

## **PREM project summary**

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Number: **11**

Title:

Integral Water Management and Food Security along the Niger River in Mali: a Spatial Environmental Economic Analysis

Country:

Mali

Involved persons:

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Abstract:

The natural resources of the Inner Delta fully depend on the annual occurrence of the flooding of the Niger River. Because local rainfall is limited and is highly variable from year to year, the area would be a desert without these flooding events. This ecological and economic dependency of the Inner Niger Delta on the Niger River implies that each intervention influencing the river discharge upstream has an impact on the livelihood of the population as well as the ecology of the Inner Delta. The overall aim of the project is to support decision making in an integral consideration at basin level with regard to management and construction of dams in the Upper-Niger in relation to food security and ecological conditions in the downstream Inner Niger Delta. In other words, the main question addressed in the study is which river management scenario best secures food and environment in the Upper Niger Basin. At the same time, however, the project intends to provide the separate ingredients for a sound decision by the local decision makers and stakeholders in the plan area. The study recognizes the fact that not all relevant criteria can be expressed in monetary terms. Therefore, the tools applied in this project aim at identifying a best possible solution with the input of various decision makers, as well as to make existing information better accessible. This is achieved by designing a decision support model, which is driven by spatially defined socio-economic indicators for several relevant scenarios (i.e. construct new dams, improve efficiency of existing dams). Local decision makers are invited to express their preferences by running a number of these scenario simulations.

Dissemination:

The study aims at applying tools for outreach activities to reach different audiences:

- *Scientific community:* The standard outputs of a scientific study apply. These include a final report, several working papers which are expected to lead to scientific articles in internationally peer-reviewed journal. The team is optimistic about the publication

potential, since the study is integrating research that has been ongoing for several years and therefore can be considered a rich pool of unpublished knowledge.

- *Policy stakeholders*: The evaluation tools (CBA, MCA and GIS maps) can be used in an interactive setting with local stakeholders and decision makers. In workshops with local stakeholders and decision makers, the tool can be a basis for discussions on sustainable management of the river basin.
- *General public*: The project aims at raising awareness of the economic value of the Inner Niger Delta among the wider audience in Mali by focussing at the popular media. These involve radio, newspapers and television. The access and presentation to the former two channels will be covered from funding sources of Wetland International. The project hopes to benefit from future PREM outreach-activities for the production of a short documentary to reach national and international broadcast stations. This documentary can also be used for educational purposes.

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