







Institute for Environment and Human Security

**GIBIKA Workshop and Seminar on** 

## **INDEX-BASED INSURANCE**

**ASCOTT the Residence** 

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# GIBIKA Workshop and Seminar on Index-Based Insurance Proceedings

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#### List of abbreviations

BRAC Bangladesh Rural Advancement Committee

BMD Bangladesh Meteorological Department

CCAFS Climate Change, Agriculture and Food Security

COP Conference of Parties

IBI Index-Based Insurance

ICCCAD International Centre for Climate Change and Development

IFC International Finance Corporation

IRI International Research Institute for Climate and Society

IWM Institute of Water Modelling

IUB Independent University, Bangladesh

LPP Livelihood Protection Policy

MCII Munich Climate Insurance Initiative

MMS Manab Mukti Shangstha

MRF Munich Re- Foundation

NGO Non-Governmental Organization

NSU North South University

SBC Sadharan Bima Corporation

SDC Swiss Agency for Development and Cooperation

UNFCCC United Nations Framework Convention on Climate Change

UNU United Nations University

USAID United States Agency for International Development



The International Center for Climate Change and Development (ICCCAD) in collaboration with United Nations University (UNU) and the Munich Re Foundation (MRF) held the Second Workshop on Index-Based Insurance on Thursday the 23<sup>rd</sup> of October, 2014 at Ascott the Residence in Dhaka. This workshop was organized as a follow up to the first one held last year which looked at the contributions of different stakeholders to the area of IBI. At the time, some organizations were in the planning and pilot stages of their IBI programmes. This year the main purpose of the event was to share knowledge and information amongst participants on what has been done and what lessons have been learnt since last year.

#### Introduction

Index-based Insurance is a newly emerging tool designed to help low income agricultural households overcome extreme climatic events. The tool was created to capacitate resilience, adaptation and prevent financial vulnerability. This form of insurance is dependent on weather events. The indexes or triggers are based on meteorological data and research at the grassroots level. Globally several pilot projects have been completed with successful results. Further research stills needs to be done to make IBI more effective and efficient at a larger scale.

**Dr. Saleemul Huq,** Director of ICCCAD, after a brief introduction, talked about how it was important for organizations around the world to continue collaborating on various issues related to climate change. From the perspective of ICCCAD, IBI can become a tool to deal with economic loss and damage due to climate change.



Dr. Saleemul Huq welcoming the participants



Thomas Loster introducing Index-Based Insurance

**Thomas Loster,** Chairman, Munich Re talked about IBI being an effective pillar of adaptation. It may not be enough but the purpose is to help sustain the poor in the event of an environmental disaster.

#### **Presentations**

**Melody Braun** and **Sari Blakeley** of the International Research Institute for Climate and Society (IRI), Earth Institute, Columbia University gave a presentation on the IRI Approach to Index-Based Insurance. The IRI began its work on IBI back in 2009. Through a process of trial and error, they have successfully been able to develop and implement IBI as a tool to help farmers in Africa overcome climate induced hazards. Instead of losing their crops, farmers are able to sustain their farms with the help of an insurance payout and work towards rebuilding the following year.

During the presentation, they discussed how IBI was easier to implement than regular insurance because it didn't involve a costly damage assessment and there weren't as many problems between the insurer and the insured. Prior to implementation, a thorough study was conducted using meteorological data as well as information and feedback collected from the farmers themselves. This was used to create the indexes on which the insurance was based.

Interactive games were used in order to educate the farmers on index-based insurance and to learn about the agricultural crops grown and the risks farmers faced. In the end, nearly 99% of the farmers opted to take insurance. A case study in Ethiopia was referenced where IBI has been used quite successfully in helping farmers through bad years. Till date, a sum total of over 26,000 farmers are currently insured under the IBI scheme.



Melody Braun and Sari Blakeley from IRI presenting on Index-Based
Insurance

During the discussion following Melody and Sari's presentation, certain issues were raised.

**Jakob Rhyner**, UNU asked if the indexes created were reused every year and if there were trust issues regarding the IBI. Sari explained that indexes were adjusted annually based on the most updated parameters. She further stated that validation is required both before and after the season but the uptake of IBI is 20% better than that of traditional insurance.

