-income but have a high mobile penetration. This "digital front door to health for all" is opening to the masses at affordable costs for the customers.

Lessons learnt

- Instead of safety-net programmes, the government should subsidise health insurance for the poor. And it should conduct literacy campaigns encouraging people to get insurance and not risk the rising cost of medical care.
- Financial services providers should bundle and distribute micro-health-care and value-added services with all savings and loans products.
- Women can play a key role in raising awareness of health insurance in communities; providers should design products addressing their specific needs.
- Use the deep penetration of mobile services in low-income and remote communities to spread mHealth care in partnership with MNOs.

Figure 16
Telenor Health in Bangladesh:

In 2.5 years Telenor Health became the largest health ecosystem in Bangladesh, with 5.4m+ "health plan" members, and 1,000+ healthcare provider partners



Source: Smith, Andrew. Presentation "Healthcare Finance in Bangladesh: Creating awareness for micro-health insurance." 15th International Conference on Inclusive Insurance 2019.

Parallel session 6

Developing weather index insurance markets

Hosted by IFC

By Jeff Blacker

This session discussed the challenges and lessons learnt while developing the first weather index crop insurance plan in Bangladesh. Panellists represented a partnership of a development agency, an insurer, a weather data scientist and a bank which worked together to make the project a success. There was also an owner of a seed company that was covered by the insurance product.

The motivation to offer crop insurance

Several factors motivated Green Delta to jump into crop insurance when other insurers were reluctant to do so. They included the great revenue potential due to a fast-growing economy in Bangladesh, a large percentage of the population working as farmers, and a lack of insurance penetration. There was also a pressing need for insurance in view of the increasing number of climate disasters.

Not only were insurers reluctant to offer crop insurance, but banks were also hesitant to offer farmers loans for crops. BRAC Bank⁸ was willing to join the partnership because bundling the loan with the insurance product gave the bank more confidence to accept the risk of non-repayment. Concessional lending rates made available by the government enabled BRAC Bank to pass on lower rates to customers for a limited time and build confidence with customers.

Weather-index-based agricultural insurance – Green Delta, Bangladesh

Number of farmers insured
34,000

Insured risks
Crop

Average premium
BDT 215 (US\$ 2.5) per year

35 — From left to right: Vijaysekar Kalavakonda, Senior Financial Sector Specialist, IFC, United States; Abdul Momen, Head of SME Banking, BRAC Bank, Bangladesh; Prerna Saxena, Operations Officer, IFC, Bangladesh (Facilitator); Farzanah Chowdhury, Managing Director & CEO, Green Delta Insurance, Bangladesh; Md. Masum, Chairman, Supreme Seeds Company, Bangladesh; Md. Shameem Hassan Bhuiyan, Weather Data Scientist, Independent Consultant, Bangladesh



⁸ BRAC (Bangladesh Rural Advancement Committee, also known as Building Resources Across Communities) was founded in Bangladesh in 1972 and is now considered the world's largest NGO. BRAC Bank was set up in 2001. BRAC International works in nine countries in Asia and Africa.

Challenges of product launch

More than 72 million people are engaged in agriculture in Bangladesh, contributing some 14% to its GDP. To help mitigate smallholder farmers' financial loss in cultivation, Green Delta started a pilot project with the IFC in 2015. The aim was to develop a product using a weather parametric index with a pre-determined trigger point based on historical data, avoiding the need for on-site case-by-case damage verification. Multiple channel partners such as MFIs and MNOs were engaged to reach the marginal farmers. Perils to be covered included drought, heavy or unseasonal rainfall, cold waves, high humidity or temperature, etc.

Partnering with the IFC helped create a historical weather data grid, with the government's Meteorological Department supplying figures from 1981. Aside from technical and financial support, the partnership gave Green Delta the encouragement it needed to launch the product successfully. When the product development process seemed long and challenging, the partnership provided the confidence to be patient.

Technology with the availability of data was an enabler. Although the around 40 years of historical data was not high resolution, working with a weather data scientist helped Green Delta extrapolate details needed for product development. The data was validated with other sources including focus groups and satellite transmissions. There are some 1,500 weather data stations, each covering 10 square kilometres. The government plans to add new rain gauges and a satellite with high-resolution functions.

When insuring small farms, it is difficult to offer area yield-based insurance as cost-effectively as index insurance. Area yield-based insurance requires claim adjudicators to visit farms and assess losses, while index insurance makes quick claim payouts based on indices such as satellite imagery or rain gauges. It is also difficult to offer yield-based insurance without appropriate data. At least one Green Delta Insurance customer, Supreme Seeds Company, does have yield-based insurance. Supreme Seeds was able to provide its own historical data for weather and crop damage, which helped make a yield-based product feasible.

Keeping the price of insurance affordable for customers can be a challenge. If prices are too high relative to the low margins of farmers, it will hurt take-up of insurance. The panellist from Supreme Seeds pointed out that after 3 years of no claims, he would like to negotiate a lower premium and/or change the area-yield threshold that triggers a claim payment from Green Delta.

Building trust and adding value

Building trust and financial literacy is a common challenge in microinsurance, and crop insurance is no exception. Trust of farmers can be gained by paying claims and sharing real-time weather data with them. It may be necessary to explain why premiums are not returned when there are no claims.

During the 2016–17 season, rainfall was heavier than the trigger of 16 mm and Green Delta settled a thousand claims fast, gaining farmers' trust. In 2018 an unprecedented cold wave resulted in another 2,000 farmers getting paid.

Value-added services for enrolled farmers include a seven-day weather forecast, a crop advisory in Bangla, and a toll-free number to call for any agriculture-related queries.

Lessons learnt

- Form partnerships with development organisations, distributors, reinsurers, and weather data scientists whose strengths offset existing skill gaps.
- Development agencies can help the first few insurers enter a market. Once other insurers see success, they will be more willing to enter the market too.
- Sell a solution to a problem, not a product. Supreme Seeds Company preferred an area yield-based product, and Green Delta was able to provide a suitable solution.
- Invest in financial literacy, pay claims, and build trust with clients.
- Consider making real-time weather data available to farmers to increase transparency.
- Governments can help through investments in satellites, rain gauges, and subsidies.

Parallel session 7 Agriculture

By Prechhya Mathema

This session explored the scaling of participatory approaches in indexed insurance, and how aquaculture micro-insurance in Indonesia helped initiate an integrated risk management system to cope with climate risks.

Scaling participatory approaches in index insurance

Weather index insurance using satellite data is becoming important as a risk mitigation strategy against climate risk. It can improve productivity, reduce costs and help achieve scale. A participatory approach of engaging farmers and other key stakeholders in the design and development of the index, helps develop products that meet farmers' localised needs and improve understanding of the operation of the index.

A strategic tool is **Index Optimisation**, based on embedding crowdsourcing at the core of the process while working with different players to identify practical roles that each stakeholder can play within the system (see Figure 17). The process works as follows:

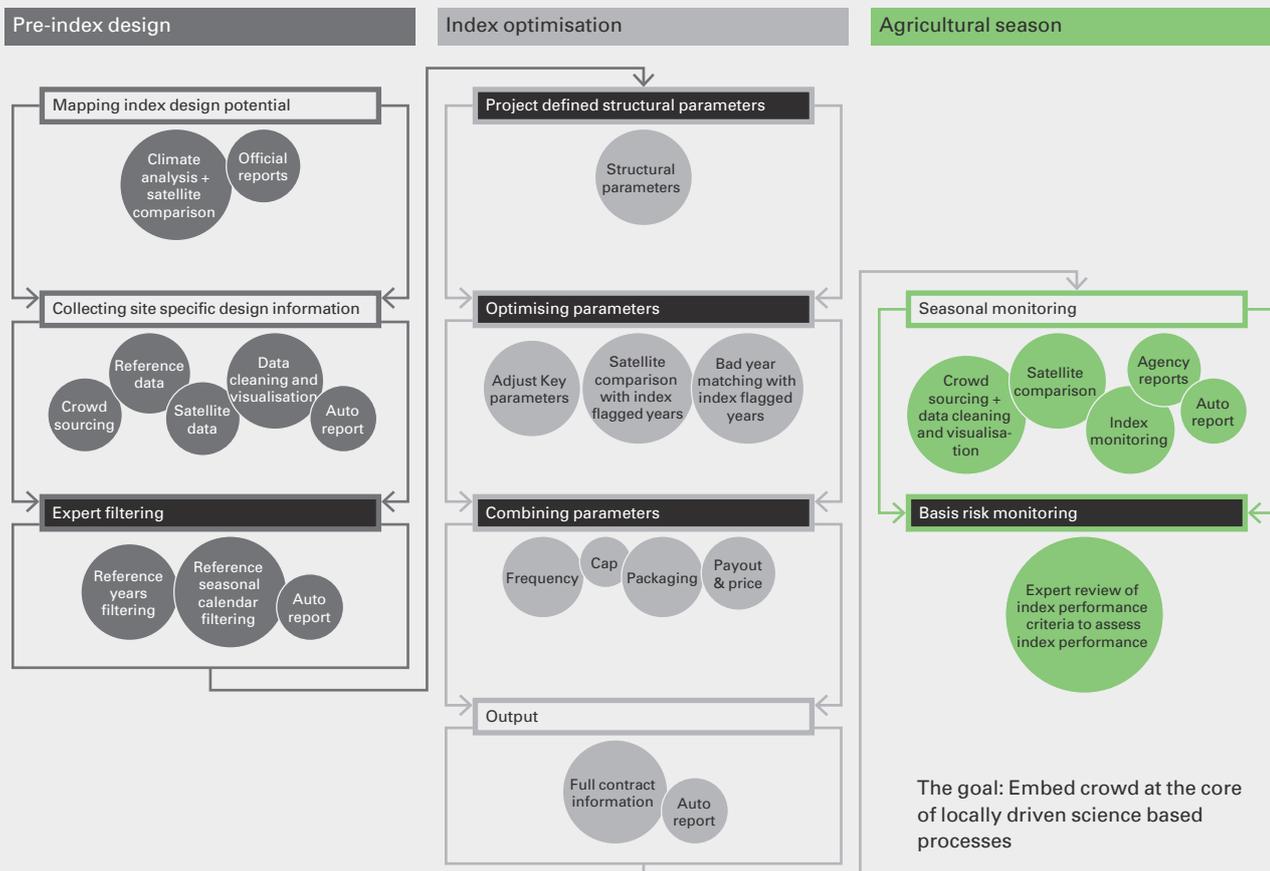
1. At the pre-index design stage, key criteria are determined such as: data sources, size of the insurable area, identification of key stakeholders, types of crowdsourcing information to use for validation, and any deviation or discrepancies. Data cleansing is conducted by people familiar with the events or by experts to filter out reference years and seasonal calendar years.
2. Optimising the index involves designing a tool able to automatically take in real-time information, with the index updated and the

design improved to reflect changes in circumstances such as farmers' risk mitigating strategies.

3. Different sources of information are used to monitor seasons, with inputs and feedback from decision-makers to validate independent data sources. The appropriateness and viability of the product are discussed for further refinement.

The Index Optimisation Tool enables a strong buy-in because of the participatory, crowd-sourced approach. As partners understand the process and their contribution towards the design of the project, the outcome of the tool is more easily accepted.

Figure 17
Index optimisation tool



Aquaculture microinsurance

ACA – Shrimp Insurance

Target

50,000 hectares by December 2020, with a loss ratio of less than 60 %

Insured risks

Indemnity scheme covering 1) death of fry/shrimp due to disease, pest, virus or natural disaster; 2) damage to the shrimp ponds and related infrastructure due to a natural disaster

The sum insured

Between US\$ 4,000–10,000 per pound

Premium

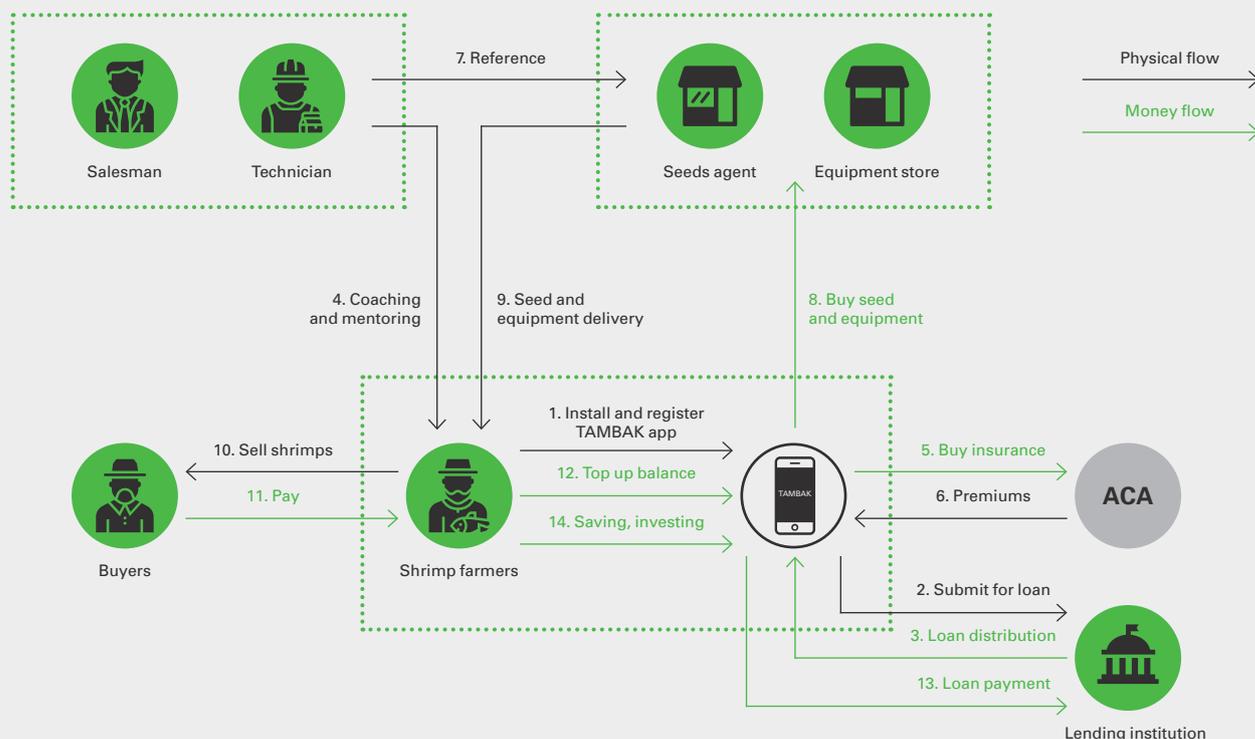
(For the first year only): 3% of the sum insured per cycle (150 days)

Asuransi Central Asia (ACA), Indonesia, was set up in 1956. It started agricultural insurance in 1990 with palm oil plantations. In 2009 it started offering micro-health insurance for dengue fever. Its agricultural micro-insurance began in 2015 with maize (area-yield index), adding rice (weather index) in 2017. ACA's approach to integrating agriculture insurance within the risk management system includes aligning objectives of different stakeholders, seeking strong commitment from each party, and using technology effectively. This approach has helped create a sustainable ecosystem (see Figure 18).

As part of a consortium of seven general insurance companies, ACA introduced aquaculture microinsurance for shrimp farming in 2017, following the government's initiative to empower fishermen and fish farmers.

In 2019 ACA and the consortium issued shrimp insurance commercially without the government insurance premium subsidy. The business focused on reducing harvest failures and increasing profits on a commercial basis with the least or no government subsidies.

Figure 18
Digitalised shrimp aquaculture ecosystem



Source: Nugraha, Jakub. Presentation "Agriculture microinsurance as the initiator of integrated risk management to cope with climate risk issues for sustainable farming – Lessons learnt from Indonesia." 15th International Conference on Inclusive Insurance 2019.

Parallel session 7 Agriculture

Digitalising the ecosystem

The first step in the process was to understand the mandates of each stakeholder (i.e. shrimp growers, hatcheries, insurers, financial institutions and local governments) and how different mandates could be aligned within the ecosystem. To ensure everyone had a shared interest in achieving the common goal (i.e. reducing harvest failure), each player is required to make a commitment towards risk mitigation activities, such as: shrimp growers following prescribed Standards of Practice, hatcheries providing technicians with customer-friendly mobile apps, and lenders offering incentives for loan repayments before the due date.

The system provides farmers with access to technology, markets and financing. Direct access to off-takers helps reduce middlemen and hence the overall price. Facilitating e-commerce platforms for farmers to sell their products helps reduce transactional costs and process inefficiencies. Linkages with fintechs, cooperatives, microfinanciers and micro investors help farmers access capital easily. Farmers are able to apply for loans from various financial institutions, pay insurance premiums and receive claim payments from ACA via the TAMBAK⁹ smartphone app.

A partnership with JALA, an Internet of Things (IoT) start-up, has enabled smart farming with water management, health monitoring of shrimp and automatic feeders. The IoT devices are used to monitor temperature, salinity, pH and pond oxygen levels. The programme utilises machine learning to provide recommendations to farmers on the best timing for harvesting based on the growth of the shrimp and market price.

Using technology, farmers receive aquaculture best-practices training from field technicians, weather forecast data and support on post-harvesting activities such as branding and tracking of the stock.

Even though climate change poses grave risks to farmers, adequate agricultural insurance is not available to protect against these risks. Insurers alone cannot provide sustainable agricultural insurance at scale – they need to partner with the right set of stakeholders and use technology effectively.

Lessons learnt

- An understanding of each other's key performance indicators and effective collaboration among different stakeholders (in the public-private partnership) which focus on increasing farmers' net income and coping with climate change, are required for the success of sustainable farming.
- Choosing the right partners and use of technology can help achieve scale. Technology can help overcome the lack and/or reliability of data.
- As index insurance is complex, information needs to be presented in a format that is immediately applicable. This will help get buy-in from all interested parties.
- Such a participatory approach in the design and development of the index should be coupled with a technology tool to automatically take in real-time changes such as farmers' use of risk mitigation measures.

