



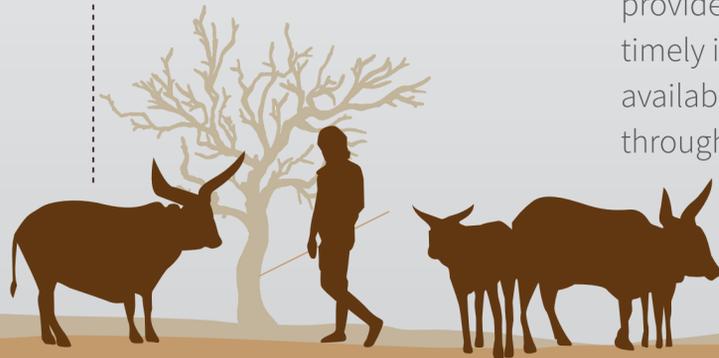
FINDING EPHEMERAL WATER BODIES: USING SATELLITE DATA TO GUIDE PASTORALISTS TO WATER

SERVIR-West Africa works with local stakeholders and beneficiaries to improve the accuracy of this service to strengthen resilience of pastoral systems in response to a changing climate.

1 The **Ferlo region** in north-central Senegal is a vast, dry savannah that spans for more than **70,000 km²** and covers over one third of the country's total area. The region is known for its long dry season (Oct-June) and short wet season (July-Sept).



2 With only a few, scattered settlements, the area is reserved almost exclusively for **pastoralism**. Presently, around **60,000 herders** inhabit the area.



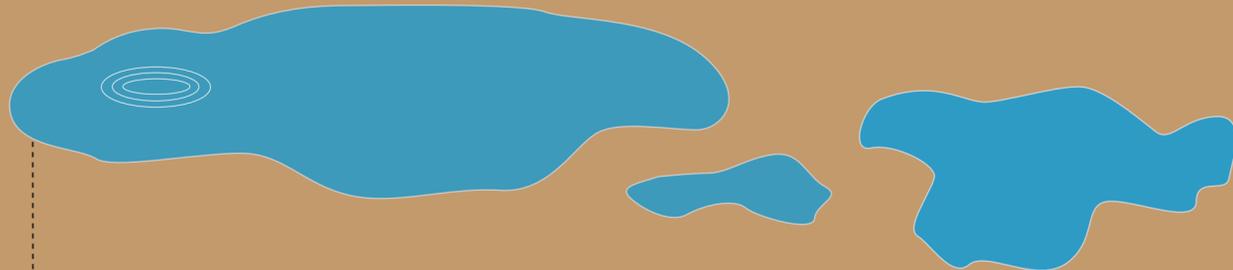
4 Using **satellite imagery** from Landsat and Sentinel-2, SERVIR provides accurate and timely information on the availability of water throughout the region.



5 Information can be shared with pastoralists via **community radio broadcasts**, **rural markets**, and **non-governmental organizations**. Information can also be accessed via a **web-based** platform and through SMS messages in local languages.



3 During the first months of the dry season, pastoralists depend on **ephemeral watering holes** (short-lived ponds that fill with rainwater during the wet season) for their livestock. In the past, they relied on historical knowledge to find the watering holes. Today, changing weather patterns have made historical knowledge less reliable as to when these ponds have water.



6 This service helps to ensure that pastoralists have **year-round access to water and forage** for their livestock.

High-resolution maps that are made available by this service help local authorities make informed decisions on natural resource management.

SERVIR connects space to village by helping developing countries use satellite data to address critical challenges in food security, water resources, weather and climate, land use, and natural disasters. A partnership of NASA, USAID, and leading technical organizations, SERVIR develops innovative solutions to improve livelihoods and foster self-reliance in Asia, Africa, and the Americas.

