

The BAOBAB data portal and DACCIWA database

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In the framework of the African Monsoon Multidisciplinary Analyses (AMMA) programme, several tools have been developed in order to boost the data and information exchange between researchers from different disciplines: a user-friendly data management and dissemination system, quasi real-time display websites and a scientific paper exchange collaborative tool. The information system is enriched by past and ongoing projects (IMPETUS, FENNEC, ESCAPE, QweCI, ACASIS, DACCIWA...) addressing meteorology, atmospheric chemistry, hydrology, extreme events, health, adaptation of human societies... It is becoming a reference information system on environmental issues in West Africa: BAOBAB (Base Afrique de l'Ouest beyond AMMA Base).

The projects include airborne, ground-based and ocean measurements, social science surveys, satellite data use, modelling studies and value-added product development. Therefore, the BAOBAB data portal enables to access a great amount and a large variety of data:

- 250 local observation datasets, that have been collected by operational networks since 1850, long term monitoring research networks and intensive scientific campaigns;
- 1350 outputs of a socio-economics questionnaire;
- 60 operational satellite products and several research products;
- 10 output sets of meteorological and ocean operational models and 15 of research simulations.

Data documentation complies with metadata international standards, and data are delivered into standard formats. The data request interface takes full advantage of the database relational structure and enables users to elaborate multicriteria requests (period, area, property...). The BAOBAB data portal counts about 900 registered users, and 50 data requests every month. The databases and data portal have been developed and are operated jointly by SEDOO and ESPRI in France: <http://baoab.sedoo.fr>.

The ongoing DACCIWA (Dynamics-Aerosol-Chemistry-Cloud Interactions over West Africa) project uses the BAOBAB portal to distribute its data: <http://baobab.sedoo.fr/DACCIWA/>. 30 datasets are already available:

- Local observation from DACCIWA-supersites at Save' (Benin), Kumasi (Ghana), and Ile-Ife (Nigeria);
- Radiosonde data from stations in Benin, Cameroon, Coôte d'Ivoire, Ghana and Nigeria.

During the June-July 2016 DACCIWA campaign, a day-to-day chart display software has been designed and operated in order to monitor meteorological and environment information and to meet the observational team needs:

- Quickooks from DACCIWA-supersites instruments;
- Atmospheric and chemical models outputs;
- Satellite products (Eumetsat, TERRA-MODIS...).

This website (<http://dacciwa.sedoo.fr>) constitutes now a synthetic view on the campaign and a preliminary investigation tool for researchers. Similar websites are still online for past campaigns : AMMA 2006 (<http://aoc.amma-international.org>) and FENNEC 2011 (<http://fenoc.sedoo.fr>).

Since 2011, the same software enables a group of French and Senegalese researchers and forecasters to exchange in near real-time physical indices and diagnosis calculated from numerical weather operational forecasts, satellite products and in situ operational observations along the monsoon season, in order to better assess, understand and anticipate the monsoon intraseasonal variability (<http://misva.sedoo.fr>). Another similar website is dedicated to heat waves diagnosis and monitoring (<http://acasis.sedoo.fr>). It aims at becoming an operational component for national early warning systems.