



**Proceedings of the Workshop on**  
**Evidence for Disaster Risk**  
**Reduction and Climate**  
**Change Adaptation**  
**Effectiveness of Insurance:**  
**Challenges and Opportunities**

**4-5 July 2014, Hotel Puri Pujangga, Universiti  
Kebangsaan Malaysia (UKM), Bangi, Malaysia**

**July, 2014**

**Institute for Global Environmental Strategies, Hayama**





# Evidence for Disaster Risk Reduction and Climate Change Adaptation Effectiveness of Insurance: Challenges and Opportunities

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## Date and venue

4-5 July 2014, Hotel Puri Pujangga, Universiti Kebangsaan Malaysia (UKM), Bangi, Malaysia

## Organizers:

- Institute for Global Environmental Strategies, Hayama, Japan
- Southeast Asia Disaster Prevention Research Institute, UKM, Bangi, Malaysia
- University of Philippines at Las Banos, Philippines
- eMausam Weather Services Pvt Ltd
- International Agriculture for Development, Australia

**July, 2014**

**Institute for Global Environmental Strategies,  
Hayama**



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# Contents

<b>Preface</b> .....	<b>9</b>
<b>Background</b> .....	<b>12</b>
<b>Key Questions:</b> .....	<b>15</b>
<b>AGENDA</b> .....	<b>16</b>
<b>Proceedings</b> .....	<b>19</b>
<b>Session II: Overview</b> .....	<b>19</b>
1. Effectiveness of insurance programs: Objectives and expectations of the workshop. ..	19
2. Insurance effectiveness: Policy level questions for which do not yet have answers for making insurance a go-to tool for the most vulnerable.....	19
4. Community level barriers that make insurance a difficult tool in risk reduction and ways to overcome. ....	20
Chair Remarks.....	21
<b>Session III: .....</b>	<b>21</b>
1. Crop insurance and risk reduction in agriculture in Australia: Issues and way forward .	21
2. Insurance environment in India: Bottlenecks and opportunities for a cost effective insurance products.....	22
3. Insurance initiatives in Philippines: Issues and opportunities for community involvement.....	23
4. Crop insurance experiences from Japan: How insurance benefitted subscribers of sugarcane insurance in Okinawa prefecture of Japan? Some observations .....	23
<b>Session IV: .....</b>	<b>24</b>
1. Australia experience of monitoring and evaluating insurance effectiveness .....	24
2. Insurance Effectiveness in Climate Change Adaptation and Disaster Risks Reduction	25
3. Japan experiences of evaluating insurance effectiveness: The role of governments.	25
4. Government representative from Philippines: Philippines Crop Insurance Corporation (PCIC), Philippines.....	25
Panel Discussion .....	26
<b>Session V: .....</b>	<b>27</b>
1. Climate Risk Mitigation Through Rainfall Indexed Crop Insurance.....	27
2. NGO Experiences in Implementing Insurance Products in Agriculture in Bangladesh	27
3. Donor experiences of evaluating insurance programs.....	28

4. Effectiveness of micro - insurance programs in Philippines: Metrics used for measuring the effectiveness by MicroEnsure .....	28
Panel Discussion .....	28
<b>Session VI: .....</b>	<b>29</b>
1. Some experiences of evaluating insurance effectiveness.....	29
2. Methodologies for evaluating the effectiveness of insurance programs across scales keeping in view the diversity of programs .....	29
3. Methodologies applied for monitoring and reporting the crop and plantation insurance effectiveness in the insurance industry .....	30
4. Comparing national (flood) insurance and safety net arrangements .....	31
Q &A .....	31



# Preface

Risk insurance has emerged as an important cost effective risk management approach over the past several decades which involved transferring the risk from the most vulnerable to those willing to bear the risk with a fee. Over the years, the risk insurance industry has evolved by providing wide variety of insurance products covering agriculture insurance to life insurance to various forms of asset insurance and combinations. Climate change has brought an important dimension to the human development. As a result, stakeholders across the spectrum are forced to mainstream the climate change concerns into developmental efforts. The benefits provided by insurance have attracted climate change adaptation and disaster risk reduction practitioners to consider insurance as an important tool as it is believed providing an important risk management opportunity to address both climatic and non-climatic risks. As a result, risk insurance has widely been discussed in international negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) and under the post-2015 framework for disaster risk reduction.

While there is considerable growth in the insurance market, much of this growth has come from certain forms such as life, asset and vehicular insurance while leaving behind the vulnerable and neediest out of its reach; the livelihoods of most vulnerable to climatic vagaries have often not been reached by the insurance providers. Several bottlenecks remain unaddressed which include the cost of insurance, poor progress in risk mitigation, lack of awareness among the communities, lack of proper enabling policy environment etc. From a deeper perspective, there is a lack of proper evidence as to what adaptation and disaster risk reduction benefits are accrued from risk insurance and to what extent compared to other risk management opportunities that exist or can be developed as an alternative to risk insurance. Keeping this background in view, the research team engaged with the Asia Pacific Network for Global Change Research (APN) project on “Assessing community risk insurance initiatives and identifying enabling policy and institutional factors for maximizing climate change adaptation and disaster risk reduction benefits of risk insurance” (ARCP2013-18NMY-Prabhakar) have organized a regional expert consultation meeting on 4-5 July 2014 at Bangi, Malaysia to discuss issues pertinent to identifying and measuring DRR and CCA benefits of risk insurance. Subsequent to the workshop, this research report is developed to reflect the current level of understanding on this subject and identifies the issues for further focus by the project. The authors acknowledge the tremendous support received by the research and development community in making us understand the issues involved in risk insurance.

