MICROINSURANCE SCHEMES FOR PROPERTY: EXAMPLES FROM LATIN AMERICA

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ABSTRACT:
Microinsurance can be defined as the provision of insurance to low-income households that otherwise do not have access to insurance. It is a natural supplement to microfinance and has the potential of creating a new market for the private sector while complementing the public sector's efforts towards social security for workers in an informal economy. The challenges of microinsurance are manifold. Premium income is low, administrative costs tend to be relatively high, and infrastructure for insurance is lacking. Intimate knowledge of local conditions and requirements is indispensable. The policy-holders are poor and often illiterate people. They often do not dispose over a bank account and may not have a regular income. Therefore, the design of microinsurance products requires innovative solutions regarding distribution channels, premium payments and loss regulation. The design of the policy must be kept as simple as possible. Further on, PML estimates for microinsurance risks are normally much higher than for traditional business because the clientele and their property are more vulnerable to natural disasters. This is due to often poor construction standards and/or dangerous locations. An innovative solution from Colombia, combining newly developed life and property products for low-income groups and micro-entrepreneurs has been successfully implemented. In addition a solution to protect the balance sheet of microfinance institutions in case of natural disasters has been developed. Based on the Colombian experience similar business models are currently being designed in other Latin American markets. Microinsurance with its new challenges opens a promising and important new field of application for EQ-Engineering within the framework of modern disaster management.

KEYWORDS:
Microinsurance, Modelling, Colombia

1. MICROFINANCE AND MICROINSURANCE

Microfinance is regarded as an important tool to reduce poverty. Most recently the Sichuan EQ on May 12, 2008 shows that poor people are usually the population group most vulnerable to disaster. Increased vulnerability can be observed for natural catastrophe risk as well as for occurrence of illness and accidents. Since there is a link between poverty and vulnerability, there is consequently a link between microfinance and vulnerability. However, microfinance alone is not sufficient; it needs to be supplemented by microinsurance. What are needed are several products for different kinds of people affected and different levels (from the individual [small scale] to the government [large scale]). In the 100 poorest countries in the world, less than 80 million people, or 3% of the poor people, have access to insurance (MicroInsurance Centre, 2006). Poor people, living in more vulnerable buildings and often in more hazardous regions, especially in urban settlements, are more exposed to risk and less protected against the consequences, as the usually lack any type of public or private social protection. Microinsurance can play a crucial role in ensuring that the household does not find itself further impoverished when a family faces a financial crisis due to death, sickness, unemployment, or natural hazards. Figure 1 shows this schematically.