36 — Left to right: Dirk Reinhard, Vice-Chairman, Munich Re Foundation, Germany (Facilitator); Daniel Osgood, Lead Financial Instruments Sector Team, Columbia University, United States; Jakub Nugraha, Division Head, PT Asuransi Central Asia, Indonesia



⁹ TAMBAK, meaning a pond for fish, is the branding for this mobile application.

Parallel session 8

Evolution of insurance distribution models

Hosted by ILO's Impact Insurance Facility and FSDA

By Shamim Ashraf

This session looked at approaches insurers have taken to improve their distribution models – by setting up or tapping into agent networks being used by third-party entities, and by deploying digital solutions available for agents and clients. It also explored how the sales model has evolved from agents to digital, group and bundled, and how insurers can best manage these channels and partnerships to ensure sales are executed efficiently and responsibly.

Britam's journey

Britam, Kenya, entered the micro-insurance sector in 2009. Since then its model has evolved from single-point sales to a multi-channel distribution strategy.

Britam began selling microinsurance via a tea cooperative and its tea factories. In 2011 it expanded distribution to include microfinance institutions. Then in 2014 came the launch of its first mobile phone insurance. Three years later it added various digital platforms such as leveraging off M-Pesa to create a multi-channel distribution network. In 2018, Britam had a 41% market share of microinsurance in Kenya, with about US\$ 8 million in premiums.

Britam's product "Kinga ya Mkulima" for example, covers more than 500,000 lives. It is distributed through independent agents from the firm of Majani Brokers who engage with community leaders at village tea collection centres to promote awareness.

When the tea is taken to the factory, microinsurance enrolment, premium collection and claims are all handled at the factory. For claim payment Britam's representatives from the factory go to the funeral to hand over the cheque, helping spread word of mouth and trust. While re-thinking the role of insurance agents, it is vital to adapt their approach to the specific circumstances of the policyholders being served.

Kinga ya Mkulima

Benefits

Inpatient, surgical, funeral

Type of Cover

Voluntary family and individual

Target

Small-scale tea farmers

Distribution

Majani Brokers (at tea factories)

Outreach

> 0.5 million lives

Premium

US\$ 0.55 to US\$ 3.60 paid per month per adult member

When it comes to digital channels, "Try. Learn. Repeat" is the advice of Britam. "Riziki Wellness Cover," a different product launched by Britam and Equitel to provide inpatient hospital cover, started as a freemium model, with a take-up rate of around 30%. Introducing paid higher-value products sold through assisted sales proved unsuccessful. The approach was instead taken to create a bundled product including airtime, data and insurance. This resulted in a 300% increase in daily paid policy sales.

The latest phase of Britam's evolution is developing products in line with the needs of the growing gig economy. In conjunction with MicroSave, Britam is working with Lynx, an online platform connecting households and organisations with workers such as carpenters and plumbers, to develop on-demand accident insurance.

MicroEnsure's journey

The distribution channel overview of MicroEnsure, UK, shows various channels it has been involved with as a technical or third-party service provider (TSP) in its 18-year history (see Figure 19) and the strengths and weaknesses.

37 — Saurabh Sharma, General Manager Microinsurance, Britam, Kenya

38 — Richard Leftley, CEO, MicroEnsure, United Kingdom

Figure 19

MicroEnsure's distribution channel overview

Channel	Setup cost	Access to Mass Market	Small ticket commercial viability	Standalone product suitability	Risk of foul selling
Embedding	Low	High	High	Low	Low
Career agents	High	Low	Low	High	Medium
Banks	Low	Medium	Low	High	High
Brokers	High	Low	Low	High	Low
Direct Marketing	Medium	Medium	High	High	Low
Call Centre	High	High	Medium	High	Medium
Digital	Medium	High	High	High	Low

Source: Leftley, Richard. Presentation "Evolution of insurance distribution models." 15th International Conference on Inclusive Insurance 2019.



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Parallel session 8
Evolution of insurance
distribution models

Since the launch of its first mobile phone product in 2009 via the embedded approach (“freemium”), the call centre approach for stand-alone paid products is currently proving to be the most successful channel in reaching, educating and selling to customers. Digital channels are starting to take hold also, with early indications of similar success.

MicroEnsure believes it is competing with apathy, not other insurers. People do not wake up wanting to buy insurance, but they do wake up with worries such as “Do I want to keep my children at school,” or “Do I want to keep being able to send money back to the village.” The promoted product needs to present itself as being reliable in alleviating these concerns. And partnering with strong consumer brands is one key factor in the success of its distribution through the model deployed (see Figure 20).

Sehat Sahulat

- Number of people insured
250,000+
- Insured risks
Hospitalisation
- Premium range
US\$ 6 to US\$ 29

Sehat Sahulat, launched in Pakistan in 2015, is one such example of a microinsurance product sold via outbound call centre agents leveraging a brand customers trust, JazzCash, a mobile wallet provider. Premium/claims are collected/paid via JazzCash’s mobile wallet while customer education via social media, IVR (interactive voice response), call centres, claim testimonials, claim disbursement events and brochures have proved successful. The point to keep in mind is that 30–70% of the retail price of a product is passed on in the distribution value chain.

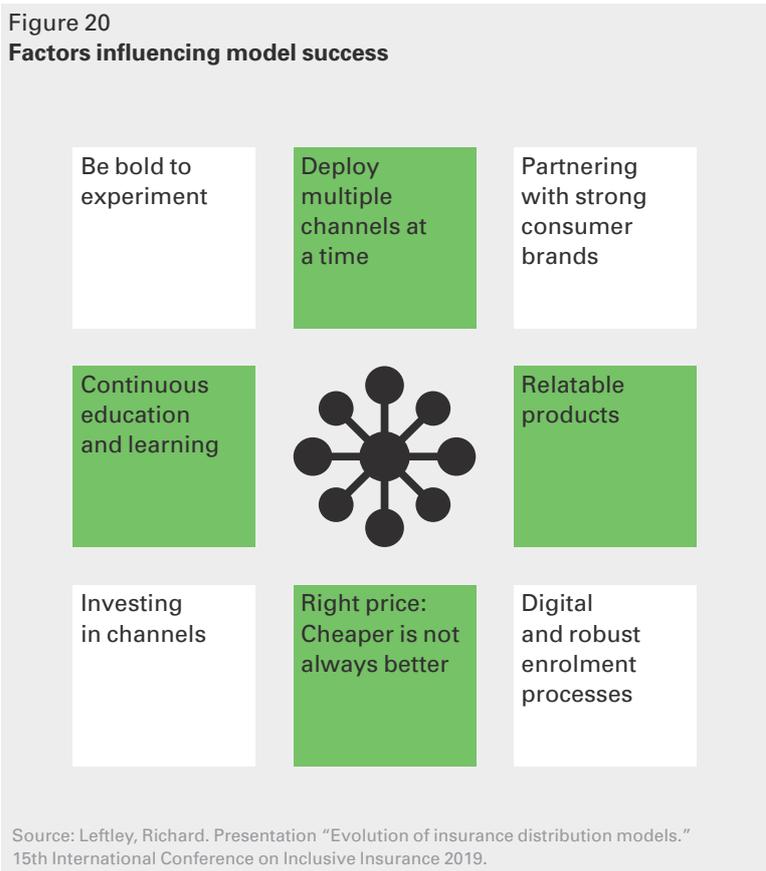
Lessons learnt

- The inclusive insurance future lies in switching from bundled or embedded products to standalone products.
- Light-touch distribution channels such as call centres help customers take an informed decision. They play a vital role in transitioning from face-to-face distribution to digital channels.
- The use of collected customer data will become increasingly important, as will regulatory questions posed over its ownership and use.
- As the mass market matures and buys more things digitally, insurance distribution will eventually take place via e-commerce platforms, mobile apps and other digital channels.

39 — Facilitator of the session:
Thomas Wiechers, Assistant
Director Insurance, FSD Africa,
Kenya



Figure 20
Factors influencing model success



Source: Leftley, Richard. Presentation “Evolution of insurance distribution models.” 15th International Conference on Inclusive Insurance 2019.

Plenary 3

The role of policy, regulation and supervision in enabling climate risk solutions

Hosted by A2ii

By Prechhya Mathema

The plenary session examined what role policy-makers and insurance supervisors could play in enabling climate risk insurance solutions to build resilience for the most vulnerable communities and to help reduce the protection gap in climate risk insurance (CRI).

The session summarised not only the outcomes from three dialogue events that the A2ii conducted in Panama, South Africa and Bangladesh with various stakeholders but also the key messages from the A2ii publication “The role of insurance supervisors in climate risk insurance” launched during the session. Insights were also shared by the Insurance Regulatory Development Authority India (IRDAI) on how it has successfully promoted responsible innovations to enable climate risk insurance in India and generate a constant dialogue with policy-makers to ensure alignment. AXA highlighted the challenges faced in developing and implementing parametric insurance solutions and how dialogue with supervisors was key to paving the way to these solutions.

Fostering the development of CRI

Supervisors can stimulate the development of CRI by enabling risk carriers within the domestic insurance market, addressing demand constraints and facilitating innovation. The complexity involved in understanding and managing climate risk, lack of data and expertise in this area, and onerous regulatory processes have hindered insurers’ forays into CRI. In response, supervisors can support tailor-made insurance solutions, give access to innovative insurers, and build the capacity of the local insurance companies.

A supervisory approach that supports innovation in products, channels and business models is recommended. Supervisors could, for example, facilitate regulatory sandboxes, allowing pilot cases to be conducted to test and learn, and shorten product approval times without compromising consumer protection.

40 — Left to right: Teresa Pelanda, Advisor, A2ii, Germany; Kristian Mangold, Public sector business developer, AXA, France

41 — Yegnapriya Bharath, Chief General Manager, IRDA, India



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Plenary 3

The role of policy, regulation and supervision in enabling climate risk solutions

Demand constraints arise from the lack of awareness, trust, behavioural biases and affordability. These can be tackled, depending on the circumstances and suitability, through mandatory requirement for disaster insurance, engaging with policy-makers on reducing tax requirements, and raising insurance awareness as part of a comprehensive approach to risk management at a national level.

India is one of the most vulnerable countries in the world to climate risk given its diverse climates and topography, and 70% of the population being heavily reliant on agriculture. Significant efforts have been made by the IRDAI in promoting CRI given the potential negative economic effects of extreme weather events.

The strong commitment of the IRDAI and the Indian government towards protecting vulnerable communities is demonstrated by the fact that 58 million farmers have insurance coverage (2018), particularly crop insurance. This has been mostly achieved through the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme (see Figure 21).

The IRDAI has stimulated growth of crop insurance via:

- facilitating crop insurance schemes by accelerating product approval while ensuring viability;
- promoting the adoption of subsidies for farmers to have access to crop insurance to address affordability challenges;
- providing flexibility to insurers on solvency capital problems were caused by delays in payment of government-subsidised premiums;
- adopting proportionate regulation to address the challenges of distribution channels in order to promote non-life inclusive insurance products;
- making it mandatory for insurers to hold a certain percentage of the total portfolio in microinsurance;
- encouraging collaboration between life and non-life insurance companies at the point of sale;
- innovating, e.g. piloting a standalone nat cat product.

Figure 21

Policy, regulation and supervision of climate risk — India's approach

Reducing insurance protection gap against climate risks

- Government's crop insurance scheme (PMFBY)
- Microinsurance
- Increasing awareness about catastrophic risks
- Covering property risks relating to dwellings and small businesses

Government's crop insurance scheme (PMFBY) covers the following crops:



Kharif crops / Fasal



Seasonal fruits



Tilhani crops / Fasal



Zaid crops / Fasal



Rabi crops / Fasal

Championing the CRI

Apart from stimulating supply and the demand of CRI, supervisors are also well placed to influence national policies and encourage actions to strengthen resilience against climate risks. They can facilitate communication between policy-makers, insurance industry and consumers, and help to align interests of different stakeholders. Supervisors can champion CRI by raising awareness of both climate risk and mitigating insurance solutions at a national level.

For example, weather-indexed products are fairly new and hence need further awareness amongst regulators about how to integrate them into the regulatory framework. Given the complexity of these products and multiple stakeholders involved, supervisors can play a pivotal role in coordination to ensure a long-lasting partnership in designing and implementing the solutions.

As in this example, supervisors' active enablement of the design and implementation of CRI initiatives will help the market generate effective climate risk solutions. They can also ensure policy-makers understand and promote insurance as part of other financial inclusion programmes in the country.

Any supervisor's ability to take a role beyond their traditional function of consumer protection is of course strongly dependent on the political and policy environment of a particular country. However, regardless of the broader context, effective integration of insurance into disaster risk management strategies requires supervisors to champion CRI.

Lessons learnt

- Insurance needs to be part of the global agenda on disaster risk management and climate change adaptation. Future climate change agreements should acknowledge and explicitly recognise the role of insurance, and the important role of supervisors.
- Collaboration across government bodies and the private sector is necessary to stimulate the development of the CRI solutions.
- Stakeholders have different mandates and hence extensive dialogue is needed to align those objectives while embedding consumer protection. The supervisor can play a significant role in coordinating and engaging in a meaningful way with various partners to develop CRI solutions that will strengthen resilience of vulnerable communities against climate risks.
- Greater awareness of weather-indexed products amongst regulators is needed, including the legal recognition in the regulatory framework.



42 — Facilitator: Andrea Camargo, Technical Expert, A2ii, United Kingdom



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43 — Nishith Kumar Sarker, Secretary General of BIA

44 — Strong interest by the media – in an interview with Farzanah Chowdhury, Managing Director & CEO, Green Delta Insurance – in the topic of inclusive insurance.

45 — Members of the hosting organisations and the organising committee of BIA honoured by the presence of Sheikh Hasina, Prime Minister of Bangladesh



45

46–47 — BIA made sure that the conference was not only visible for the registered participants but also for the public in the city of Dhaka.



46



47

Agenda

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Parallel session 9

Post-disaster recovery – what is the role of insurance?

Hosted by the Microinsurance Network

Lorenzo Chan
CEO, Pioneer Insurance
Philippines

Denis Garand
President,
Denis Garand and Associates
Canada

Isabelle Delpeche
Micro Insurance Director,
Alternative Insurance
Company (AIC)
Haiti

Farzanah Chowdhury
Managing Director & CEO, Green
Delta Insurance
Bangladesh

Facilitator

Katharine Pulvermacher
Managing Director,
Microinsurance Network
Luxembourg

Parallel session 10

Tech, blockchain, microinsurance, and actuaries – a potent combination or a squeezing out?

Hosted by Microinsurance Centre at Milliman

Annette Houtekamer-van Dam
Co-founder and Product Lead,
IBISA
Luxembourg

Paul Mesarcik
Director, Lumkani
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David Ding
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Smart Thinking Consulting
China

Facilitator

Queenie Chow
Microinsurance Specialist,
Asia-Pacific region,
MicroInsurance Centre at
Milliman
Australia

Parallel session 11

Integrating macro, meso and microinsurance schemes

Hosted by MCII

Tara James
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Facilitator

Jennifer Cissé
Insurance Manager, Munich
Climate Insurance Initiative
Germany

Parallel session 12

Yield model-based insurance – the new paradigm for crop insurance in developing countries

Hosted by Munich Re

Felicitas Röhrig
Researcher, Potsdam Institute for
Climate Impact Research (PIK)
Germany

Dr. Axel Relin
Unit Head, GAF AG
Germany

Facilitator

Joachim Herbold
Senior Underwriter,
Munich Re
Germany

Parallel session 13

How can insurance build society's capacity to develop?

Hosted by InsuResilience Global Partnership, Cenfri and the Microinsurance Network

Jan Kellet
Special Advisor, UNDP
United States

Augusto Hidalgo
Head of Capital, Science
and Policy, Southeast Asia,
Willis Towers Watson
Philippines

Dr. Saleemul Huq
Director, ICCCAD
Bangladesh

Facilitator

Doubell Chamberlain
Managing Director, Cenfri
South Africa

Parallel session 14

Potential innovations in health insurance

The power of combining mHealth and insurance products for underserved customers in Bangladesh

Israt Mustafa
Head of Products, Milvik
Bangladesh

New inclusive insurance products or partnerships in the fields of health or hospital cash

Richard Leftley
CEO, MicroEnsure
United Kingdom

Policy brief of health finance scheme for ready-made garment workers in Bangladesh: A case analysis

Jamal Uddin
Inclusive Business Advisor, SVN
Netherlands Development
Organization
Bangladesh

Facilitator

Denis Garand
President,
Denis Garand and Associates
Canada

Parallel session 15

New approaches for insurance outreach to agricultural households

Hosted by ILO's Impact Insurance Facility

Syed Moinuddin Ahmed
Additional Managing Director
& Company Secretary,
Green Delta Insurance
Bangladesh

Devilal Vyas
Director, People's Education
and Development Organization
India

Sarfraz Shah
Project Manager, APA Insurance
Kenya

Facilitator

Pranav Prashad
Senior Technical Officer,
ILO's Impact Insurance Facility
Switzerland

Parallel session 16

Measuring the impact of insurance: Challenges in data collection

Hosted by the Microinsurance Network

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Luxembourg

Mariah Mateo Sarpong
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Milliman
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Facilitator

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Member of the Board,
Microinsurance Network
United States

Parallel session 9

Post-disaster recovery – what is the role of insurance?

Hosted by the Microinsurance Network

By Prechhya Mathema

The session explored the long-term impact of catastrophic events and natural disasters on vulnerable communities, the needs of survivors and how insurers can develop products that can have a long-lasting impact on building their resilience.

