

AGRICULTURAL MICROINSURANCE: GLOBAL PRACTICES AND PROSPECTS

This article is based on the book *Agricultural Microinsurance: Global Practices and Prospects*, published by the MicroInsurance Centre.

Agricultural microinsurance is about providing insurance to small-scale farmers in developing countries. This in itself presents a number of particular challenges to insurers as the events are not only **uncontrollable** and **unequivocal**, but there are significant risks of **fraud**, **moral hazard**, **adverse selection** and **covariance**.

All these factors, together with the costs of loss adjustment, can make agricultural indemnity insurance a very costly business, difficult to make profitable or indeed to break even. In fact very few agricultural insurance programs cover their costs (indemnity payments + administrative costs) from premiums. Almost all are subsidised, as agriculture is a much politicised sector.

There are several types of related agriculture insurance products including specific animal and crop, as well as, multi-risk covers offered through indemnity and index-based mechanisms.

Index insurance solves three of the most difficult challenges of agricultural insurance, and greatly reduces the prospects of fraud:

- Moral hazard: the farmer cannot influence an index that is based on weather.
- Adverse selection: whether farmers opt in or out, this will have no impact on the risk, because the risk would be based on the index, e.g. level of rainfall.
- Costs of loss adjustment: it is not necessary for a loss adjuster to visit the farm and calculate losses, as once the index trigger is exceeded, the payment is sent regardless of loss.
- Reduces the prospects for fraud.

Unfortunately index insurance is not quite a panacea, because it introduces new challenges. One challenge is **basis risk**, which

can be described as the mismatch between the amount received because the index has been triggered and the amount actually lost by the client. Improved data collection and product design may be able to minimise basis risk however this typically makes the product more complex and more difficult for the low-income market to understand.

The landscape of agricultural microinsurance

The 2007 landscape survey undertaken by the MicroInsurance Centre, attempts to map the extent of agricultural microinsurance worldwide by studying specific areas of microinsurance such as regional distribution, types of microinsurance cover, the risk carriers, the schemes and pilot programs, and finally the state of microinsurance regulations. The main conclusions of which are as follows:

- There are very few agricultural insurance schemes in developing countries with products that are accessible to poor farmers. The landscape survey found a total of 122 schemes worldwide, and not all of these are fully operational.
- Agricultural microinsurance is concentrated in Latin America.
- There are very few dedicated agricultural microinsurance schemes in developing countries. Those that do exist use existing agent infrastructures which end up perpetuating non-viable business models.
- Agricultural microinsurance is highly subsidised, and run on business models that are not sustainable.

Increasing access to agricultural microinsurance

Non-insurance intervention can play a direct role in mitigating risk, given the difficulties associated with agricultural insurance. The most obvious way to reduce risk is to prevent it from happening in the first place (vaccinating livestock, strengthening systems to prevent stock theft, planting more drought and pest-resistant crops.) Another common way of mitigating risk is for household members to share risk by pursuing multiple livelihoods, including off-farm activities, and pooling their income. Other ways include sharecropping (farmer has a contract with a landowner to use his/her land in return for a share of the farmer's harvest), and the use of forward contracts, which reduces the risk of price fluctuation by agreeing contractually the price beforehand. Nevertheless, non-insurance

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options cannot mitigate the effects of catastrophic losses, other than intervention by governments and aid agencies, there are few real substitutes for insurance.

Interventions can take place at three levels: the macro level (supporting the policy environment), the meso level (supporting the infrastructure necessary to support agricultural microinsurance e.g. institutes to train insurance staff, reinsurers and agricultural support staff), and the micro level (improving the sustainability of risk carriers and distributors).

Conclusion

Like traditional agricultural insurance, agricultural microinsurance is difficult and costly. For development agents wanting to help reduce the risks for low-income farmers, its adoption needs to be considered against a number of potentially easier to implement risk management strategies. These include reducing the chance of the risk occurring in the first place (e.g. vaccinations in the case of livestock), or reducing the impact of the risk once it has occurred (e.g. through the provision of savings and credit facilities).

However useful these strategies are, they cannot deal with catastrophic risks such as droughts, cyclones, floods and plagues, and this is where agricultural microinsurance clearly does have a role to play. As the various interventions suggested show, there is an important role for development agents and other stakeholders to help it become an effective risk management tool.

