

Parallel session 4

Agriculture/Natural disasters

By Marie-Christine Bélanger

In this session, agricultural insurance is presented from the perspective of two different actors: government and the private sector.

The new trends in policy formulation promote the development of integrated management policies based on four pillars: knowledge infrastructure, mitigation and adaptation, risk transfer, and response-reconstruction-recovery. Because farmers are exposed to a wide variety of risks (weather, price fluctuations, epidemics), risk management policies, instead of concentrating on a single factor, should consider all factors negatively impacting farm income.

An optimal risk management strategy should integrate three levels of intervention

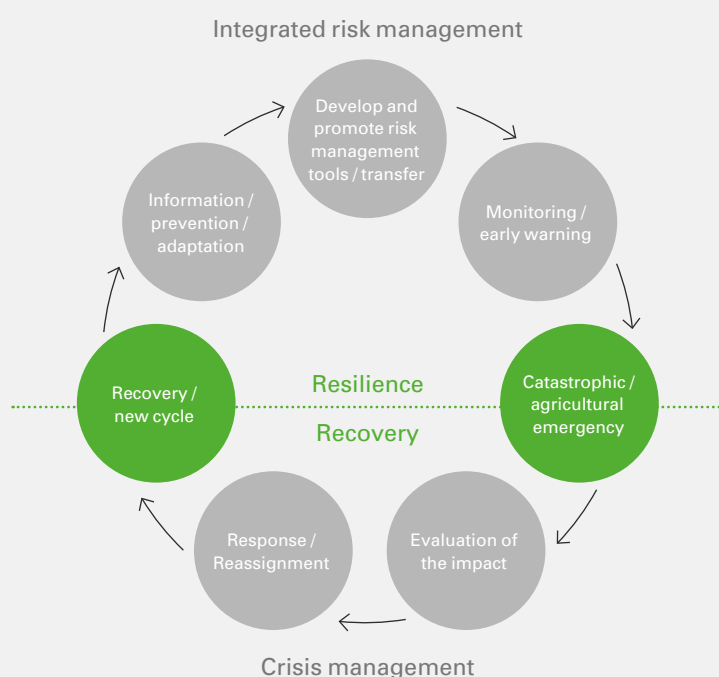
1. The first level should be assumed by the farmers themselves and by technical assistance to cover events of small magnitude but frequent occurrence.
2. The second level should cover middle-range events with products of insurance, futures, risk pooling, etc.
3. The last level should be covered by the government. Its role should be to manage the risk of catastrophic events, having a low probability of occurrence but high impact.

Integrated risk management

Instead of always working in a response mode, the government of **Chile** chose to adopt an integrated risk management policy that allows for sound preparedness and response in the event of a catastrophe (see Figure 14).

For policy implementation, a separate department was created in 2015 in Chile's Ministry of Agriculture. It is in charge of three levels of intervention. The first, relating to information, prevention and monitoring, set up a national agro meteorology network, an observatory on agro meteorology, and an app that provide farmers with easy access to live weather data, forecasts and recommendations. The second one is the development and promotion of risk transfer tools, such as agricultural and catastrophic insurance schemes and price stabilisation. The third relates to disaster management. It includes developing a project monitoring platform, spatial data infrastructure and tools for rapid assessment of damages and productive losses.

Figure 14
Cycle of response to a catastrophic event



Source: Navarro, Camilo. Presentation "Insurance as one of the pillars of integrated risk management in the agricultural sector". 13th International Microinsurance Conference 2017.

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Two types of insurance scheme were developed: a 40%-subsidised commercial scheme and a fully subsidised catastrophic index insurance for drought, flood, frost, and fire for smallholder farmers. The objective of this catastrophic insurance scheme is to stabilise the national budget by disbursing a fixed amount of premium instead of undetermined ex-post payments.

**Commercial agricultural insurance
Agroseguros Chile**

Number of policies sold
17,082

Insured risks
Crops against climate and disease perils

Premium range
6% of sum insured (before 40% state subsidy)

Protecting small farmers

In **Mexico**, most of the agricultural value chains are not well organised. The crops harvested from smallholder farmers represent between 60% and 90% of Mexico's agricultural production. These smallholder farmers have little negotiating power in the markets and remain trapped in low income situations with limited access to credit, high capital requirements and an individual high risk.