Impact of natural disasters

Natural disasters and extreme weather are increasing in frequency and severity around the world. Their impact is hardest on the lowest-income groups, most of which, even if insured, have coverage that is inadequate and low. The impact persists over time and can frequently be generational.

Poorer countries are more vulnerable to severe climate, particularly the Pacific islands which are isolated and exposed, with economies not diversified enough to be resilient. Rural households suffer more from a disaster and take three times longer to recover financially than urban households.

Box 4

Impact of natural catastrophes

- According to Munich Re, out of the total economic loss of US\$ 150 billion in 2019, insured losses only accounted for US\$ 50 billion.
- The World Bank estimates that climate change will push an additional 100 million people into extreme poverty and reduce the global GDP by 3.3%.
- An Asian Development Bank study estimated that between 2000 and 2018, 84% of the 206 million people affected by disasters were in developing countries in Asia – and that on average each year, developing countries in Asia suffered nearly 38,000 fatalities from disasters.

Source: Munich Re, 2020; Garand, Denis. Presentation “PS9 – Post-disaster recovery – what is the role of insurance?” 15th International Conference on Inclusive Insurance 2019.

Haiti, for example, has suffered from massive earthquakes, hurricanes and tropical storms. The 2010 earthquake devastated the country, resulting in substantial losses to human lives and economic development. In 2019, out of the 12 million population, 6 million were still under the poverty line, with 2.5 million in extreme poverty.

Bangladesh is also highly exposed to natural disasters, particularly cyclones, floods, droughts and earthquakes. The negative impact of calamities goes beyond the physical, with 20–40% of the population suffering from mild psychological distress, and 30–50% suffering moderate to severe distress (see Boxes 4 and 5).

Box 5

Experiences from Haiti and Bangladesh

Haiti (2008–2016):

- Approx. 0.5 million lives lost
- Reported losses over US\$ 12 billion, with year-on-year impact on GDP
- Current life expectancy: 60 (reduced by 6 years post the 2010 earthquake)
- Significant increase in ailments post-disaster such as insomnia and gastric problems
- Only 30% of the population had access to healthcare in 2017.

Bangladesh (1980–2016):

- No. of events: 243
- No. of lives lost: 0.29 million
- Average people killed per year: 6,188
- No. of people affected: 320 million
- Average no. of people affected per year: 10 million
- Economic damage: US\$ 17 billion
- Economic damage per year: US\$ 550 million

Source: Delpeche, Isabelle. Presentation “Experience from Haiti,” and Chowdhury, Farzanah. Presentation “Experience from Bangladesh.” 15th International Conference on Inclusive Insurance 2019

Framing the problem

Post-disaster, most countries go through a process of assessing infrastructure damage and estimating human losses and displacement, and their impact on the GDP. However, long-term impacts on the population are overlooked (e.g. changes in life expectancy, emergence of new ailments, mental health, psychological distress and social well-being).

A number of reasons are cited for the lack of psychological care: insurance, cultural taboo of talking about mental health, inadequate regulations, the lack of access to care and underwriting capabilities, etc. The focus is largely on financial compensation, where available, and economic growth.

Although the government and the private sector take significant prevention initiatives and post-recovery measures, insurance is yet to be an integral part of the national disaster risk management system.

Call for solutions

Insurers need to change their approach and policies by reassessing their clients' world post-disaster, being present post-claims and reinforcing their important social role. Investing in clients' well-being and designing products with the right features will help customers regain their standing and recover quickly from enormous economic and mental strains. This will also build trust and create a strong sense of community.

The importance of providing support for mental health recovery after environmental disasters is becoming increasingly clear. For example, Green Delta, Bangladesh, has provided mental counselling, trauma allowance and training sessions for 300 women entrepreneurs post-disaster.

As response time after disasters is critical, insurers need to pay claims immediately. In the Philippines, Pioneer together with its partner CARD (largest MFI in the country) proactively organised alternative requirements to validate claims to speed up the process during disasters. For example, in place of a death certificate, they partnered with local authorities to certify deaths.

More of these types of public-private partnership will help build resilient communities and grow inclusive insurance. Government and non-governmental stakeholders should integrate these innovative solutions into the national disaster risk management systems.

Lessons learnt

- The longer-lasting detrimental effects of catastrophic events and natural disasters are not being addressed in a systematic way.
- More research is required to fully understand the impact of mental distress on the ability to rebuild lives and restore economic productivity.
- The role of insurance as an effective protection against severe climate events depends on appropriate risk mitigation strategies and policies; government bodies have an important role to play.
- Insurers who have the right products and policies will help reduce the negative impact on people, and speed up recovery and build resilience.
- Inclusive insurance solutions that provide support beyond claim payment are needed.
- Help with rehabilitation is key to lessening the disaster's impact as well as improving coverage.

48 — Left to right: Lorenzo Chan, CEO, Pioneer Insurance, Philippines; Farzanah Chowdhury, Managing Director & CEO, Green Delta Insurance, Bangladesh; Katharine Pulvermacher, Managing Director, Microinsurance Network, Luxembourg (Facilitator); Isabelle Delpeche, Micro Insurance Director, Alternative Insurance Company (AIC), Haiti; Denis Garand, President, Denis Garand and Associates, Canada



Parallel session 10

Tech, blockchain, microinsurance, and actuaries – a potent combination or a squeezing out?

Hosted by the Microinsurance Centre at Milliman

By Jeff Blacker

Drawing from the literature review, this session provided examples of key technologies being applied in the microinsurance space. Panellists discussed a vision for how inclusive insurance combined with (emerging) technologies such as blockchain, satellites or sensors might impact the actuarial industry in the future.

To focus on technologies emerging in inclusive insurance, the Society of Actuaries (SOA) commissioned the Microinsurance Centre at Milliman to conduct a literature review. The review, "Technology in microinsurance: How new developments affect the work of actuaries,"¹⁰ was published in May 2019. It covers over 50 resources, multiple lines of business and functions including rating, distribution, claims adjudication, and payment facilitation.

Drawing from this review, the session went over three concrete cases of a new technology intersecting with an actuary's approach to inclusive insurance.

What's new in the insurtech space?

Lumkani, a social enterprise start-up in South Africa that developed a networked heat detector device, has been bundling its early warning system with fire insurance in partnership with Hollard to mitigate fire damage in slums. Some 10 million South Africans live in informal settlement communities, with close-knit dwellings built with flammable materials, use of open-flame fires, and lack of roads for emergency response. The early detection device warns other homes within a 60-metre radius of the fire to counter the spread of fires while at the same time alerting local emergency services. "Lumkani" means "be careful" in Xhosa, one of the country's official languages.

The device adds tangibility to the insurance, which helps build trust with inclusive insurance clients. The product concept came from focus groups, and several pilots of approximately 1,000 devices each helped Lumkani arrive at the final design. Clients can press a button on the device to receive a call from the insurer any time, which also builds trust. The product is sold by agents, and registration is simple using GPS and the agent's phone.

Marketing trials had revealed that people would not pay US\$ 1 for the device alone, but they would pay US\$ 4 for the device plus insurance. It was hard to sell either the device or the insurance alone. The complementary device and insurance are mutually advantageous.

Instead of cash, claim payouts are in the form of a card with credit stored on it for the purchase of damaged items. This reduces moral hazard.

49 — Left to right: Queenie Chow, Microinsurance Specialist, Asia-Pacific region, MicroInsurance Centre at Milliman, Australia (Facilitator); Annette Houtekamer-van Dam, Co-founder and Product Lead, IBISA, Luxembourg; David Ding, Head of Insurance Channels, Smart Thinking Consulting, China; Paul Mesarcik, Director, Lumkani, South Africa



10 <http://www.microinsurancecentre.org/resources/documents/technology-in-microinsurance-how-new-developments-affect-the-work-of-actuaries.html>

The Lumkani case is of interest to actuaries because it reduces correlated risk, or the probability of one fire causing many claims. This affects how expected claims are modelled and reduces the cost of insurance.

Lumkani South Africa

Number of people insured

Over 30,000

Insured risks

Property & funeral

Premium range

ZAR 70 (US\$ 4) to ZAR 150 (US\$ 10) per month

Other emerging technologies are offering the same kind of practical applications for actuaries in micro-insurance – particularly blockchain.

Alibaba in China is using blockchain¹¹ to provide critical illness coverage on a mutual platform (see Figure 22) named **Xianghubao**. There is no fee to join the mutual, and each month the amount that members pay is based on the number of claims made. When the regulator said Alibaba could not call it mutual insurance, Alibaba named it an “online mutual programme”.

Alibaba, an e-commerce giant, is in some ways similar to Facebook and Amazon. It has a huge existing user base, and active users open the app every day, which builds trust. Its mutual scheme, after the first month, drew 20 million members. After 4 months, enrolment had increased to 100 million members.

The use of the internet and blockchain enables clients to join quickly and freely, build mutual trust and receive timely benefit payouts. Mutual trust exists because blockchain transactions are tamper-proof. Every transaction within the network is permanently recorded. It is not possible for an individual or an organisation to change the ledger’s history or to send the same transaction twice.

Xianghubao product – Alibaba China

Number of people insured

100,000,000

Insured risks

Critical illness

Premium

Shared mutual payments capped at RMB 0.1 (US\$ 0.01) per case per user

Figure 22
Xianghubao before and after



Before

People in poverty suffering from critical illnesses with unaffordable medical expense



After

Leveraging on internet block chain, people can join the mutual programme freely with trust on each other, therefore get timely financial aid

11 Blockchain technology, described as a digital ledger in a distributed network, works with blocks or collections of data – in contrast to a spreadsheet using columns and rows.

Source: Ding, David. Presentation “Tech, blockchain, microinsurance, and actuaries – a potent combination, or a squeezing out?” 15th International Conference on Inclusive Insurance 2019.

Parallel session 10

Tech, blockchain, microinsurance, and actuaries – a potent combination or a squeezing out?

IBISA (Inclusive Blockchain Insurance using Space Assets), a risk-sharing start-up in Luxembourg, is combining blockchain, parametric insurance and satellites to cover farmers' crops and pastures that provide food to livestock when they are affected by droughts. Promoted as a decentralised marketplace for mutualised index-based risks, it is targeting smallholder farmers worldwide.

Many people in rural India are already familiar with mutuality. IBISA's concept is presented to clients by a notable person in their village and is explained as similar to the mutual scheme they may already belong to, except that it is on a huge scale.

IBISA's local partners onboard farmers and enter their plots. Farmers use mobile money to make flexible contributions, and their protection is proportional to their contributions. IBISA uses satellite data monthly to assess losses and make payouts into mobile wallets without the need to file a claim. Blockchain technology automates administrative tasks in a transparent way, reduces the risk of error and improves the programme's affordability and scalability.

IBISA is developing crowd-watching logic which utilises individuals (i.e. "watchers") who are knowledgeable in Earth Observation data to assess NDVI anomalies remotely. Remote damage assessment is less costly than on-the-ground assessments. Multiple watchers evaluate each territory's severity of NDVI anomaly, and their merged assessments rather than a single isolated assessment are used for payouts.

When IBISA begins working in a country, it meets with the regulator for permission to do a pilot. IBISA explains it is not insurance, but a mutual platform.

IBISA – India and Niger

Number of farmers insured
2,600

Insured risks
Crop and pastures that provide food to livestock

Premiums range
5 to 8 percent of sum insured

Lessons learnt

- The Lumkani device adds tangibility to fire insurance and it builds trust with clients knowing they can press a button on the device to receive a call from the insurer at any time.
- Test concepts with focus groups and pilots to arrive at final designs. Low-income clients like it when a product is designed for them and based on their input. They feel recognised and proud.
- Protection of customer privacy is an important regulatory issue when using online insurance platforms and other technologies.
- Blockchain can automate administrative tasks in a transparent way, reduce the risk of error, and improve the scalability of programmes. Blockchain also provides tamper-proof transactions which builds mutual trust.
- These technologies have a number of practical applications for actuaries, particularly for data analytics and underwriting.

“Blockchain is just a technology... We should find a good business scenario which makes it necessary to use blockchain to solve the problem of mutual trust.”

David Ding, Head of Insurance Channels, Smart Thinking Consulting

Parallel session 11

Integrating macro, meso and microinsurance schemes

Hosted by MCII

By Jennifer Denno Cissé

The session presented disaster risk financing frameworks focusing on integrating microinsurance into meso and macro-level schemes in the Caribbean and Pacific. It looked into new ways of applying insurance to complement disaster risk management and climate change adaptation efforts, covering findings and lessons from the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project and how these can inform the new Pacific Insurance and Climate Adaptation Programme (PICAP).

In 2007 the world’s first multi-country risk pool, the Caribbean Catastrophe Risk Insurance Facility, was set up in Grand Cayman. A not-for-profit company, it is owned and operated by and for Caribbean governments and is now called CCRIF SPC (restructuring as a Segregated Portfolio Company). In 2015, with 17 existing members, it opened membership to countries in Central America, adding Nicaragua, Panama and Guatemala. There are other regional parametric risk transfer facilities too, such as African Risk Capacity (ARC) and the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI).

Sovereign risk pools like these can expand from their original role of insuring governments at the macro level to also insuring groups and/or individuals at the meso and micro levels (see Figure 23).

Outreach to meso and micro levels

CCRIF SPC already serves as an example of such expansion. In July 2019, in collaboration with the World Bank and the US Department of State, it launched the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) initiative. Piloting in two member states, Saint Lucia and Grenada, it introduced coverage for fisherfolk and others in the fisheries sector, supporting government efforts to provide immediate relief when they are impacted by extreme weather and thus enhancing coastal community resilience.

CCRIF SPC says that while governments purchase COAST policies, the product is unique¹². It incorporates a livelihood protection component (akin to microinsurance) and a tropical cyclone component. Specifically, the COAST product covers losses to individuals caused by “bad weather” and direct damage caused by tropical cyclones (wind and storm surge) to fishing vessels, fishing equipment and fishing infrastructure. “Bad weather” is defined as high waves and occurrence of heavy rainfall throughout the policy year.

Figure 23
**Integrating Macro-to-Micro:
Key Takeaways**



Source: Munich Climate Insurance Initiative

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Source: CCRIFSPC_COAST_Brochure_July2019.pdf

Parallel session 11

Integrating macro, meso and microinsurance schemes

Climate risk cover as part of social protection

While CCRIF SPC was not set up to cover all losses, its rapid infusion of liquidity allows affected governments to address immediate priorities and support the vulnerable at the meso and micro levels.

CCRIF SPC is recommending that governments incorporate sovereign climate risk insurance as part of social protection policy and strategy to enable payouts to assist the worst-affected individuals or communities, and to reduce the vulnerability of economic sectors that are dependent on low-income, vulnerable workers. Micro schemes can expand the social protection and safety nets offered by macro programmes. In integrating the macro and micro levels, a critical element is distribution and it is the meso level where distribution channels are most often based.

CCRIF SPC also emphasised the importance of developing market-based insurance products for segments of society that can afford such solutions. It is working on introducing such parametric products through the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project, which is being implemented together with the Munich Climate Insurance Initiative (MCII).

The ILO's Impact Insurance Facility stressed how technology can play a role across all aspects of the insurance value chain to provide time and cost efficiencies, but new regulation is often needed to enable the use of new technology-based distribution channels.

Government buy-in and support are crucial in creating the frameworks necessary for a sustainable inclusive insurance market. Macro pools can encourage and support governments to create a facilitative regulatory environment and government policies that increase access to meso and microinsurance by, for example:

- providing subsidies for policy premiums;
- waiving associated taxes;
- incorporating microinsurance within existing government rebates and subsidies for the fisheries, agriculture, and tourism sectors; and
- focusing on low-income workers.

This integrated approach is what the Pacific Financial Inclusion Programme (PFIP) is hoping to develop across the Pacific Island countries. It is working with governments to develop climate and disaster risk financing solutions for the most vulnerable while also introducing market-based products at the meso level with government support and commitment to promoting an enabling environment.

As the panellists pointed out, different segments have different risk profiles. An integrated approach covering the macro, meso and micro levels can produce better results. Nonetheless, public-private partnerships and collaborations are critical to reach the "last mile".

Lessons learnt

- Macro, parametric risk transfer pools could expand their role of insuring governments to insuring vulnerable individuals at the micro level and the institutions at the meso level that serve as demand aggregators and distribution channels.
- Technology can play a role across all aspects of the insurance value chain to provide time and cost efficiencies. Governments should incorporate climate and disaster risk finance and insurance into social protection programmes.
- In integrating macro, meso and microinsurance schemes, government buy-in and support are crucial. Macro pools may help governments to create facilitative regulations and policies that increase access to meso and micro products.

50 — Tara James, Senior Regional Coordinator, MCII, Germany

51 — Left to right: Jennifer Cissé, Insurance Manager, Munich Climate Insurance Initiative, Germany (Facilitator); Pranav Prashad, Senior Technical Officer, ILO's Impact Insurance Facility, Switzerland



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Parallel session 12

Yield model-based insurance – the new paradigm for crop insurance in developing countries

Hosted by Munich Re

By Shamim Ashraf and Joachim Herbold

The implementation of area-yield crop insurance in developing countries is limited by the availability of reliable official crop-yield data. This session discussed how to develop alternative methods for crop-yield estimations using crop-growth models and for loss estimations based on remote-sensing technology, and how to utilise these methods to structure new crop insurance products – with Bangladesh, India and Tanzania as case studies.

