
Local Action

Floods forecasting system for integrated natural resources management in the Niger Inner Delta in Mali

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Plan

- Area of study
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AREA OF STUDY

SECTORISATION ET AMENAGEMENTS MAJEURS DU BASSIN DU NIGER
THE NIGER RIVER BASIN DIVISIONS AND MAJOR DEVELOPMENTS
The Problem

The inner delta of Niger in Mali is an important water ecosystem for:

- irrigation
- Fisheries
- Navigation
- livestock

There is a great interaction between different users of the region.
The Problem

All the previous activities conducted in the inner delta depend greatly on:
- The availability of water in the delta
- The seasonal variation of the water and resource of the delta linked to climate variation

Good sharing of the water of the delta is function of importance of flooding

Unfortunately decreasing of water in the delta is observed for recent years due to climate variability

This can lead to conflict in the use of water by different users
isohyètes moyennes de la période 1950-67 en millimètres

isohyètes moyennes de la période 1968-97 en millimètres
Indices des débits maximum de crue à Mopti

Mean discharge index at Mopti in the delta
daily discharge at Koulikoro, Mopti and Niamey: average and for 97/98
Activities implemented

• Identification by surveys of the needs of the populations related to water and the resources of the delta (there is a great need of forecast for the flood during the rainy season)

• Framework of concertation between the different stakeholders and technicians of project region

• Flood forecasting system used to forecast weekly the water level at Mopti based on water levels at Koulikoro and Douna
Impacts of implemented activities

• Improve understanding between stakeholders contributing to a better sharing of water and resources of the area of the project

• Informations on flood forecast contribute to improve management of the water and resource of the project region

• Help stakeholders particularly to maximize their production with a better use of flood informations (irrigation, fisherie,..)
Stakeholders involved

- AGRHYMET regional Centre, intergovernmental organisation (creates the flood forecast model and implements the project)
- the Mali national hydraulic direction and the Mopti hydraulic representation (will manage the flood forecast system);
- office of rice of Mopti which is semi-private
- Operation fishes of Mopti which is a regional agency of organization of the sector of fishing;
- regional Direction of the agriculture which intervenes in the organization of the rural world;
- the regional Centre of agronomic research/Institute of the rural economy, which animates the research fundamental and applied in the area;
Longterm commitment and originality

- Framework of concertation for the management of water and resources of the project region is an important commitment for longterm sustainability.
- The management of flood forecasting system by the Hydraulic National and regional direction of Mopti in great collaboration with the framework of concertation is also important for the sustainability of the process.
Learned lessons

• The importance of the participatory approach to define the stakeholders needs;
• The importance of consultation framework for exchanging of information;
• The implication of the stakeholders in the construction of the forecasting model based on their real needs;
• Presentation of the forecasting model to stakeholders to have their feedback to improve the model