FOURTH WORLD WATER FORUM

Session FT5.02
IMPACTS OF CLIMATE CHANGE
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
• The problem
• Activities implemented
• Expected impacts of implemented activities
• Stakeholders involved
• Longterm commitment and originality
• Lessons learnt
AREA OF STUDY

SECTORISATION ET AMÉNAGEMENTS MAJEURS DU BASSIN DU NIGER
THE NIGER RIVER BASIN DIVISIONS AND MAJOR DEVELOPMENTS

LEGEND
Fond de carte/ Base Map: d’après/ from GLC 2000
Occupation des sols/ Global Land Cover
Sol nu/ Bare soil
Forêt/ Forest
Savane ouverte/ Open grassland
Savane dense/ Closed shrubland
Aménagements majeurs du bassin/ Major Basin Developments :
Ouvrage existant/ Existing Structure
Ouvrage en projet/ Planned Structure
Sectorisation du bassin/ The Niger River Basin Divisions
Station hydrologique/ Hydrological Station
Localités du delta central du fleuve Niger couvertes par le projet.
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.
The Problem (2)

Activities conducted in the inner delta depend greatly on:
- The availability of water
- The seasonal and interannual variation of the water and resource of the delta

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

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

This can lead to conflicts in the use of water by different users
isohyètes moyennes de la période 1968-97 en millimètres

isohyètes moyennes de la période 1950-67 en millimètres
Mean discharge index at Mopti in the delta

Indices des débits maximum de crue à Mopti

année

indice de crue
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 resources of the delta

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

• Flood forecasting system used to forecast the water level at Mopti based on water levels at Koulikoro and Douna
Rencontre en avril 2005 avec les organisations socioprofessionnelles (agriculteurs et éleveurs), les élus locaux et le sous préfet de Gathi Loumo (cercle de Youwarou)
Expected impacts of implemented activities

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

• Informations on flood forecast contribute to **better 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...)

Stakeholders involved

- **Operation fishes** of Mopti which is a regional agency of organizations of the sector of fishing
- **Office of Rice** of Mopti which is semi-private
- **Regional Direction** of Agriculture which works within the organization of the rural world
- **Mali National Hydraulic Direction** and the Mopti hydraulic representation (will manage the flood forecast system);
- Regional centre of agronomic research **Institute of Rural Economy**, which animates the research fundamental and applied in the area
- **AGRHYMET** Regional Centre
Longterm commitment and originality

• **Framework of concertation** for the management of water and resources of the project region, which 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, which is also important for the sustainability of the process
Lessons learnt

• 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)

• Practical IWRM
THANK YOU FOR YOUR ATTENTION