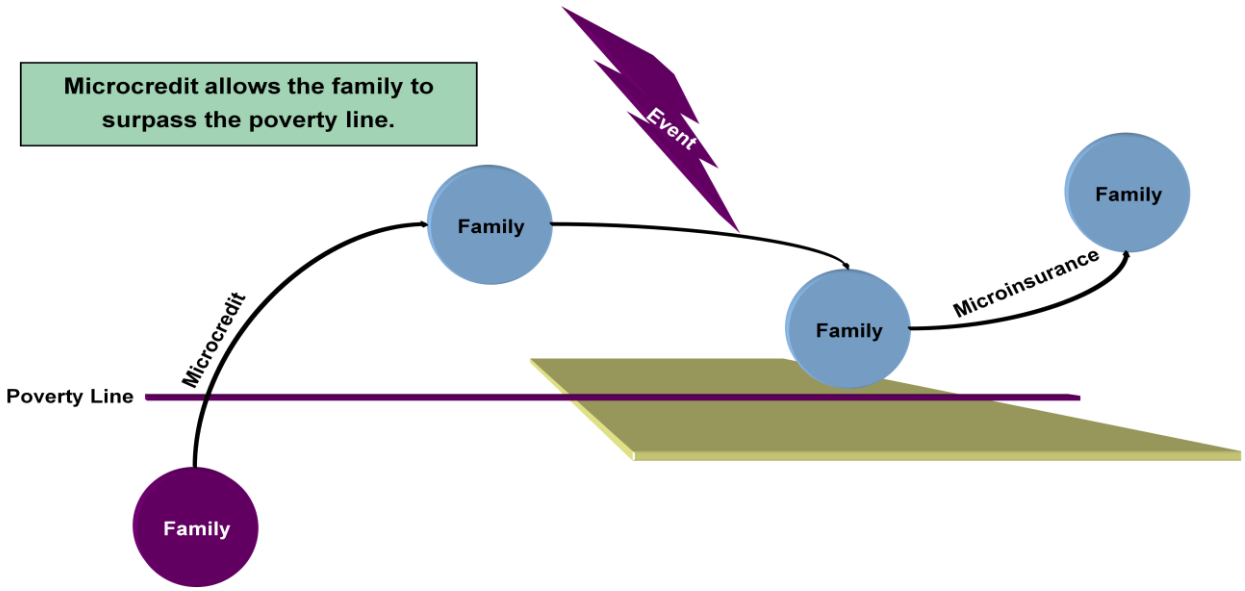

Figure 1: Microinsurance helps households and micro-entrepreneurs to prevent to fall back into poverty after a catastrophic event happened.

Traditionally, microinsurance products have been a domain of the life and health sectors. Recently, an expansion towards property insurance products can be observed. Nevertheless, property insurance penetration in less developed countries is still very low, usually far below 5%. This contrasts with regions like North America, where on average more than 40% of the direct damage from a disaster is insured. This difference is even more worrying as figure 2 shows that Asia and Africa, continents where in general insurance density is very low, are the most disaster prone continents causing by far the highest death toll. Taking into account the 2008 disasters Taifun Nargis and the Sichuan EQ, since 1980, more than 1 million people perished in natural catastrophes in Asia alone, more than in the rest of the world together.

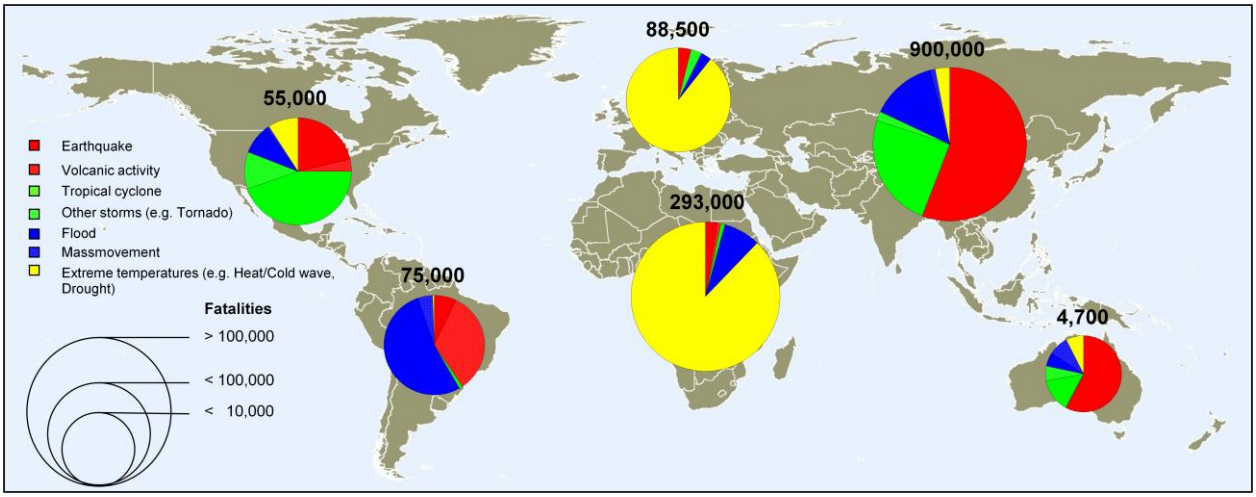

Figure 2: Fatalities from natural catastrophes 1980 – 2007: Asia is most disaster prone continent.

2. CHALLENGES

The challenges of microinsurance are manifold. Premium income is low, administrative costs tend to be relatively high, and infrastructure for insurance is lacking. The policy-holder of a microinsurance product often does not dispose over a bank account. That is why commercial insurers have not taken more interest in this

market. Reaching poor people, many of whom are illiterate and make a living in the informal economy, is a difficult task. And the benefit of insurance is often misinterpreted since the low-income policy-taker does not understand why the premium is not reimbursed if no claims are made. That makes products covering perils with very low frequencies, earthquakes for example, even more difficult and unattractive.