**Presentation files:** <http://www.iges.or.jp/en/natural-resource/20140704.html>

**Elaborate research report:** <http://pub.iges.or.jp/modules/envirolib/view.php?docid=5535>

SVRK Prabhakar  
On behalf of all the Organizers





# Background

The Asia-Pacific region is one of the most vulnerable regions to a range of primary hydro-meteorological and geological natural hazards such as earthquakes, storms, floods, tsunamis, landslides, and droughts. The Emergency Events Database (EM-DAT) of Center for Research on the Epidemiology of Disasters (CRED) suggests that specifically the number of hydro-meteorological disasters over the 2000-09 period was 10 times more than the number of disasters reported during 1947-56. In the Asia-Pacific region, the hydro-meteorological disasters have claimed the lives of 0.22 million people with estimated total economic damage costs of 285 million US\$ during 2001 - 2012. An increase in the number of catastrophic disasters and related insured and uninsured losses has been reported undermining the developmental gains across the Asia-Pacific region and the world.

The region's high vulnerability to natural hazards, compared to other regions in the world, is primarily caused by a range of geophysical, socioeconomic and developmental conditions which include a long coastline, a highly variable monsoon system, high volcanic and tectonic activity, high poverty both within and outside of urban areas, high population densities associated with massive immigration to cities, partly poorly planned urban development, partly absence of proper disaster risk mitigation mechanisms and institutional/regulatory frameworks including prevalence and enforcement of structural standards such as building- and land-use planning regulations, as well as the poor development of risk spreading instruments such as insurance.

Both life and non-life forms insurances play an important role in disaster risk reduction. However, life insurances are more dominant than the non-life insurances in terms of the volume of insurance premiums, more so in organized sector. From the point of climate change, among all the forms of insurance, the form of insurance that covers the loss of livelihoods (e.g. agriculture insurance) is of most important but still its spread is limited in the region. Though there are several policy and institutional initiatives to promote insurance in the Asia-Pacific region, the region has not been able to utilize the full potential of insurance. The issues are poor internalization of insurance benefits, high insurance costs, poor access and availability of weather data, poor structural risk mitigation, lack of enabling policies, imperfect information, and technical complexity.<sup>1</sup> The most significant realization stems from the fact that there is a lack of clear assessment and recognition of insurance benefits and costs in terms of disaster risk reduction, climate change adaptation and sustainable development. There is also lack of clear discussion on possible alternative mechanisms that can provide similar benefits that of insurance but can be implemented

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<sup>1</sup> Prabhakar, S.V.R.K., G. S. Rao, K. Fukuda, and S. Hayashi (2012) Promoting risk insurance in the Asia-Pacific region: Lessons from the ground for the future climate region under UNFCCC, In P. Schmidt-Thome and J. Knieling, Implementing Climate Change Adaptation Strategies, London: Blackwell Publishers.

much easily considering the constraints limiting the spread of insurance to the most vulnerable.

IGES is a strategic policy research institute located in Japan, focusing on global environmental issues. Established more than a decade ago, IGES has been contributing to providing strategic policy solutions to important environmental issues in the Asia and Pacific region. Though we are small institute, we are endowed with capable staff and collaborators that we work with throughout the region. Climate change is one of the most serious challenges for our planet. To address this challenge, the national international community, governments, NGOs, private sector and even individuals are now focusing their attention on how to deal with the climate change impacts through adaptation interventions.

Asia is inevitably be at the center of climate change adaptation activities as most Asian vulnerable to climate change due to largely agriculture based population, high prevalence of poverty and poor governance reflected in terms of poorly developed technical and financial capacities to address developmental problems.

The Asia-Pacific region is one of the most vulnerable regions to a range of primary hydro-meteorological and geological natural hazards such as earthquakes, storms, floods, tsunamis, landslides, and droughts. The Emergency Events Database (EM-DAT) of Center for Research on the Epidemiology of Disasters (CRED) suggests that specifically the number of hydro-meteorological disasters over the 2000-09 period was 10 times more than the number of disasters reported during 1947-56. In the Asia-Pacific region, the hydro-meteorological disasters have claimed the lives of 0.22 million people with estimated total economic damage costs of 285 million US\$ during 2001 - 2012. An increase in the number of catastrophic disasters and related insured and uninsured losses has been reported undermining the developmental gains across the Asia-Pacific region and the world.

Insurance has been promoted as a significant risk management tool at all levels (national, local, regional).