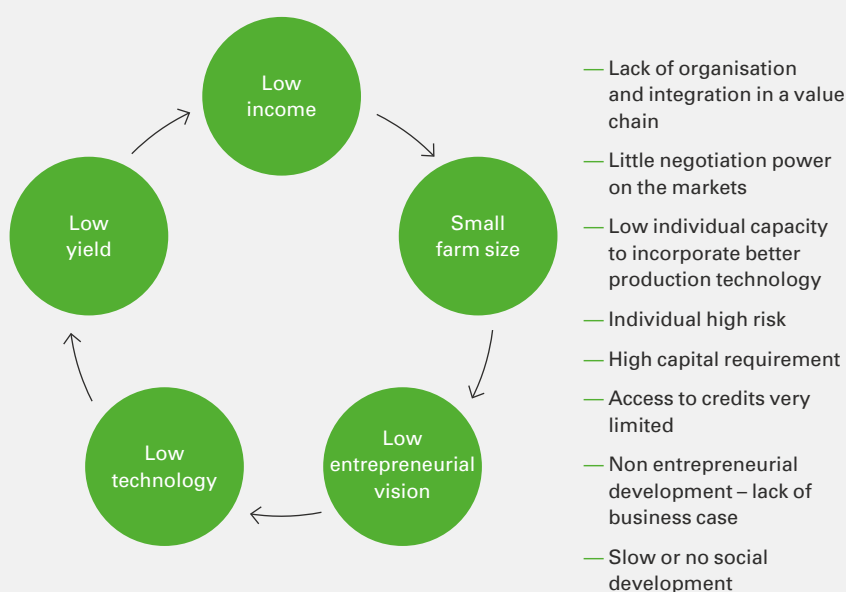
To be included in a credit programme, small farmers are required by financial entities to have access to full coverage of the risks they face. Current crop insurance schemes in Mexico are not viable for small farmers, because they are single-peril schemes and their operating expenses are high (see Figure 15).

Two innovative crop insurance plans were developed for small farmers in Mexico. Educampo, a program run by the NGO FUNDAR, promotes enhanced corn productivity by bringing technology, best business

practices, training courses, financing, and insurance to less developed regions of Mexico. This programme is operating in 5 states with 2,542 farmers and has been generating US\$ 2,700 of additional annual profit per farmer. It offers multi-peril crop insurance (MPCI) covering climatic and biological perils, and is operated jointly by FUNDAR and an insurance company whose main role is loss assessment.

The second plan is developed by PULA-Advisors, a social enterprise promoting crop microinsurance in 8 countries. In Africa and Asia, it offers 3 products: a weather index (WI) covering the value of seeds and triggered by satellite data; and two area-yield indexes (AYI) covering either the fertiliser value or the full credit and harvest income, triggered by ground and satellite data. Farmers can subscribe to these schemes by cell phone, entering a specific code found in the bag of seeds or fertilisers.

Figure 15
The low income trap – challenges for smallholder farmers



Source: Perez Cabrera, Horacio. Presentation "Two cases of agricultural insurance for small farmers". 13th International Microinsurance Conference 2017

Lessons learnt

- The government needs to be not only reactive in response to disasters, but also proactive in getting ready for them. Chile provides a good example of such integrated risk management.
- A catastrophic insurance programme can serve a dual purpose: protecting farmers, and stabilising the government’s budget.
- Variable levels of subsidy by the government for catastrophic insurance in agriculture can be cost-effective, with small farmers helped most and larger producers paying a greater share. The type of crops (degrees of vulnerability) and the producer’s location (severity of risk zones) may also be factored in.
- Small farmers are often required to have access to comprehensive insurance coverage in order to qualify for credit.
- A partnership of an MFI/NGO and an insurer/reinsurer can work well in meeting the crop insurance needs of small farmers.



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59 — Camilo Navarro, Executive Director Agriculture and National Coordinator of IRG, Ministry of Agriculture, Chile.

60 — Left to right: Horacio Perez Cabrera, Consultor Senior, Muenchener de Mexico, S.A., Mexico; Miguel Solana, Technical Officer – Microinsurance, ILO’s Impact Insurance Facility, Switzerland.

61 — Agricultural sessions at the 13th IMC were among the most popular sessions of the conference.