Yield assessment using crop models

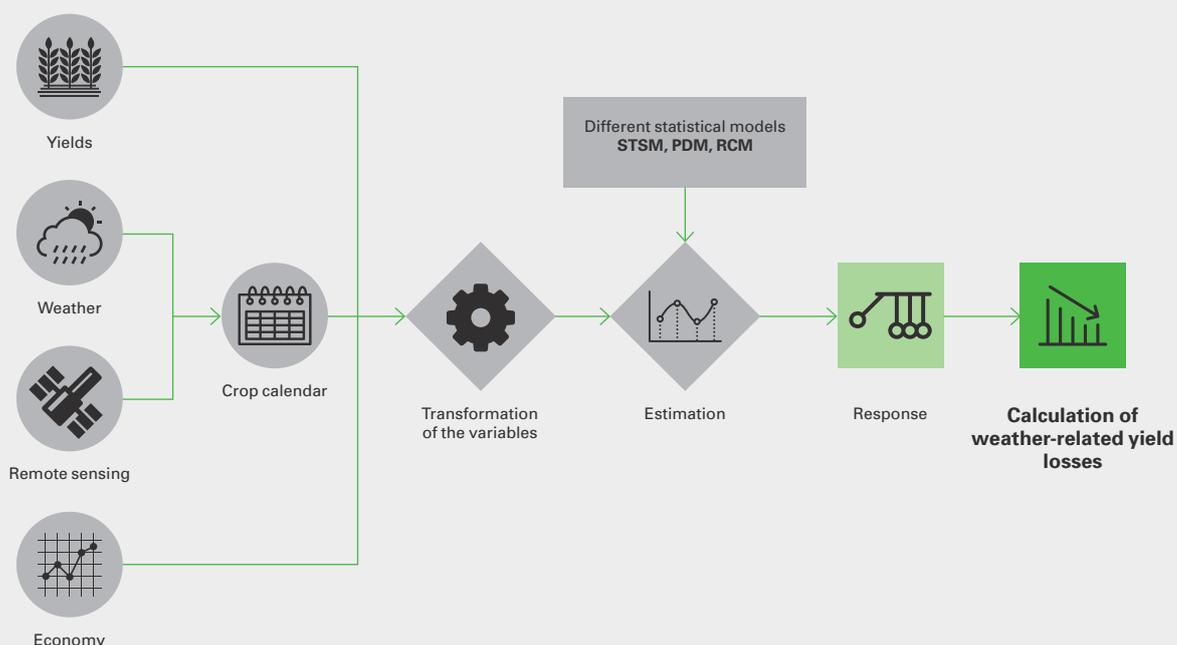
The Potsdam Institute for Climate Impact Research (PIK), Germany, presented the following components of a yield-loss assessment toolbox:

- statistical crop model AMPLIFY – Agricultural Model for Production Loss Identification to Insure Failures of Yields; and
- process-based crop models such as SWIM – Soil and Water Integrated Model, DSSAT – Decision Support System for Agrotechnology Transfer, and APSIM – Agricultural Production Systems Simulator

The yield-loss assessment toolbox

makes use of statistical and process-based models using historical weather and yield data as well as remote-sensing information to remotely assess crop yields and yield losses. The tool crucially differentiates between climate-related and non-weather-related (agronomic management, socio-economic) yield perils. By combining weather and remote-sensing data, the models innovatively assess yield losses on a field and district level. The modelling approach captures influences on yield variability directly attributable to weather as well as controls for yield influences of agronomic management, socio-economic and indirect weather-triggered impacts (e.g. plant health).

Figure 24
AMPLIFY — Agricultural model for production loss identification to insure failures of yields



Source: Gornott & Wechsung (2016), Agricultural and Forest Meteorology 217, 89 – 100. Cited in: Röhrig, Felicitas. Presentation “Yield Assessment Using Crop Models.” 15th International Conference on Inclusive Insurance 2019.

Parallel session 12

Yield model-based insurance –
the new paradigm for crop insurance
in developing countries

AMPLIFY, the statistical model, uses multiple data sources including yield, weather, remote sensing and economic data (e.g. agricultural management, price subsidies) as inputs. The data is combined with the crop calendar relevant for the specific crop being modelled. These combinations then feed the model where statistical methods are augmented by recent machine-learning techniques.

These are tested for “goodness of fit” against the underlying distribution of the available input data, with the best fit being selected. The selected model then gives a “response” – yield output, along with the ability to separate what proportion of the yield is driven by weather and what proportion by management.

SWIM, as an example of a process-based crop model, depicts the biophysical and plant-physiological processes taking place in plant growth on a daily timescale (see Figure 24). Three interconnected parallel sub-modules that follow pre-defined underlying rules underpin the model:

- Hydrosphere – everything related to the water cycle and what is available for the plant to grow;
- Vegetation – simulates the plant growth itself such as root and biomass development; and
- Pedosphere – covers the soil process, i.e. the nutrients cycle and how soil makes these available for plants to grow.

The three modules are fed by “climate inputs” such as solar radiation, temperature and precipitation, and “management” such as irrigation, fertiliser application and crop rotation.

By then dividing a geographical area in, for example, a 5km resolution, it is possible to simulate the yield developments in a certain area and compare them against actual results.

The PIK yield-loss assessment toolbox makes use of the different models both individually and in combination with remotely estimated yield and yield loss at the time of harvest. Subject to sufficient data availability, it is possible to estimate yield loss even up to two months prior to the harvest. The choice of models depends on the target analysis and data availability. Integration of process-based and statistical models allows accurate yield-loss assessment even in a context of data scarcity. Another key advantage of this integrated approach is that it allows the separation of weather and management factors driving yield loss. For example, maize in Tanzania over 2016/17: the models estimate on average 27% of yield variability attributable to weather, and the rest to management.

Remote-sensing technology

The use of remote-sensing data has changed significantly since the launch by ESA (the European Space Agency) of the Sentinel 1 satellite in 2014, which provides free data at 10m resolution with revisit intervals of 5 days.

GAF AG, Germany, a leader in geospatial services, developed remote-sensing solutions for monitoring and analysis of floods and drought. Taking Bogra, Bangladesh, as an example, a flood analysis was conducted for the session (see Box 6).

Box 6**Floods in Bangladesh 2019**

- Annual flooding of ~ 30 % of the country
- 29 districts impacted
- 7.3m people affected
- 580,000 households damaged or destroyed
- 140,000 ha of agricultural land damaged

Source: Office of the UN Resident Coordinator, 29 July 2019

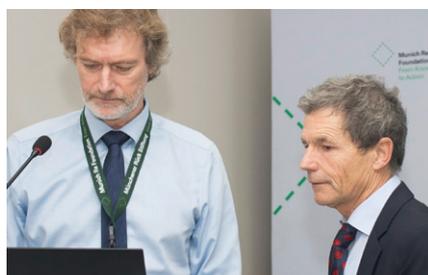
The analysis enabled the calculation of flood extent, duration, frequency and depth. In addition, the accuracy impact of Digital Elevation Models has been evaluated, i.e. SRTM,¹³ 30m and GAF DEM, 3m. The four variables yield estimates on the crop damage, with the extent of damage depending also on the stage of crop growth and crop variant (see Figure 25).

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An international Shuttle Radar Topography Mission (SRTM) to obtain digital elevation models on a global scale.

52 — Left to right: Axel Relin, Unit Head, GAF AG, Germany; Joachim Herbold, Senior Underwriter, Munich Re, Germany (Facilitator)

53 — Felicitas Röhrig, Researcher, Potsdam Institute for Climate Impact Research (PIK), Germany



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Remote-sensing data can also be used in drought monitoring to depict the effect of water stress on vegetation. Observations of Europe from 2002–18 show a shifting pattern of droughts towards the north. Such insights are very important in the design of weather index products. GAF AG has an extensive web-based drought database built up over the last 15 years.

Phases of the insurance design process

Munich Re has incorporated models from technology service companies such as GAF AG and PIK into the insurance design of both area-yield and loss-concept products. One key

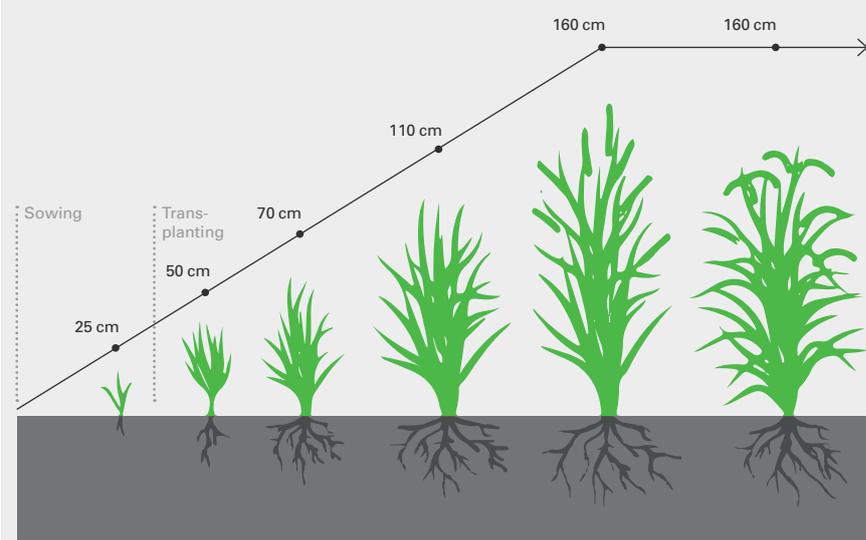
component is the translation of output from the models into an insurable indemnification trigger. This is more challenging when using e.g. remote-sensing flood data to create a loss-percentage matrix depending on flood duration and crop variety.

Such a matrix would define a loss scale, for example a flood lasting 3 days would pay out 30% of the sum insured, a 6-day flood 100% of sum insured. Thus, in comparison to traditional crop insurance, the technology service company becomes a key stakeholder in the overall product design, ultimately responsible for determining the loss or the modelled yields for the insured areas/regions.

Lessons learnt

- Crop insurance products based on crop-growth models to estimate crop yields and remote-sensing monitoring data will in the near future complement the currently available insurance solutions.
- In developing countries these new insurance products will drive growth in the segment of small and medium-size farms.
- Independent and impartial technology service companies are a prerequisite of such new crop insurance products. Their task is to determine yields and triggers as the basis of any indemnification. They also support the pricing with data and modelling.
- Basis risk remains the main challenge for these technology-based insurance products.

Figure 25
Example of critical flood depth and duration for jasmine rice



	June	July	Aug	Sep	Oct	Nov	Dec
Growth stage	Seeding	Transplant	Tillering	Booting	Flowering	Reproductive (grain filling)	Harvesting day
Rice height (cm)	0–25	25–50	50–70	70–110	110–160	160	160
Critical water depth (cm)	25	25	40	70/20	160	160	160
Critical flooding duration (days)	>3	>3	>4	>4	>4	>4	>4

Source: Relin, Axel. Presentation “Remote Sensing based Flood and Drought Monitoring” 15th International Conference on Inclusive Insurance 2019.

Parallel session 13

How can insurance build society's capacity to develop?

Hosted by InsuResilience Global Partnership, Cenfri and the Microinsurance Network

This session underscored the pivotal role insurance plays in development, reviewing how climate change is affecting development and, with a focus on Bangladesh, what challenges lie ahead.

The basic role

Insurance is sometimes referred to as the lubricant of the economy. By providing protection against risk and loss it helps keep the economic engine functioning, maintaining its ability to generate wealth and provide jobs. Insurance facilitates the growth of agriculture, industry and commerce. It also gives individuals and families economic security, enabling them to contribute to society as productive citizens. Beyond local, regional and national communities, the insurance (and reinsurance) industry protects and invests in development.

The question is: is insurance living up to this promise? And if a snapshot of the world shows it is falling short, what can be done to meet emerging challenges like climate change in the foreseeable future?

The UNDP perspective

The United Nations Development Programme's (UNDP) in-country work around the world has repeatedly made it aware of the impact of unmanaged risks. Insurance is essential to development, but it is not realising its potential in both key functions. There is a protection gap and an investment deficit.

The protection gap – the difference between the insured and uninsured – is 95% in developing countries, compared to 50% in developed countries. Only 1.2% of global premiums are written in Africa, and of that South Africa writes four out of every five dollars. In the field of healthcare, Asia alone has a modelled exposure – that is, a shortfall in funding health expenditures – of US\$ 1.8 trillion, driving millions without protection into poverty when they have to pay high out-of-pocket expenses.

The investment deficit is also significant. Two factors may be in play. If a large portion of the initial capital for an insurance enterprise and risk financing comes from outside a country, much of the profit and investment may also go back to the external sources. Plus, insurance and risk financing suffer from what the UNDP calls an “adverse political economy”, with politicians prioritising highly visible short-term investments over long-term asset protection.

To deal with both inclusive insurance and risk financing, the UNDP, starting in 2020 with the support of the German government (BMZ), will roll out an integrated strategy for implementation in some 20 countries.

A target of 400 million additional beneficiaries of climate risk insurance by 2020 was set in 2015 with the creation of the Insurance Development Forum and InsuResilience Global Partnership. This has been scaled up to 500 million by 2025. The goal in the upcoming phase is to make insurance and risk financing part and parcel of development planning and public financial management.

Focus on the private sector in achieving SDGs

Initiatives to enable insurance to fill the protection and investment gaps in development require a greater role for the private sector in partnerships. The private sector will get more involved if it makes commercial sense.

The industry can help governments and international partnerships achieve their goals and focus on the sustainable part, the SDGs, by ensuring that private insurance schemes themselves are sustainable. That involves, among other measures, striking the right balance between risk reduction and risk transfer, while protecting an increasing portion of insurable loss in economic loss.

There are at least seven SDGs the industry can help pursue by aligning with government plans and projects (see Figure 26).

Figure 26
Insurance and the SDGs



Help to achieve public policy objectives, such as

- Climate change adaptation
- Food security
- Universal health coverage

Source: ILO's Impact Insurance Facility

54 — Jan Kellef, Special Advisor, UNDP, Switzerland



In addition to the six goals in the figure, the UNDP is eyeing SDG 11 “Sustainable Cities and Communities” as it aims at a broader role for insurance in development.

Key points brought out by the discussion in the session included the need for insurers and reinsurers to do more to invest in the communities from which they draw their premiums. This would help make governments more receptive to partnerships with the private sector. And as for addressing climate change, the industry should be ready to deal with loss and damage arising from it, not just adaptation.

The case of Bangladesh

The geophysical exposure of Bangladesh to extreme weather makes it one of the countries most vulnerable to climate change. To build society’s capacity to develop in such vulnerable countries, insurance needs to provide innovative mechanisms for a flow of funds to offset loss and damage beyond what is now measurable – for example, slow-onset and non-economic perils that climate change can inflict.

Recovery and resilience to impacts of climate change in Bangladesh could conceivably involve millions of people over time being unable to continue fishing or farming. How to create livelihood opportunities and infrastructure for them in migrant-resistant towns would then be part of the changing role of insurance as a contributor to development.

Almost a decade ago the government earmarked US\$ 400 million to set up the Bangladesh Climate Change Trust Fund but allocations since have not kept pace at the same level. It needs a partnership with the insurance industry to continue its plans and projects.

Accounting for it

Aside from increasing claims for weather-related losses, climate change is likely to bring about changes in an insurer’s back-office too. A question posed by a panellist was “Should there be a ‘climate liability’ on the liabilities side in accounting”?

The answer is yes, as countries move toward the Paris Agreement targets and consumers push society closer to a circular economy, eliminating waste and using resources continually.

Accounting firms are already proposing a carbon asset as well as liability.

Lessons learnt

- Insurance needs to address two roadblocks to development: protection gap and investment deficit.
- Inclusive insurance can close the protection gap, and home-grown enterprises can help solve the investment deficit.
- The industry can enhance its contribution to development by joining public-private partnerships at both national and international level.
- Insurers can help governments achieve SDGs by first focusing on the sustainability of their own schemes and then aligning their plans and projects with government initiatives.
- Resettling climate change refugees is likely to be a broader development role in vulnerable countries.

55 — Left to right: Saleemul Huq, Director, ICCCAD, Bangladesh; Augusto Hidalgo, Head of Capital, Science and Policy, Southeast Asia, Willis Towers Watson, Philippines; Doubell Chamberlain, Managing Director, Cenfri, South Africa (Facilitator)



Parallel session 14

Potential innovations in health insurance

By Shamim Ashraf

The session covered elements of micro-health insurance schemes initiated to incorporate lessons from experience or to meet specific needs of a particular market segment.

Focus on attributes of mass market health

The UK-based **MicroEnsure** has spent over 15 years refining its approach to health insurance products. Starting with **cashless inpatient insurance** for MFI clients in India, the company distributed the government's RSBY in villages. It then worked in Tanzania with the Anglican Church and later coffee growers on Mount Kilimanjaro, selling a capitated outpatient product. All products failed to be long-term viable, posing challenges including disproportionate influence from partners, issues of scalability, unsustainable administration costs and stability of the revenue stream. The experience led to the launch in 2011 of hospital cash, which proved to be scalable, with no need for a TPA or network of hospitals, while also being simple and easy to explain.

MicroEnsure's journey to hospital cash led to a focus on the following attributes of mass market health:

The need to **address real needs** – the insurance offering should cover the opportunity cost of hospitalisation, i.e. non-hospital expenses such as lost wages, consultations or medication.

Geographical proximity – people live far from city centres and cannot go to a specific facility. Decouple the insurance from a specified network of hospitals and be more generic.

Simple design – clients have low literacy rates and as many as 90% may have never had insurance before. Policy terms – for first-timers it is hard to understand exclusions, waiting periods, other limitations and complex policy wording.

Aside from a policy in simple, everyday language, the attributes call for a product that:

- removes 90% of exclusions and waiting periods of traditional health products;
- removes condition of panel hospitals;
- delinks policy benefit from hospitalisation cost;
- offers a flat benefit giving client the right to utilise the payout the way they prefer; and
- simplifies the product in such a way that it is explainable in less than 5 minutes, making it possible to distribute via call centres and digital channels.

In MicroEnsure's view, insurance is not a "frequency-of-use business." One does not buy insurance to use it on a frequent and daily basis like a mobile phone service. As such, the underlying benefit of insurance is not obvious to many people; once it is bought, in general it is forgotten.