#### **Advantages provided by risk insurance**

- 1) Promotes emphasis on risk mitigation compared to the current response-driven mechanisms.
- 2) Provides a cost-effective way of coping with the financial impacts of climate- and weather-induced hazards.
- 3) Supports climate change adaptation by covering the residual risks uncovered by other risk reduction mechanisms such as building regulations, land-use planning and disaster risk management plans.
- 4) Stabilises rural incomes and hence reduces the adverse effects on income fluctuation and socio-economic development.
- 5) Provides opportunities for public-private partnerships.
- 6) Reduces burden on government resources for post-disaster relief and reconstruction.
- 7) Helps communities and individuals to quickly renew and restore their livelihood activity.
- 8) Addresses a wide variety of risks emanating from climatic and non-climatic origin, depending on the way the insurance products are designed.

Despite its advantages, the spread of insurance has been very slow and limited in the Asia and Pacific region. In terms of insurance, probably the audience in this room knows better than we researchers do in terms of what benefits it provides where it is as a risk management instrument, how it has been growing and what are the bottlenecks in making it work. Both life and non-life forms of insurance play an important role in disaster risk reduction. However, life insurance is more dominant than non-life insurance in terms of the volume of insurance premiums, more so in the organized sector. From the point of climate change, among all the forms of insurance, the form of insurance that covers the loss of livelihoods (e.g. agriculture insurance) is of most importance but still its spread is limited in the region. Though there are several policy and institutional initiatives to promote insurance in the Asia-Pacific region, the region has not been able to utilize the full potential of insurance. The issues are poor internalization of insurance benefits, high insurance costs, poor access and availability of weather data, poor structural risk mitigation, lack of enabling policies, imperfect information, and technical complexity. The most significant realization stems from the fact that there is a lack of clear assessment and recognition of insurance benefits and costs in terms of disaster risk reduction, climate change adaptation and sustainable development. There is also a lack of clear discussion on possible alternative mechanisms that can provide similar benefits to that of insurance but can be implemented much more easily considering the constraints limiting the spread of insurance to the most vulnerable.

This expert consultation workshop has been conducted jointly by IGES, UKM-SEADPRI, IAFD, Eemausam Weather Services Limited, India and UPLB, Philippines. This has been organized as a part of an ongoing project on evaluating climate change adaptation and disaster risk reduction benefits of insurance approaches funded by the Asia Pacific network for Global Change Research (APN). The aim of this workshop is to get to the bottom of some of the issues plaguing the spread of insurance. We believe that there is very limited research on how various forms of insurance are helping communities in addressing climate change and variability related issues. This gap is very significant since lack of clear understanding on benefits and costs of insurance is hindering different stakeholders engaged in insurance to fully promote and get maximum out of it. The event discussed issues underlying the spread of insurance, try to understand how effective the ongoing efforts by different governments and insurance companies and NGOs have been on the ground, how different stakeholders approach the issue of insurance effectiveness and what indicators can we identify to assess its effectiveness.

Keeping this in view, this workshop aims to assess the benefits and costs accrued through insurance, evaluate barriers limiting insurance penetration, identify interventions for greater insurance penetration leading to realization of climate change adaptation and disaster risk reduction and identify alternative approaches to insurance for targeting those who cannot be reached through insurance.

# Key Questions:

- *To what extent the current insurance approaches are able to reduce risks that they are designed to address?*
- *What are the lifecycle costs and benefits accrued through insurance to various stakeholders engaged in insurance?*
- *What methodologies are suitable for assessing the disaster risk reduction and climate change adaptation benefits and costs of insurance?*
- *How different stakeholders have ensured that the insurance delivers the intended benefits while keeping the costs minimum? While doing so, how they designed, implemented, monitored and evaluated the insurance products?*
- *Considering the costs in implementing affordable insurance to most vulnerable, what alternative approaches can be identified that can deliver similar benefits that of insurance while doesn't incur same level of costs and doesn't suffer from save level of limitations?*
- *What national level policy provisions are necessary for creating enabling environment for greater penetration of insurance?*
- *What are the perceptions of different stakeholders on the current policy environment for promoting insurance in the Asia Pacific region?*

# AGENDA

## Day I: 4<sup>th</sup> July 2014

Time	Item
20:00-20:15	<b>Session I: Opening remarks</b>
	Henry Scheyvens, Area Leader, Natural Resources and Ecosystem Services, IGES
	Joy Pereira, Professor and Principal Fellow, SEADPRI-UKM
20:15-21:15	<b>Session II: Overview session</b>
	<b>Chair: Joy Pereira, SEADPRI-UKM</b>
15 min presentation each and 15 min open discussion at the end	<ol style="list-style-type: none"> <li>1. Effectiveness of insurance programs: Objectives and expectations of the workshop. <i>SVRK Prabhakar, IGES, Japan</i></li> <li>2. Insurance effectiveness: Policy level questions for which do not yet have answers for making insurance a go-to tool for the most vulnerable. <i>Sobiah Becker, UNU</i></li> <li>3. Community level barriers that make insurance a difficult tool in risk reduction and ways to overcome. <i>Arpah Abu Baker, UUM COB</i></li> </ol>
21:30	<b>End of Day I. All APN project partners to stay for a project meeting</b>