Source: Jim Roth & Michael J McCord, 2008: Agricultural Microinsurance – Global Practices and Prospects published by the MicroInsurance Centre, and funded by the Ford Foundation in collaboration with the Microinsurance Network's working group on Agricultural Microinsurance.

Read the full article in the Challenges and Topics section of the Microinsurance Network website:

www.microinsurancenet.org/challenges.php

The full report can also be downloaded from:

www.MicroInsuranceCentre.org

Microinsurance Network launch event on the 24th November 2009

The Microinsurance Network will be officially launching itself on this date during the European Microfinance Week in Luxembourg. Details of which will soon be available on our website.

CASE STUDY: PEPSICO CONTACT FARMING IN INDIA

India is the 3rd largest producer of potatoes in the world with approximately 25 million tons grown each year, about 8% of the total worldwide production. To secure its supply of processing potatoes for potato chips, in 1995 PepsiCo started a contract farming programme for potatoes in India. In its contracting farming arrangement, PepsiCo offers an extensive package of services, one of which is a weather index-based insurance product, which is sold through ICICI Lombard and managed by Weather Risk Management Services (WRMS).

The weather index-based insurance (WIBI) is an optional cost of INR1500/acre (€22/acre) when a farmer signs up to the PepsiCo potato contract. WRMS designed the WIBI product to cover severe potato crop losses caused by late blight disease, as minor losses can be avoided through better farming practices. Late blight disease can spread easily under certain conditions: high moisture or high humidity; and moderate temperatures. Consequently, the insurance program

incorporates both humidity and temperature levels, paying out when crops experience consecutive days of average relative humidity greater than 90% and average temperature between 10-20°C.

Key Lessons:

- The main drivers that influence farmers to purchase WIBI include: Incentives offered; ability to finance the premium and other production costs through loans; trust they have in actors involved; demonstration of timely payouts; need to mitigate the risk of losing production; and dissatisfaction with government area-yield insurance program.
- Key challenges that remain with WIBI: designing products that balance meaningful coverage with an affordable premium; minimising basis risk; securing delivery channels for product design; expanding the limited target market; creating new indices that blend index insurance and area-based insurance; and using technology that more accurately captures weather events and trends.

- In terms of replicability and scalability, the potential to apply this contract model to other crops and value chains, while linking to a WIBI, seems great.

Source: IFAD-WFP Weather Risk Management Facility. Drawn from case studies conducted by the World Bank Commodity Risk Management Group and the International Research Institute for Climate and Society at Columbia University. Contact: Ulrich Hess (World Food Program) ulrich.hess@wfp.org

DEALING WITH RISK ON LIMITED INCOME

Portfolios of the Poor: How the World's Poor Live on \$2 a Day, a new book by Daryl Collins, Jonathan Morduch, Stuart Rutherford, and Orlanda Ruthven (Princeton 2009), examines the basic question of how the world's poorest households survive on their limited incomes. The authors report on the yearlong "financial diaries" of villagers and slum dwellers in Bangladesh, India, and South Africa - records that track penny by penny how households manage their money.

The financial diaries reveal that most poor households do not live hand to mouth. Households lead intense financial lives in order to manage low incomes that are often also unpredictable and irregular. They use an array of surprisingly complex tools to manage their finances creating "portfolios" that leverage both informal networks and formal institutions. In the 250-strong sample most households used close to ten financial instruments with none using less than four.

Dealing with risk

The household stories and portfolios offer insights on how the families managed risk. Risk was omnipresent in the lives of the households. During the research year losses due to serious injury or illness were most common in Bangladesh (50% of households) and India (42% of households), followed by losses to income and property. In South Africa, 81% of families contributed to funeral costs during the year, most often due to deaths from AIDS.

Households dealt with risk by using a combination of formal and informal financial tools. Savings and emergency loans were the most common ways to face emergencies. Use of formal insurance was limited, though a few households entered into formal arrangements by purchasing life insurance in India and funeral insurance in South Africa. The households generally understood the broad terms, knew the costs, and tried

hard to keep up with premium payments.

Much insurance was obtained through informal relationships with neighbours and relatives through the formation of savings clubs and burial societies. In South Africa, for instance, households used traditional burial societies to protect themselves against funeral costs. These informal tools were seen as supplements to the formal funeral plans, rather than substitutes. Household stories show that while informal mechanisms were flexible enough to match households' irregular cash flows and provided social benefits, some were unreliable either due to the lack of financial strength to deliver on their obligations or their susceptibility to theft and fraud.

