



# THAILAND



## BACKGROUND

Thailand is one of the world's leading rice producers. Rice farming is a widespread livelihood activity and a main source of income for a lot of families. Nevertheless, extreme weather conditions including floods and droughts are one of the serious threats and challenges to the farmers and to the national agricultural development and rice production. Because adverse weather conditions will only intensify, crop insurance has become a more important tool to manage risks.

In Thailand, the National Crop Insurance Program, also called Top-Up Disaster Relief, is an insurance structure placed on top of a governmental disaster relief programme. The scheme is currently operated by the Bank for Agriculture and Agricultural Cooperatives (BAAC) and covers six types of natural disaster, namely floods, drought, storms, cold, hail and fires.



## APPROACHES

- ◆ RIICE Phase 1 (2012 – 2015) centred around joining forces with the Ministry of Agriculture and Cooperatives (MoAC) and the Geo-Informatics and Space Technology Development Agency (GISTDA) to enhance the capacity of Thai partners on crop monitoring. Participating organizations learned how to make satellite data-based rice maps that help to produce yield forecasts at the mid-season and provide highly accurate final yield estimates immediately after the end of the cropping season.
- ◆ During the 2015-2017 period, RIICE Phase II worked with MoAC's Rice Department and Department of Agricultural Extension (DoAE) and GISTDA on the remote-sensing technology application for mainstreaming the processing and validation of rice maps. RIICE also transferred technology know-how on processing data from synthetic-aperture radar (SAR) technology, crop yield simulation, and ground data collection. In Thailand, however, there has been no institutionalization of RIICE because GISTDA decided to use a different remote-sensing application to provide satellite imagery for frequent monitoring purpose.
- ◆ Regarding crop insurance, RIICE led discussions on ways to build robust and sustainable rice crop insurance programme that could both attract private-sector actors and provide value for smallholder rice farmers. The project team engaged in regular consultations with the Fiscal Policy Office (FPO) and the Ministry of Finance to stimulate experience sharing and stakeholder collaboration, and ensure the quality of the product design and piloting activities. RIICE proposed the adoption of area-yield index insurance (AYII) but the Thai stakeholders decided not to take it on. Due to a lack of historical data from the fields at plot level to support the development and payout of an AYII policy, such a product was deemed premature.
- ◆ In RIICE Phase III (2017 – 2019) the project engaged with Thai stakeholders including the FPO, the DoAE, the Office of Insurance Commission, the Thai General Insurance Association and the BAAC in an effort to improve the country's rice insurance scheme and make it technically sound. Information used for claim payouts is currently disseminated among various partners and the government's declaration of state of disaster (i.e. condition respectively trigger enabling farmers to claim) is not backed up by technology. The dialogues with the national counterparts continued to progress on the application of remote-sensing data to identify disaster areas and to assess losses. Simultaneously, the FPO together with its key stakeholders jointly established a collaboration with Puey Ungphakorn Institute for Economic Research, a semi-autonomous body within the Bank of Thailand, to conduct a three-year research on improving insurance products in Thailand.



## ACHIEVEMENTS

- ◆ By 2017, it was evident that the accuracy rate of the adopted SAR technology had reached 85%. This included the timely estimation of rice planting dates and rice areas, rice yields, and areas damaged by floods or droughts.
- ◆ In 2013, the project shared the findings of the feasibility assessment of the area-yield index insurance with the relevant stakeholders. Based on a series of consultations, RIICE helped to develop

the BAAC business plan, which comprised action points and strategies to strengthen the outreach of the previous top-up insurance programme, their internal processes and interfaces with other stakeholders. The business plan has the potential to improve the bank's efficiency and insurance sales practices, which benefits the overall crop insurance programme.

## LESSONS LEARNED AND CHALLENGES

- ◆ Thailand's crop insurance is a bundle system, of which the national disaster management programme is operated by several agencies from the Ministry of Interior, the Ministry of Finance, and the MoAC. Strong multi-stakeholder engagement and consultation is therefore an important process to improve the national crop insurance.
- ◆ Historical data is key in product development. Due to a lack of this data at the level of individual rice plots, AYII was deemed premature in Thailand.
- ◆ Since 2011, insurance premiums for rice crop insurance are fully paid by Thai government and by BAAC for their borrowers, which has increased the

volume of the scheme to USD 682 million in 2019 season. Being able to obtain substantial coverage and reach most Thai rice farmers with this approach is a success factor of the current scheme. Thus, key stakeholders would support maintaining the existing scheme.

- ◆ In parallel to RIICE, big data and mobile application initiatives have evolved for farmers to record their farm data and practices, including farm inputs, input costs, and yields. Farmers' self-reporting has produced agricultural data at plot level. Simply put, the mobile technology brought in a more localized information, tailored to insurance products, and an improved risk-assessment capability of insurers.

