

## CLIMATE CHANGE MITIGATION AND ADAPTATION

# SMART AGRICULTURAL PRACTICES THROUGH CLIMATE SERVICES WITHIN MARKET GARDEN OPERATIONS IN SAMANKO, MALI

### BACKGROUND

Agricultural production in Africa is beginning to feel the effects of climate change. Precipitation patterns are expected to change across the continent. In many areas, droughts will become more frequent, more intense and longer-lasting. In other areas, new precipitation patterns will cause flooding and soil erosion. In Mali, the effects of climate change are being felt within all sectors, particularly the agricultural sector, which accounts for more than 70% of the country's economy. In recent years, Mali has seen late and/or early onset of rainfall, coupled with abrupt cessation, which has consequences for production. Adaptation and mitigation measures are therefore urgent and essential in order to cope with these climate changes. In this project, the National Agricultural Directorate aims to improve the production of family farms (about 330) in the centre of Samanko, a village located 50 km from Bamako, and to strengthen their resilience to climate hazards.

One of the first challenges was therefore to identify and promote sustainable and climate-smart practices and technologies. Specifically, this involves:

- Forecasting the extent of meteorological phenomena, producing and disseminating weather and climate forecast bulletins to provide timely warnings, thus facilitating vital decision-making.
- Providing expert advice to producers on disaster prevention and management.
- Providing information to rural producers and early warning authorities for food security in the fight against drought and adapting to the adverse effects of climate change.

### DESCRIPTION

The overall methodological approach was based on a participatory approach, and took the following into account: a site visit to the Samanko market garden, a documentary study, and providing information and raising awareness among the population on smart agricultural practices and climate services. Measures for a new technical and institutional organisation for market garden operations in Samanko were then proposed in order to identify appropriate solutions to the difficulties faced by farmers, and to ensure the widespread dissemination of climate services to producers in Samanko.

As a result, 25 producers – 30% of whom are women – have improved their knowledge of composting. The survey showed that 100% of producers do not have access to weather information that would allow them to better manage their annual agricultural planning. Operations were laid out in individual plots equipped with an irrigation system, allowing each plot to be autonomous in terms of irrigation. The results revealed that almost 75% of the farmers are not educated and do not have a high level of basic training.

### IMPACT

The data obtained allows us to continue informing and educating producers about adaptation and mitigation measures in the face of climate change. The study involved a core group of 25 pilot farmers, who will train other producers in the area and elsewhere in the country, thus enabling the actions to become sustainable.

### LESSONS LEARNED

In order to carry out a project, it is important to choose a theme in line with the activities identified in the organisation's work programme, and to monitor the project's implementation closely.

**Country:** Mali

**Sector:** Agriculture

**Key words:** Climate-smart practices, sustainability, drought

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