For insurers, the challenge in designing formal tools is to meet the flexibility and convenience of informal mechanisms while improving on their reliability.

Household Story: Feizal from India

Feizal's ten-member family lived on a household monthly income of \$36, largely comprised of his earnings as a mobile aluminium trader and supplemented by his son's earnings as a tailor's apprentice. Midway through the research year, Feizal fractured his thighbone, terminating the family's main source of income. Feizal did not have insurance, so due to cost concerns, he initially sought treatment from traditional doctors—paid for by his son's wage advances and bank savings. Showing little signs of improvement three months after the accident, Feizal's father brought him to an urban doctor who used more modern methods, where the family exhausted nearly all of their bank savings to pay for diagnostic tests. Feizal was finally able to go back to work eight months after the accident. In the end, the costs of the accident—both the direct cost of treatment and the indirect cost of lost earnings—were far greater than they would have been had Feizal paid for high quality (either through insurance or on his own) in the first place.

fees, diagnostic tests, and treatment must be paid for directly and there is little cash to spare, treatment may be avoided until health deteriorates seriously, possibly beyond recovery.

General-purpose tools of savings and loan devices sometimes hold an advantage over single-purpose tools such as insurance policies. A loan issued to provide working capital to a business can be diverted to deal with an emergency, whereas an insurance premium will only be paid out against an insured event. In theory, this requirement shouldn't bother poor households: if the risk is real and the coverage represents good value, they should buy it. In practice, however, poor households may reason that given their limited resources, they are better off using general-purpose tools because the insured risk may never occur. For this reason, insurance coverage attached to savings and loan products, as in the case life-endowment savings, may appeal to poor households more than a generous portfolio of policies insuring against each and every risk.

Source: Article written by Aparna Dalal from the Financial Access Initiative (FAI), based on *Portfolios of the Poor: How the World's Poor Live on \$2 a Day*, a new book co-authored by Jonathan Morduch, Daryl Collins, Stuart Rutherford and Orlanda Ruthven. More information: www.fai.org

How to design better products

The portfolio approach shows the power of well thought-out partial solutions. It is not necessary to insure against an entire problem in order to improve the well-being of poor communities. Partial solutions are welcome. Nowhere was this clearer than in examples of how South African households patched together resources for funerals.

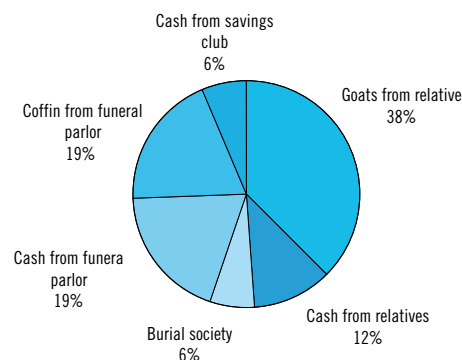
Funerals are important events in South Africa. About 80% of diary households in South Africa had at least one funeral insurance scheme of some kind—formal or informal—and most respondents had more than one. Funeral coverage made up 10% of the instruments held in household portfolios, with families spending an average of 3% of gross monthly income for all of their funeral coverage instruments.

The story of Xoliswa's illustrates how households patch together funds to meet emergencies. When Xoliswa's mother, Busisiwe, died, the funeral cost just over \$2,400. Xoliswa covered this cost by using insurance payouts from a burial society and funeral parlour (45%), cash and in-kind contributions from relatives (49%), and savings club payments (6%).

Partial solutions are important in health insurance as well. Health problems can rapidly become financial problems, sometimes playing out long after the initial problem has been solved, through the costs of debt burdens and depleted assets.

While commercially viable, comprehensive health insurance for poor households would most likely require financially exclusionary premium payments; there could be a substantial demand for cheaper, but more limited, partial health coverage, such as prescription drug benefits or catastrophic health coverage. Insurers must consider the convenience and affordability of premiums; for the poor, timing and size of instalments can matter as much as the total cost of the policy. Health insurers attempt to reduce moral hazard by including co-payments and deductibles in the policy to avoid insuring the entire cost. However, these devices might not have the intended outcome with poor households: if doctor's

Sources of funds for a funeral in South Africa



SELECTED INFORMATION

Publication I

The Regulation, Supervision and Policy Working Group has conducted a number of studies this year of which we have chosen one to present in this edition of our newsletter.

