



Early Flood Warning in Africa: Results of a Feasibility study in the JUBA, SHABELLE and ZAMBEZI

FP Pappenberger (1), Ad de Roo (2), Roberto Buizza (1), Katalin Bodis (2), and Vera Thiemig (2)

(1) European Centre for Medium Range Weather Forecasts, Reading, United Kingdom (florian.pappenberger@ecmwf.int, +44-(0)118-9869450), (2) European Commission, DG Joint Research Centre, Institute for Environment and Sustainability, Land Management and Natural Hazards Unit, Ispra, Italy

Building on the experiences gained with the European Flood Alert System (EFAS), pilot studies are carried out in three river basins in Africa.

The European Flood Alert System, pre-operational since 2003, provides early flood alerts for European rivers.

At present, the experiences with the European EFAS system are used to evaluate the feasibility of flood early warning for Africa. Three case studies are carried in the Juba and Shabelle rivers (Somalia and Ethiopia), and in the Zambesi river (Southern Africa). Predictions in these data scarce regions are extremely difficult to make as records of observations are scarce and often unreliable.

Meteorological and Discharge observations are used to calibrate and test the model, as well as soils, landuse and topographic data available within the JRC African Observatory. ECMWF ERA-40, ERA-Interim data and re-forecasts of flood events from January to March 1978, and in March 2001 are evaluated to examine the feasibility for early flood warning. First results will be presented.