Sustainable insurance solutions for climate risk requires a joint effort of both the public and the private sector: the partners need to cooperate and commit to facilitating a development process.

Private insurance companies design appropriate insurance products, establish administrative processes and carry the risk. They invest financial and human resources, and commit themselves to the agricultural and climate risk insurance markets. Government support that goes beyond creating an enabling regulatory environment can be critical to the sustainability of such systems.

This support can take different forms, including premium subsidies, tax exemption or acting as a reinsurer of last resort. The public sector can also foster market development and bear part of the high start-up costs by investing in data market infrastructure and weather stations, product design and rating as well as awareness creation, education and training. Donors and development agencies can provide additional assistance during this initial investment phase.

The purpose for introduction of Weather Index Insurance (WII) in the JICA Project was to enhance resilience for those farmers who practiced agriculture in the low and erratic rainfall areas of Oromia Region. Key players for the pilot project implementation were:

1) an insurance company,
2) intermediaries, and
3) Development Agents (DAs).
Oromia Insurance Company S.C. (OIC) was selected as the local risk taker for the project because they were one of the most experienced insurance companies on index based insurance products in Ethiopia. In addition, they have a strong relationship with agriculture sector in Oromia region having their branches there. The intermediaries such as agricultural cooperative unions took a role in marketing and distributing insurance products to farmers. DAs are extension workers, and one of the farmers' closest government officers, and therefore considered as the best player to introduce WII to the communities. The collaboration of these key players was crucial to promote WII.

**CHALLENGES**

1. **Difficulties in Designing WII:** Accurate and complete data sets such as meteorological and yield data are required for WII product development. Lack of sufficient data is a major constraint. In addition, this is a new type of insurance product for insurers whereby they require substantial technical assistances in development of WII products and the indices.

2. **Farmers' Understanding of WII:** WII is a new concept for farmers, and therefore any rollout of the product requires intense education programs to help them to understand the principle of the payout system and also the fact that it covers only one risk variable; that is rainfall.

**SOLUTION**

**Kebele-based Design of WII with farmer participation**

The development of an effective WII must consider local characteristics such as crop distribution and production and rainfall patterns. Moreover, a WII must be designed with the participation of the farmers themselves who are to purchase the policies. Intensive focus group interviews with selected farmers held in all the target kebeles framed the design stage of the weather indices. Local crop calendar, historical weather risks, and the demand for WII, such as payout frequency, were incorporated in the early stages of the pilot project implementation.

**Filling the gap between satellite data and ground meteorological station data:**

The rainfall data measured at the ground meteorological station of National Meteorological Agency (NMA) was rather matched what farmers perceived by their own than the satellite rainfall data. However, ground data was available only in limited areas. Therefore, this project utilized ARC2 satellite rainfall data because it covered enough geographical area with sufficient period of time required to design insurance index. In order to fill the gap between satellite and ground station data, interviews with local farmers were conducted in designing WII. Also, as a private initiative, OIC started to conduct a gap assessment with their own budget in order to evaluate actual crop situation and they provided additional payouts with their financial resources as a measure to deal with basis risk.

**Awareness Creation with Public-Private Partnership:**

Since farmers had previous experience that they were deceived many times by someone who said that they would provide similar service, it was not easy for insurance companies to build up the strong relationship with farmers to deliver WII products solely by themselves. Therefore, JICA project engaged the intermediaries such as MicroFinance Institutions (MFIs) and Agricultural Cooperative Unions, DAs (government extension workers), and key farmers as well as local leaders in each area to closely work with OIC.

The MFIs provide loans to rural farmers, while the Agricultural Cooperative Unions usually work closely with the farmers and provide agricultural input and credit services. Given that these intermediaries act as liaison for local farmers, they should be well-known and trusted by them.

Local leaders (kebele chairpersons) and key farmers are influential in their farming communities. Through the awareness creation meetings, these people were able to learn the benefits of WII and how the WII works. They are usually supposed to be early adopters, so that if they understand the benefits of the WII properly, they are expected to promote the insurance to other farmers.
LESSONS LEARNED

Effective Institutional Setup and Capacity building:

Establishment of an effective institutional setup should be an important aspect for the smooth implementation of any WII project. An insurance company plays the role of risk taker and designs insurance products, while intermediaries such as MFI’s and agricultural cooperatives collect premium from and distribute payout to the farmers. DAs are to raise farmers’ awareness on agricultural risk management and introduce the WII to the farmers. Among them, the capacity of DAs and intermediaries are especially important, and therefore capacity building training should be administered for them before starting the groundwork activities.

Selection of Target Areas:

The selection of the sites to introduce WII should be carefully done since it is an important aspect in order to achieve high take-up rate for the insurance by the farmers. High take-up ratio is very much essential to make the WII program financially sustainable. WII is usually introduced in low and erratic rainfall areas, and to know the farmers’ needs for protecting their farming from droughts, local key persons such as DAs and kebele chairpersons should be included in the process of selecting the target sites.

Ensuring Business Sustainability:

Although WII can be a viable business for insurance companies, most of them do not have effective delivery channels in rural areas and their administrative cost will be higher than other insurance services. Besides, profit that insurance companies can make per each policy is far smaller than other insurance products. Therefore, it is necessary for insurance companies to expand the service area to ensure sufficient sales, but this imposes higher administrative cost at the initial stage. It is estimated that the insurance company needed to sell 24,982 policies per season (if every farmer buy one policy at 100 birr amount) to mark the breakeven point considering external support for groundwork up to four years.
Name of programme:
Rural Resilience Enhancement Project in the Federal Democratic Republic of Ethiopia

Duration:
March 2012 – December 2015

Programme area
Federal Democratic Republic of Ethiopia
Focus Region: Oromia

Name of component activity:
Weather Index Insurance (WII)

Cooperation:
Ethiopian Ministry of Agriculture and Natural Resources

Implementing partners
Oromia Bureau of Agriculture and Natural Resources

Target group:
Farmers in the low rainfall areas of Oromia region, and local government officials

Documentation:

Contact person
Office for Climate Change
Global Environment Department
Japan International Cooperation Agency (JICA)
E: gegoc@jica.go.jp

August 2018