Making Insurance Markets Work for the Poor: Microinsurance Policy, Regulations and Supervision (January 2009)

This study, funded by the *Canadian International Development Research Centre* and the *Bill & Melinda Gates Foundation* along with funding and technical support from the *FinMark Trust*, *GTZ*, and *BMZ*, presents the synthesis of five country case studies (Colombia, India, the Philippines, South Africa and Uganda) on the role of regulation in the development of microinsurance markets. This evidence is then used to extract cross-country lessons for policymakers, regulators and supervisors looking to support the development of microinsurance in their jurisdictions.

The paper is divided into five sections:

- Sets out the analytical framework applied in the rest of the study;
- Summarises the microinsurance experience of the five countries;
- Looks at the drivers of microinsurance market development in the countries;
- Proposes an approach to carving out a microinsurance space within regulation;
- Concludes with the **initial recommendations** (see box) arising from the cross-country lessons (intended as informative implementation tools for developing country policymakers, regulators and supervisors)

Initial Recommendations

Policy	Take active steps to develop a microinsurance market.
	Adopt a policy on microinsurance as part of the broader goal of financial inclusion.
Prudential	Define a microinsurance product category
	Tailor regulation to the risk character of the microinsurance product category
	Allow microinsurance underwriting by multiple entities
	Provide a path for formalisation
Market conduct	Create a flexible regime for the distribution of microinsurance
	Facilitate the active selling of microinsurance
Supervision and enforcement	Monitor market developments and respond with appropriate regulatory adjustments.
	Use market capacity to support supervision in low-risk areas

Download full study: <http://www.microinsurancenetwork.org/workinggroup6.php>

Newsletter

G-NEWS N° 5 (June 2009)

G-NEWS is produced by the ILO/STEP Programme. Available in English, French and Spanish, G-NEWS is based mainly on contributions from users of the GIMI and GESS platforms. The latest issue focuses on the impact of the crisis on social security systems and national responses to the challenges posed.

Visit: www.microinsurance.org/gimi/ShowGnews.do?gnid=1

Innovation Flash Issue 3 (May 2009)

The third newsletter from the ILO's Microinsurance Innovation Facility is now available in English, French and Spanish. In this issue, you'll find information on the Facility's activities – innovation grants, technical assistance and research – as well as news on the sector, publications and jobs opportunities.

Visit: www.ilo.org/public/english/employment/mifacility/download/news/news3-en.pdf

MICROINSURANCE NETWORK

5th International Microinsurance Conference

From 3 to 5 November 2009, the 5th International Microinsurance Conference will take place in Dakar, Senegal. This event is hosted by the Munich Re Foundation, the Microinsurance Network, and supported by the Conference Interafricaine des Marchés d'Assurances (CIMA), the African Insurance Organisation (AIO), the Fédération des Sociétés d'Assurances de Droit National Africaines (FANAF), the World Bank, the Journal of Risk and Insurance, the GTZ and the International Labour Organization (ILO).

Themes include: Providing health insurance to the poor; linking microfinance and microinsurance; the African microinsurance experience; scientific track – Economic analysis of microinsurance markets.

Over 300 experts from around the world will exchange experiences and discuss the challenges of microinsurance. The conference will have 5 plenary panel discussions on key topics addressing an interdisciplinary audience. 12 parallel working group sessions will deal in depth with different subtopics.

The language of the conference will be English, with translation into French available.

Visit: www.microinsuranceconference2009.org

The **Microinsurance Network** will be holding their **General Assembly** and **Working Group Facilitator Workshop** on the 6th November after the conference. Contact Veronique Faber for more details (veronique.ada@microfinance.lu)

Member profile

The Hollard Insurance Group

The Hollard Insurance Group was established in 1980 and is today the largest independent, privately owned insurance group in South Africa covering both life and short term (non-life) insurance. Hollard is an organisation that holds onto its founding ethos of taking risk, thinking independently, thinking long-term and above all forming partnerships for mutual benefit. Everything that we do is measured in terms of “catalysing a positive and enduring difference”

The Hollard Insurance Group has had a long history of focusing on the lower income market, approximating 1/7 of Hollard's turnover. Hollard's greatest successes so far have been in voluntary funeral insurance, credit life, legal insurance and cell phone insurance.

As part of Hollard's expansion into the low income market they are looking at expanding their product offerings to include a range of asset insurance for low cost housing, SMME products, health provision outside of South Africa, as well as parametric pricing products such as weather index insurance.

