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Agricultural insurance in Uzbekistan: Current status and need for structural changes

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Agricultural insurance in Uzbekistan: Current status and need for structural changes

The insurance market in Uzbekistan is characterized by its heavy focus of risk management on strategic crops like cotton and wheat and the very close coupling of insurance with agricultural loans. The majority of farmers who received a subsidized production credit from the agricultural bank Uzagrobank are insuring their crops to become eligible for the said credits, which are mainly provided by the state agricultural insurance company Uzagrosugurta. While the importance of this credit-bundled insurance product is undisputed, this close loan bundling has led to a condition where, to date, most Uzbek farmers perceive the insurance product only as a condition for credit access rather than accepting it as a risk management strategy. Several policy reforms (e.g. presidential decrees and development strategies) aimed at improving the functionality of the insurance product beyond its credit collateral function and making it suitable to manage climate and irrigation risks. However, most of these reforms to date require large-scale transformations and come with high implementation cost and risk. In the scope of this policy brief, we provide policy recommendations towards a sustainable implementation of efficient financial climate-risk management in Uzbek agriculture based on several years of research and implementing activities of IAMO in Central Asia.

What is index insurance and what it could offer?

One of the main characteristics of index insurance is that the yield losses are not assessed in-situ but estimated remotely along an index that closely predicts actual yields. Successful index insurance programs worldwide base their indices typically on climate data from local metrological stations or vegetation growth data from satellites, both of which showed high prediction accuracy when designed accurately and relying on high-quality data. The availability of reliable weather data has been improved substantially with the advent of new

high-resolution satellites (Eltazarov et al., 2021). The advantages of index insurance over traditional loss-based insurance are threefold: First, estimating losses along such indices eliminates the need to visit the farms in situ, decreasing implementation costs. Second, this method increases the transparency of the assessment and hence farmers' trust in the product. Third, index-based products also improve the trust of re-insurers in the product, which is the most fundamental precondition to engage international reinsurance companies in a local insurance product. Reinsurance, in turn, protects the national insurance industry against the risk of a systemic, nationwide catastrophic event.

Meanwhile, there is one challenge remaining, which is slowing down the dissemination of index insurance programs just as much as agricultural insurance in general. The systemic nature of weather risk requires insurance companies to reduce their own risk exposure through regional diversification and reinsurance, making overall premiums rather expensive (Xu et al., 2010). Most insurance programs therefore require substantial state premiums to scale beyond a few high-value production units (Chantararat et al., 2017). To avoid the financial burden of such subsidy schemes, some countries use a different approach: In recent years, many programs bundle their insurance product with agricultural loans, input vouchers, or various extension services to make the product more attractive to low-income farmers and staple production Galenstein et al., 2021; Wong et al., 2020).

By establishing an international database, the authors of this policy brief analyzed 137 insurance pilots or programs in 53 countries (Figure 1). These programs use area yield, weather station data, and satellite data for index design. Due to the higher accuracy, reliance on satellite data turned out to be one of the main characteristics of long-term successful programs (compared to area-yield, data from weather stations, or programs combining area-yield triggers with climate triggers). Among the analyzed programs, there were 27 insurances covering grain crops and 19 insurances covering cotton.

Overall, 78 of the analyzed insurance pilots are still active. Our analysis revealed that most of the successful programs are subsidized or combined with other services such as credit and input supply and rely on satellite information rather than weather stations or area yield indices. Among the most frequently mentioned implementation issues was a lack of technical know-how among farmers and local insurance agencies. Although providing subsidies towards insurance payments may be one of the solutions to maintain functional markets, costs associated with subsidization could be very high. Bundling with other services and loads is not without challenges in implementation due to the necessary involvement of various stakeholders. However, these approaches usually don't create large market distortions and pose a substantially lower financial burden to the state.