MicroEnsure's data indicated that only 3% of its client base was hospitalised and using the product each year. To add value for the other 97%, MicroEnsure introduced living benefits such as teledoc (make a doctor's appointment via a cell phone), SMS a doctor (send medical queries to a doctor via SMS from a cell phone), drug discounts, health tips, health camps and health apps.

Sehat Sahulat, launched in Pakistan in 2015, is one example of a health product that to date is proving successful. Customers trust the strong JazzCash brand (of a mobile account service) in the provision of a product with appropriate coverage, simplicity and the speed of claim payment customers need. This not only attracts new customers to JazzCash but also results in higher retention of existing customers.



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56 — Israt Mustafa, Head of Products, Milvik, Bangladesh



57 — Left to right: Denis Garand, President, Denis Garand and Associates, Canada (Facilitator); Richard Leftley, CEO, MicroEnsure, United Kingdom

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MicroEnsure’s Sehat Sahulat, launched in Pakistan in 2015

Risks covered

Health benefits for inpatient hospitalisation and treatment of injuries

Insured persons

Customers who have opened a mobile wallet with JazzCash

Age limits

18 to 65 years

Enrolment

Outbound call centre, JazzCash mobile phone app and USSD platform

Clients’ profile

Lower and middle mass market clients, about 97% of whom had no health insurance experience before in their lives

Education and awareness

Social media, website, IVR, call centre, claims testimonials, claims disbursement events, brochures, etc.

Price points

Various, ranging from US\$ 6 to US\$ 29 per year

Covering inpatient, outpatient, maternity and life

The garment sector is hugely important to the economic growth of Bangladesh, employing approximately 4.2 million people, the majority of whom are low-income female workers. **SNV**¹⁴ launched two pilots in 2015 and 2017 to address health insurance accessibility, availability and affordability.

The product offers a wide range of benefits (see Figure 27) covered by Pragati Life and Alpha Islami Life, with SNV as the technical service provider. The product has grown significantly from 5,720 in year 1 to 26,000 in 2019.

The premium is subsidised by SNV, but with each year of operation the subsidy is reduced with the aim of factory workers and owners eventually paying the whole premium themselves.

Health Insurance Plus for garment workers Bangladesh

Number of people insured
26,000

Insured risks

Health (inpatient, outpatient), maternity, life

Coverage

Health (IP US\$ 150, OP 375), Maternity (NVD US\$ 450, LUCS US\$ 94), and life (US\$ 375) per annum

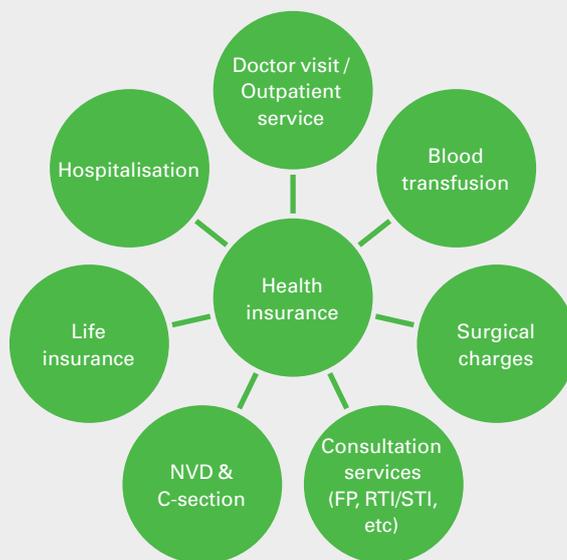
Premium

US\$ 7.5 per annum

Source: Uddin, Jamal. Presentation “Policy brief of health finance scheme for ready-made garment workers in Bangladesh: A case analysis.” 15th International Conference on Inclusive Insurance 2019.

Initially beset with mistrust and misconceptions, the product now has a high take-up rate: 93% of workers in factories covered by the scheme have voluntarily signed up. The renewal rate is over 90%.

Figure 27
Health Insurance Plus



Source: Uddin, Jamal. Presentation “Policy brief of health finance scheme for ready-made garment workers in Bangladesh: a case analysis.” 15th International Conference on Inclusive Insurance 2019.

Parallel session 14 Potential innovations in health insurance

Combining mHealth and insurance for the underserved

As much as 72% of healthcare expenditure in Bangladesh is paid out-of-pocket, and 7.5% of household income is spent on healthcare, with medications accounting for 60% of the expense.

BIMA, Bangladesh, believes that the main barrier for the growth of micro-insurance in Bangladesh is the value chain: (1) acquisition, (2) product delivery, (3) product accessibility and (4) claims management.

To address this, BIMA first created a digital footprint through mobile microinsurance (MMI). Leveraging partnerships with mobile operators, premiums are deducted from their mobile wallet. Policy administration including claims and transaction history are all accessible via the customer's mobile phone.

Product offerings included personal accident, life insurance and hospital cash. Their key features are:

- Paperless subscription.
- Minimal terms, conditions and exclusions.
- Maternity coverage.
- Coverage from day 1 of hospitalisation.
- Shared coverage for children.
- Cashless claims management where possible.
- Continuous customer care.

The **mHealth** scheme was then added, which includes services such as SMS health tips, tele-doctor consultations and online to offline services such as appointment bookings and referral discount at partner hospitals. Over the past year, BIMA has launched the mobile app in the majority of its markets, including Bangladesh. Through the app it is possible to access mHealth services, personal content, raise claims or locate the nearest hospital.

This evolution from insurance alone to the addition of mobile health and mobile app should increase penetration in Bangladesh, which currently is 0.78% even with 78 insurers operating.

Lessons learnt

- Access to hospitals remains the overarching key challenge in micro-health insurance.
- Countries that have invested in their medical network have had proportionate increases in health insurance take-up.
- Health insurance is the most sought after of the inclusive insurance products.
- Challenges encountered in Bangladesh include: absence of micro-insurance regulation; lack of understanding of insurance; lack of trust in products; and moral hazard/adverse selection.



58 — Jamal Uddin, Inclusive Business Advisor, SVN Netherlands Development Organisation, Bangladesh

Parallel session 15

New approaches for insurance outreach to agricultural households

Hosted by ILO's Impact Insurance Facility

By Prechhya Mathema

Using examples from different geographical locations, the session highlighted the role of integrating the awareness and enrolment process in a scenario that is comfortable to the customers, making insurance more inclusive. This session explored experiences of organisations that have adopted an approach of thinking locally and working with local people.

To overcome the lack of awareness about insurance, its access and trust, different approaches are being employed to reach the targeted beneficiaries and ease their enrolment to the programmes. As many of the targeted customers are usually remote and also impacted by local traditions and cultural issues, local mechanisms are evolving that work well in rural scenarios.

59 — Left to right: Pranav Prashad, Senior Technical Officer, ILO's Impact Insurance Facility, Switzerland (Facilitator); Devilal Vyas, Director, People's Education and Development Organization, India

60 — Syed Moinuddin Ahmed, Additional Managing Director & Company Secretary, Green Delta Insurance, Bangladesh

61 — Sarfraz Shah, Project Manager, APA Insurance, Kenya

One dedicated channel

People's Education and Development Organisation (PEDO) is an NGO in the Dungarpur district of Rajasthan. It has developed a strong cadre of dedicated women agents (known as "Krishi Sakhi", friends of agriculture) who promote agriculture insurance to vulnerable tribal communities.

PEDO was established 40 years ago as a forest regeneration project when more than 50% of the land was forested. Gradual deforestation since has cleared 92% of the land and communities now rely heavily on agriculture. To promote proper cultivation and insurance, PEDO has developed a self-help programme, mainly for non-loanee smallholder and marginalised women. It identifies a community resource person (CRP) or "Krishi Sakhi", to provide technical, marketing and educational support, and to improve access to various agricultural insurance schemes.

The *Krishi Sakhi* are selected and remunerated by the SHG (self-help group) federation in the community, and go through rigorous training including regular capacity-building programmes. They are well equipped with materials to conduct effective awareness campaigns, assist in document collection, verification and data processing for enrolment and submission of application to insurance companies through PEDO.

Krishi-Sakhi scheme**Coverage**

500 villages, 50,000 families (c. 275,000 population). 1 Krishi Sakhi is responsible for 150 – 200 families.

Services

24-hr helpline, and crop and livestock management support system

Over 2 years, 250 *Krishi Sakhi* were trained in more than 100 villages giving access to 22,000 households while enrolling 3,200 non-loanee women farmers.



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Parallel session 15
New approaches for insurance
outreach to agricultural households

Multi-channel approach

Agriculture insurance, in particular index-based, is quite new in Bangladesh. The key driver of Green Delta's success in scaling weather index insurance products has been a multi-channel approach and working closely with partners as well as farmers to design and price products.

Green Delta has been the pioneer in Bangladesh in offering index-based agriculture insurance since 2015, with support of the IFC. The main drivers of its growth are: understanding the socio-culture perspective of the target groups, highly committed teams, a collaborative approach to dealing with the complexities of multi-channel distribution, and leveraging technology in the value chain.

Initially, the company partnered with input farmers and seed companies. This has now been extended to five additional channels – contract farming, financial institutions, NGOs, telcos and start-ups. The key challenge has been dealing with multiple regulatory authorities.

Green Delta agriculture Insurance scheme

Coverage
24,000 through policy and field activities and 10,000 through authorised vendors

Perils covered
8

Sum Insured
US\$ 3.2m

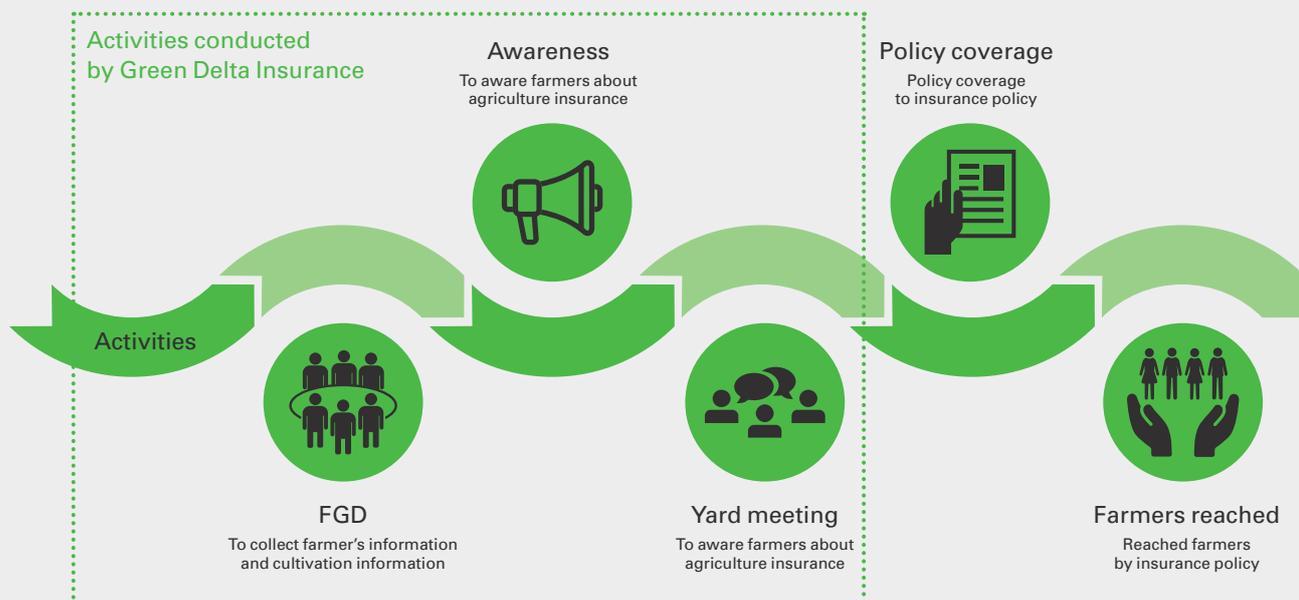
Premium
US\$ 0.086 (2.5 or BDT 215 per farm)

Claims paid to
5,025 farmers.

The product development process starts with a number of focus group discussions organised by the relevant distribution channel team in order to understand customers' needs and gather information. This helps in developing a product that is presented to farmers during a "Yard Meeting" to gather feedback on design, pricing, and other related aspects. Conducting extensive awareness programmes enables farmers to know how the insurance works and understand the claims trigger mechanism (see Figure 28).

Green Delta now has extensive expertise in developing multi-peril weather index products for any crop in Bangladesh.

Figure 28
**Product Development Process —
How to reach farmers**



Source: Ahmed, Syed Moinuddin. Presentation "Multiple Value Chain Bundling for Customer Outreach (Agri-insurance)." 15th International Conference on Inclusive Insurance 2019.

A pool in a PPP

APA Insurance, Kenya, a key player in agriculture insurance since 2015, leads a pool or consortium of six companies. It is working with the government in a public-private partnership (PPP); the pool manages two major schemes – agriculture and livestock insurance. It uses a multi-channel approach to meet the challenges of lack of trust: achieving outreach and lack of understanding of products.

The key driver of scale is partnering with organisations that have presence at the grassroots level (PayGOSolar, NGOs, church groups, etc.) and building the existing community-based resources (village representatives and county coordinators). Leveraging technology (e.g. M-Pesa) as well as embedding the enrolment and claim payment mechanisms within the partners’ portal have eased the process for both partners and customers (see Figure 29).

Starting with a small pilot product (e.g. Hospicash) and subsequently bundling agriculture insurance with the partners’ product have been crucial in gaining trust and outreach. Communicating to farmers before enrolment and prior to payment of claims have ensured renewals. Extensive community meetings are held throughout the year to disseminate information on how the product works and on the claims verification process.

Lessons learnt

- To enhance agricultural insurance, insurers need to address existing challenges: the products’ complexity, and lack of trust and awareness among rural clients.
- Getting the distribution channels right by thinking locally and working with local people is the main success factor in achieving outreach in agriculture insurance.
- Designing an effective multi-channel business model requires a vision shared among partners and a programme to deal with multiple regulatory bodies. Bundling agri-insurance within the partners’ product can help achieve scale.
- A sustainable ecosystem needs to be developed through extensive engagement with farmers prior to product sales and during the payment of claims.
- Better acceptance of products by partners and customers involves use of technology and leveraging of partners’ portals to process enrolment and claims payment.
- Communication through the right channel, whether a dedicated one or multiple channels, ensures alignment with the farmers’ daily activities as well as recognising and dealing with cultural impediments.

Figure 29
Scale reached by different channels



Source: Shah, Sarfraz. Presentation “Reaching the Unreachable.” 15th International Conference on Inclusive Insurance 2019.

Parallel session 16

Measuring the impact of insurance: challenges in data collection

Hosted by the Microinsurance Network

By Jeff Blacker

This session discussed the methodology and benefits of collecting data for landscape studies, focusing on challenges of collecting supply-side data. The session also saw the launch of the study “Landscape of Microinsurance in Africa 2018” by the Microinsurance Network.

Benefits of data collection

Microinsurance landscape studies include supply-side data by line of business, including lives covered, premiums collected, claims ratios, claims turnaround time, number of claims, and others. Data collection has a positive effect on the whole market as well as insurers providing the data. Benefits to the market include:

- Regulators can use results to craft better policies and identify barriers.
- Insurers use results to identify market potential and increase market penetration with more effective products for consumers.
- Tracking data over time provides trends that help identify areas where further analysis is warranted (e.g. areas where penetration is decreasing, or alternatively, areas where trends are exceptional).
- Benchmarks can be used to compare neighbour countries.

The process of gathering the requested data is often a learning experience for the insurer. Insurers may realise they should be collecting data regularly for managing their business. Organisations can use data when designing products, distributing, premium pricing, and improving operations and claims metrics. Collaboration between the requestor and provider may result in systems where data collection becomes routine.

Figure 30

Challenges of data collection

Always nice to have but tough to get

Lack of regular reporting with associations and regulators



Inconsistency between players within the same value chain/line of business



Data infrastructure and systems



Definition of microinsurance



Market competition and willingness to share within the industry



Challenges and opportunities of data collection

The research firm needs **credibility in the local market**. Partnering with regulators, associations, development partners, and in-country experts improves response rates. The data request may be viewed more credibly if it comes from an association to which the insurer belongs.

A key challenge of collecting data is its **infrastructure and systems**. Does the insurer's administrative system produce data already, or will manual extraction of information be necessary? It may be necessary to disaggregate the respondent's data by target market to remove non-microinsurance results. Data collection should be customer-centric (i.e. vary by income, gender, age), be separated by line of business, and clearly define how bundled products (e.g. a combined accident and funeral cover) should be reported. The data should also be comparative across territories; this requires a consistent definition of microinsurance.

Even if data is available, insurers may be **unwilling to share** commissions, claims, and administrative data with the industry and competitors. Researchers may obtain this information from regulators. Incentives to insurers, such as post-survey workshops and action steps based on workshop discussions, may increase response rates. It is useful to ask insurers and other stakeholders how to incentivise them and obtain their buy-in.

Yet another challenge is deciding which policies should be counted as microinsurance when there are multiple **definitions** of microinsurance used by insurers, regulators, and the organisation requesting the data. If the survey intends to capture non-registered products that target the low-income market, then make it clear to respondents that it does not have to be a product that is registered as microinsurance. It may help to provide the survey's definition of microinsurance at multiple times and in multiple ways, such as explaining it over the phone.

Long surveys are challenging because of the time commitment required to complete them and respondents may require consultation with multiple departments. A combination of an online tool for perception questions and spreadsheet collection formats (e.g. for product data and KPIs) may make the data easier to provide. Local research staff who can go and sit with respondents may be necessary to obtain the data.