**Kees Van Der Geest**, UNU asked if this worked for irrigated agriculture and if it was more complicated for other climatic stressors. Sari responded that in the case of other stressors the indexes need to be verified with research and data. She also said that if a farmer's crops are dependent on rainfed irrigation then IBI is a good option. A farmer dependent solely on irrigation from other sources may not want the insurance.

**Christian Barthelt**, Munich Re asked how often farmers want the product. Sari replied that most farmers who take the insurance pay the premiums annually.

**Dorothee Kinzinger**, ICCCAD asked how long it takes to convince people to take the insurance. Melody and Sari said that games are used to create awareness and understanding of the product. These games are designed based on country and context. They explained that it also depends on how the product is packaged. For example in Kenya if you take out a loan you take insurance with it.

**Sobiah Becker** of UNU, gave a presentation on Climate Risk Adaptation and Insurance in the Caribbean. Over 1.5 million people have been affected by extreme weather events over the last 30 years in the Caribbean. The presentation focused mainly on the work done in St. Lucia which happens to be one of the top 40 climate hotspots in the world. The study was conducted by the Munich Climate Insurance Initiative (MCII) in cooperation with UNU. The aim was to enhance disaster risk reduction and management to help better cope with the impacts of climate change.

The study consisted of expert interviews and a total of 1059 household surveys. It also looked at the demand for insurance and people's willingness to pay the insurance premiums. The purpose was to reduce social vulnerability and increase resilience building through IBI and incentivize loss reduction. People in the region are affected by both low medium and high level stressors. But there was a lot of unwillingness to replace damages. A high level of demand for the product allowed insurance to be used for security and protection. Therefore, it was used to both forecast and predict risk.

The objective was to provide financially stable insurance solutions for low income people in order to cope with medium level weather events as an approach to catalyse sustainable adaptation. A Livelihood Protection Policy (LPP) was created using a weather index based on spatial resolution of the target country and a correlation between wind speed and rainfall to

protect people against weather extremes and climate shocks. This gave people a way to cope without becoming financially vulnerable in case of an extreme climatic event.



Sobiah Becker speaking about the LPP program in the Caribbean

As an example, the story of a farmer named Antoine was used. Antoine lost everything he had during a hurricane, but if he was a part of the LPP he could have been helped in several ways. He would have received a message on his cell phone informing him about the approaching hurricane. This would have allowed him to secure his land and take his family to safety. He would have received his risk insurance pay out

within 15 days allowing him to continue repaying his loan and rebuild without resorting to other desperate measures. Lastly, he could continue his livelihood at ease making him more prepared for when a disaster strikes again.

Some big questions remain at the end of the study in order to further reduce vulnerability and make climate risk insurance more effective. Overall it is a successful tool to ensure compensation against loss, giving those at risk an effective and secure method of coping. However, those in extreme poverty will still require assistance, for those belonging to low to medium income households, this is seen as a good solution. Walter Edwin, a honey producer in St. Lucia, is one of the lucky recipients of a timely climate risk insurance payout which allowed him to cope and rebuild after extreme rainfall in the region.

After Sobiah Becker's presentation on Climate Risk Insurance in the Caribbean a discussion ensued.

**Masroora Haque** asked how policy could support IBI. Sobiah said that National Policy delegates are interested in learning more. As this is a resilience building tool to increase social resilience at an individual level, it's of high interest to policy makers. Dr. Saleemul Huq futher added that the UNFCCC set up the Warsaw Mechanism for this purpose and that they will report back in COP22 before the next steps are decided. He also said that IBI is an important tool which will be used to deal with loss and damage by providing some solutions to it.

**Dr. Mizan Khan**, NSU asked how this could be initiated into a regional framework to deal with the issue of IBI. Sobiah Becker responded that it would require a lot of work and collaboration between different stakeholders and the government.

Several other issues were raised such as how people were convinced that the insurance would benefit them and how they were notified about an incoming disaster. Case studies were looked at for events occurring between the last 20-40 years. Premiums were lowered so that low income households could afford them. The system of text messaging was aligned with the national systems so the warning could be sent out on time. Both financial literacy and mobile connections were very good. It was important to create a shift amongst the public from being risk neutral to becoming risk aware.