IAMO experience

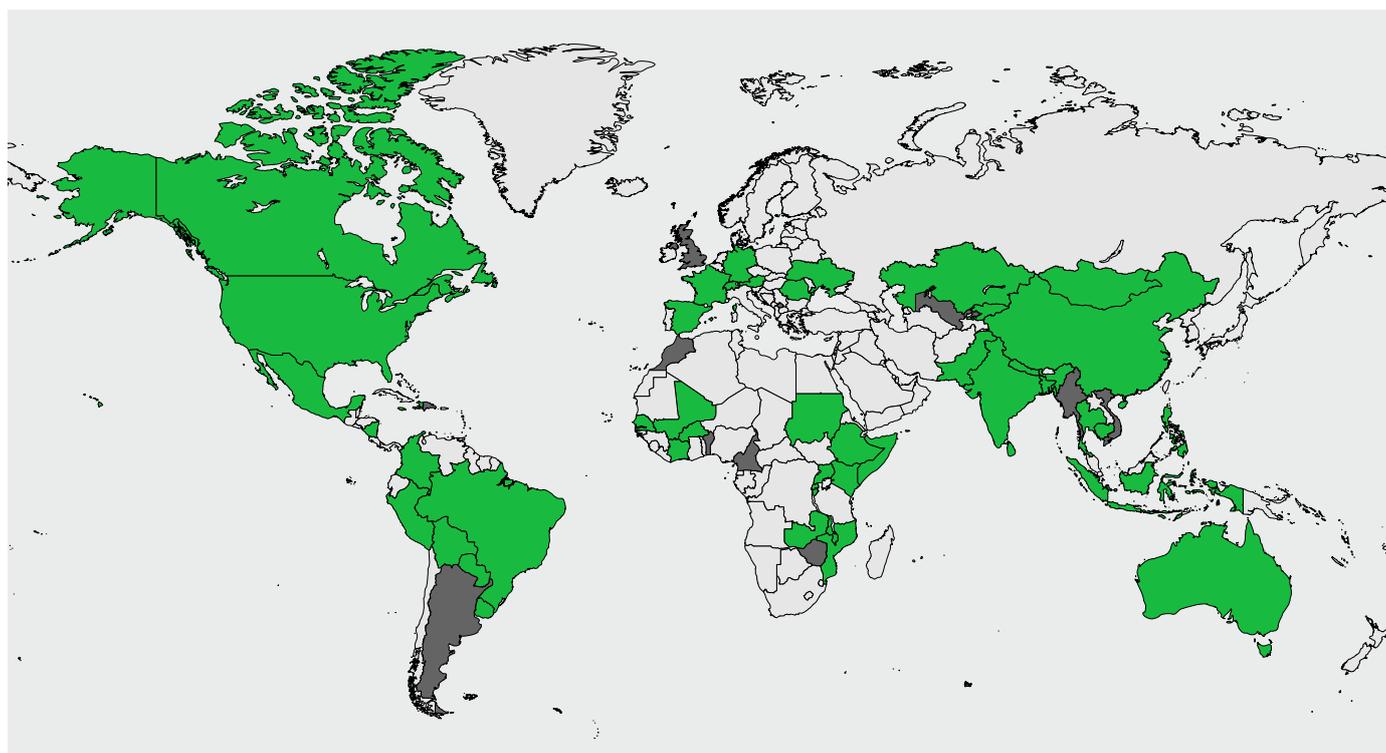
While international evidence provides useful experience and hints, regional particularities of Central Asia necessitate region-specific benchmarks. The authors of this policy brief implemented two piloting activities in Uzbekistan and Mongolia, where index-based insurance products were sold in real-life conditions. In Uzbekistan, IAMO designed a satellite-based rainfall index insurance product, which was sold by GROSS insurance company in the 2019 season. Due to a lack of subsidies and any type of product or service bundling (e.g. loans) at that time, only a very small number of contracts were sold. Interviewed farmers found the market-based price very expensive and asked for coupling the insurance with credit. Similarly, farmers demanded to consider additional risks (e.g. temperature, dry wind) in the index design, which also influence their crop yields. It was planned to include these experiences in an improved product design, however the lockdown in 2020 put all further piloting activities to a halt.

Instead, piloting activities were moved to Mongolia in 2020, which features a similarly arid environment and transition background. Mongolia, at that time, was in the process of establishing a large subsidized agricultural credit line and was open to bundling the product with index insurance. Furthermore, Mongolia did not have major problems with COVID-19 in 2020, which allowed us to conduct marketing and dissemination campaigns as planned.

The premium rate for index insurance was not subsidized and was based on the market price in Mongolia. The market-based index insurance product was used to insure the harvest and serve as a partial collateral for subsidized credit provided by the Mongolian government for summer wheat production in 2020. Farmers who wanted to receive the credit were obliged to insure 30 per cent of the production value. The dissemination of credit and index insurance was implemented by local banks and the State Agricultural Fund (which supports agricultural development) and sold by local insurance companies under the supervision of the national insurance company MonRe.

The credit line was offered to all summer wheat producers in Mongolia. The Agricultural Fund was responsible for the allocation of credits and all applications of eligible farmers were approved. The credit could be used to purchase fertilizer, minerals, and machinery from state organizations at favorable conditions. Therefore, the subsidized credit

Figure 1: Index insurance programs worldwide. Source: Kuhn et al., 2024.