In addition, intimate knowledge of the local conditions is indispensable. Interestingly, the direct impact from natural catastrophes on physical assets is perceived as of comparatively low importance, whereas post-catastrophe diseases, loss of harvest, interruption of the income, increased prices and transportation costs cause a strong financial burden on the affected low income households. This finding, on the one hand, can explain why demand for traditional property insurance products is rather low. On the other hand, it indicates that downscaling existing insurance products is not an appropriate approach.

Microinsurance schemes can only be sustainable when responding to the specific socio-economic situation of the low income customers and their socio-cultural environment. Microinsurance schemes should bridge the gap between shock impact and existing, traditional risk management strategies. Further requirements for a successful implementation of microinsurance schemes are affordability, a product that is easy to understand and with only few exclusions, effective to administer, and that pays out benefits quickly.

It has been recognized that ex-post programs might even have negative and discouraging effects. In many countries, for example, those who had unsafe houses receive more financial assistance in the aftermath of a catastrophe (mainly in form of tax revenue), while those who made efforts to maintain their houses' safety do not receive any financial assistance even though they invested in maintenance and retrofitting. One of the challenges for microinsurance therefore is to transform the long term benefits of good maintenance into short term benefits (Okazaki, 2008). This can only be done in the framework of an integrated disaster management policy.

3. THE COLOMBIAN EXPERIENCE

As many Latin American countries are prone to natural disasters, microinsurance products that protect the property of microenterpreneurs have been shown to be of high interest both for microfinance institutions as for microenterpreneurs. Even with low sums insured, hundreds of thousands of clients add up to an important accumulation and produce the need for reinsurance protection. One successfully developed and implemented product has been designed for the inhabitants of the city of Bucaramanga in Colombia, at risk from earthquakes from the "Bucaramanga nest".

Bucaramanga, the capital of Santander Province in Colombia – with its suburbs and slums – has around one million inhabitants. Its population structure is characterized by a large under- and middle class and many of the city's inhabitants attempt to make a living for themselves and their families through small retail or manufacturing businesses. These people, whose daily income is in the range of US$ 2 –10 a day, previously had no access to suitable insurance products. But now they have the opportunity to take out cover against the consequences of death, severe illness, natural hazards, burglary, theft, robbery and fire, cushioning the impact of serious losses in earnings. Since November 2007, a property policy has also been available for insuring houses, shops and goods. The perils covered include not only burglary, theft, robbery and fire but also natural hazards. People with micro-businesses often live and work in poorly structured buildings situated in very vulnerable locations. MunichRe's Geo Risks Research unit has calculated special insurance rates for these risks. As the sums insured are very low, the monthly premiums range between only US$ 0.3 and US$ 10. The third product, which is currently about to be marketed, is not directly related to micro-business but covers the micro-bank's liquidity in the event of an earthquake.

Munich Re is examining the potential of microinsurance not only in Latin America but also in other parts of the world. In Indonesia, for instance, special flood coverage could be an interesting proposition, and a study has already been carried out for this region in cooperation with GTZ, the German Society for Technical

Cooperation. When devising microinsurance products, the watchwords are "simple and efficient" – in distribution, in underwriting, and particularly in benefit management, which primarily requires the swift and uncomplicated payment of a fixed amount.

4. OUTLOOK

4.1. Risk modeling

Microinsurance is assuming an increasingly important role, particularly in the light of recent catastrophes, many of which have hit sections of the world's population which have neither insurance cover nor the possibility of access to suitable hedging instruments. Earthquakes like the December 2004 EQ in Sumatra, the EQ in Kashmir on October 8, 2005, or the Sichuan earthquake in May 2008 caused dramatic loss of life and economic damage of billions of dollars. Only a small fraction of this was insured.

Catastrophe risk transfer through insurance is well established in developed countries. Sophisticated models for the quantification of the risk have been developed in the last decades. This has even lead to the development of a whole new industry, specializing on this topic.

However, these sophisticated models require a lot of data input and basic research. They are expensive to build. Therefore, the majority of these models has been developed for developed markets where there is a strong commercial interest to use them. Only a few of these models do exist for developing countries. "Thus, the modern knowledge of quantification and understanding of catastrophe risk has not been of great benefit to many developing parts of the world" (Shah, 2007). A very promising initiative to fill this gap is the "Global earthquake Model" (GEM). Intended to be a homogeneous EQ risk model for the whole world, publicly available via the internet, this tool in the future could built the basis for the quantification of EQ risk for different perspectives. This PPP-project could give developing countries access to the most up to date scientific findings. Properly used, it could even serve as a tool to raise risk awareness (Stein, 2008).

