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GEOPAR & PACTER projects.



The 2 projects are funded by the programme "Water and Land" of the French Ministry of Ecology (MEDDTL). Their focus is on East African coastal wetlands and their evolution under changing hydro-climatic conditions, dam-building and large-scale agrofuel production. Better understanding of the interactions between beneficial floods, ecosystem services and user strategies is expected to provide decision-makers with possible scenarios for their future through a comparison of 2 sites: the Lower Rufiji (Tanzania) and the Tana Delta (Kenya).

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KENWEB (for KENyan WETlands Biodiversity research team) is a team of Kenyan and French Researchers from the IRD, the National Museums of Kenya (NMK), the University of Nairobi and Kenya Wildlife Service (KWS). Their interest is on the biodiversity of Kenyan wetlands and their associated local knowledge. Two wetlands are studied, Tana Delta and Lobo swamp, through multidisciplinary fieldwork.

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THE TANA RIVER DELTA

a wetland in the balance



A PHOTOGRAPHIC EXHIBITION
SEPTEMBER 2011
(With possibility of extension)
NATIONAL MUSEUMS OF KENYA
ECOLOGY GALLERY

poster photograph by Cyrille Le Déaut

To mark the World Environment Day 2011, Alliance Française de Nairobi presents a photographic exhibition on the Tana River Delta, one of Kenya's largest and most important wetland systems.

The exhibition has been produced by a multidisciplinary French-Kenyan research team led by scientists from the French Institute of Research for Development (IRD) and the Kenyan Wetlands Biodiversity Research Group (KENWEB).

The exhibition is accompanied by a short documentary entitled: 'Participatory Science: Restoration and Sustainability in the Tana Delta'.

TANA DELTA LANDSCAPES *a natural and cultural heritage*

The Tana is Kenya's most important river. The river forms a multichannel delta downstream from Garsen before reaching the Indian Ocean. Often presented as a wasteland that should be converted, the Tana Delta is in fact a productive wetland, rich in biodiversity and in cultural heritage. Its landscapes, a mosaic of forests, woodlands and grasslands, have been shaped by centuries of use and have become a "cultural landscape".

All the activities (recession agriculture, livestock keeping, fisheries and forestry) are linked to the flooding rhythm of the river. The floods are vital as they provide a range of services such as soil fertilization, groundwater recharge, irrigation, forestry and grazing. The floodplains and mangrove are important as fish nurseries, for coastal protection and for ecotourism. Their total economic value far exceeds what could be gained by converting the delta into a single "modern" land-use such as biofuel production.



Photo : Olivier Hamerlynck

AN EXCEPTIONAL BIODIVERSITY

Ungwana Bay, where the nutrient-laden Tana enters the Ocean, has hundreds of species of fish, including threatened sawfishes, provides for thousands of migratory seabirds and is a prime prawn fishing area. Green Turtles breed on its beaches and coastal waders feed there traveling between Africa and Siberia. Elephants, buffalos and lions roam coastal dune forests. The estuarine mangrove is the richest and tallest on the Kenyan coast and a key nursery for the coastal fisheries. The tidal freshwater wetlands just inland host tens of thousands of waterbirds, justifying listing of the Tana Delta under the Ramsar Convention. There is riverine forest, a biodiversity hotspot with hundreds of plant species, including a dozen threatened, and two of the world's most threatened primates, the Tana Red Colobus and the Tana Mangabey. Drier areas around the floodplains form a wildlife corridor threatened by charcoal and biofuel production.

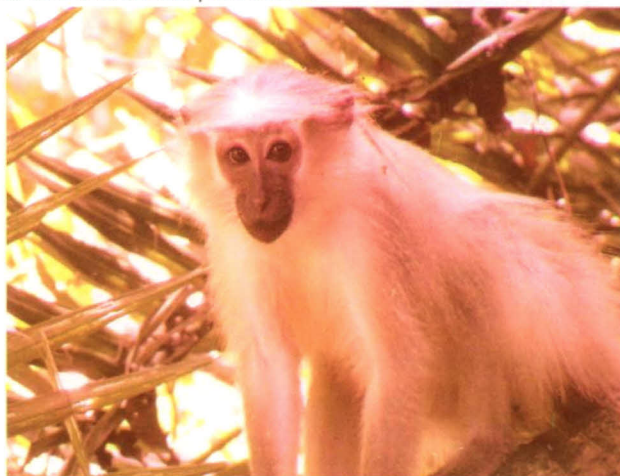


Photo : Julie Pouliquen

CURRENT THREATS *a wetland in the balance*

Numerous threats hang over the Tana wetlands. Flood volume has been reduced by 20% since dam construction in the 1970s and 1980s reducing the flooded surface area and the productivity of grasslands, forests, fisheries and agriculture. Salt water penetrates upstream and destroys the tidal rice fields. The construction of an even larger dam is now planned at Grand Falls, with potentially harmful consequences for the Tana delta wetlands. A more immediate threat is the conversion of the Tana Delta to sugarcane or Jatropha. Still, other scenarios are possible such as managed flood releases to enhance floodplain productivity thus maintaining biodiversity and traditional practices.



Photo : Olivier Hamerlynck

PARTICIPATORY RESEARCH FOR DEVELOPMENT

The Tana Delta is at a turning point. Will the wetland be converted or maintained? Who will be the winners and the losers? Unfortunately there is a lack of reliable knowledge on its values and functioning. A team composed of French and Kenyan scientists from IRD and KENWEB has set as a research challenge to improve understanding of this complex system and to communicate that information to the scientific community, to the users and to decision-makers. In their vision, the research is field-based, participatory, multidisciplinary and contributes to capacity-building.



Photo : Olivier Hamerlynck