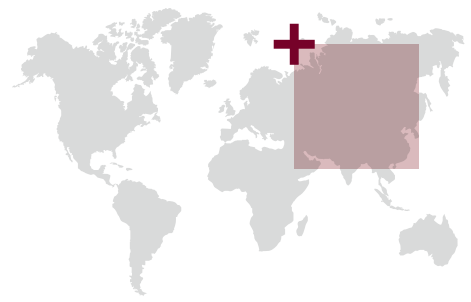


INSURANCE INSTRUMENTS FOR ADAPTATION TO CLIMATE CHANGE



AT A GLANCE

Name

Insurance Instruments for Adaptation to Climate Change

Duration

October 2008 – February 2014

Focus Area

China. Pilot Region: Fujian

Target group

Farmers and rural households

Funds available

The project is funded by the International Climate Initiative (ICI) of the German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) with 2.1 million Euro and co-funded by the Asian Development Bank (ADB) with 540 TEUR.

The project is jointly implemented by ...

China Insurance Regulatory Commission (CIRC), China Meteorological Administration (CMA), China Life P&C Insurance Company and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

The core objective is ...

to support insurance companies in providing affordable and sustainable insurance products to households and companies in rural areas to protect them against losses from extreme weather events.



BACKGROUND

Despite China's impressive growth in the industrial and service sector, agriculture remains an important source of income for more than 650 million rural Chinese. The risk exposure of the agricultural sector, in particular for weather-related incidents, is high as the Chinese mainland experiences droughts, floods, hail, frost, and typhoons every year. In 2006 for example, an estimated 10% of total agricultural production was destroyed by adverse weather conditions. Managing weather-related risk is perceived to be of high importance to farmers. At the same time, available risk management options like digging trenches, income diversification, loans and savings as well as government support can yield only limited success in preventing serious damage and cushioning financial consequences. A survey in Fujian province showed that support from external sources after natural disasters did so far not even cover half of farmers' production costs. It is estimated, that climate change related yield losses have increased by 10% between 1980 and 2004. Against this background, farmers show a strong interest in having their main source of income protected against natural disasters and expressed both, the ability and willingness to pay for such insurance schemes.

The improvement of insurance protection for smallholder farmers is a core part of the Chinese agricultural development policy. Fuelled by high subsidies, the agricultural insurance market has witnessed a remarkable growth in recent years to the second largest in the world. In 2012, about 40% of arable land for crops was covered through agricultural insurance. However, most "traditional" agricultural insurance products involve high development and administrative costs through expensive verification of losses for example. Exploring innovative product types, such as index-based insurance solutions, is therefore important to lower costs in the long term and thereby improve comprehensive insurance protection for farmers.



APPROACH

1. Development and market entry of innovative insurance products

The project was assigned with the development of index-based insurance solutions that would potentially lower costs of providing insurance to low-income farmers. This process is based on various analyses on purchasing power, demand, risk exposure and agricultural value chains, weather data, suitable delivery channels, options to simplify insurance policies to fit smallholder farmers.

After the product rollout in three pilot villages in Fujian province in 2012, further market research was conducted to better link the product design (triggered payouts) with the losses experienced on the ground. The establishment of a Geographical Information System in Fujian supports the improvement of the product design allowing for the assessment of the correlation between specific weather parameters with observed crop losses.

2. Policy Dialogue and Advisory

Throughout the product piloting process, the in-depth exchange with all public and private stakeholders, capacity development and awareness building, as well as (by public bodies) the provision and joint analysis of data for product development were central components of the project approach. Extensive analyses regarding the regulatory insurance sector framework, supply, demand and insurance practices were conducted and discussed with the political stakeholders. In this context, the regulative and judicial framework conditions were reviewed and suggestions regarding their adaptation were provided.

Challenges:

1. The identification of an appropriate commodity and target region for which quality data for product development is available and where favorable conditions such as sufficient demand enable a successful piloting of an index insurance product with the potential for a subsequent larger roll-out was challenging with regard to the limited project duration.
2. Different understanding between public entities and target group on responsibility of taken over the financial burden caused by extreme weather events.
3. Extensive lobbying efforts were necessary to convince the public sector to apply the same subsidy policy for the index insurance product as for other relevant insurance products to avoid competitive distortions.

