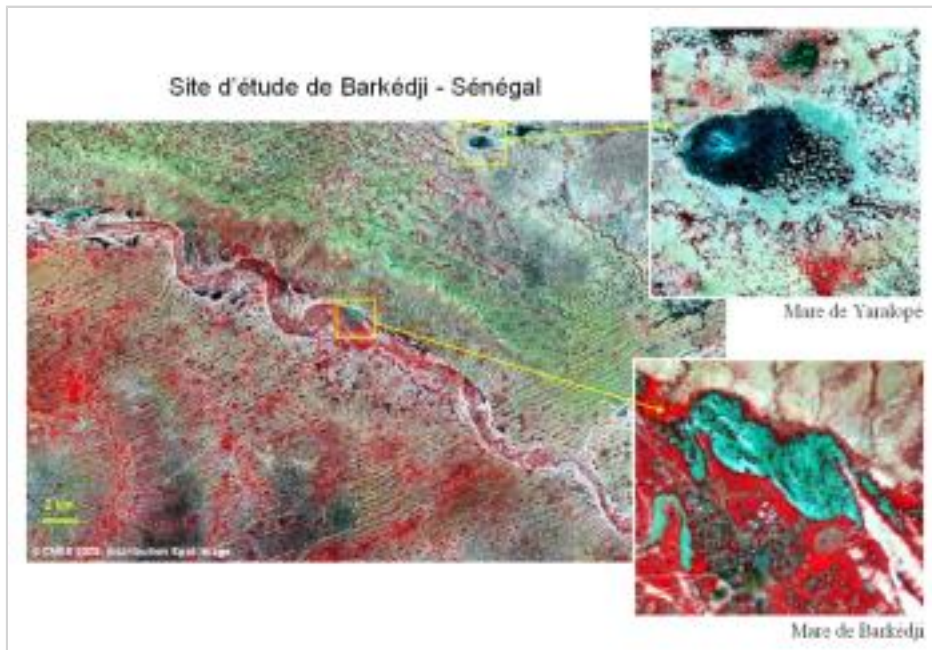


# Remote epidemiology



In the field of epidemiology surveillance, models for predicting the risk of epidemics can be established by comparing satellite data resulting from environmental observation (remote sensing) with health data collected on the ground.

Applications can be found in a variety of fields:

- \* electronic surveillance and alerts
- \* studying the relationship between the environment and health
- \* disaster management
  - \* early warnings and epidemic management
  - \* natural or industrial disasters
  - \* bio-terrorism

The use of satellite images represents a real technological breakthrough in the fight against malaria, Rift Valley fever, yellow fever, dengue fever, etc. in developing countries.

The use of satellites offers many advantages:

- \* Access to communication
- \* Electronic surveillance/work-sharing
- \* Remote sensing
- \* The collection of environmental data for building risk prediction models concerning environment-dependent diseases
- \* Positioning
- \* Assistance with coordination in disaster response

MEDES works together with various consortia in Senegal, South America, Burkina Faso, Niger and French Guiana to set up epidemiological surveillance networks and thus help combat these terrible diseases around the world.

**Several projects have resulted in lasting solutions**, such as the ASTER epidemiological surveillance network for the French Defence establishment, or the tuberculosis surveillance network in Georgia. Projects currently in progress include Vecmap and Epicam. They have been giving promising results and are likely to lead to the systems currently deployed being established on a permanent basis.