



The AMMA information system

Laurence Fleury (1), Guillaume Brissebrat (1), Jean-Luc Boichard (1), Sophie Cloché (2), Arnaud Mière (1), Oumarou Moulaye (3), Karim Ramage (2), Florence Favot (4), and Damien Boulanger (1)

(1) SEDOO, OMP, Toulouse, France (ammaAdmin@sedoo.fr), (2) ESPRI, IPSL, Palaiseau, France, (3) CRA, AGRHYMET, Niamey, Niger, (4) URA GAME, CNRS/Météo-France, Toulouse, France

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. The AMMA information system includes (i) a user-friendly data management and dissemination system, (ii) quasi real-time display websites and (iii) a scientific paper exchange collaborative tool. The AMMA information system is enriched by past and ongoing projects (IMPETUS, FENNEC, ESCAPE, QweCI, ACASIS, DACCIWA...) addressing meteorology, atmospheric chemistry, extreme events, health, adaptation of human societies... It is becoming a reference information system on environmental issues in West Africa.

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

- 250 local observation datasets, that cover many geophysical components (atmosphere, ocean, soil, vegetation) and human activities (agronomy, health). They have been collected by operational networks since 1850, long term monitoring research networks (CATCH, IDAF, PIRATA...) 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, property value...). The AMMA data portal counts about 900 registered users, and 50 data requests every month. The AMMA databases and data portal have been developed and are operated jointly by SEDOO and ESPRI in France: <http://database.amma-international.org>. The complete system is fully duplicated and operated by CRA in Niger: <http://amma.agrhymet.ne/amma-data>.

(ii) 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 during the AMMA 2006 SOP (<http://aoc.amma-international.org>) and FENNEC 2011 campaign (<http://fenoc.sedoo.fr>). At present the websites constitute a synthetic view on the campaigns and a preliminary investigation tool for researchers. Since 2011, the same application 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 diagnosis and forecast of heat waves in West Africa (<http://acasis.sedoo.fr>). It aims at becoming an operational component for national early warning systems.

(iii) A collaborative WIKINDX tool has been set on line in order to gather together scientific publications, theses and communications of interest: <http://biblio.amma-international.org>. At present the bibliographic database counts about 1200 references. It is the most exhaustive document collection about the West African monsoon available for all.

Every scientist is invited to make use of the AMMA online tools and data. Scientists or project leaders who have management needs for existing or future datasets concerning West Africa are welcome to use the AMMA database framework and to contact ammaAdmin@sedoo.fr.

