For the last decade, Kazakhstani farmers have suffered from the adverse effect of climate change. Impacts include variable rain patterns and early spring droughts. Farmers have been slow to adjust. For example, over the past three years, 60 percent of farmers in northern Kazakhstan have failed to reach traditional production levels on account of climate variability.

Photo: Ainur Baigozha

Often, the problem is a lack of familiarity with, or insufficient incentives to adopt, modern technologies. A joint effort by USAID and the UNDP project has established experimental demonstration plots to showcase advanced wheat growing technologies that help farmers become resilient to climate variability.

In addition, the USAID/UNDP Climate Resilience Wheat project has contributed specialized weather forecasting software to the National Hydro-Meteorological Agency Kazhydromet which helps provide exact weather forecasting data. Now, using the new software, forecasters are able to produce seasonal weather pattern predictions in a matter of seconds which are then passed along to farmers.

The software tracks data going back 70 years to determine trends in climate changes for better correlation. As a result of improved climate and weather data availability, farmers’ yields are improving despite the increased frequency of adverse weather and growing climate variability.

Over the last two years, 45 farmers have actively cooperated with Kazhydromet to receive weather updates. Participating farmers demonstrated yields on average 20 percent better than farmers who did not participate in the program.

Now, with the program’s effectiveness demonstrated, there are presently 70 farmers participating in the program from the Kostanay region. The project’s demonstration plots have been effective in building trust among farmers for new approaches, and making farmers comfortable to adopt new technologies.

“The technologies that have been demonstrated have effectively changed my farming principles, knowledge and attitude. I was able to increase my wheat crop productivity on each hectare of my land”, commented a local farmer, Igor Grishanov, head of the Abizher company.

Kazakhstan serves as the bread basket for Central Asia and parts of South Asia. USAID’s programs are helping this critical regional agricultural exporter adapt to the impacts of climate change, and ensure consistent levels of agricultural production.