

## SNAPSHOT

## Use of satellite imagery and remote sensing data for improved forecasting and response to potential locust outbreaks



<u>**Photo:**</u> Locust monitoring laboratory at CLCPRO/FAO

This service will improve knowledge about the functioning of biotopes, streamline monitoring and control operations and allow more efficient forecasting and response to potential locust outbreaks.

**Telling Our Story** U.S. Agency for International Development Washington, DC 20523-1000 http://stories.usaid.gov One square kilometer of infestation contains nearly 40 million locust, which can eat the same amount of food as 35,000 people per day. In West Africa, during the 2003-2005 invasion, more than 8 million people were affected, many cereal crops were ravaged and up to 90 percent of market crops and pastures were destroyed. It took almost \$600 million and 13 million liters of pesticides to control the situation.

SERVIR WA through AGRHYMET is supporting the principal actor in the Sahel region Commission de lutte contre le Criquet pèlerin dans la région occidentale of the Food and Agriculture Organization (CLCPRO/FAO), to improve its Desert Locust Information Service (DLIS)'s ability to identify potential breeding areas quickly and with high reliability. This will allow the dispatching of response teams more efficiently and therefore reduce the risk of outbreaks. As well, the SERVIR WA service will allow a better understanding of the locust biotope and therefore provide for additional precision in forecasting.

SERVIR WA, using high resolution imagery (spatial and temporal) and rainfall, wind, temperature, soil moisture and other factors provided by NASA, ESA and other sources will integrate this service into the existing platforms and will provide training to the responsible agencies in the Sahel region. The service is being co-developed with the principal actors.

As with all SERVIR services, this service was identified during stakeholder consultations. This development problem was chosen to be the most effective use of SERVIR WA's capabilities with regard to food security resilience. Stakeholder consultations were held in the front line countries (Chad, Mali, Mauritania and Niger) but the service will benefit all of the Sahel.

The service will be developed in a pilot area, in northern Mauritania, which is a locust hot spot that requires permanent and effective monitoring.

This service is expected to lead to reduction/eradication of locust invasions and secure potential agro-sylvo-pastoral production systems to ensure food security, preserve biodiversity and protect the physical and socio-economic environment.