Warrantage leverages gains from microdosing

Warrantage, or a warehouse receipt system, provides a few months’ credit secured against a stock product closable by the finance lender in the case of failure to repay. It was first used by European farmers in the 19th century and is now being shown to work in a number of African countries, including Burkina Faso, Mali and Niger, where ICRISAT has tied it to fertilizer microdosing, in particular.

Impact

How warrantage works

- Provides finances to farmers to pay for the additional cost of buying and applying expensive fertilizer or improved seeds
- Facilitates storing of surplus grain for sale at the right time
- Cuts out profit-taking intermediary traders without disrupting the supply of farm products into wholesale and urban markets, and without putting pressure on consumer prices.

Income improvements for farmers is between 19% and 113% according to the United Nations Food and Agriculture Organization, which trialed warrantage with rice, groundnut and millet growers more than a decade ago.

Increase in yields was between 44% and 120%, depending on the crop and location. Trial farmers used part of their harvests as collateral for loans and were able to invest in better seeds and fertilizers for their crops.

Millions of smallholder farmers benefit: The tangible benefits are felt most at the farm level and particularly for those with holdings of less than 5 ha. Niger alone has almost 1.5 million such small holdings that provide livelihood for 84% of the population. A similar pattern can be observed in the neighboring Sahelian regions.

Operation of warrantage depends on

- Well-functioning farmers’ organizations
- Supportive local financial institutions
- Safe place for storage
- Non-perishable crops that have a track record of rising prices in the months following harvest.
- A country’s banking regulations must also recognize that agricultural produce is acceptable as a guarantee for lending.

Benefits of warrantage

- Strengthens food security
- Freedom from high interest rates
- Diversification of income sources during off-season
- Agricultural intensification
- Supporting local varieties and biodiversity
- Economies of scale generated by structured demand for inputs

Limitations of warrantage

- Limited number of suitable crops
- Risks inherent to storage of crops susceptible to post-harvest damage by insects and other pests. The burden of such risks is passed from the intermediaries to the farmer organizations.
The example of Burkina Faso

Farmers and warrantage warehousing

- A total of 3,470 farmers adopted the warrantage system, of which 1,785 were women (51%).
- The total amount of credit allocated was 134,884,667 FCFA (US$271,100 at late 2012 exchange rates).
- The 206 tons of stored crops in these stores were mainly maize, sorghum, millet, cowpea, rice, soybean, peanuts and sesame.

Impact

Food sufficiency at the Burkina project sites went from six months at the start of the project to 10.5 months at project end.

Implementation

It comprised identifying, repairing and equipping stores for common use by farmers’ organizations, as well as repairing some government food security storage.

- 58 warehouses were repaired and made functional between 2010 to 2012.
- 153 local committee members were trained in warrantage management.
- 58 contracts were signed at the end of 29 warrantage store visits. The visits built confidence between micro-finance institutions (MFIs) and farmers’ organizations.
- A guaranteed fund was set up by the project in an account created by each farmers’ organization to enable them to get loans.

The process

1. At harvest-time the farmers sent their crops to the warehouse and received credits to solve their immediate finance problems such as medical bills and child schooling.
2. The loans also permitted farmers, particularly women to diversify off-season activities — from adding value to crop produce (processing groundnuts), through horticulture and livestock to small-scale trading.
3. At the beginning of the rainy season, they paid back the borrowed money and used their crops as food or sold at the higher late season price.

Importance of input shops

Exploiting availability of credit depended on farmers having access to inputs. The presence of input shops in a village had a positive effect on –

- Fertilizer use: In villages with input shops farmers use 7.90 kg/ha more fertilizer than villages with no input shop. In Mali, by the end of the project, fertilizer use increased by 36% on millet, 34% on sorghum, 53% for maize and 73% for cowpea.
- Crop yields: Fertilizer use resulted in a higher average of grain yield of millet (541 kg ha⁻¹) where input shops existed, whereas grain yields were lower (486 kg ha⁻¹) in areas where there were none.

The presence of input shops where small packs of fertilizers (1, 2, or 5 kg bags) are sold enabled farmers with limited resources to afford these small packs instead of trying to purchase standard 50 kg bags of fertilizers that are out of their financial reach.

In Burkina Faso, for example, potential store sites were identified and equipped to sell inputs to farmers in project villages within a target five-kilometer radius. Farmers’ organizations were brought together with regional agro-dealers (AGRODIA) through Regional Bank of Solidarity (BRS), and 10 million FCFA was lodged by the project as guarantee money at the bank to support AGRODIA in providing inputs to farmers’ organizations.

Elsewhere, other sources of affordable credit for warrantage have included credit unions, which are generally closer to the rural population and provide reasonable interest rates. Credit unions are increasingly active in the refinancing of MFIs to carry out warrantage activity. The institution may extend credit to warrantage committees with an interest rate of 7%. Committees, in turn, implement warrantage with the producers paying a 10% interest rate; the 3% differential obtained allows the committee to manage the stores and related expenses, while providing the working capital to perpetuate future warrantage activity.

Individual farmers are likely to be paying 100 FCFA ($US 0.17 in 09/2015) per month and per bag in management fees to their farmers’ organization during the six months for which their grain is stored awaiting better market prices.

Future goal

Working with FAO, local agricultural centers, a network of international donors and partners — including the West and Central African Council for Agricultural Research and Development, the USAID and AGRA — ICRISAT is targeting an increase in the number of farmers using both microdosing and the warrantage system from 25,000 to 500,000 in the next few years.

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