

## Promoting Risk Mitigation Measures for Climate Change Adaptation (Surokha) A Contributory Project of SFSA and SDC in Bangladesh

Bangladesh's economy is more at risk to climate change than any other country. The geography of Bangladesh makes the country extremely vulnerable to natural disasters and weather risks are intensified by climate change. Bangladesh ranked seventh on Global Climate Risk Index 2020 of the countries most affected by climate change since 1998<sup>[1]</sup>. In Bangladesh, rice is the dominant food crop, accounting for about 75 percent of agricultural land use (and 28 percent of GDP). It is estimated that climate change will lead to a cumulative loss of 80 million tonnes of rice between 2005 and 2050 – equal to two years' worth of rice production lost over a period of 45 years. As a whole, climate change has the impact on agricultural crop production, not only for rice, but also for potato, maize, vegetables, wheat, etc. in Bangladesh.



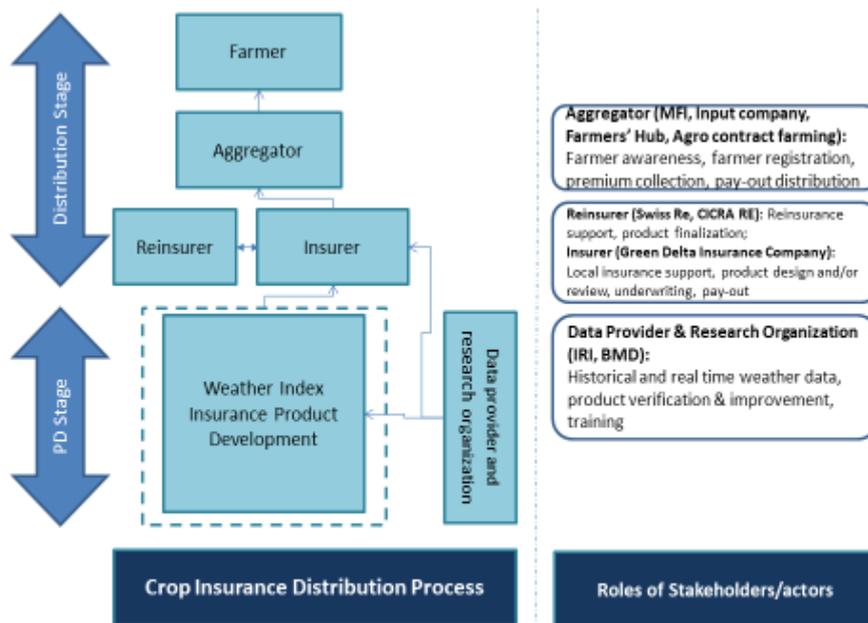
*Figure 1: Farmer in Late Blight Affected Potato Field*

Smallholder farmers in Bangladesh face considerable risks because of climate change impacts. 'De-risking' their risks through microinsurance can be a sustainable way to build resilience of these farmers to cope with the adverse effects of climate change. Swiss Agency for Development and Cooperation (SDC) and Syngenta Foundation for Sustainable Agriculture (SFSA) are working together in this concept through a co-funded project titled 'Promoting Risk Mitigation Measures for Climate Change Adaptation (Surokha)'. This project (September 2018 - September 2022) envisions that during the 4-year time period, around 233,000 farmers would be insured and educated regarding de-risking through weather index-based crop insurance, pilot and scale up different business models of weather index-based crop insurance and capture farmers' experience with weather index insurance.

Below Figure 2 shows that how the project would envisage the insurance value-chain created under this program. The project particularly SFSA develops products according to inputs from farmers, aggregators.

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<sup>1</sup>Bangladesh 7th most climate affected country. Accessed on 5 December 2019.  
(<https://www.newagebd.net/article/92685/bangladesh-7th-most-climate-affected-country>)



These are then priced in collaboration with insurers and international re-insurance companies. Furthermore, insurance companies will then take them to the market potentially in strong collaboration with aggregators to guarantee a sufficient market.

