# **IIPACC –** Innovative Insurance Products for the Adaptation to Climate Change



## AT A GLANCE

#### Name

Innovative Insurance Products for the Adaptation to Climate Change (IIPACC)

Duration December 2009 – June 2014

**Focus Area** Ghana (country-wide)

#### Target group

Actors in the agricultural value chain, such as smallholder farmers, commercial farmers, input suppliers, extension services, processors, financial institutions, lending to the agricultural sector

### 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 3.8 million EUR.

#### The project is jointly implemented by...

National Insurance Commission Ghana, Ministry of Finance, Ministry of Food and Agriculture, Ghana Insurers Association, Ghana Meteorological Agency and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

#### The core objective is...

to assist the insurance sector in Ghana to develop and offer innovative, demand-oriented and economically viable insurance products to cover financial risks on account of crop losses caused by extreme weather events and impact of climate change.



On behalf of:



Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

### BACKGROUND

Ghana is very vulnerable to climate change. By 2100, the mean daily temperature is expected to increase by three degrees celsius and rainfall to decline between 9% and 27%, depending on the region. Agriculture in Ghana is mostly rainfed, hence, the increasing spatial variability of rainfall events and in extreme case, droughts, pose a substantial risk to farmers. Ghana's agricultural sector sustains the livelihoods of more than half of the country's population and is renowned for its exportoriented cocoa production. Extreme weather patterns anticipated in the near future will lead to higher rates of crop failure and fertile land being lost for agricultural production. This represents a significant challenge to farmers who would see their livelihoods and resultant income impacted, as well as the financial institutions who would potentially face higher rates of default, for loans offered for input supplies such as seeds and fertilizers.

### APPROACH

The project "Innovative Insurance Products for the Adaptation to Climate Change" (IIPACC) was initiated to support Ghana in tackling the socio-economic costs and risks associated with climate change. The overall objective of IIPACC is to assist the insurance sector in Ghana to develop a sustainable agricultural insurance system and to offer Ghanaian farmers' innovative and demand-oriented crop insurance products against financial risks caused by extreme weather events and other effects of climate change. To this end, the project has been facilitating the incorporation and implementation of the Ghana Agricultural Insurance Programme (GAIP). GAIP is a coinsurance pool subscribed by 19 Ghanaian non-life insurance companies. A Technical Management Unit manages all operational functions including product development, sales and marketing, underwriting, claims management and client awareness initiatives on behalf of the Pool. The project has provided ongoing technical support to all relevant stakeholders, such as the Management Board of the Pool, the Technical Management Unit, delivery channels, e.g. input suppliers and financial institutions as well as farmers. Besides working on micro and meso levels, the project also seeks to promote an enabling regulatory and political environment for agricultural insurance in Ghana.

### Challenges:

- **1.** No policy formulation incorporating agricultural insurance as part of the national agricultural support programme exists.
- Lack of support from the government and public sector. Initiative presently managed entirely by the private sector: Products offered at commercial premium rates which causes issues in relevance and affordability for smallholder farmers.
- Identifying cost-efficient distribution channels (costs for marketing, premium collection, claims settlement).
- 4. Insurance products and especially index insurance products are a relatively new and complex concept for smallholder farmers, hence marketing and distribution needs to be done carefully which might be timely and labour-intensive.

- 5. The objective of expanding the product portfolio to meet client demand and needs is contradicted by the inability to insure some perils for some single crops, e.g. pests (capsids) and diseases (black pod) of cocoa which is the country's main cash crop.
- **6.** Insufficient, unreliable historical weather and yield data in a time-series format is a major drawback to scaling up crop insurance in Ghana.
- 7. Low density of weather stations and a limited availability of high resolution satellite-based rainfall increase the probability of basis risk.
- 8. Mismatch between agricultural loan cycle of banks and cropping calendar of farmers: sales cut-off dates for insurance at the beginning of the cropping season makes it difficult to sell insurance products bundled with agricultural loans.
- 9. Slow premium growth could discourage ongoing commitments across members of the Pool.

#### **Opportunities**:

- 1. The Steering Committee of GAIP involving all public and private key stakeholders is a successful platform for interaction, advocacy and coordination of agricultural insurance in Ghana.
- 2. Further support to increase insurance awareness and literacy in Ghana and a growing insurance and micro insurance market offer untapped business opportunities for insurance companies to develop products for the low-income segment.
- **3.** Further expansion of the weather station network and investment in agricultural production and weather data collection as well as further exploring of satellite rainfall data to overcome data availability issues.
- 4. Increasing the involvement of the public sector as part of a proactive policy formulation. Incorporating agricultural insurance as part of the overall agricultural support programme. Developing an overall framework with defined roles and responsibilities of involved stakeholders could lead to achievement of scale und sustainability of agricultural insurance in Ghana.





### OUTCOME

- 1. Implementation of functional trainings and capacity development measures for the insurance industry, banking sector, public sector, farmer associations, input suppliers, Ghana Meteorological Agency (GMA), etc.
- 2. Establishment of the Ghana Agricultural Insurance Pool, a coinsurance pool comprising of 18 non-life insurance companies and one reinsurer in 2011.
- **3.** Development of weather index insurance products against drought for farmers growing maize, soya and sorghum in seven out of ten regions in Ghana. These products were sold to more than 5,000 farmers. In 2012 and 2013 payouts were triggered by long dry spells in areas across the Northern part of Ghana.
- 4. Named peril products for bigger commercial rubber plantation farmers providing coverage against windstorm and other perils were sold in 2012 and 2013. Multi-peril crop insurance solutions were offered from 2013 onwards.
- Piloting of area-yield index insurance in three selected districts in the Northern part of Ghana including strengthening the yield data collection system of the Ministry of Food and Agriculture.
- **6.** Investing in and installing of approximately 40 automatic weather stations throughout Ghana.

# LESSONS LEARNED

1. The early focus on establishing a steering committee involving all public and private key stakeholders who meet monthly to coordinate and govern the development of agricultural insurance in Ghana was a major success.

- 2. Subsistence or small-scale farmers provide no major business opportunity for commercial insurance schemes. If the government is interested in providing coverage for smallholder farmers against natural disasters as a social safety net instrument, it needs to set a framework, define roles and responsibilities and provide financial support in the form of subsidies and other measures. Hence, commercial market-based solutions need to be clearly separated from formal insurance mechanisms that aim to provide a safety net to smallholder farmers in cases of natural disasters.
- **3.** Intensive and continuous capacity building of local stakeholders is essential.
- **4.** Being an abstract product, (index) insurance is difficult to understand by a semi-literate clientele. Careful training of clients to develop appropriate understanding of insurance products is a necessity, but also a cost driver.
- 5. Index products do not necessarily correlate with the loss experiences of individual farmers; this phenomenon, known as basis risk can create disappointment of the clients. Using satellite data in addition to ground data measured by weather stations, increasing the weather station network can only overcome basis risk issues to a certain extent.
- **6.** Area-yield index insurance products, which cover a range of perils and are designed to compensate for average yield losses are of higher interest to clients than weather-index insurance products which are often single peril instruments by design and measure yield losses indirectly. Due to restrictions of availability of reliable historical yield data and anomalies in estimation mechanisms, area-yield index products are often harder to operationalize.



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