Sobiah also mentioned that policies were available for one year. During that period, if an extreme event occurred in St. Lucia. Jamaica would have been an ideal island, but it hasn't been tested yet. A question about the basis to receive a payout was raised. Sobiah explained that the insurance was created to deal with the loss from an extreme weather event. A payout is given based on the occurrence of an extreme weather event without any assessment being done.

The Caribbean has had two insurance meltdowns so it was necessary to convince people to take the insurance through word of mouth. Generally insurance was a more effective and efficient method of helping people financially. The LPP worked better than government interventions. Hurricane Sandy which happened in September 2013 affected many people. To this day there are still people waiting for government assistance whereas those under the LPP received assistance within 14 days.

A participant asked how the LPP worked. Sobiah explained that it was sold in units and that the insured could choose how many units they wanted. The payout was ten times larger than the premium, making the system fool proof.

**Thomas Loster**, Munich Re inquired about the percentage of people receiving payouts. Sobiah said that 100% of the participants received payouts in case of an extreme climatic event. She also mentioned that initially they faced a lot of problems. There was genuine distrust between the insurers and the insured. The government prevented an early warning at first. A lot of trust building had to be done.

#### Other Discussants

Mr. Kaiser Ahmed of Pragati Insurance discussed the IBI pilot project which they are involved in with Oxfam, SDC, IWM and MMS. As the insurance provider in the project, he mentioned that no payouts were given last year as no trigger points were touched. They are pleased to be a part of the project, but he believes that there is work that still needs to be done amongst those involved in order to create a more effective product.



Mr. Kaiser Ahmed from Pragati Insurance Ltd. speaking about their program

**Mr. Kazi Azam** from Oxfam detailed their IBI pilot project. A meso-level index-based insurance was created in order for participating households in Sirajganj to receive payouts during a flood. A total of 1661 families are covered under this policy. The project is implemented through a local NGO called MMS. This year pay outs have been recently approved for 708 households. IWM is the technical partner within the project and they designed the trigger levels.

Both the BMD and SBC mentioned that the feasibility of weather indexes needs to be further developed along with the involvement of an insurance regulatory authority. Though the potential for crop insurance is high, there are many small farmers in Bangladesh who are badly affected every year by small weather events. Storms such as the Nor'wester affect farmers annually in Bangladesh.

**Olek Kaminski**, Consultant, WorldFish, talked about a new program under CCAFS on IBI. Though the program is in its early stages, they are using a similar approach to that of the IRI's study. Games are used to educate farmers and collect data on IBI. Currently they are gathering data in India. The main focus of their program is adaptation and whether IBI can be used to help people adapt to climate risk factors as well as build capacity.

Dr. Huq concluded by saying that Index-Based Insurance is a new tool that we need to create more awareness and understanding about. It is important to translate our acquisition of knowledge into applicable solutions. IBI is a good example of a tool to achieve this. With increased awareness, implementation becomes easier.

#### **Seminar and Dinner**

The evening began with a brief introduction to ICCCAD and its work, by Dr. Saleemul Huq. He introduced the first speaker of the evening Dr. Thomas Loster, Munich Re, who is an expert on IBI. He also said that it was high time for organizations around the world to collaborate and come together on the issue of climate change.

Thomas Loster introduced himself as having worked on both sides in the field of insurance for the last 26 years, the last 11 being dedicated to IBI. He said that IBI was an effective pillar for adaptation and that it was a way for the poor to sustain their livelihoods in the event of a crisis. Even though it might be insufficient, it would still prevent them from becoming too vulnerable as it provides a means for a payout in extreme weather conditions. Weather indexes are difficult as they are not always precise. Thus it is imperative to have the correct triggers.



Thomas Loster during his seminar

He also said that it was important to manage expectations for microinsurance and IBI. Those with low incomes are unwilling to pay premiums unless they see their money back. He also mentioned that relying solely on satellite data was not enough. It was just as important to find out what problems affected people at the ground level before setting appropriate triggers. He discussed the Munich Re IBI 10 year pilot in Mongolia which is still in its

early stages. He said that in order for it to be successful, longer term partnerships were necessary and that both education and awareness on the subject was needed.

