## Central African Republic

**IAEA Member State since January 2001** 

### **Selected achievements**

**2021:** Central African Republic develops the Atlas of Isotope Hydrology and Water Quality.

**2019–2021:** Field trials prove that a cassava yield can be tripled using nuclear techniques and result in the production and translation of brochures in the local language to disseminate best soil practices.

## **National priorities**

- Nuclear and radiation safety
- Food and agriculture
- Human health and nutrition
- Water resources management and the environment
- Energy planning

## **Main areas of IAEA support**

- National radiation protection authority
- Cassava yield improvement
- Animal health and production
- Water resource management

## **Project successes**

## **Crop management, soil and water management**

The IAEA has been supporting projects at the University of Bangui in order to to increase cassava productivity in the Central African Republic.

Field trials demonstrated the potential for a threefold increase in cassava yield using nuclear techniques. Brochures were produced in the local language, and field training for farmers was provided each year to disseminate best soil practices. Fifty per cent of the participating farmers were women, reflecting their important role in driving



Researchers from the University of Bangui examine water samples from a well in the Central African Republic. (Photo: L. Gil/IAEA)

innovation in rural areas and in agriculture. The programme has extended its success by scaling up best practices and expanding to other crops including maize, sugarcane, and sorghum for long term agricultural impact.

### **Water resources management**

With support from the IAEA, the Lavoisier Laboratory at the University of Bangui created the Atlas of Isotope Hydrology and Water Quality for the Central African Republic, showcasing numerous thematic maps that have been generated from sampling campaigns conducted in several areas of the country. These thematic maps are excellent sources of information on quality, availability and the origin of ground and surface water resources. The Atlas is a solid basis for decision-making and the implementation of regulatory management processes for the country's water resources.

The Central African Republic plays an active role in IAEA-supported regional projects to characterise groundwater in the Sahel region including the Lake Chad Basin.

#### Plant breeding

The IAEA supported the University of Bangui in the development of M2–M3 mutant maize lines that are resistant to the fall armyworm (FAW). Infrastructure for screening for resistance under controlled conditions has been set up. Future efforts will concentrate on advancing mutant maize varieties resistant to FAW to contribute to enhanced food security in the country.

# Participation in the major initiatives

• ZODIAC

## **Date of imPACT Review(s)**

2021



A farmer in Central African Republic is transporting cassava tubers after harvest. (Photo: M. Zaman/IAEA)