Insufficient data quality can include problems such as incomplete key information, internal inconsistency (e.g. MI premiums greater than total written premiums on all lines of business), inconsistency with past responses, and inconsistency with external websites and articles. Leave ample time for data quality review and follow-ups. In addition to data requests, secondary data (e.g. publicly available) can be reviewed and compared with data received from responding organisations.

Finding an effective **dissemination strategy** is another challenge. How do researchers get people to read the landscape study and take action on it? Multi-stakeholder workshops stimulate constructive dialogue and action items. Inquire from insurers and regulators how to make the reports more useful to them.



62 — Left to right: Mariah Mateo Sarpong, Knowledge Management Specialist, MicroInsurance Centre at Milliman, United States; Queenie Chow, Microinsurance Specialist, Asia-Pacific region, MicroInsurance Centre at Milliman, Australia; Katharine Pulvermacher, Managing Director, Microinsurance Network, Luxembourg; Katharine McKee, Member of the Board, Microinsurance Network, United States (Facilitator)

Parallel session 16

Measuring the impact of insurance: challenges in data collection

Landscape study results¹⁵

The “Landscape of Microinsurance in Africa 2018” mainly focused on five countries: Kenya, Nigeria, Senegal, Togo, Uganda and Zambia. The limited geographical outreach in the study is a result of the above-mentioned challenges of obtaining sufficient data.

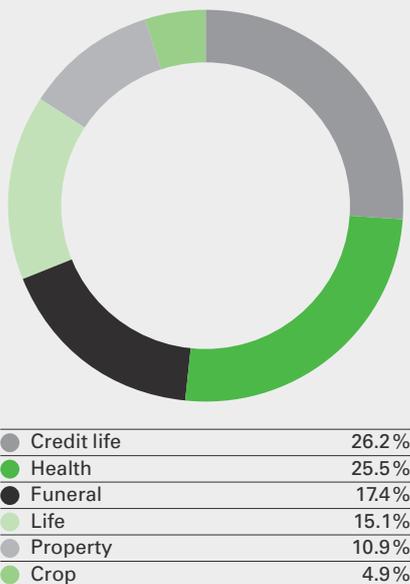
Life insurance, health insurance and funeral accounted for nearly 85 % of the lives covered in the data (see Figure 31).

The median claims ratio across all lines of business was 45 %, while livestock and crop insurance had the highest median claims ratios (i.e. 71% and 54% respectively – see Figure 32). The median claims turnaround time was highest for property insurance, about 2 months, and the median turnaround time across all products was 10 days.

Beginning in 2020, global landscape studies will include approximately 10 countries in each region (Latin America and the Caribbean, Africa, Asia and Oceania). This is a change from the last decade when studies were completed for one region each year (see Figure 33).

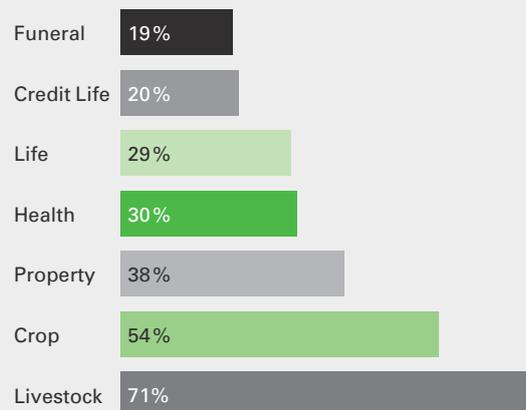
¹⁵ See full details of the study at https://microinsurancenet.org/sites/default/files/Landscape%20of%20Microinsurance%20in%20Africa%202018_LR.pdf

Figure 31
Percentage of total premiums collected by each product line



Source: Pulvermacher, Katherine. Presentation “Measuring the Impact of Insurance: Challenges in Data Collection.”, 15th International Conference on Inclusive Insurance 2019.

Figure 32
Median claims ratios for each product line

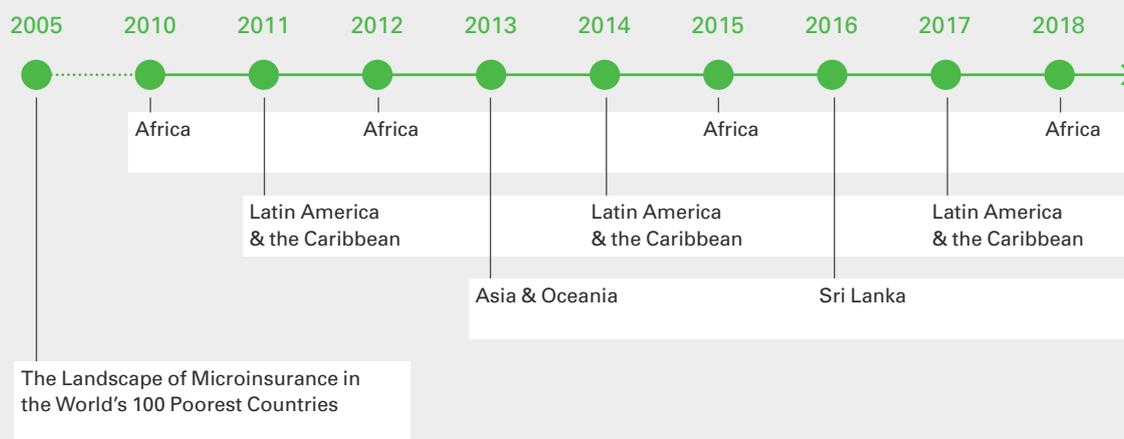


Source: Pulvermacher, Katherine. Presentation “Measuring the Impact of Insurance: Challenges in Data Collection.”, 15th International Conference on Inclusive Insurance 2019.

Lessons learnt

- To improve the response rate of data requests, there should be a business case made to insurers because data collection is potentially a burden for them. The request needs to focus on data that is most useful to them and their partners.
- Partner with regulators, associations, development bodies, and in-country experts to improve response rates. The data request may be viewed with more credibility if it comes from an association to which the insurer belongs.
- Focus on specific countries and have a follow-up process so the data is made useful to contributors, giving them valuable feedback.

Figure 33
Timeline of past landscape studies



Source: Pulvermacher, Katherine. Presentation "Measuring the Impact of Insurance: Challenges in Data Collection.", 15th International Conference on Inclusive Insurance 2019.

Agenda

7 November 2019 Morning sessions

Plenary 4

Making innovation more sustainable

Hosted by InsuResilience Global Partnership and GIIF

Rishi Raithatha
Insights Manager –
AgriTech program, GSMA –
Mobile for Development
United Kingdom

Dr. Jochen Ramcke
Senior Project Manager, GIZ
Germany

Doubell Chamberlain
Chairman of the Board,
Microinsurance Network
Luxembourg

Vijaysekar Kalavakonda
Senior Financial Sector
Specialist, IFC
United States

Facilitator

Richard Leftley
CEO, MicroEnsure
United Kingdom

Plenary 5

Scaling up climate risk insurance: A pathway forward – closing of the conference

Katharine Pulvermacher
Managing Director,
Microinsurance Network
Luxembourg

Orville Johnson
Executive Director, Insurance
Association of Jamaica
Jamaica

Astrid Zwick
Head of InsuResilience
Secretariat, InsuResilience
GlobalPartnership
Germany

Sheikh Kabir Hossain
President, BIA
Bangladesh

Facilitator

Dirk Reinhard
Vice-Chairman, Munich Re
Foundation
Germany

Plenary 4

Making innovation more sustainable

Hosted by InsuResilience Global Partnership and GIIIF

Use of technology in inclusive insurance has improved efficiency and service delivery as well as reducing transaction costs and product pricing. How can it now be a multiplier for scalable and sustainable climate risk? Dealing with this question, the session focused on schemes for agriculture, the industry affected most by climate change.

More than two billion people around the world depend on some 500 million smallholder farms for their livelihood. Designing weather insurance schemes that smallholder farmers take up voluntarily is a priority. Government-subsidised programmes, even where a country can afford them, do not fully meet the farmers' needs. Index insurance remains a work in progress, enduring where offered free or subsidised but failing to achieve scale largely because of what is cited as its "Achilles heel" – basis risk.

Index insurance delinks claim payment from loss at an individual farm, basing it instead on a threshold for farms in a given area. The risk comes into play when the weather shock at a farm's location differs from its measurement at the weather station. The likelihood of such a discrepancy will be higher as climate change accelerates, particularly in farming regions already beset with microclimates.

Use mobile network technology to measure rain

Take Sri Lanka for example. The island nation's 65,000 square kilometres have 46 agro-ecological sub-zones, with farmers even in adjacent parts of the country experiencing different weather conditions on the same day. Historical records, even supplemented with satellite imagery lacking high resolution, fail to yield reliable and actionable data for an index or forecast, especially where cultivation depends on seasonal rainfall. That may change with the application of an innovation in technology which uses commercial microwave links for rainfall monitoring.

Commercial microwave links (CML) are close-to-the-ground radio connections used in mobile networks. Radio signals are transmitted along these links from a transmitting antenna at one base station to a receiving antenna at another base station, creating a pathway. When it rains, water absorbs and scatters these microwave signals resulting in subtle changes to the signal strengths in the pathways between the towers. Using an algorithm, the microwave link data can help create realistic and accurate rainfall maps for weather and hydrological forecasting and agriculture.

63 — Left to right: Doubell Chamberlain, Managing Director, Cenfri, South Africa; Vijaysekar Kalavakonda, Senior Financial Sector Specialist, IFC, United States; Rishi Raithatha, Insights Manager – AgriTech program, GSMA – Mobile for Development, United Kingdom; Dr. Jochen Ramcke, Senior Project Manager, GIZ, Germany



Applying this technology, the GSMA's¹⁶ AgriTech Programme started working on a pilot in 2019 with Wageningen University, the Royal Netherlands Meteorological Institute, MTN Nigeria, Grameenphone Bangladesh, and Dialog Sri Lanka.

Increase the accuracy of weather information

Many developing countries lack coverage of weather stations or radar systems for weather observation data together with satellite imagery. Without reliable observational data, accurate weather forecasting is difficult if not impossible. With the new technology, commercial microwave links, already available in the existing infrastructure of most developing countries, can be analysed and converted into highly accurate rainfall measurements, effectively turning the mobile network into a network of virtual sensing paths (see Figure 34).

The pilot project in Sri Lanka, Nigeria and Bangladesh is continuing to test this technology, with the aim of providing farmers with longer, more accurate weather forecasts.

Individualised insurance for climate-smart farmers

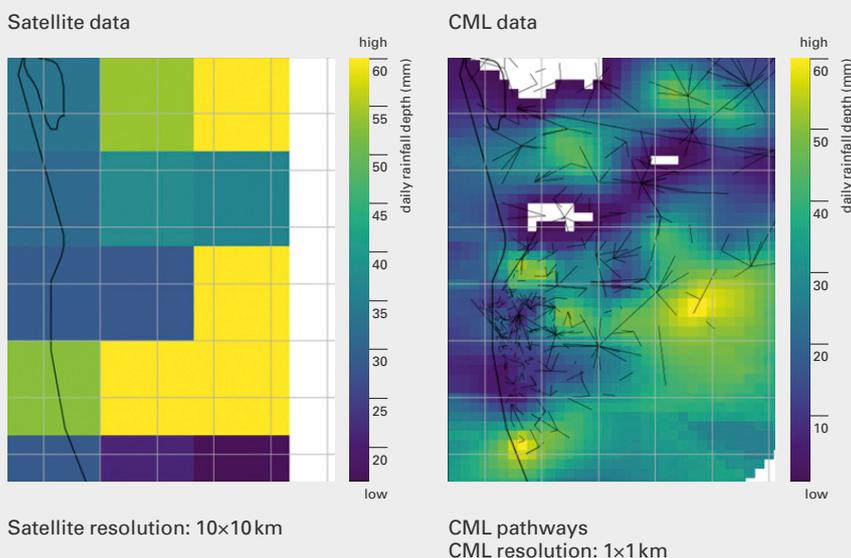
In the World Bank's view, technologies such as commercial microwave links should enable insurers to provide individualised covers to farmers over the next decade. The key to the sustainability of these innovations is whether they promote climate-smart agriculture (CSA)¹⁷ which is also supported by the World Bank.

CSA aims at three outcomes: increased productivity (boosting incomes of 75% of the world's poor who rely on farming); enhanced resilience (reducing vulnerability to weather shocks); and reduced emissions (identifying ways of removing carbon from the atmosphere). The third outcome acknowledges that agriculture, while vulnerable to climate shocks, is also a major part of the climate problem, generating up to a third of total greenhouse gas emissions. Coupled with the increasing attention paid to urban and peri-urban agriculture (UPA) – expected to make

vertical farming worth as much as US\$ 3 billion by 2024 – the need to change current practices will accelerate the use of another technology, hydroponics. Emerging agri-techniques use neither soil nor water, rooting plants in mid-air to get nutrients through a mist. Insurers need to be prepared for smallholder farms of the near future while addressing roadblocks to the scale-up of existing schemes.

A *Climate Insurance* database has been set up online, launched by the World Bank's Global Index Insurance Facility (GIIF), the Munich Climate Insurance Initiative (MCII) and GIZ, commissioned by the German government. The database shares how various organisations are using climate insurance and risk transfer and notes good practices, innovative solutions and lessons learnt. Specifically, users can look up fact sheets, videos and reports which they can filter by type, topic, country, region or organisation. Visit climate-insurance.org or <https://indexinsuranceforum.org/climate-insurance>

Figure 34
Comparing a rainfall event in Colombo



Source: Raithatha, Rishi. Presentation "Rainfall monitoring in Sri Lanka." 15th International Conference on Inclusive Insurance 2019.

¹⁶ The GSM Association (commonly referred to as GSMA or Global System for Mobile Communications, originally Groupe Spécial Mobile) is a trade body that represents the interests of mobile network operators worldwide.

¹⁷ Climate-smart agriculture (CSA) is an integrated approach to managing landscapes, cropland, livestock, forests and fisheries that addresses the interlinked challenges of food security and climate change.

The technology radar

Digitalisation enables easy access to financial and insurance services. But people first need to know how to make the best use of the mobile technology. In its RFPI III project to promote climate risk insurance in three Asian countries with 4 million poor people at risk (50% of whom are women), GIZ is developing a VIP (Vietnam, Indonesia, the Philippines) Engine as a data hub to inform key stakeholders. With modelling capabilities to quantify the impact of climate risks, the VIP Engine will support development of resilient solutions by governments and the private sector.

One GIZ innovation of use in wider development circles is its tech-detector, the first technology radar. This scouting application offers a strategic and analytical assessment of innovative technologies and their potential relevance for sustainable development.

Focus on customers' issues

Cenfri, a think-tank for financial sector development in emerging markets, believes weather insurance has not taken account of farmers' conditions and issues. Its findings show that most of the innovations are focused on business problems, which – while critical to bring down costs – may not tilt the consumer insurance decision in favour of voluntary take-up.

Digital insurer Zhong An Online has sold 6 billion policies to 500 million customers by fitting its business model into the existing interactions in the digital ecosystem in China. Its best-selling policy reimburses online shoppers for the cost of returning an unwanted item on Alibaba's e-commerce platform.

Beyond MNOs, digital platforms are emerging as the new distribution channel to support scale; they aggregate a broader range of consumer groups. Consumers will only take up products that speak to their risks and that provide tangible, in-life benefits. Insurers and actors in the value chain need to get these basics right and should not only rely on innovations.

Lessons learnt

- Sustainable innovations focus on customers' issues.
- Implementing an innovation that requires customers to act should include educating them in its use.
- New agri-technologies will enable insurers to provide individualised covers to farmers. Climate change risk modelling should be based not only on past losses but use predictive analytics for emerging risks.
- Existing commercial microwave links can supplement satellite imagery for accurate, localised weather monitoring.

64 — Facilitator: Richard Leftley, CEO, MicroEnsure, United Kingdom



Plenary 5

Scaling up climate risk insurance: a pathway forward – closing of the conference

By Dirk Reinhard and Jeff Blacker

The proceedings concluded with a summary of the conference, a look ahead at ways of expanding climate risk insurance and the possible next milestones in inclusive insurance and the conference.

Dirk Reinhard, Vice-Chairman of the Munich Re Foundation and Chair of the Conference Steering Committee, presented the findings of the conference (see Box 7), the pathway forward, noted roadblocks to overcome and steps to take to protect more people vulnerable to climate change.

Climate insurance will encounter a low sales volume as it explores effective distribution channels and levels of premium affordability. Insurers will also need to enhance their technical knowledge and devise integrated risk solutions. Awareness, trust, transparency, financial literacy. Clients' familiarity with climate insurance will be limited and so will their trust and access to covers. Climate models are complex – a black box to be demystified by experts. Basis risk will rear its head.

Governments continue to rely on ex-post financing for disaster aid, with many lacking rules and capacity to execute the aid. A stronger focus on pre-disaster finance and preparedness is necessary. There is also a lack of enabling regulation and of coordination among different ministries. And there is insufficient investment in data and infrastructure for preparedness – not to mention subsidies to develop risk transfer and insurance solutions.

Clearly, countries need to pursue disaster risk management approaches that include ex-ante financing and insurance. Financial inclusion strategies – national, regional, global – should now include awareness of climate change risks. More public-private partnerships are needed to implement these strategies. And markets could use more players like Pioneer Insurance in the Philippines, which has made climate risk insurance its central mission.



65 — Facilitator of the session:
Dirk Reinhard, Vice-Chairman,
Munich Re Foundation, Germany

Box 7**Findings of the conference****Barriers in distribution, scale, sustainability and efficiency**

1. Lack of cooperation between insurers and the microfinance industry
2. Low sales volume
 - a. Finding effective distribution
 - b. Affordability of premiums
3. Lack of insurer technical knowledge
4. Need for integrated risk solutions

Governmental and regulatory barriers

1. Lack of coordination among different ministries and regulatory bodies
2. Lack of enabling regulation
3. Insufficient investment in data
4. Insufficient investment in infrastructure
5. Reliance on ex-post financing for disaster aid
6. Lack of rules and capacity to execute disaster aid
7. Lack of subsidies. However, the value of subsidies is disputed.