**Jakob Rhyner**, UNU mentioned a few key elements. He noted the importance of having good early warning systems and that we need formulas in order to get a clearer picture of what was happening. Lastly he said that triggers were very important as they helped control expectations from insurance.

A brief discussion followed the seminar where several participants raised some key questions.

**Mrinal Sircar** from IFC asked if there are other examples of IBI globally and whether there was an opportunity for us in Bangladesh to learn from these cases.

**Dr. Ainun Nishat,** BRAC University questioned where the premiums came from and if this insurance was applicable for all disasters such as drought, floods, excessive river erosion etc. He also asked if the triggers were updated on a regular basis.

**Nathan Sage**, USAID asked if other IBI pilots have been done in Bangladesh and if so why did they fail.

**Shabel Firuz** from Islamic Relief wanted to know whether it was possible to use Islamic insurance for IBI where the profits and risks are shared by both parties instead of one.

Dr. Loster responded to several of these queries. He said all the major stakeholders had projects around the world on IBI. He then said that premiums come from various sources. Some are paid by farmers whereas others are covered by donor organizations. There are several options in different parts of the world. As for having correct triggers, he said that it was something which needed to be updated on a yearly basis in order to be effective. He also said that for insurance to be sustainable, the government must play a role in creating financial regulations. Without sustainability the tool cannot work.

The German Ambassador, **Dr. Ferdinand Von Wehye** said clean energy was a part of the German political agenda. He discussed the importance of climate change adaptation. He also talked about the German Bangladeshi Cooperation on energy and urbanization. On the topic of IBI, he said that it cannot be sustainable if it is donor driven. On the issue of IBI he identified 3 Ts; trigger, trust and time. In order to generate the correct triggers, we



Dr. Ferdinand von Weyhe, Embassy of Germany, giving a speech during the seminar

need both knowledge and data. Trust is imperative between both parties (the insurer and the insured) and in order to gain trust, knowledge is also necessary. In addition, time is required to build trust and to see if the triggers work.

Dr. Huq concluded the seminar with a few closing remarks about working together to make IBI a viable tool for loss and damage.

### **List of Workshop Participants**

Name	Designation	Organization
Md. Shameem Hassan Bhuiyan	Meteorologist	BMD
S.S.R.M. Mahe Alam Sorwar	Sr. Sector Specialist	BRAC
Saniruzzaman Suvo	Professional	CEGIS
Z.A. Robin	NSBD	Ch. Red
Mahfuja Sharmin	Project Officer	GIZ
Riadadh Hossain	Coordinator: Knowledge Mgmt	ICCCAD
Salma Islam	Researcher	ICCCAD
Dorothee Kinzinger	Visiting Researcher	ICCCAD
Reaj Morshed	Coordinator	ICCCAD
Ina F. Islam	Assistant Director	ICCCAD
Tanzinia Khanom	Research Officer	ICCCAD
Istiakh Ahmed	Research Officer	ICCCAD
Jonas Dahlstrom	Visiting Researcher	ICCCAD
Stephanie Andrei	Visiting Researcher	ICCCAD
Mayeesha Azhar	Assistant Editor	ICCCAD
Galib Chowdhury	Project Officer	ICCCAD
Saleemul Huq	Director	ICCCAD
Sari Blakeley	Researcher	IRI
Melody Braun	Researcher	IRI

Name	Designation	Organization
Sobiah Becker	Project Manager	MCII/UNU
Thomas Loster	Director	MRF
Christian Barthelt	Project Manager	MRF
Mizan R. Khan	Professor, DESM	NSU
Kazi N.M.N. Azam	Program Officer	Oxfam
Mamunul Hassan	Vice President	Pragati Insurance Ltd.
Kaiser Rahman	Deputy Managing Director	Pragati Insurance Ltd.
Md. Amir Hossain Mia	Deputy Manager	SBC
Kees van der Geest	Associate Academic Officer	UNU
Jakob Rhyner	Director	UNU
Sonja Ayeb-Karlsson	GIBIKA Project	UNU
Mohammed Alamgir	Principal Scientific Officer	WARPO
Olek Kaminski	Consultant	WorldFish