## Day II: 5th July 2014

Time	Item
9:00-10:30	<b>Presentation Session III: Country policy environments and issues limiting scaling up: Researchers perspectives</b>
	<b>Chair: David W. Blackett, AG Insurance</b>
15 min presentation each and 30 min open discussion at the end	<ol style="list-style-type: none"> <li>1. Crop insurance and risk reduction in agriculture in Australia: Issues and way forward. <i>Ashley Lipman, IAfD, Australia</i></li> <li>2. Insurance environment in India: Bottlenecks and opportunities for a cost effective insurance products, <i>G. S. Rao, eeMausam, India</i></li> <li>3. Insurance initiatives in Philippines: Issues and opportunities for community involvement. <i>J. Pulhin, UPLB, Philippines</i></li> <li>4. Crop insurance experiences from Japan: How insurance benefitted subscribers of sugarcane insurance in Okinawa prefecture of Japan? Some observations. <i>SVRK Prabhakar and N. Ozawa, IGES</i></li> </ol>
10:30-11:00	<b>Tea break</b>
11:00-13:00	<b>Session IV: Indicators for overcoming technical, policy and affordability bottlenecks to scale up insurance: Insurance sector and government experiences</b>
	<b>Chair: Arup Chatterjee, ADB</b>
15 min presentation each and 30 min open discussion	<ol style="list-style-type: none"> <li>I. <b>Insurance industry:</b> <ol style="list-style-type: none"> <li>1. Australia experience of monitoring and evaluating insurance effectiveness. <i>David W. Blackett, AG Insurance, Australia</i></li> <li>2. How the plantation insurance has benefitted the plantations in Malaysia: Metrics of insurance effectiveness considered by the Sime Darby. <i>Osman Ahmad, Sime Darby</i></li> </ol> </li> <li>II. <b>Governments:</b></li> </ol>

(PTO)



Time	Item
	<ol style="list-style-type: none"> <li>1. Japan experiences of evaluating insurance effectiveness: The role of governments. <i>Teruo Saito, Sompo Japan Nipponkoa Risk Management Inc., Japan</i></li> <li>2. Government representative from Philippines: <i>Antonio Uy, Philippines Crop Insurance Corporation, Philippines</i></li> </ol> <p><b>Guide questions for the post-presentation discussions:</b> a) how better the insurance industry and governments can work together to address the insurance issues? b) What effectiveness indicators were considered for implementing insurance? c) Despite considerable subsidies, were industry and governments be able to reach and benefit the most vulnerable and poor? d) Can there be alternatives to insurance considering the bottlenecks in making the insurance work?</p>
<b>13:00-14:00</b>	<b>Lunch break</b>
<b>14:00-15:30</b>	<p><b>Session V, Panel session: NGO experiences in implementing insurance products in agriculture with focus on measuring the effectiveness of the insurance products</b></p> <p style="text-align: right;"><b>Chair: Henry Scheyvens, IGES</b></p>
<p><i>15 min presentation each and 30 min open discussion</i></p>	<ol style="list-style-type: none"> <li>1. Insurance experience from India. <i>S, Balasubramanian, People Mutuals, India</i></li> <li>2. Representation from Bangladesh: <i>Baqui Khalily, InM, Bangladesh</i></li> <li>3. Donor experiences of evaluating insurance programs. <i>Arup Chatterjee, ADB</i></li> <li>4. Effectiveness of micro-insurance programs in Philippines: Metrics used for measuring the effectiveness. <i>William H. Martirez, Microensure, Philippines</i></li> </ol> <p><b>Guide questions for the post-presentation discussions:</b> a) How the insurance effectiveness was assessed, monitored and evaluated, b) how the insurance products were made affordable to the most poor and vulnerable, and c) if those experiences can be scaled up and how?</p>
<b>15:30-16:00</b>	<b>Tea Break</b>
<b>16:00-17:30</b>	<p><b>Session VI: Methodologies for assessing insurance effectiveness</b></p> <p style="text-align: right;"><b>Chair: Baqui Khalily, InM</b></p>
<p><i>15 min presentation each followed by 30 min discussion</i></p>	<ol style="list-style-type: none"> <li>1. Some experiences of evaluating insurance effectiveness, <i>Sobiah Becker, UNU</i></li> <li>2. Methodologies for evaluating the effectiveness of insurance programs across scales keeping in view the diversity of programs. <i>Steward Doss, National Insurance Academy, India</i></li> <li>3. Methodologies applied for monitoring and reporting the crop and plantation insurance effectiveness in the insurance industry. <i>En Halim Jantan, Sterling Brokers Malaysia</i></li> <li>4. Comparing national (flood) insurance and safety net arrangements, <i>Anna Lorant, Joanne Bayer and Susanne Hanger, IIASA (joined by Skype)</i></li> </ol> <p><b>Guide questions for the post-presentation discussions:</b> a) What should be the objective of insurance effectiveness assessments? b) What should be the guiding principles for such effectiveness assessments? c) Have insurance effectiveness assessments have been used in setting national guidelines for governing insurance and how they were useful? d) Do the past assessments provide sufficient evidence for insurance to be the go-to-tool?</p>

(PTO)