4.2. The future of losses and disasters

Over the last 50 years, a clear increase in the frequency and the size of financial losses from natural catastrophes can be observed, as shown in figure 3. Climate change, growing wealth, further concentration of values, among others, give reason to assume that this trend will continue in future.

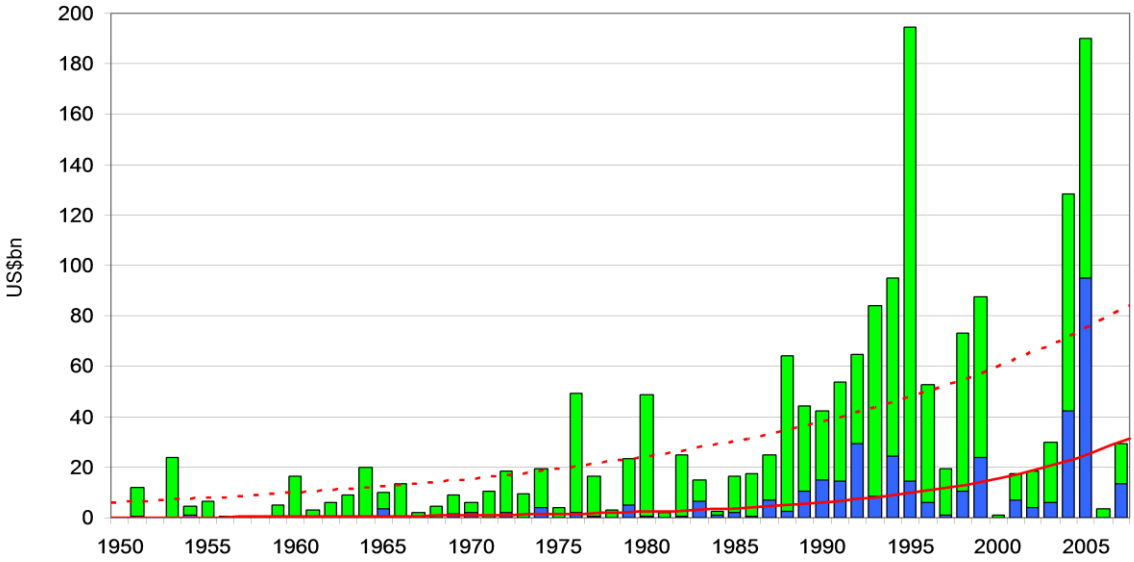

Figure 3: trend in economic (green) and insured (blue) losses from major natural disasters. Red: trend lines. Values are indexed to 2007 values.

4.3. Requirements of future products

The very specific difficulties mentioned above to create a functional microinsurance scheme (see chapter 2), require technically simple solutions. This goes hand in hand with the requirement of solutions that lead to fast pay-out in the case of a catastrophe. Only fast pay-out leads to support of sustainable development through insurance. Only if people are compensated immediately, they can get up again quickly and start to rebuild what has been destroyed during the catastrophe rapidly. Only then, they can restart to make their living based on their own resources quickly. That is one of the lessons told by disasters in cities like Kobe and New Orleans. The port of Kobe has not regained the importance it had before the earthquake in 1995. About 200.000 people left the city of New Orleans permanently, to make their living elsewhere.

In order to create fast solutions, traditional insurance products have to be simplified if to be applied to microinsurance. Payment of lump sums in case of an event can be observed. Payment is often related to physical triggers rather than to actual damage. This decoupling leads to a basic risk of having a damage and not getting compensated – or vice versa. The former effect is undesired, the latter one leads to a more expensive product. Pooling a big amount of risks in order to minimize this undesired basis risk is therefore a logical tendency that can be observed. As an additional plus, this decreases the administrative costs involved as well.

Working with regional governments, administering the basis risk, might be the next step. Increasing activity in this field can be observed. Taking in mind the rapid growth of cities, especially in Asia (see McKinsey, 2008 for example), it is not hard to see the dynamic and potential of this kind of solutions. Developing tools to protect the urban poor will be the challenge for our society in the near future.

However, it is important to keep in mind that the desired social effect in the form of a safety net for the uninsured can only be attained in a sustainable way if the business is profitable for all participants. Therefore similar “return on investment” principles should be applied as in traditional insurance business.

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