Financial illiteracy, trust and availability

1. Emerging clients have limited familiarity and understanding of insurance
2. Few companies develop products meeting the needs of the low-income market
3. Lack of trust and access to insurance
4. Climate models are a black box
5. The basis risk of index-based models is difficult to understand

Plenary 5

Scaling up climate risk insurance: a pathway forward – closing of the conference

The organisers also summarised recommendations and next steps to accelerate the development of inclusive insurance in Bangladesh (see Box 8). Experts agreed that stakeholders in Bangladesh need to cooperate and develop common goals. A national financial/inclusive insurance strategy should be developed. Ex-post disaster risk financing approaches should be replaced by ex-ante financing.

Box 8

Recommendations for Bangladesh

- First and foremost: the insurance industry and MFIs need to cooperate!
- Develop a policy objective to increase the number of people with inclusive insurance – e.g. increase of insurance outreach to 35% within x years.
- The process has to start at the highest authority level with the establishment of a steering committee of all the impact areas, the Bank of Bangladesh, IDRA, MRA, MNOs, MFIs and other distribution channels, etc.
- The steering committee would receive the recommendations of the dialogue process. It could propose what the microinsurance regulations should look like for distribution, products, how it can be structured (including potential mutual, cooperative and MBA insurance).
- Provide some technical assistance to the dialogue process (e.g. through the GIZ RFPI/MEFIN programme, InsuResilience, A2ii, etc.).

Next steps

1. Carry out a “diagnostic” and market study to analyse the legal framework, demand and supply side status
2. Develop proportionate microinsurance/inclusive insurance regulation
3. Increase partnerships and cooperation between MFIs/Insurers, IDRA/MRA as well as ministries involved in insurance, disaster risk management and climate change adaptation
4. Have more “pioneer” insurance companies willing to do market research and develop products
5. Develop disaster risk management approaches that include ex-ante financing and insurance
6. Invest in reliable data sources
7. Invest in basic financial education as well as in insurance knowledge

Astrid Zwick, Head of Secretariat, InsuResilience Global Partnership, said these reflections and insights for local action will help achieve the Partnership's multi-year vision for enhanced resilience set out in its annual report (see Figure 35).

The Partnership's six-year workplan has set comprehensive resilience targets, Astrid Zwick said. "It strives towards convergence, collaboration and coordination to support the diverse Climate and Disaster Risk Finance and Insurance Community."

Convergence involves positioning climate risk insurance in political agendas and advocating its value and implementation throughout the network at macro, meso and micro levels, anchoring it, for example, in the Adaptation Agenda of the Paris Agreement. Another goal is to develop a global monitoring framework and look at the impact not only on beneficiaries but also on long-term human development.

Collaboration supports the efforts of developing countries towards resilience, building partnerships and helping with the technical training of public, private and other stakeholders.

Coordination includes outreach to 25 programmes in 76 countries and beyond, promoting new technologies to scale up existing schemes, and applying a gender lens to meet the untapped potential of targeting women with specific solutions.

Katharine Pulvermacher, Executive Director of the Microinsurance Network, made a plea to all delegates for the expansion of inclusive insurance services and rapid-response climate risk measures. She stressed the need for stakeholders to work together to raise ambitions and realise the potential of inclusive insurance, without leaving behind the human touch. "Our vision over the next five years is to double the current reach and serve one billion people by 2025!" she declared.

Orville Johnson, Executive Director of the Insurance Association of Jamaica, announced that the next conference will be held in Kingston, Jamaica, at the Pegasus Hotel from 10 to 12 November 2020. He invited everyone to attend, saying that Jamaica has not only the world's fastest man (Usain Bolt) but also the fastest woman (Shelly-Ann Fraser-Pryce). Jamaica, he added, is also the home of credit unions that pioneered loan protection long before it came to be called microinsurance.

Jamaica is one of the places with first-hand experience of the impact of climate change, having had its fair share of the Caribbean floods and droughts, Mr Johnson said. "We are a member country of the Caribbean Catastrophe Risk Insurance Facility (CCRIF), the world's first multi-country risk pool, which has made 42 payments to 30 member countries since 2007."



66 — Left to right: Katharine Pulvermacher, Managing Director, Microinsurance Network, Luxembourg; Orville Johnson, Executive Director, Insurance Association of Jamaica; Astrid Zwick, Head of InsuResilience Secretariat, InsuResilience Global Partnership, Germany

Plenary 5

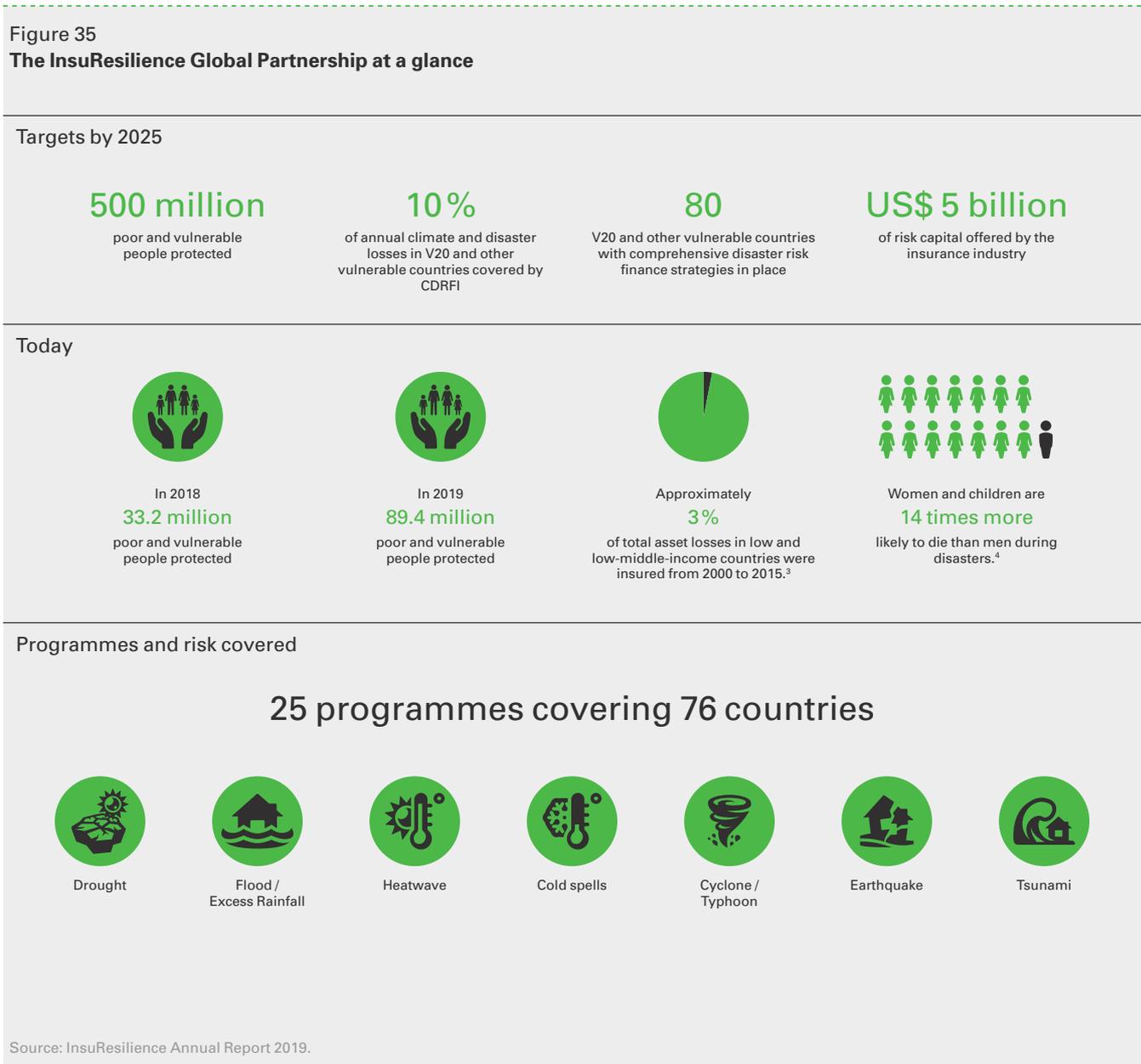
Scaling up climate risk insurance:
a pathway forward – closing of the conference

Sheikh Kabir Hossain,
President of the Bangladesh
Insurance Association, closed the
conference with the following words:

“You all know that the 15th International Conference on Inclusive Insurance was organised with a view to sharing knowledge to develop our insurance industry and I think the outcome of the conference is quite satisfactory. I thank all the participants, speakers, panellists, and facilitators for their all-out efforts to make the conference a great success. As Dirk Reinhard, Chair of the Conference Steering Committee, told you, this 15th conference was the second largest ever.

I especially thank Mr. Thomas Loster, Chairman of the Munich Re Foundation, and Doubell Chamberlain, Chairman of the Board, Microinsurance Network, for partnering with the Bangladesh Insurance Association and for their whole-hearted support for the conference. “I also thank the Event Management Company CEMS for arranging such a mega event. I hope such a mega event will be arranged again in the future in order to enrich the knowledge of our insurance people. Thank you all, and I wish you good health and a safe return to your homeland.”





Field trip

Reaching out to the poor – government-funded microinsurance in Bangladesh

By Thomas Loster

Participants of the 15th International Conference on Inclusive Insurance were invited to attend a field trip to the government-funded health programme SSK. In the Tangail district, some 100 km north of Dhaka, the system has established pilot hospitals. The health insurance scheme in these hospitals is managed by Green Delta Insurance.

Paragraph 15a of the country's constitution says that healthcare in Bangladesh is the responsibility of the state. And Prime Minister Sheikh Hasina Wazed takes this issue very seriously. On 24 March 2016, a preventative health programme called "Shastho Suraksha Karamashuchi" (SSK) was brought to life. Its aim is to provide country-wide preventative healthcare to people living below the poverty line.

According to Dr. Nurul Amin, Director of SSK's Health Economic Unit, around one third of Bangladesh's population of 160 million live below the poverty line. A serious health issue can push a family even further into poverty as falling ill can be expensive. 15% of families have **extremely high healthcare costs each year, forcing many of them to go to a money-lender**. Each year, almost 2.5% of Bangladeshis end up in poverty for precisely this reason.

In hospital

First stop of the field trip is Ghatail in the northern part of the Tangail province. The local hospital has 50 beds and looks well-maintained. 12 doctors and many more nurses provide round-the-clock care to patients. A young woman named Aysha sits on a bed in the corner. She is thin and has difficulty breathing. The doctors suspect typhus with fever, a disease that is still widespread in Bangladesh and India. This is due to the usually unsanitary conditions and sometimes dirty drinking water.

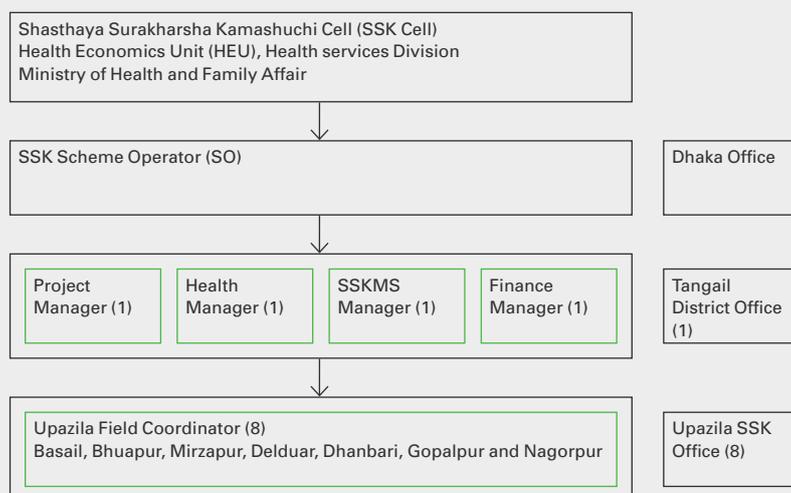
"Every fifth person that goes without treatment can die," says the doctor. "That's why I tend to be especially careful in such cases." Aysha's family is registered with SSK. "It was really easy," Aysha said. "I scanned my SSK card and after my examination I was taken immediately to hospital. Even though I only live three kilometres from here, SSK would even have **paid for the transport costs.**"

SSK, the state-funded health protection programme, is already covering around 85,000 households in 2019, reaching around 300,000 people. More than 45,000 patients received medical treatment, and around 10,000 were treated in hospitals. Ghatail is one of the pilot locations in three sub-districts (Madhupur, Ghatail, Kalihati) within the Tangail district. Dr. Nurul Amin, Director of the Health Economic Unit, explains: "We have a great ambition. **We want to reach around one third of the population by 2032.**"

Green Delta Insurance as Programme Operator

The field trip was organised by Shubasish Barua who, among his many tasks, is also Head of Product Development at Green Delta Insurance, a large state insurer. Green Delta has an AAA rating and is a leader in non-life business. The company, which functions as an operator of SSK, is also leading the way in digital insurance solutions in Bangladesh. The SSK programme also benefits from this because the administration and customer management can be streamlined very well. Shubasish adds that Green Delta's goal is to provide insurance to one million households in 2020 and at least three million households by 2023.

Figure 36
Green Delta organisational chart



The insurer operates the SSK scheme. This requires more staff, but it significantly improves the effectiveness of the scheme. Source: presentation by Dr. Nurul Amin "Shasthyo Suroksha Karmasuchi – Health Protection Scheme", Ghatail, Bangladesh, 8 November 2019.

Participants asked how they manage to finance such a large programme, as the costs must be extremely high. The current cost estimate is approximately US\$12 per insured person per year, which the government pays. Shubasish says, “We don’t cover every illness. Serious illnesses, such as cancer, are not included in the cover.” Nevertheless, the insurance now covers 78 common illnesses and that number is increasing. He adds that the **SSK hospitals are run by the state, which helps keep costs at a reasonable level**. Of course, that also presents challenges such as the general lack of doctors and nurses. “Nowadays these people prefer to go into the private sector because the salaries are much higher,” said Shubasish. Managing costs and sourcing personnel are challenges faced by other countries’ healthcare systems as well.

As participants turn to leave, her doctor bids us farewell, noting, “We have benefited greatly from the SSK programme; it has really improved the hospital.” On our way out, we walk past the well-stocked hospital pharmacy, which is run privately. “Prescription drugs are inexpensive in Bangladesh. We have a great range on offer here,” says the friendly pharmacist, a businessman. **The public-private partnership (PPP) seems to be working well in this case.**

The user experience with SSK

The next stop of the field trip is in Madhupur at a large hospital, the Madhupur Upazila Health Complex, in the pilot area. Around 40 women, many of them accompanied by their children, were invited to meet participants of the field trip. All brought their SSK cards.

A young woman stands with her two sons at the entrance. Her son, Hossain, has just turned two. “Hossain had a terrible case of food poisoning. We were desperate.” Luckily, she had heard of the SSK programme from her brother-in-law. Living below the poverty line meant that, in the past, her family could never afford any treatment. But in 2017 she registered with SSK. “It was quite easy to get the card,” says Nargis. She adds, “Hossain was admitted to hospital straight away and was much better after only six days.”

Minor illnesses such as fevers or colds are common among children. “We used to live in constant fear that something would happen to our children,” says Nargis. The **SSK card provides her family with peace of mind, and now they can sleep better at night.**

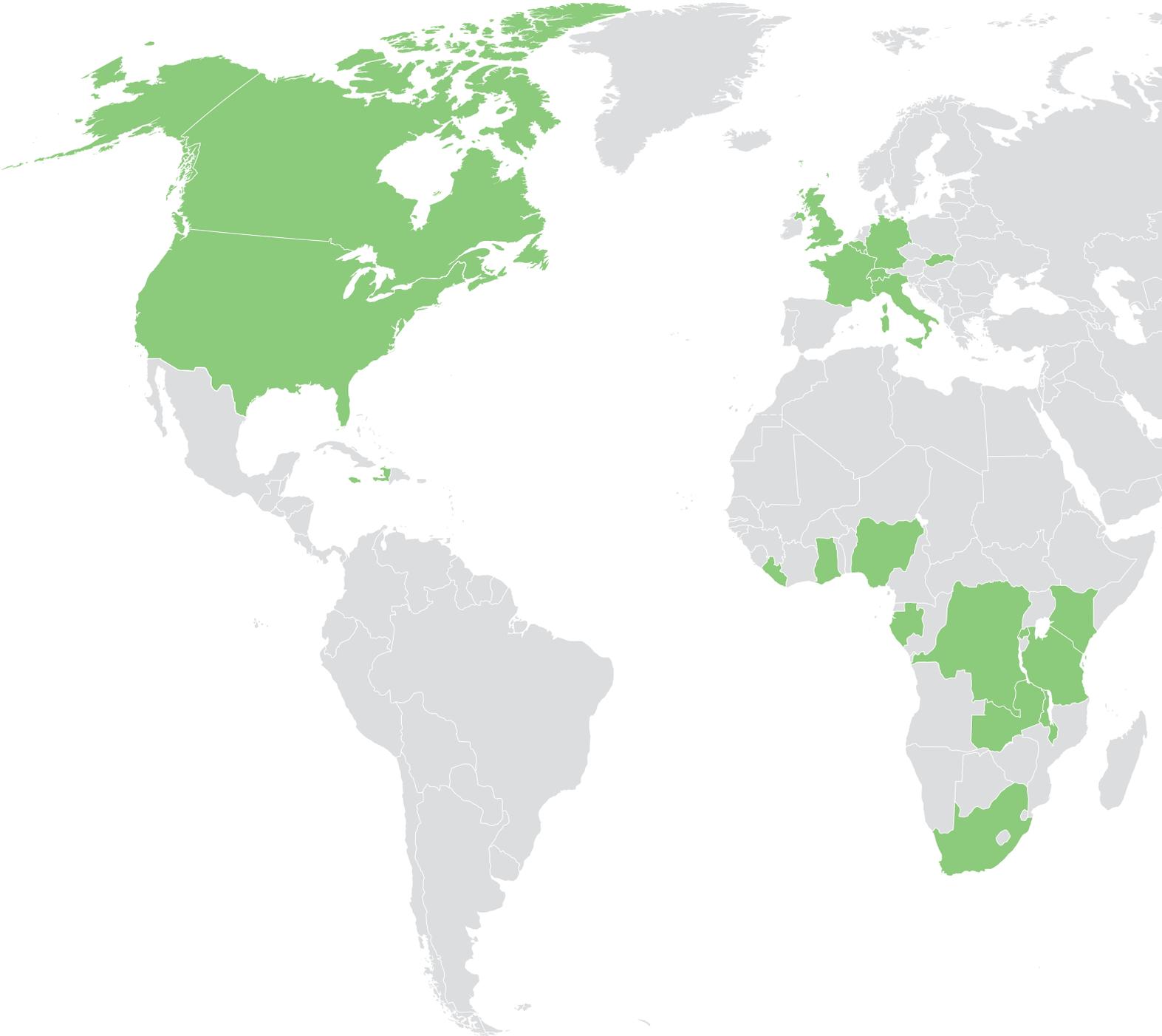
The goal of implementing the health-care programme in the entire country is ambitious. Only about 20 million people work in the formal sector, and over 80 million in the shadow economy. “We at Green Delta take the UN sustainable development goals very seriously,” says our excursion leader, Shubasish Barua. “We know that we have to do something for our country and our people.” If SSK is established across the whole country, it could change many peoples’ lives for the better and poverty could be more effectively reduced. This proves that **good policy and state aid with the help of an agile private sector partner can efficiently reach people living below the poverty line.**



68 — Doug Rogers from the Microinsurance Centre at Milliman, USA, talks with Rashida (middle) and Rahima (left) about the SSK programme. They communicate with words and gestures.

