

ENHANCING TECHNOLOGY-BASED AGRICULTURE AND MARKETING IN RURAL PUNJAB

Locations Pakistan

Dates 31/12/2019 - 31/12/2023

Summary

Punjab's agriculture growth rate has declined over the last two decades because of various challenges. These include the inadequate availability of high-yielding cultivars and lack of diversification in cultivation, inefficient on-farm water management, poor infrastructure for value chain development, weak research and extension services that are largely disconnected from market demands. There is, however, also the lack of advanced agriculture management reinforced by new technologies and innovations which can support sustainable agricultural growth in Punjab. This project will facilitate the rapid adoption of advanced technologies to strengthen value chains and improve the productivity and profitability of agriculture in Punjab. It will also enable further development and adoption of advanced technologies to benefit the agriculture sector while contributing to higher farmer incomes and improved livelihoods in rural communities.

The problem

Agriculture plays a significant role to Pakistan's economy and food security. The sector contributes to the country's GDP, it employs over 40% of its labour sector, exports and provides livelihoods to its rural population.

Punjab is Pakistan's largest province for population and economy and contributes to 57% of Pakistan's agriculture production value. The province has the largest share of the country's main crops: maize, wheat, cotton, sugarcane and rice.

However, the sector suffers significant crop losses during harvesting, threshing, cleaning, drying, milling, storage, processing, cooking and consumption.

According to available data, aggregate losses during various post-harvest operations in Pakistan are around 15.3 % for wheat (PCP), 14 % for rice and more than 14% for maize of total production (TDAP).

These losses are caused by a combination of factors, including knowledge, technology and information gaps, poor infrastructure and marketing, and barriers associated with small farming systems, such as dependency on commission agents, for market access, financial services, informal insurance, and other critical inputs and services.

Advanced technologies, such as irrigation systems, mechanized farming technologies and marketing management ICT tools, can have and have been shown to have, a positive impact on farming, improving efficiency, productivity and profitability in the region. These technologies have since been introduced and made available to smallholder farmers in Punjab. However, due to a lack of resources and access to them, they are underutilized. As a result, farmers in the value chain are marginalized and the sector's performance worsened.

What we are doing

To address these challenges, the sector's losses and regenerate Punjab's agriculture sector, this project will help facilitate the adoption of advanced technologies with a focus on harvest, postharvest and marketing for three grain crops: rice, wheat and maize.

Smallholder farmers will be targeted and through increased access to new technologies and training in these, the project will help strengthen value chains in Punjab, improve farmers' livelihoods but also increase food security and provide sustainable agricultural growth for the province.

The project will produce four outputs.

1. To demonstrate the use of advanced harvest and postharvest technologies
2. To develop and install an ICT-based direct marketing platform to improve marketing
3. To build the capacity of stakeholders in developing and adopting advanced technologies
4. To formulate investment opportunities to scale-up adoption of technologies

Results so far

Following the inception report, pilot sites for the project were identified and implementation guidelines were put in place. An activity report was also delivered.

Activities carried out so far include:

- 12,000 farmers participated in the pilot and demonstration activities of rice and autumn maize in 2022

- Three advanced technologies have been demonstrated to farmers ar four pilot sites of Punjab
- MOONJI.PK (the ICT-based direct marketing platform) has been established and more than 1000 rice-growing farmers have been registered
- 1000 farmers participated in pilot activities based on Moonji.pk
- 10,000 tons of farmers' produce has been offered for sale through Moonji.pk
- Two workshops/webinars on agriculture mechanization took place in Lahore and Islamabad during February 2023
- 12,000 farmers have benefited from technology literacy training
- Three knowledge products have been developed and published on the Asian Development Bank (ADB) website
- A feasibility study on 'establishment of agriculture machinery testing and standardization centres' is expected to be conducted between February and March 2023

Donors	Asian Development Bank (ADB)
Partners	Euro Consults (Pvt) Ltd
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