



Food and Agriculture Organization  
of the United Nations

## **FAO-Turkey Partnership Programme on Food and Agriculture (FTPP II)**

# **Strengthening regional collaboration and national capacities for management of wheat rust diseases and resistance breeding in Central Asia and the Caucasus (CAC-Rust)**

GCP/SEC/016/TUR



# About the FAO-Turkey Partnership Programmes

The objectives of the FAO-Turkey Partnership Programmes are to provide support to ensure food security, rural poverty reduction and sustainable forest management, combat desertification and preserve ecosystems in Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan and Uzbekistan and other countries of mutual interest.

Established in 2007, the first phase of the FAO-Turkey Partnership Programme on Food and Agriculture (FTPP) has benefited from trust fund contributions totalling USD 10 million, financed by the Government of Turkey and represented by the Ministry of Agriculture and Forestry.

During the first phase of the programme, 28 projects were implemented in 16 countries between 2009-2015. In 2014, Turkey and FAO commenced the second phase of the FFTP along with the first phase of the FAO-Turkey Forestry Partnership Programme (FTFP) with an additional fund of USD 20 million, bringing Turkey's total contribution to USD 30 million.

Under this new phase, a range of projects will be implemented in the areas of:

- food security and nutrition;
- agricultural and rural development;
- protection and management of natural resources;
- agricultural policies;
- food safety;
- sustainable forests, land and natural resource management and land degradation neutrality; and
- institutional reform, training and national capacity enhancement.



**Reaching out to Central Asia, the Caucasus and beyond**



**Turkey provided financial support totalling USD 30 million to date**



**28 projects have been implemented to date**



**The new phase of the partnership programmes involves 19 projects**

# Regional collaboration is crucial to combat wheat rust diseases in Central Asia and the Caucasus region

Wheat is the most widely grown crop in the world and a staple crop for food security in Central Asia and the Caucasus, with an average annual consumption of around 160 kg per capita in the region. It is produced largely by smallholder farmers for whom it also constitutes an important source of income.

However, the yield and production of wheat in this region are constrained by a number of factors. Among these, wheat rust diseases, namely the yellow rust, leaf rust, and stem rust, caused by species of the fungus *Puccinia* spp., are among the most important biological constraints.

**International collaboration and information sharing is vital to identify emerging races that might present a future threat to the crop.**

Due to the frequent appearance of new races of the rust fungi and their rapid spread, continuous monitoring and international collaboration and information exchange are essential.

An integrated approach focusing on breeding and the use of resistant varieties is the key strategy for effective management of these diseases. In cases of unexpected epidemics, farmers need to have the capacity to act quickly to control disease outbreaks.

The CAC-Rust project has been developed to address these challenges faced by the countries in Central Asia and the Caucasus.

**The project will facilitate regional collaboration and strengthen national capacities to improve surveillance, race analysis and integrated disease management. It will also support the development and deployment of disease resistant varieties.**

The project activities are implemented in collaboration with the national institutions of the beneficiary countries, and international institutions, including the International Center for

# PROJECT AT A GLANCE



## Donor:

Republic of Turkey



## Budget:

USD 1 067 000



## Duration:

1 January 2020 – 31 December 2024



## Objective:

Improve the productivity and resilience of wheat production against emerging wheat rust epidemics and races by strengthening national capacities and regional collaboration



## Target countries:

Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan and Uzbekistan

Agricultural Research in the Dry Areas (ICARDA), the Regional Cereal Rust Research Center (RCRRC) in Izmir, Turkey, the International Wheat and Maize Improvement Center (CIMMYT) and the International Winter Wheat Improvement Programme (IWWIP) operated by Turkey, CIMMYT and ICARDA.

**2** ZERO HUNGER



**3** GOOD HEALTH AND WELL-BEING



**13** CLIMATE ACTION



# SCOPE OF THE PROJECT

The project will support activities in key domains:

- **facilitation of regional collaboration and networking, training of national technical officers;**
- **support for disease surveillance, race analysis and mapping in support of the global rust monitoring system;**
- **characterization of the resistance properties of popular varieties;**
- **support for breeding programmes for developing resistant varieties;**
- **integrated disease management and farmer training;**
- **development of national strategies and contingency plans; and**
- **strengthen the capacities of institutions for rust management.**

The primary beneficiaries of the project will be the national institutions and officers involved in research, extension, seed systems, and plant protection, as well as the farmers in the seven countries in Central Asia and the Caucasus. Neighbouring countries and surrounding regions would also benefit from the knowledge generated. This is of great value given the importance of early warning of potential epidemics from emerging races.



# CONTACT

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### Website:

<https://www.fao.org/in-action/fao-turkey-partnership>



REPUBLIC OF TÜRKİYE  
MINISTRY OF AGRICULTURE  
AND FORESTRY

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