Time	Item
17:30-18:30	<p><b>Session VII: Breakout groups: Identifying indicators for assessing the effectiveness of insurance initiatives</b></p> <p style="text-align: right;"><i>SVRK Prabhakar, IGES</i></p>
	<p><i>Explanation of the purpose and clarifications: 5 min</i>  <i>Break out group discussions (3 groups): 40 min</i>  <i>Plenary presentations: 15 min</i></p> <p>This session aims at identifying specific indicators for assessing the effectiveness of insurance products so that the policy makers, insurance beneficiaries and industry entities can use them for evaluating the performance of insurance products. All the participants will be split into 3-4 groups to discuss on the following question and come up with a list of indicators reflecting the perspectives of the government, industry and research communities</p> <ol style="list-style-type: none"> <li>a. Please identify important objectives of evaluating insurance programs for different stakeholders: insurance beneficiaries, delivery agencies (NGOs, MFIs, and industry) and policy (governments).</li> <li>b. Please identify indicators that can help capture/quantify/identify the effectiveness of insurance benefits Refer to the example sheets provided for setting the discussion. Please consider the following requirements: <ol style="list-style-type: none"> <li>a. Indicators that can help assess disaster risk reduction, climate change adaptation and sustainable development benefits of insurance and other risk management options. Consider the exposure, sensitivity and capacity elements in it as much as possible.</li> <li>b. Indicators at community, delivery (micro-finance institutions, insurance industry and NGOs) and policy (governments) levels.</li> <li>c. Indicators that help compare effectiveness of different insurance products and other risk management options.</li> <li>d. Mostly quantitative but identify quantitative-proxies for qualitative ones if necessary.</li> <li>e. Indicators that help in decision making in both ex-ante and ex-post stages of insurance delivery.</li> </ol> </li> </ol>
18:30-18:45	<p><b>Session VIII: Closing remarks and end of the workshop</b></p>

Please contact [prabhakar@iges.or.jp](mailto:prabhakar@iges.or.jp) for any clarifications on the agenda

# Proceedings

## Session II: Overview

### 1. Effectiveness of insurance programs: Objectives and expectations of the workshop.

SVRK Prabhakar, IGES, Japan

#### Key issues

1. People's behaviour towards insurance service/products
2. Insurance provides benefit short term while long term benefit absent
3. Cost effectiveness of insurance
4. Financial risk management

#### Policy relevant result

1. Insurance link with DRR and CCA
2. Need to cover vulnerable and poor people

#### Way forward

1. Efficient payoff
2. Socio-economic development at rural level
3. Farmers risk mitigation options

#### Any other important observation:

- moral hazards
- lack of sufficient studies

### 2. Insurance effectiveness: Policy level questions for which do not yet have answers for making insurance a go-to tool for the most vulnerable

Sobiah Becker, UNU

#### Key issues

1. Climate resistant livelihood
2. Economic and other impacts of climate change
3. Prolong vulnerability due to climate change
4. Poverty reduction through insurance

5. Reduction of social vulnerability

#### **Policy relevant result**

1. Effective risk financing scheme
2. Public private partnership
3. Database provision
4. Risk awareness in education

#### **Way forward**

1. Gaps identification among stakeholders
2. Creation of incentives
3. Social aspect in risk management

**Any other important observation:** Decision support system

#### **4. Community level barriers that make insurance a difficult tool in risk reduction and ways to overcome.**

Arpah Abu Baker, UUM COB

#### **Key issues**

1. Loss estimation of several events
2. Education level/understanding insurance service
3. Government support/financial aid as insurance
4. Good distribution channel
5. Willingness to pay

#### **Policy relevant result**

1. Bottom up education
2. Awareness raising
3. Multiple payment system in the non-life insurance
4. Data availability
5. Promoting off-farm income

#### **Way forward**

1. Attractive insurance product/premium
2. Public private partnership
3. Government support for administrative cost
4. Risk retention and risk reduction

**Any other important observation**

1. Fair assessment of loss
2. Farmers database

## Chair Remarks

Speaker: Joy Pereira

### Key issues

- 1) Identification of risk factor
- 2) Age and education level
- 3) Insurance should be developed on farmers needs
- 4) Rainfall insurance
- 5) Priority on local cultural practices
- 6) Developed product by market survey

### Policy relevant result

- 1) Identifiable, measurable and sustainable
- 2) Looks on cultural and social norms for socially acceptable
- 3) Innovative in case of premium, product design and marketing
- 4) Small group can be formed to cover the risk of crop insurance

### Way forward

- 1) Suitability of social group/marginal group
- 2) Common terminology about insurance
- 3) Subsidizing from government level

### Any other important observation

6. Farmers perception assessment

# Session III:

**Session Title:** Country policy environments and issues limiting scaling up:  
Researchers perspectives.

**Chair:** David W. Blackett, AG Insurance

## 1. Crop insurance and risk reduction in agriculture in Australia: Issues and way forward

Speaker: Ashley Lipman, IAFD, Austrilia

### Key issues:

- Farmer attitude to managing risk on agriculture

- Able to manage risk, primarily through risk mitigation approaches
- Assessing the likelihood of the risk
- Improve decision making: moisture monitoring
- Improve decision making: rainfall decals.

#### **Policy relevant result**

- While of managing process
- Income protection, accident and life insurance policies
- Market risks are considered more important than production risks.
- Multi-peril crop insurance (MPCI) is now gaining popularity to farmers in Australia.