Countries registered

Figure 37





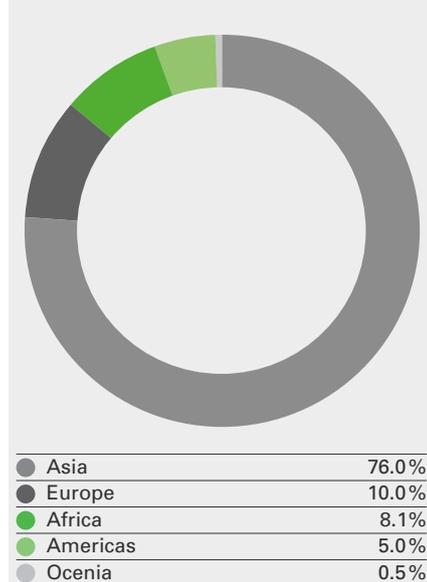
- Afghanistan
- Australia
- Bangladesh
- Belgium
- Bermuda
- Cambodia
- Canada
- Cayman Islands
- China
- Democratic Republic of Congo
- Fiji
- France
- Gabon
- Germany
- Ghana
- Haiti
- India
- Indonesia
- Italy
- Jamaica
- Japan
- Kenya
- Liberia
- Luxembourg
- Malawi
- Malaysia
- Myanmar
- Nepal
- Nigeria
- Pakistan
- The Philippines
- Rwanda
- Slovakia
- South Africa
- Sri Lanka
- Switzerland
- Tanzania
- Thailand
- United Kingdom
- United States
- Vietnam
- Zambia

Registered organisations¹⁷

Afghanistan	Dipshikha	Nipa Group	World Food Programme	India	Pakistan
Swisscontact	Dr.Kabir & Associates	Nitol Insurance	World Vision	Asia Insurance Review	Benazir Income Support
Tanvir agro group	Eastern Insurance	Northern General	Bangladesh	GIZ	Programme
Australia	Eastern University	Insurance	Zenith Islami Life	Government of	Green Climate Fund
Milliman	Eastland Insurance	NRB Global Life	Insurance	Nagaland, India	Kashf Foundation
Bangladesh	Company Ltd.	Insurance	Belgium	IFC	MicroEnsure
Aavishkaar Frontier	Eco-Social	NSI	Microinsurance Master	Insurance Regulatory	The Philippines
Funds	Development	Oxfam	Bermuda	and Development	CARD MRI Insurance
Academy of Learning	Organization (ESDO)	Padma Islami Life	Heliosphan	Authority of India	Agency
Agrani Insurance	Ekattor Media	Insurance	Burma Myanmar	MicroSave Consulting	Card Pioneer
Company	Embassy of Switzerland	Palli Karma-Sahayak	KEB Hana Microfinance	Milliman	Microinsurance Inc.
Ahsanullah University	Enterprise Cafe	Foundation (PKSF)	Limited	NSDMA, Govt. of	GIZ
of Science and	Express Insurance	Paramount Insurance	Cambodia	Nagaland	Habitat for Humanity
Technology	Fareast Islami Life	Insurance	VisionFund	Opportunity	Insurance Commission
AI Jesour Resort Ltd.	Insurance	Phoenix Insurance	International	Microinsurance	Pioneer Insurance
Aloha Social Services	Federal Insurance	Pioneer Overseas	Canada	Development Centre	Pioneer Life
Bangladesh (ASSB)	FID, Ministry of Finance	Popular Life Insurance	Co-operative	People Education &	People Towers Watson
Alpha Islami Life	Friendship	Pragati Insurance	Development	Development	Rwanda
Insurance Limited	GIZ	Pragati Life Insurance	Foundation	Organisation	Radiant Insurance
Anwar Cement Ltd.	GIZ	Prime Insurance	Denis Garand	Periyar University	Slovakia
Arthakantha	Global Insurance	Prime Islami Life	and Associates	Salem	Swiss Capacity Building
Asia Insurance Limited	Golden Life Insurance	Insurance	iD&Cs	Siddharth College of	Facility
AV Management Ltd.	Gram Unnayan Karma	Prime University	Toronto Centre	Insurance, Nagpur	South Africa
Bangladesh	(GUK)	Progressive Life	Cayman Islands	Syngenta Foundation	African Risk Capacity
Co-operative	Grameenphone Limited	Insurance	CCRIF SPC	for Sustainable	Cenfri
Insurance	Grand Duchy of	Protective Islami Life	China	Agriculture	Financial Sector
Bangladesh General	Luxembourg,	Insurance	Munich Re	Tata Trusts	Conduct Authority
Insurance	Honorary Consulate in	Provati Insurance	Democratic Republic	Indonesia	Hollard
Bangladesh Institute for	Dhaka	Purabi General	of Congo	PT Asuransi Central	Inclusivity Solutions
Professional	Green Delta Insurance	Insurance	Autorité de Régulation	Asia	International Actuarial
Development (BIPD)	Co. Ltd.	Reliance Insurance	et Controle des	Sienco Aktuarindo	Association
Bangladesh Insurance	Guardian Life	Limited	Assurances (ARCA)	Utama	LeapFrog Investments
Academy	Health Services	Rupali Insurance	Fiji	The World Bank	Lumkani
Bangladesh Insurance	Division, Ministry of	Rupali Life Insurance	FijiCare Insurance	Italy	RGA
Sector Development	Health and Family	Rural Reconstruction	Limited	UN World Food	South African Reserve
Project under IDRA,	Welfare	Foundation	United Nations Capital	Programme	Bank
Ministry of Finance	ILO	Sadhan Bima	Development Fund	Jamaica	Sri Lanka
Bangladesh	Innovative Technology	Corporation	France	Insurance Association	International Water
Meteorological	& Engineering	Sandhani Life Insurance	AXA	of Jamaica	Management Institute
Department	Inntex Knitwear	Sena Kalyan Insurance	Gabon	Japan	Switzerland
Bangladesh National	Insurance Development	Shadharon Bima	CIMA	Sompo Research	Agritask
Insurance Company	and Regulatory	Corporation	Germany	Insitute	BlueOrchard Impact
Limited	Authority	Sikder Insurance	A2ii (Access to	Kenya	Investment Managers
Bangladesh Tea	Insurance News BD	SNV Netherlands	Insurance Initiative)	ACRE	CelsiusPro
Research Institute	International Centre for	Development	Frankfurt School of	APA Insurance Ltd	Climate Vulnerable
Bangladesh University	Climate Change And	Organization	Finance and	Britam Holdings	Forum & V20
of Professionals	Development	Society For	Management	FSD Africa	ILO's Impact Insurance
Bangladesh Handball	Islami Commercial	Development	GAF AG	Liberia	Facility:
Federation	Insurance	Initiatives (SDI)	GIZ	Central Bank of Liberia	Swiss Agency for
BBA TV	Jamuna Life Insurance	Sonali Life Insurance	InsuResilience Global	Luxembourg	Development and
BIA	Jamuna TV	Sonar Bangla Insurance	Partnership	ADA	Cooperation
BRAC	Janata Insurance	South Asia Insurance	Munich Climate	IBISA	Syngenta Foundation
BRAC Bank	JICA Project	Stamford University	Insurance Initiative	Microinsurance	for Sustainable
BRAC University	K M Dastur & Company	Standard Insurance	(MCII)	Network	Agriculture
BUET	Private Company	Sun Life Insurance	Munich Re	Malawi	UNDP
CEMS Global	Limited	Sunflower Life	Munich Re Foundation	Medical Aid Society of	University of Lausanne
Centre for Community	Karnaphuli Insurance	Insurance	Potsdam Institute for	Malaysia	Tanzania
Development	Co. Ltd.	Supreme Seed	Climate Impact	Central Bank of	FSDT
Assistance	Knowledge, Information	Company	Research (PIK)	Malaysia	Ministry of Finance and
Chartered Life	& Learning for Local	Swadesh Life Insurance	UNU-EHS	Common Health Inc.	Planning
City General Insurance	Adaptation (KILLA)	Swisscontact	Ghana	ILO	Tanzania Insurance
CODEC	Life Insurance	Swiss Embassy in	GIZ	Nepal	Regulatory Authority
Continental Insurance	Corporation of	Bangladesh	National Insurance	Actuarial Society of	Tanzania Reinsurance
Continental Insurance	Bangladesh	Syngenta Foundation	Commission	Nepal	Thailand
Ltd	M.F. International	For Sustainable	Haiti	Beema Samiti	AXA
Crystal Insurance	Meghna Insurance	Agriculture	Alternative Insurance	Disaster Solution and	
Daakbox Limited	Meghna Life Insurance	Takaful Islami Insurance	Company (AIC)	Research Center	
Daily Bangladesh Post	Mercantile Insurance	Telenor Health	Hong Kong	Naya Prakasan	
Daily Sirajganj Kontho	Mercantile Islami Life	The Daily Janakantha	Asia Affinity Holdings	Nigeria	
Delta Life Insurance	Insurance	TMSS	Ltd	AllICO Insurance Plc.	
Desh General Insurance	Metlife	Trust Islami Life		National insurance	
Company	Microinspire	Insurance		Commission	
DESHA	Bangladesh Limited	Union Insurance		Nnamdi Azikiwe	
Dhaka Insurance	Milvik Bangladesh	Vintage Denim Ltd		University	
Limited	Limited	Workers Development			
Dhaka School of	Mrittika	Multipurpose			
Economics, University	National Life Insurance	Cooperative Society			
of Dhaka	National Security	Ltd			
Diamond Life Insurance	Intelligence	World Bank			

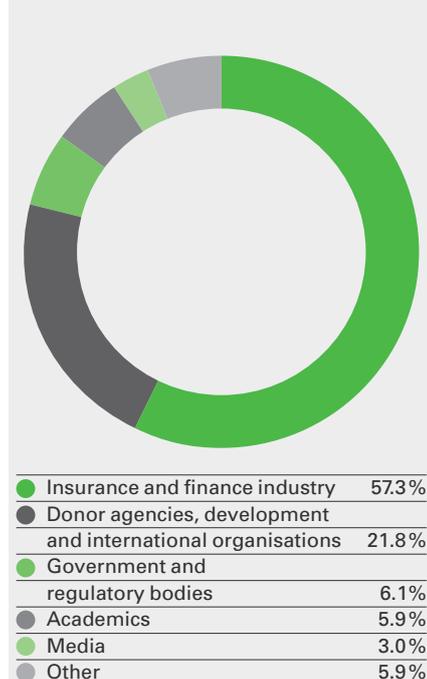
- United Kingdom**
- A2ii (Access to Insurance Initiative)
- Consulting Actuary FloodFlash
- GCU London
- GSMA, IIED
- InsuResilience Global Partnership
- MicroEnsure
- Oasis Loss Modelling Framework
- Telenor Health
- VisionFund International
- Willis Towers Watson
- United States**
- AM Best Rating Services
- Barents Re
- CEAR
- Columbia University
- Georgia State University
- Global Insurance Consulting
- IFC
- IRI
- MiCRO
- MicroInsurance Centre at Milliman
- The World Bank
- Viridis RS Ltd.
- WorldCover
- Vietnam**
- Swiss Agency for Development and Cooperation
- Zambia**
- Hollard Insurance
- Innovate Life Assurance
- Mayfair Insurance
- Risk Shield Consulting

Figure 38
Number of registered participants per continent*



* As of 5 November 2019

Figure 39
Type of registered representatives*



Acronyms

A2ii Access to Insurance Initiative	CARD The Center for Agriculture and Rural Development	FAO Food and Agriculture Organization	IAIS International Association of Insurance Supervisors	KES Kenyan shilling	PCRAFI The Pacific Catastrophe Risk Assessment and Financing Initiative
ACA Asurans Central Asia	CAT DDO The Catastrophe Deferred Draw Down Option	FATF Financial Action Task Force or Groupe d'action financière	IAM Integrated assessment model	KfW Kreditanstalt für Wiederaufbau State-owned development bank, Germany	PEDO People's Education and Development Organization
AMPLIFY Agricultural Model for Production Loss Identification to Insure Failures of Yields	CCRIF SPC The Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company	FONDEN El Fondo de Desastres Naturales Natural Disaste Fund, Mexico	IBISA Inclusive Blockchain Insurance using Space Assets	KLIP Kenya Livestock Insurance Program	PEM Public expenditure management
APSIM Agricultural Production Systems sIMulator	CDRI Climate and disaster risk insurance	FSDA Financial Sector Deepening Authority, Zambia	IBLI Index-based livestock insurance	KPI Key performance indicator	PFIP The Pacific Financial Inclusion Programme
ARC African Risk Capacity	CEAR Center for the Economic Analysis of Risk at Georgia State University, USA	FSP Financial services provider	IDRA Insurance Development and Regulatory Authority	KYC Know your customer	PICAP The Pacific Insurance and Climate Adaptation Programme
AYI Area-yield index	CGE Computable general equilibrium	GDP Gross domestic product	IFAD International Fund for Agricultural Development	LUCS The lower uterine segment Caesarean section	PIK The Potsdam Institute for Climate Impact Research, Germany
B2B Business-to-business distribution	CIMA la Conférence Interafricaine des Marchés d'Assurances	GIIF The Global Index Insurance Facility	IFPRI International Food Policy Research Institute	MBA Mutual benefits association	PKR Pakistani rupee
B2B2C Business-to-business-to-consumer distribution	COAST The Caribbean Oceans and Aquaculture Sustainability Facility	GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit	ILO International Labour Organisation	MCII Munich Climate Insurance Initiative	PMFBY Pradhan Mantri Fasal Bima Yojana, crop insurance scheme, India
B2C Business-to-consumer distribution	CRAIC The Climate Risk Adaptation and Insurance in the Caribbean	GSMA The Global Association of Mobile Network Operators	ILRI International Livestock Research Institute	M&E Monitoring and evaluation	PPD Public-private dialogue
BDT Bangladeshi taka	CRI Climate risk insurance		IMV Improved maize varieties	MEFIN The Mutual Exchange Forum on Inclusive Insurance Network	PPP Public-private partnership
BIA Bangladesh Insurance Association	DRMF Disaster risk management framework		IoT Internet of Things	MFI Microfinance institution	R4 Rural Resilience Initiative A combination of four risk management strategies: risk reduction, risk transfer, (prudent) risk taking, and risk reserves.
BMZ Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung) The Federal Ministry for Economic Cooperation and Development, Germany	DSSAT Decision Support System for Agrotechnology Transfer		IP Inpatient	MiN The Microinsurance Network	RFPI Asia Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia
BRAC The Bangladesh Rural Advancement Committee	ECA Economics of Climate Adaptation		IPA Innovations for Poverty Action	MNO Mobile network operator	RMB Renminbi, currency of the People's Republic of China
	ESA The European Space Agency		IRA Insurance Regulatory Authority of Kenya	MRA The Microcredit Regulatory Authority, Bangladesh	RSBY Rashtriya Swasthya Bima Yojana Government-run health insurance plan for the poor, India
			IRI International Research Institute for Climate and Society	MSMEs Micro, Small and Medium Enterprises	
			IVR Interactive voice response	NDVI The Normalised Difference Vegetation Index	
			KAIP Kenya Agricultural Insurance Program	NGO Non-governmental organisation	
				NVD Normal vaginal delivery	
				OP Outpatient	

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Picture 68 (Field trip) Thomas Loster

All others BIA

"I hope that experts from different countries in this conference will play a role in sharing mutual experiences which will help create more effective and realistic programmes to address climate risk through inclusive insurance."

Sheikh Hasina,
Prime Minister of Bangladesh

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