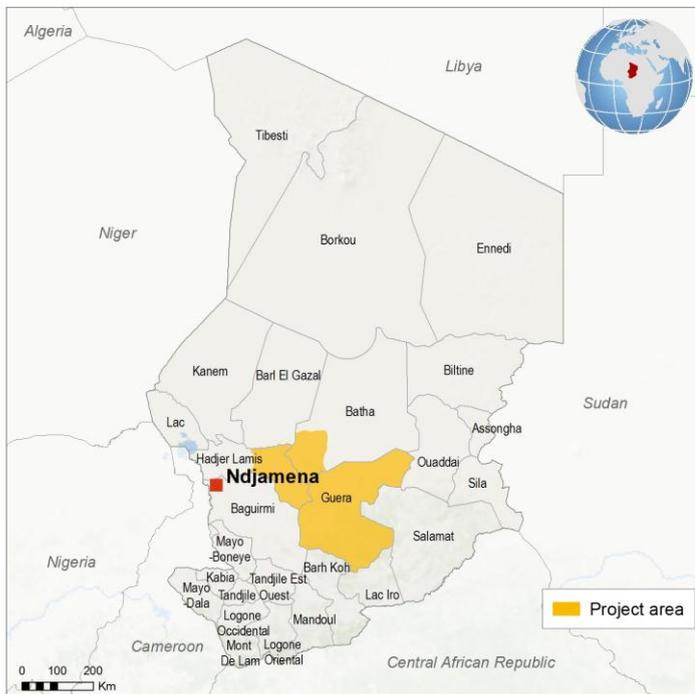


# Chad

## Project to Improve the Resilience of Agricultural Systems in Chad (PARSAT)



The designations employed and the presentation of the material in the map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

## ISSUES

Chad is a food-deficit and low-income country. Chad is also set to suffer greatly from climate change. Mean annual temperature has increased by 0.7°C since 1960, an average rate of increase of 0.16°C per decade, and the projections for average temperature increase are between 1.6 - 5.4°C by the 2090s. All models project annual increases in the frequency of hot days and nights, with the most rapid increases in these events seen in the south of Chad<sup>1</sup>. Seasonally, hot days and nights are projected to increase fastest during July-September<sup>2</sup>.

The Sahelian belt of the country, where the project is located, is one of the areas most effected by food insecurity and structural vulnerability. Rural households account for 86 per cent of Chad's population, meaning that the agriculture sector in Chad is the main source of income for the majority of its labour force.

Climate change is exacerbating natural resource degradation and reducing the potential of productive lands. For example, rural farmers have to contend with climate shocks such as drought, rainfall deficits, floods and locust invasions. These shocks are reducing yields and making the cropping seasons hard to predict for traditional farmers. Traditional resilience strategies are no longer as effective as they were and the lean season is becoming more challenging to smallholder farmers.

The main activity of farmers in Chad is the production of cereals (millet, rain-fed sorghum and flood recession farmed white sorghum). These are mainly rain-fed crops that will be exposed to more frequent droughts and flooding with drastic impacts on the livelihoods of smallholders and their food security.

The variable climate is making it difficult for farmers to adapt. Additionally, vast areas of fertile lowlands are now no longer prosperous during rainy seasons due to the increase in flooding risks. Even shifting to rain-fed cropping systems, such as those for sorghum is limited as crop yields are becoming very low.



Investing in rural people

Adaptation for  
Smallholder  
Agriculture  
Programme

# ASAP

Launched in 2012, the Adaptation for Smallholder Agriculture Programme (ASAP) channels climate and environmental finance to enable smallholder farmers who participate in IFAD projects to increase their resilience. Through ASAP, IFAD is systematically integrating climate resilience into the overall IFAD portfolio.

## PROJECT SUMMARY

**Total cost:** US\$36.2m

**Approved IFAD financing:** US\$22.2m  
**ASAP grant:** US\$5.0m  
**DSF Grant:** US\$17.2m

**Other contributions:**  
GEF-Least Developed Countries Fund: US\$7.3m  
Government: US\$6.1m  
Beneficiaries: US\$0.59m

**Project period:** 8 years  
(2014-2021)

**Executing agency:**  
Ministry of Agriculture and Irrigation

**ASAP beneficiaries:**  
35,000 households

**Project objective:** To contribute to the sustainable improvement of food security and income of rural households in the project area.