#### **Way forward**

- Introduce traditional yield insurance product.
- Introduction of index-based products shows some promise.
- Government subsidized insurance products may be improved in Australia.

#### **Any other important observation**

- Forward contracting
- On-farm storage of grain

## **2. Insurance environment in India: Bottlenecks and opportunities for a cost effective insurance products**

Speaker: Srinivasa Rao Gattineni, eeMausam, India

#### **Key issues:**

- Discrepancy in area insured
- Crop cutting experiment (CCEs)
- Crop loan practices
- Technical skill and capacity building of personnel associated with crop insurance schemes
- Awareness of farmers regarding various features of the schemes
- Product design
- Settlement of claims
- Delay in payment of insurance claim is a barrier in insurance program in India.

#### **Policy relevant result**

- Benchmark while deciding the premium

#### **Way forward**

- Critical risk should be identify

- Database should be available and online
- Premium rates for irrigated crops should be different from that of non-irrigated crops

#### **Any other important observation**

- Use technology (GIS, GPS, GPRS, Remote Sensing, Crop Simulation Models, GPRS enables photographs etc.)

### **3. Insurance initiatives in Philippines: Issues and opportunities for community involvement**

**Speaker Name:** Juan.M. Pulhin, UPLB, Pilippines

#### **Key issues:**

- Based on primary data there are very few Community based insurances in Philippines.
- Insurance to marginalized incivilities
- Weather index based insurance

#### **Policy relevant result**

- Tax exemptions
- Discounted prices of farm inputs

#### **Way forward**

- Insurance should be planned for long term financial protection for the farmers.
- Limited financial and institutional capacity, micro insurance schemes may raise supplementary financial resources contributing to the socio-economic condition
- Provide adequate agricultural insurance to marginalized farmers and fisher folks
- Promotion of public private partnership (PPP) especially in Agriculture

### **4. Crop insurance experiences from Japan: How insurance benefitted subscribers of sugarcane insurance in Okinawa prefecture of Japan? Some observations**

**Speaker Name:** SVRP Prabhakar and N. Ozawa, IGES

#### **Key issues:**

- Way of crop insurance is helping farmers
- Alternative risk insurance strategies
- Low temperature is the main peril for crops in Japan

#### **Policy relevant results:**

- NOSAI (Agricultural mutual Aid System)
- Paddy Insurance to agriculture Natural disaster
- Sugarcane Insurance to agriculture Natural disaster

*Baqi Khalily, InM, Bangladesh*

**Q.1:** Do we issue that insurance company a very choice not to our agricultural insurance in Australia?

**Q. 2:** Have there any innovation in any crop sensitivity vary climate sensitive, has there been any innovation responsible to climate change?

*Steward Doss, National Insurance Academy, India*

**Q. 1:** Is there any intensity involved in farmers contractive because farmer contract is a complex behavioural instrument, most of the farmer able to do?

## Session IV:

**Session title:** Indicators for overcoming technical, policy and affordability bottlenecks to scale up insurance: Insurance sector and government experiences

**Chair: Arup Chatterjee, ADB**

This session was chaired by Arup Chatterjee, Asian Development Bank (ADB), Manila, Philippines. Four papers were presented during the session. The first two papers focused on effectiveness of insurance programmes from the perspective of insurance industry while the remaining two papers highlighted the role of governments in insurance effectiveness. The presentations and comments during the discussion session are summarised in the following sections:

### 1. Australia experience of monitoring and evaluating insurance effectiveness

Speaker: David W. Blackett, AG Insurance, Australia

Mr. David Blackett, in his presentation, focused on technical and affordability bottlenecks faced by insurance industry to scale up insurance. Technical bottlenecks for insurance industry include moral hazard, morale risk and adverse selection. The presenter highlighted that one of the main affordability bottlenecks is cost of capital of insurers, reinsurers and government. The affordability bottlenecks include administration, distribution expenses, loss adjusting expenses and pure risk premium. The speaker opined that insurance company should approach to the root level farmers in order to scale up insurance programmes. He emphasized that there should be a



holistic approach to evaluate and manage the risks of insurance. In this case, reinsurance can be a way forward to minimize the risks of insurance.

## **2. Insurance Effectiveness in Climate Change Adaptation and Disaster Risks Reduction**

Speaker: Osman Ahmad, Sime Darby Insurance Pvt. Ltd. Selangor, Malaysia

Mr. Osman gave an overview on insurance coverage of Sime Darby, a private insurance company, in some countries around the world, particularly in Malaysia. The presenter highlighted the mainstream insurance activities carried out by Sime Darby. The downstream insurance activities of the company include food and non-food based segments. On the other hand, the upstream insurance activities include agriculture based segments, particularly the plantation insurance. The company's plantation insurance activities are mainly based on palm oil sector which include development of oil palm plantation, cultivation of oil palms, management of estates and so on. The company also carries out some research and development (R&D) activities for palm oil plantation. The company also has taken some initiatives to cover the losses and damages due to natural and climate-related disasters.