Africa

Benin	1 concluded	2014
Burkina Faso	2 ongoing 3 concluded	2011
Burundi	1 ongoing	2017
Cameroon	1 concluded	2018
Côte d'Ivoire	1 ongoing 1 concluded	2019
Ethiopia	3 ongoing 2 concluded	2006
Kenya	6 ongoing 5 concluded	2009
Malawi	2 ongoing 3 concluded	2005
Mali	1 ongoing 3 concluded	2011
Morocco	1 concluded	1999
Mozambique	1 ongoing 2 concluded	2012
Rwanda	1 ongoing 1 concluded	2010
Senegal	3 ongoing	2012
Somalia	1 ongoing	2022
Sudan	2 ongoing 1 concluded	2003
Tanzania	1 ongoing 1 concluded	2012
Uganda	2 ongoing	2014
Zambia	5 ongoing 3 concluded	2015
Zimbabwe	2 concluded	2018

Europe

Romania	1 ongoing	2022
Austria	1 ongoing	2015
France	1 ongoing	2015
Germany	2 ongoing 1 concluded	2014
Kosovo	1 concluded	2018
Spain	1 ongoing	2007
Switzerland	1 ongoing	2016
Ukraine	3 ongoing 2 concluded	2005
United Kingdom	1 concluded	1998

North and Central America

Canada	2 ongoing	2001
Domenican Republic	1 concluded	2012
Haiti	1 ongoing 1 concluded	2011
Jamaica	1 ongoing	2011
Mexico	1 ongoing 1 concluded	2005
Nicaragua	1 ongoing 1 concluded	2008
Saint Lucia	1 ongoing	2011
USA	2 ongoing	1994

South America

Argentina	1 concluded	2012
Bolivia	3 ongoing	2006
Brasil	3 ongoing	2001
Colombia	1 ongoing 1 concluded	2018

Paraguay	1 ongoing	2017
Peru	2 ongoing	2008
Uruguay	2 ongoing	2014

Oceania

Australia	2 ongoing
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Asia

Bangladesh	3 ongoing 2 concluded	2010
Cambodia	1 ongoing 2 concluded	2015
China	7 ongoing 2 concluded	2007
India	4 ongoing 8 concluded	1999
Indonesia	4 ongoing 4 concluded	2009
Kazakhstan	2 ongoing	2020
Kyrgyzstan	1 ongoing	2023
Mongolia	1 ongoing 1 concluded	2006
Myanmar	1 concluded	2019
Nepal	2 ongoing	2016
Pakistan	2 ongoing 1 concluded	2008
Philippine	1 ongoing 4 concluded	2008
Sri Lanka	3 ongoing	2011
Thailand	2 ongoing 1 concluded	2007
Uzbekistan	1 concluded	2019
Vietnam	2 concluded	2011

functioned as input vouchers, as also practiced in some other countries (e.g. Wong et al., 2020). Farmers needed to pay 30 per cent of the insurance premium upon signature of the insurance contract. The remaining 70 per cent of the premium was paid after the harvesting of the wheat. In total, 387 farmers purchased index insurance for wheat and obtained credit in that season.

Policy recommendation on developing the index insurance market for Uzbekistan

After analyzing the current situation in Uzbekistan and existing projects worldwide, we recommend introducing index insurance as an alternative to traditional loss-based insurance to decrease transaction costs and trust among all involved stakeholders as well as gaining access to the international re-insurance market. Based on our observations on the importance of proper product design and sustainable market introduction for sustainable market development, we advise building experience carefully by introducing index insurance at a pilot scale first. Each season, the pilot can be expanded and adjusted to local conditions, accompanied by capacity building and extension activities. The following sections provide more detailed steps for concrete action to guarantee a conducive environment for this market innovation.

Embedding index insurance into the current credit insurance program

The current credit insurance program is implemented by Uzagrosugurta and Agrobank and is limited to traditional loss-based insurance. The first measure would be to convince these actors to accept index insurance instead of or in addition to traditional loss-based insurance on a pilot scale. Implementing agencies should be aware of the difficulties that may arise in the first years of piloting, especially associated with the need to build understanding and know-how of this new product approach on the side of farmers and in-

urance agents. Therefore, it is important that piloting is implemented only within one or several districts in one selected region for several years, to be adjusted year to year to meet the expectations of farmers and other stakeholders. The involved stakeholders should be prepared to conduct extensive extension activities for farmers to explain the index insurance functions, advantages, and disadvantages. To keep these activities affordable, one should use existing structures, for instance, the so-called Farmers Schools that Agrobank has already established in almost all regions of Uzbekistan.

Consideration in the agricultural insurance fund activities

Recently, the Uzbek Agricultural Insurance Fund was established, and its functions and activities still unfolding and developing. According to the current discussions on this agricultural insurance fund, insurance payouts will be based on the evaluation of independent experts, which is time and cost-intensive and can crucially damage the trust of farmers. In case of disagreements over the accuracy of expert assessment, it could be challenging to convince farmers of the neutrality of insurance agents. Therefore, the insurance fund legislation should be adjusted so that it also allows for establishing index insurance piloting activities in its scope. Index insurance should be treated as an alternative evaluation method to traditional insurance. Furthermore, legislation should also provide an opportunity for free competition between products and farmers and insurance companies, to allow a better fit with individual needs and improve general market conditions, including pricing.

Further Information

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