



MAURITANIA: *MANAGED FLOOD RELEASES AND LIVELIHOODS - LOWER DELTA SENEGAL RIVER*

- 1. Location of the study:** Diawling National Park in the lower delta of the Senegal River in Mauritania
- 2. Author(s):** Olivier Hamerlynck¹ and Stephanie Duvail²
- 3. Brief description of flood management practice**

Due to the Sahelian drought of the seventies, the governments of Mali, Senegal and Mauritania constructed two major dams in an attempt to develop irrigated agriculture, hydroelectric power and river navigation. Due to the construction of the dams, livelihoods dependent on the flood regime – such as recession agriculture, fisheries, livestock keeping, gathering and forestry – were adversely affected. The Diawling National Park and its surrounding area, excluded from the Senegal river floods since 1991, was confronted with a marked collapse of productivity, the loss of most of its natural resources and large scale emigration of its population.

Managed flood releases, simulating the pre-dam flood regime, from the dams were carried out in a bid to rehabilitate the deltaic ecosystems and the traditional activities of fishing, gathering and livestock keeping. An ecosystems management approach was adopted for the whole exercise whereby the 12 principles of ecosystem management were applied.

4. Key issues

- The critical importance of involving local residents, incorporating local and indigenous knowledge, and gaining the trust of local residents when planning and implementing a flood management project.
- The need for project management to adapt to change from various sectors
- The need to formalize local knowledge through scientific investigation
- The need to obtain input from a wide range of disciplines
- Building social capital, needed to gain sustainable results from the participative processes, take more time than the building of infrastructure

5. Relevance to the concept of IFM

Water cycle as a whole

Aspect 6 - Effective use of floodwater by maximizing positive aspects of floods

Integration of land and water management

Aspect 2 - Land and water management

Aspect 12 - Multi-functional solutions (engineered wetlands, water quality treatment, flood alleviation)

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Best mix of strategies

Aspect 10 - Best mix of structural and non-structural measures

Participatory approach

Aspect 5 - Stakeholder involvement in decision-making
Aspect 7 - Community-based approach
Consideration of gender-based and cultural requirements

6. Comments

- (i) Potential strong points of the case study
Guidance and principles for project management

- (ii) Potential for practices mentioned to be transferred/applied to other regions with geophysical and socio-economic characteristics)
Many good practices, particularly related to stakeholder participation, are applicable to other regions of the world. The case study could serve as guidance material as it is.