## **3. Japan experiences of evaluating insurance effectiveness: The role of governments**

Speaker: Teruo Saito, Sompo Japan Nipponkoa Risk Management Inc., Japan

The presenter highlighted the importance of insurance to recover people from disaster and develop resilience. He also focused on responsibility of the government concerning national resilience. The speaker gave overview on effectiveness of insurance during the Great East Japan Earthquake in March 2011. Insurance industry was successful in managing the losses and damages caused by the earthquake without significant financial impairment. The government of Japan worked with insurance industry to fulfill its responsibility. The government served as reinsurance underwriter to share the liability of insurance companies. The presenter emphasized that insurance premium should be affordable to make the insurance more effective. The speaker also focused on the challenges to the risks of water-related disasters in Japan. There is an increasing tendency of torrential rainfall as a long-term trend which will become stronger due to the impact of climate change. Therefore, insurance industry should take initiatives to develop new insurance products to face the challenges from the risks of climate related hazards in future.

## **4. Government representative from Philippines: Philippines Crop Insurance Corporation (PCIC), Philippines**

Speaker: Antonio Uy, PCIC, Philippines

Mr. Antonio, in his presentation, focused on the importance of agricultural insurance to serve as an effective financial adaptation measure against the destructive effects of climate change. He also highlighted the various insurance activities of PCIC, Philippines. PCIC is a government supported insurance company which started operation in 1981. The product lines of PCIC include rice crop insurance, corn crop insurance, livestock insurance, fisheries insurance, non-crop agricultural asset insurance, high-value commercial crop insurance, term insurance packages. The presenter also showed the success rate of PCIC in serving the farmers during the last few years. Finally, the speaker highlighted the government interventions for disaster risk reduction to combat the effect of climate change.

## **Panel Discussion**

This discussion began with the panel expressing their views against the guided questions posed by the Chair. An open forum followed with comments and questions from the participants. The panel members were later invited to address the comments and questions. From the panel discussion, the suggested key issues, solution relevant results and way forward are as follows:

### ***Key Issues:***

- Technical bottlenecks
- Affordability of insurance and client value
- Insurance and disaster risk reduction
- Insurance and climate change adaptation
- Lack of credible data

### ***Solution relevant results:***

- Risk aggregation and risk accumulation statistics
- Risk layering approach to decision making before buying insurance
- Using existing mechanisms for risk management/ insurance (mutuals, cooperatives, NGOs)
- Capacity building and training the resource persons of the insurance industry
- Developing innovative products and claim settlement approaches

### ***Way forward:***

- Public- private partnerships (self-sustainability)
- Develop indicators (moral/morale hazard, adverse selection, ratio of subsidy to total premium)
- Role of subsidies
- Hybrid financial products (mixture of insurance and other financial derivatives)

- Develop an enabling environment

## Session V:

**Session title:** NGO experiences in implementing insurance products in agriculture with focus on measuring the effectiveness of the insurance products

**Chair:** Henry Scheyvens, IGES

This session was chaired by Henry Scheyvens, IGES, Japan. Four papers were presented during the session. The presentations and comments during the discussion session are summarised in the following sections:

### 1. Climate Risk Mitigation Through Rainfall Indexed Crop Insurance

Speaker: S. Balasubramanian, People Mutuals, India

Mr. Balasubramanian focused on rainfall indexed crop insurance to mitigate climate risk in crop plantation. There are three mechanisms in coping with climate-related risks in crop plantation, namely, risk prevention, risk reduction and risk finance (i.e. crop insurance). The speaker emphasized on rainfall indexed crop insurance to manage the climate-related risks in agriculture sector. Because rainfall is the most potent factor influencing crop yield especially in tankfed agriculture and rainfed agriculture. One of the important features of rainfall indexed crop insurance is that it covers rainfall risks of crops such as risks of deficiency of rainfall, dry spell, and risks of excess rainfall. The other features include affordable premium, high renewal rates and high client value. Finally, the presenter gave importance on mutual rainfall indexed crop insurance for its uniqueness in regular monitoring and evaluation, affordability and scalability.

### 2. NGO Experiences in Implementing Insurance Products in Agriculture in Bangladesh

Speaker: M. A. Baqui Khalily, Institute of Microfinance, Bangladesh

Professor Khalily, in his presentation, focused on disaster risk reduction strategies which include disaster risk fund, ex-ante access to finance, and insurance mechanism. He opined that disaster Risk Reduction strategies should encompass insurance and non-insurance interventions. Because Traditional insurance markets are not appropriate for poor and vulnerable households due to non-affordability, non-accessibility and non-acceptability. In this case, community based insurance interventions, for example, micro-insurance may be more appropriate. Non-insurance interventions of community organisations like NGOs/MFIs may also be helpful for

reducing risks of poor and vulnerable people. Finally, the presenter pointed out some indicators to assess the effectiveness of community based insurance interventions.

### **3. Donor experiences of evaluating insurance programs**

Speaker: Arup Chatterjee, Asian Development Bank (ADB), Manila, Philippines

Mr. Arup focused on donor experiences in evaluating insurance programs. The presenter emphasized that donor should be correctly defined and identified. Donor is not a market actor. They play a catalytic role in financial market. Donor, like ADB provides financial and technical services to the actors (such insurance company, bank, MFIs) in the financial market.

