



©FAO/Cengiz Yar

Iraq

Protecting Iraqi farmers by anticipating drought and water shortages

Context

In Iraq, years of conflict and instability have damaged vital agricultural infrastructure, leaving already vulnerable people at further risk of increased food insecurity.

Iraq is also one of the most vulnerable Middle Eastern countries to climate change due to increased temperatures, decreases in precipitation, intensive sand and dust storms, and acute water scarcity. The most exposed and vulnerable sector is agriculture.

In 2022, unfavorable rainfall constrained domestic cereal production from rainfed areas. The Central Statistical Organization estimated the 2022 cereal harvest at 3.2 million tonnes, almost 40 percent below the near-average harvest obtained in 2021. Weather forecasts in September 2022 indicated below-average rainfall, which would likely affect the winter wheat production, a strategic crop critical for food security, with limited water availability for both rainfed and irrigated areas.

SFERA activation overview

Intervention areas	Erbil, specifically Dywaniah, Kirkuk, Kurdistan and Najaf
Budget	USD 625 000
Population reached	1 130 households at risk, or approximately 5 650 people at risk
Anticipated hazard	La Niña-induced drought
Sector	Crops
Anticipatory actions	<ul style="list-style-type: none">• Distribution of 200 kg of high-quality drought-tolerant wheat seeds to plant 1.25 ha of land and 62.5 kg of fertilizers• Provision of training on good agriculture practices
Implementing partners	Ministry of Agriculture

The warning signs were clear. Urgent action was needed to provide vulnerable farmers with agricultural inputs to protect their food security. In order to mitigate the impact of drought on crop production and to maintain farmers' dietary intake and income, the Anticipatory Action window of the Food and Agriculture Organization of the United Nations' (FAO's) Special Fund for Emergency and Rehabilitation Activities (SFERA-AA) was activated thanks to the Government of Belgium's contribution.

Anticipatory Action in Iraq



August 2022

La Niña conditions and below average rainfall forecast expected to negatively impact the winter wheat production.

September 2022

Start of the Anticipatory Action intervention, including the distribution of drought-tolerant seeds, fertilizer and climate smart agriculture training.



The intervention helped 1 130 households to protect their crop production and thus the impact of drought on their livelihoods.

Media updates

FAO in Iraq shares news, stories and updates on its #AnticipatoryAction activities through the [FAO emergencies and resilience website](#) and on Twitter [@FAOemergencies](#).

Features

- Are Iraqi displaced farmers returning to agriculture?
- Iraq: Belgium's contribution through the Special Fund for Emergency and Rehabilitation Activities (SFERA)

Results

- **Anticipatory Actions likely prevented farmers from abandoning their land.** Assisting farmers who had suffered due to drought-like conditions in the previous season mitigated the possibility of a failed harvest in the second season, allowing farmers to cultivate their land.
- **The intervention was appropriate to the forecasting of dry weather conditions caused by La Niña.** Providing farmers with high-quality wheat seeds and fertilizers was an important measure to protect agricultural production and food security.
- **The training sessions ensured that the beneficiaries were provided with technical information that helped them improve and increase productivity and production.** Targeted households benefited from training on good agriculture practices and post-harvesting management to improve the wheat farming and production.

Lessons learned

- **The commitment of partners, in particular the Ministry of Agriculture, local government and communities, made it possible to overcome the challenges in project implementation.** Those challenges included the delayed purchase of seeds and a delay in the samples' laboratory analysis, and security arrangements. However, strong relationships, trust and understanding between FAO, implementing partners and the local community ensured that the seeds and fertilizer could be delivered timely for the planting season and contributed to the successful implementation of the project.
- **The expected strong negative effects of La Niña-induced drought highlighted the need to adopt an anticipatory mindset instead of a reactive approach.** Climatic change and an increase in the frequency of drought, receding rain, irregular precipitation and water scarcity requires the development of an early warning system that can systematically inform Anticipatory Action before drought has an impact on vulnerable farmers. At the same time, anticipatory actions should be embedded within longer-term resilience and adaptation plans, including focusing on the use of modern irrigation systems to conserve water and reduce waste.
- **Ensure operational preparedness and financial flexibility to be able to implement anticipatory actions timely.** The delivery of agricultural inputs in a timely manner for cultivation requires that the funds are available to initiate intervention procedures timely in order to provide at-risk communities with support ahead of the planting season.
- **Raising awareness of and providing farmers with the capacities to implement climate-resilient agriculture cultivation approaches, can considerably contribute to the protection of agricultural production even under below-average rainfall conditions.** The expansion of training programs for farmers, especially on modern agricultural approaches and good agricultural practices, is crucial along with the development of plans by the Ministry of Agriculture and follow-up of technical support in the field.

Contact

Office of Emergencies and Resilience
Anticipatory-action@fao.org
fao.org/emergencies
Rome, Italy

FAO Representation in Iraq
FAO-IQ@fao.org
Baghdad, Iraq

Food and Agriculture
Organization of the
United Nations



Some rights reserved. This work is available under a [CC BY-NC-SA 3.0 IGO licence](#)