

KlimALEZ – Sustainable rural development through innovative agricultural insurance products

Client II – International partnerships for sustainable innovations

Climate change is leading to an increase in income volatility in agriculture all around the world. In Central Asia, in particular, drought is one of the biggest climate risks. Producers' adaptation strategies are limited due to underdeveloped financial markets and low capital reserves. Innovative index-based crop insurance can help ensure that the agriculture sector is better equipped to handle climate risks such as drought. In the "KlimALEZ" project, German, Kyrgyz, Uzbek, and Kazakh partners use satellite data to develop a pilot product. The project enables cooperation between regional insurance companies and German reinsurance companies.

Climate vulnerability of agricultural producers

Underdeveloped financial markets contribute to the reduced capability of agricultural producers in Central Asian countries to adapt to climate risks. They are therefore often affected by severe economic losses when extreme weather events such as drought or excessive rainfall occur.



Drought in agriculture.

The aim of "KlimALEZ" is to use innovations in agricultural insurance markets to increase the resilience of the Central Asian agricultural sector to climate risks. By using a transdisciplinary approach and working together with regional insurance companies and a German reinsurer, an index-based agricultural insurance program will be developed for a number of Central Asian countries. This will be introduced in a small pilot project and its impact on socio-economic development and strategic business decisions will be measured.

In addition to increasing the economic resilience of agricultural businesses to climate events, it is also hoped that the introduction of drought insurance will serve to increase investment in sustainable agriculture. The project will not only help address the challenges of climate change in the

agricultural sector, but will also strengthen cooperation with emerging and developing countries in the field of research and development for sustainable socio-economic growth.

Developing innovative insurance products

Despite a wide range of measures to cope with ever-increasing climate risks, the adaptation of these measures in Central Asia is hampered by financial constraints and farmers skeptical of innovation. Kazakhstan and Uzbekistan already have functioning insurance markets and other countries in the region are also considering options for establishing agricultural insurance markets. However, only traditional insurance products have been used to date, while innovative index-based insurance products have not yet been systematically tested.

As part of "KlimALEZ", a database of existing projects and experts will be compiled following a comprehensive review of the literature on global experiences with establishing comparable projects. Based on the current research activities of the project partners, an investigation will then be carried out into the suitability of various weather indices based on climate and remote sensing data for different regions of Central Asia. Once viable index products have been identified for Central Asia, a pilot study will be conducted among farmers in the region. This study will then be reviewed to assess its effectiveness.

Benefits for numerous stakeholders

The project results of "KlimALEZ" will comprise the identification of suitable indices and the calibration of appropriate insurance products as well as the sale of pilot insurance policies to agricultural enterprises. Furthermore, the project will draw up an influence analysis of the

adoption of the insurance product that will look at risk perception, investment activity, and the productivity of agricultural producers. The results will primarily be used by farmers, insurance companies, international organizations, and development cooperation institutions.

The project involves regional and international partners. In addition to the research group, insurance companies, reinsurers, local authorities, and ministries are also involved. The project is also supported by the technical expertise provided by a scientific advisory board.

The pilot activities carried out within this project cover all phases, from obtaining legal authorization to closing contracts with farmers. The comprehensive nature of the project will help to build a functioning index insurance market, thus contributing to better adaptability and sustainability of agricultural production.



Discussion between farmers and business partners.

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