### **4. Effectiveness of micro-insurance programs in Philippines: Metrics used for measuring the effectiveness by MicroEnsure**

Speaker: William H. Martirez, MicroEnsure, Philippines

Mr. Martirez focused on microinsurance and its effectiveness in Philippines. Microinsurance provides the poor access to a basket of risk protection, support and services in exchange of affordable premium payments in pursuit of poverty reduction. The speaker identified some indicators to assess the effectiveness of microinsurance programmes in Philippines. The indicators can be divided into four key areas, namely, marketing and distribution, financial management and viability, efficiency and client value, and investment management. The presenter also highlighted the performance indicators for microinsurance which include product Value, product awareness and client satisfaction, service quality, and financial prudence.

#### **Panel Discussion**

This discussion began with the panel expressing their views against the guided questions posed by the Chair. An open forum followed with comments and questions from the participants. The panel members were later invited to address the comments and questions. From the panel discussion, the suggested key issues, solution relevant results and way forward are as follows:

#### ***Key Issues:***

- Climate risk mitigation
- Disaster risk reduction strategies
- Community based insurance interventions

#### ***Solution relevant results:***

- Encompassing insurance and non-insurance interventions
- Initiatives for community based insurance interventions

**Way forward:**

- Promote alternative interventions (for example, ex-ante financing, non-insurance interventions by NGO/ MFIs)
- Conduct insurance education programme at grass root level
- Ensure efficiency of insurance market

# Session VI:

**Session Title:** Methodologies for assessing insurance effectiveness

**Chair:** Baqui Khalily, InM

## 1. Some experiences of evaluating insurance effectiveness

**Speaker Name:** Sobiah Becker, UNU

**Key issues:**

- Climate Change leads vulnerable people into deeper poverty
- Poverty and social variability are intertwined
- For the low-income people needs understand of risk management

**Policy relevant result**

- The livelihood protection policy is now initiating in Caribbean island countries
- Livelihood protection policy helps reduce livelihood risks and vulnerabilities.
- Insurance is a means of building resilience at grassroots level
- Livelihood protection policy provides financial liquidation to the poor.

**Way forward**

- Effective instrument to manage and transfer risk
- Improves access to credit, leading to financial stability in the long run
- Encourages behaviour shift from risk neutral to risk aware

## 2. Methodologies for evaluating the effectiveness of insurance programs across scales keeping in view the diversity of programs

**Speaker Name:** Steward Doss, National Insurance Academy, India

**Key issues:**

- Assessing economic loss is an important indicators of effectiveness of insurance

- Coverage of losses and spread of insurance products are important indicator for insurance
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#### **Policy relevant result**

- Make CAT Risk Insurance Compulsory
- Make premium rates affordable to farmers and low income householders

#### **Way forward**

- Varieties in insurance products should be taken into consideration
- Premium rate should be reduced to increase the number of insurance
- Farmer inputs should be considered in designing insurance product
- Alternative risk management mechanism, for example reinsurance and other small financial services should be initiated to minimize the risks and effectiveness of insurance program.
- Develop Portfolio Risk Management
- Increase the penetration through new micro channels
- Increase the participation of Public and Private Partnerships

#### **Any other important observation**

- Variation in temperature is another area of consideration. However, insurance company provides insurance services for rainfall, not temperature.

### **3. Methodologies applied for monitoring and reporting the crop and plantation insurance effectiveness in the insurance industry**

**Speaker Name:** En Halim Jantan, Sterling Brokers, Malaysia

#### **Key issues:**

- Crop insurance coverage in Malaysia is very limited.
- Cost of acquiring data related losses and damages is very expensive
- Implementing crop and plantation insurance
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#### **Policy relevant result**

- Agencies responsible for covering risks
- Provide financial capacity to the crop & plantation community
- Agency responsible to administer data related to crop insurance
- Promote large-scale farming
- Set the relevant policies in the crop and plantation insurance implementation

## Way forward

- There should be incentives for insurance company as well as poor farmers for effectiveness of insurance
- Government also should promote large scale farming
- There should be some sort of low for insurance like car insurance. In other words agriculture insurance should be mandatory by law.

## 4. Comparing national (flood) insurance and safety net arrangements

**Speaker Name:** Anna Lorant, Joanne Bayer and Susanne Hanger, IIASA

### Key issues:

- There are some evaluation criteria for insurance programs

### Way forward

- Risk based pricing should be initiated for reducing the risk in agricultural insurance
- Viability of the insurance program should be ensured
- Adequate data on various aspects on insurance should be available and freely accessible
- Affordability issue should be taken into consideration in designing the insurance products.

## Q & A

Sobiah Becker, UNU

As we are discussed in earlier session, we valuating our insurance product does with in coming to question per at the stage because of the product have been on market for under a year in Grenada the product is not been marketed yet. Therefore, any valuation would be doing at least two years down the line.

Steward Doss, National Insurance Academy, India

The most important objective for measuring effectiveness of insurance program, whether are we able to measure the real effectiveness from the multi stakeholder point of view. We should not go with one particular line of approach that is considering only the insurance experience or farmer experience the better assessments could be holistic, methodology. All the key stakeholders are involved in the program.

### Remarks by chair:

Providing agriculture insurance is expensive/ costly. In case, participatory approach in designing insurance products would reduce the bottleneck of insurance.







## **Contact**

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