The Hollard insurance group is committed to focusing on the needs of the low income market in a responsible and sustainable way – as recognised by ILO Microinsurance Innovation Facility which awarded Hollard a grant for developing and rolling out voluntary low income housing products.

Source: www.hollard.co.za

Publication II

Protecting the Poor: A Microinsurance Compendium is now available in Spanish

This authoritative compendium brings together the latest thinking of leading academics, actuaries, and insurance and development professionals in the microinsurance field. The result is a practical, wide-ranging resource which provides the most thorough overview of the subject to date. Now available in Spanish and soon in French (November).

Available for download at: <http://www.microinsurancenet.org/networkpublication11.php>

Funding

The Microinsurance Network has co-financed two Working Group projects so far:

Technology – Online Inventory of Technologies

This Working Group's project is to provide the microinsurance community with an online inventory of technologies applicable to microinsurance, starting with software. The inventory should offer on the one hand software developers a platform for their product(s) and on the other hand, provide the microinsurance community with a place where they can find various software solutions for microinsurance.

Insurance Education – Stock Taking and Case Studies

The Working Group will engage in a “stock-taking” exercise of the available material regarding microinsurance education. With this information they plan to identify gaps in the current offer of microinsurance education, and devise strategies to address them. They will also prepare two sample case study series of best practices and lessons learned.

Please visit the following link for details of the projects:
<http://www.microinsurancenet.org>

Activity Update from a Working Group

Performance Indicators

This Working Group developed a set of standard key performance indicators for microinsurance, improving comparability of schemes for enhanced performance and greater transparency.

The Working Group is currently supporting a research project on Social Performance Indicators in Microinsurance underway at the Department of Social Responsibility and Environmental Strategy at the École des Sciences de la gestion (ESG) of the Université du Québec à Montréal (UQAM).

The last workshop for experienced microinsurance providers was held in collaboration with INAFI Africa from 13-15 July 2009 in Nairobi, Kenya. More than 15 participants attended.

In 2009, the Working Group members were invited to present the Key Indicators on several occasions (e.g. Joint IAIS-Microinsurance Network meeting in Atlanta, ICMIF workshop in Nairobi, CIRC and IAIS conference in Taiyuan and 3rd Asian Microinsurance Conference in Beijing.)

The Performance Indicators for Microinsurance: Summary Notes from 2006 have been updated. These notes provide a quick overview of the key indicators and some information on the overall initiative. The note is available in English, French and Spanish.

The first local training institution to organise the Performance Indicators workshop has been set up. Centro Afin is a training service provider specialised in microfinance and microinsurance. The first training was held on the 28-30 May 2009.

For more information:

www.microinsurancenet.org/workinggroup5.php

Focus Notes

New Microinsurance in Focus Notes available

The Microinsurance Network has published a new version of the Microinsurance in Focus notes. These notes are based on the book *Protecting the Poor: A Microinsurance Compendium*, published on behalf of the Microinsurance Network by the International Labour Organization (ILO) and the Munich Re Foundation.

In this book, the experiences of more than 40 microinsurance providers are analysed. These experiences were researched as part of the Good and Bad Practices project led by the Operations Working Group, and funded by DFID, GTZ, the ILO and SIDA.

The objective of these notes is to make the compendium's content more accessible and are available in English, French, Spanish and Portuguese.

Available at: www.microinsurancenet.org/focusnotes.php

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network

This newsletter of the Microinsurance Network is published three times per year. The Microinsurance Network, formerly known as CGAP Working Group on Microinsurance, is a member-based network of insurance and social protection providers, policymakers, donors, NGOs and academics.

The mission of the Microinsurance Network is to promote the development and proliferation of good-value insurance products for low-income persons by providing a platform for information sharing and stakeholder coordination with the aim of creating public goods.

The Microinsurance Network includes several Working Groups. To receive more information on their activities, visit the Working Group pages at www.microinsurancenet.org/workinggroups.php

The Microinsurance Network launched a listserv called Microinsurance Focus with the objective to encourage the exchange of information and stimulate discussions. The listserv can be used for news items, announcements and discussions related to microinsurance.

To subscribe to Microinsurance Focus: lists.microfinance.lu/mailman/listinfo/microinsurancefocus

To access the archives: lists.microfinance.lu/pipermail/microinsurancefocus

To subscribe to this publication in English, French or Spanish, send an email to info@microinsurancenet.org

To view all the back issues and other Microinsurance Network publications, visit its website at www.microinsurancenet.org

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