<sup>1</sup> C. McSweeney, M. N. (n.d.). UNDP Climate Change Country Profiles.

<sup>2</sup> World Bank Chad Dashboard

## ACTIONS

The PARSAT project will contribute to tackling the climate issues that smallholder farmers are facing in Chad. The project will focus its efforts on the most critical activities in consultation with, and in a participatory manner with, small rural producers.

One aspect of PARSAT support is to improve the collection and management of agricultural water. It is doing this by constructing or repairing water collection infrastructure, taking into account the varying physical and socio-economic conditions of each area.

Another area of project intervention is the sustainable intensification of production systems that have proven resilient to climate variability. PARSAT will support the sustainable intensification of cereal production systems (millet, sorghum etc.), alongside complementary crops (such as groundnut, sesame, cowpea etc.), market gardens and small-livestock.

The first set of activities tying into the promotion of resilient practices, will involve the training of farmers on improved techniques. This will be done via Farmer Field Schools (FFS), combining education with an initial equipment grant. This will allow participants to promote resilient systems and apply best production practices.

The project will support seed producer networks, focusing on the research and development of more climate resilient varieties and allowing beneficiaries access to seeds. That is to say, promoting seeds that bear crops with a shorter cycle or those that are more resilient to water or heat stress (an example being the Kordofan variety of sorghum).

An intersecting line of support from the PARSAT project concerns education. This area of the project builds on previous interventions where complementary educational measures were crucial in enabling beneficiaries to participate in productive activities. As such, PARSAT decided to offer three educational modules; literacy, nutrition and environmental education. Literacy was particularly important in order to reduce the illiteracy rate amongst women and school dropouts. Nutrition is vital, especially with a high number of reported cases of malnourished children and pregnant women. Finally environmental education for all sectors of the population, but particularly for youth will help educate the farmers of tomorrow on how to live and farm sustainably, and how to adapt to a rapidly changing climate.

## EXPECTED IMPACTS

One of the main effects of the project will be the sustainable increase to Chad's agricultural production in both the harvesting and fallow seasons, whilst reducing the risks related to climate change and supporting the diversification of income sources. The project will support 300 income generating activities for the most vulnerable 3,000 beneficiaries. This will also allow the beneficiaries to develop an income stream that they can use in the dry season.

The main quantifiable impacts of PARSAT will be; a sustainable increase in production; an increase in income from agriculture production, livestock rearing and storage; a temporary 'safety net' for

the most vulnerable people during the dry season; new employment opportunities; increased number of women and youth involved in agriculture; better water and soil management and finally, an increase in literacy and education.

PARSAT will develop a 700 hectares gardeners site, 5,000 hectares of flood-recession crops and 4,300 hectares of rain-fed crops. This production system is a good example of an effective adaptation strategy. The project will total 10,000 hectares of rehabilitated land, benefitting 22,100 producers. A total of 800 Farmer Field Schools will be established, directly benefitting 20,000 farmers. Training and exchanges will benefit 2,890 people.

A further project impact will be the rehabilitation of roads and rural tracks. Production for rural farmers can suffer greatly from a lack of access to markets because of poor transport links. This can cause spoiling of crops which don't get to market in time. The project will improve conditions of rural tracks and roads This will enable the more remote farmers to access markets. Also using technologies such as prefabricated concrete, the project will ensure that the roads remain open to farmers despite any climate shocks.

PARSAT will train 95 seed producers to stock and breed climate resilient seeds. This will allow wider dissemination and access to these climate resilient seeds for normal smallholder farmers

At least 6,400 people will become literate through the programme's educational efforts. Additionally 5,000 will receive access to nutritional education. This will allow them to make more informed health decisions on diet and lifestyles. The programme will also provide access to 5,700 people to benefit from education about the environment and issues relevant to them.

Overall PARSAT will reach approximately 175,000 direct beneficiaries (35,000 households), of which 40 per cent will be women and 30 per cent will be young people.

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