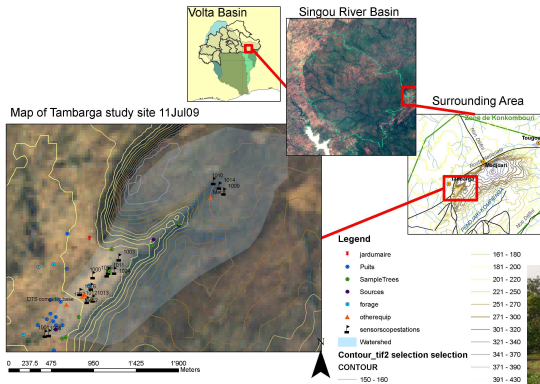


Info4Dourou

- Combined Research and Development Project
- Watershed dynamics & ecohydrology in heterogeneous landscape

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Regional Context

- Semi-arid West Africa
- Irregular rains
- Flashier or more quickly responding drainage system
- Livelihoods of rural farmers suffer from these problems
- Due to coupled:
 - Global climate change
 - Regional land use change

Objective 1: Watershed Modeling

To understand spatial variability within the river basin

- Rocky escarpment that frames the watershed.
- Agricultural core of the watershed, on both sides of the stream, ranging from the well drained millet fields to the marshy rice fields.
- Outlet where the stream empties into a small wetland before being channeled under a bridge



Equipped Small Watershed

- 15 sensorscope stations
- Village of Tambarga, Singou Basin
- Komienga region of Burkina Faso.
- 144 wind, soil, rain, solar radiation, temperature-humidity, and surface temperature sensors
- 3 networks
- Equipment installed in April 2009 and will remain installed a minimum of a year and a half
- Additional meteorological and hydrology equipment



Objective 2: Ecohydrology

To understand the hydrologic importance of large woody vegetation in the agricultural landscape

- *Sclerocarya birrea*
- Agroforestry species
- Intensive soil measurements
- Light infiltration
- Vertical canopy temperature profiles
- Canopy interception
- Stemflow



Objective 3: Participatory Natural Resource Management

- Support local efforts
- Make environmental information and technologies accessible to rural residents
 - Education
 - Outreach
- Tremendous support from local residents regarding our research and the stations
- Enthusiasm & collaborations with:
 - Rural farmers
 - Local technicians
 - Village children
 - African students and researchers



Example Data from First 3 Month Campaign