Figure 2: Crop Insurance Distribution Process

Up to February 2020, SFSA Bangladesh as a lead facilitator of the Surokkha project, has been facilitating activities partnering with leading insurer e.g. Green Delta Insurance Company (GDIC), and with 09 aggregators (02 microfinance institutions, 01 contract farming organization, and 06 Farmers' Hubs) who are acting as distribution of weather index insurance products. Surokkha has stepped into 05 districts, and designed, modified & piloted 05 weather index insurance (WII) products for the smallholder farmers for transferring weather-related risks on crops & perils e.g. late blight for potato, excess rainfall for boro rice and deficit rainfall for aman rice. A total of 66,000 farmers have been educated about the importance and benefits of weather index-based crop insurance through various awareness building initiatives. In addition of that around 265 staffs of partner organizations from distributors and insurers received capacity building trainings on weather index-based insurance and its modality. A total of 9,496 farmers (65% are women) with overlap enrolled for the weather index crop insurance for the crops of potato, and rice where 124.2 hectares lands secured. From 05 pilots, GDIC earned USD 7,465 as premium where total sum insured was USD 141,233. Beside the earning premium, they extending their services, and becoming pioneer to implement crop insurance which will increase good will in their business industry. Till now, GDIC and reinsurers (Swiss Re and CICRE RA) paid around USD 10,414 insurance claim among 6,856 insured

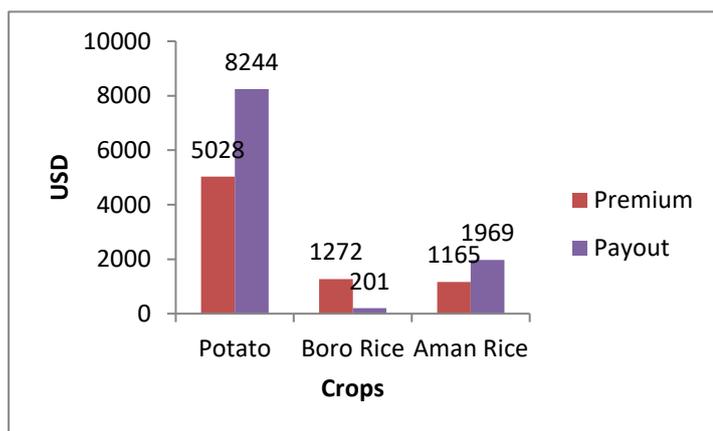


Figure 3: A comparison of payout and premium

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smallholder farmers' for the weather risks of excess rainfall, deficit rainfall and late blight for boro rice, aman rice and potato crops (figure 2).

There were two payout events were arranged for the boro and aman rice with participation of insurance regulator, government agricultural officials, donor, insurer, aggregators etc. These payout sand events not only inspire farmers to become insured for next crops by increasing trust, but also help to increase mass people awareness through them. The big challenge for weather index based insurance is the lack of



Figure 4: A total 675 farmers got Payout for Aman rice weather index Insurance

awareness about the concept and trust not in farmer level but also entire the insurance market. Market players are yet to leverage the pertaining market opportunities as crop insurance is a new concept for them and no success story have been set earlier. Besides, lack of weather data is another challenge. At present Bangladesh Meteorological Department has been running a network of 44 Automated Weather Stations (AWS) along with SFSA has 07 AWSs and has plan to install 200 more AWSs in future. These numbers are not sufficient enough to meet the future demand of weather data that will be required to design commercially viable WII products with minimal basis risk.

The project is going through continuous learning at different levels. The project found positive changed in farmer level. It is noticed that payout not only increasing trust among them but also encouraging them to enroll for the crop insurance more. Aggregators are getting services charges in different slabs which is 7.5% to 14.25% over premium amount. An analysis found that around 750 USD is going to be paid by the insurer to aggregators. Product finalization process from insurer and reinsurer level takes long time which affect the length of time of promotional activity. Besides, make the product affordable for the farmers keeping in mind the business of insurance is a challenge.

Based on the learnings, Surokha looks forward on developing & testing the right distribution channel, developing sufficient awareness among



Figure 5: A rice farmer smiling Face

farmers on the benefit of insurance with continuous investment on ground data infrastructure. The Scaling strategy is to bring more value chain market players in the market, feasible & affordable product development, testing more business models to maximize incentive for the market player and farmers. It has been envisaged that by implementing 'Surokha', smallholders' farmers will increase resilience against weather shocks in cultivating crops and ultimately make them happy and confident.