Opportunities:

1. The development of risk transfer solutions for smallholder farmers is on high priority of the Chinese government. Thereby several institutions on state and provincial level initiated initiatives to widen the supply of improved insurance solutions. The still untapped potential in some geographical areas and the continued strong support from the Chinese government indicates that the market will grow further.
2. The agriculture sector is core of the Chinese industry landscape and of major importance for inner politics.
3. Insurance awareness remains quite low and farmers still have to develop a better understanding on how insurance can be integrated into their overall risk management strategy, e.g. how insurance can complement their savings efforts.

OUTCOME

End of 2011, China Life P&C Insurance Company sold the index insurance products protecting against frost and flood to almost all farmers in three selected pilot villages in Fujian province to protect the upcoming cropping season in 2012. In total 1,066 farmers with a total acreage of 1,400 hectare were covered with a premium volume of RMB 420,000. Two very severe weather events in 2012 (frost during the planting phase and excess rain combined with hail during the growth period) led to significant yield losses. Insurance payouts of RMB 4.51 million were made to the insured farmers. In 2013, the same products with slightly adapted parameters were offered to the farmers with an increase in premium volume of RMB 1.3 million. To overcome market imbalances, CIRC and the provincial government agreed to provide the index products with the same level of subsidies as a comparable traditional insurance product. Another share of the premium was covered by the agricultural processor, leaving farmers with only 20% of the total premium to pay.

LESSONS LEARNED

1. After solely focussing on product development, the project was extended to include a regulative and judicial component. Such an enabling policy and regulatory environment is essential for new and innovative products such as index insurance and for supporting the market development process.
2. An important strategic element in setting up the pilot insurance scheme was its integration within agricultural value chains. The products were jointly developed with two important segments in the value chain, i.e. the buyer and processor. In the case of this project, the processor paid a portion of the premium making the product more affordable for his farmers and thereby ensuring a stable supply of the commodity. The processor also provided his farmers with high quality seeds, fertilizers and pesticides, as well as advice on optimal farm management, which is an important complementary element of a comprehensive risk management strategy.
3. The project followed a multi-stakeholder approach with a well-entrenched dialogue mechanism, which included the insurance regulator at a national as well as regional level, the insurance industry, the meteorological agency, local intermediaries as well as the farmers. This proved to be an important basis for the development, introduction and later evaluation of such an innovative product.





CASE STUDY

Weather index insurance in China

The idea of using a proxy to estimate losses experienced by farmers rather than on-field loss measurements has existed already for a while. To use this approach for the situation in developing and emerging countries with poor infrastructures in rural areas and farmers with small field sizes came up during the early 2000s, e.g. in India, Malawi and Ethiopia.

During the last decade, many weather index insurance (WII) pilots all over the world have been implemented. While WII comes along with its competitive advantages, its suitability has been questioned and discussed intensively during the last few years: data availability for pricing, basis risk as the main drawback of WII and also affordability issues in the case of selling products to farmers which are not subsidized by government policy are some examples.

In the case of China we can see a strong government support for traditional crop insurance products (with individual loss assessment at a field-level) in forms of premium subsidies and profits generated by insurance companies through these products. Though livestock index insurance has been recently discussed, it does not seem to be likely that index insurance products for crops will play an important role in the Chinese market in the future. In cases where a strong political will and sufficient fiscal funds are available to support a subsidized crop insurance programme based on cost-intensive individual loss assessments for millions of farmers, the cost efficiency of index insurance products might only play an inferior role. Accurate individual loss assessments and indemnifications to smallholder farmers avoiding cases of basis risk are of priority.

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Registered offices

Bonn and Eschborn
P.O. Box 5180
T +49 61 96 79 – 0
F +49 61 96 79 – 11 15

E acri@giz.de

I www.giz.de

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CONTACT

E Agriculture and Climate Risk Insurance (acri@giz.de)

I www.giz.de