

B I O D I V E R S I T Y

D E S E R T I F I C A T I O N

# Community Conservation Development of Lake Turkana Kenya

- › CAPACITY BUILDING
- › DECISION SUPPORT SYSTEM
- › ECO-TOURISM
- › ENVIRONMENT AND HEALTH
- › ENVIRONMENTAL SUSTAINABILITY
- › POVERTY ALLEVIATION





*Cover photo:  
Karsa Well, one of the few water points  
in the Sibiloi National Park buffer zone*

*Lake Turkana near Loiyangalani,  
the 15 years old pier,  
as a witness to the decrease  
of the water level*

## Background and rationale

Since 1991, Kenyan Authorities have been actively engaged in calling the attention of the donors' community to the importance of supporting programmes and projects aimed at tackling environmental problems. Consistently, the Italian technical and financial contribution has been requested in relation to several relevant issues, including ecosystem conservation, management of Protected Areas and natural parks, community development and the sustainable use of natural resources, including wild flora and fauna.

The Italian contribution has also been sought to resolve the problem of human pressure on Arid or Semi-Arid Lands (ASALs), which cover 80% of the national territory, whereupon about 20% of the Country's population lives, and 50% of the Country's livestock grazes. Northern Kenya, and the Lake Turkana ecosystem in particular, are unique in terms of environmental characteristics and host a wide range of endemic animal and plant species, making it a very important area for biodiversity conservation. Furthermore, local populations are depositary of a tremendous historic

and cultural heritage: nomadic pastoralist groups interact with residential fishing communities in a complex web of social and economic relations, based upon a careful and age-old system of natural resources use and conservation.

At the same time, Kenya earns most of its income and foreign currency through economic activities linked in a way or another to wildlife and natural resources, including eco-tourism. For a number of reasons, however, the Northern part of the Country has been almost totally excluded from any investment aimed at the development of its tourism potential.

All efforts to create adequate facilities have been focused in the Southern regions and on the coast. These geographical and "thematic" restrictions to organised tourism have inevitably had a double negative impact: excessive pressure on a limited number of areas – which by now risks jeopardising the quality of the offered services – and the loss of a potentially interesting share of visitors, who could be interested in other landscapes and/or in a more cultural tourism.

Consistently, the 1991 Italy-Kenya Cooperation Joint Commission agreed to finance and implement a

three-year project called "Community Conservation Development in Lake Turkana area". The Project was identified and formulated within the "Policy Framework and Development Programme" of the Kenya Wildlife Service (KWS), to be implemented in close partnership with the National Museum of Kenya (NMK).

**The following issues and problems were taken into primary consideration during the Project's formulation exercise.**

- ❶ Lack of coordination in the management of natural and tourism resources, which caused over-exploitation in the Southern coastal areas and neglect of Northern, arid areas.
- ❷ Inadequate management of the Sibiloi National Park, caused by lack of structures and weak personnel capacities.
- ❸ Disruption of the traditional livelihood system of nomadic pastoralist population, indigenous to the wider Lake Turkana region, and whose territory has been reduced by approximately 50% because of external factors.



*Sibiloi National Park Headquarters  
and KWS office in South Island*



- Loss of traditional knowledge among all sedentary and nomadic population groups, in relation to the use and conservation of biological diversity.
- Erratic and fragile patterns of natural resources productivity.
- Lack of strategies to plan and implement the systemic management of natural resources, which would contribute to change and upgrade the local social and environmental conditions and mitigate the uncontrolled pattern of exploitation of existing resources by the increasing settled population.
- The need of adequate interpretative and management models to tackle the complex Lake Turkana natural and social environment, based upon the accurate analysis of several aspects: present systems of natural resources use, pressure upon these same resources, local carrying capacity, access rights to resources and balance output of the man-water-soil system.
- Low-yielding and unsustainable current systems of natural resources use and lack of appropriate technologies which may allow an increase in productivity without further weakening the resilience of local ecosystems.
- Lack of access for local populations to sufficient financial resources in order to implement those actions

identified as possible solutions to problems raised during participatory assessments.

- Recurrent lack of grazing zones and water, mainly due to the unsustainable changes of traditional grazing rotational patterns, leading to overgrazing and mismanagement of ground water resources; variable productivity cycles in non protected areas and lack of adequate services for livestock.
- Pastoralists trespassing into Sibiloi National Park and degrading its grazing and water resources and consequent decrease of the Park tourism potential.
- The location of the health post for populations living around Lake Turkana: by being inside the Park, access is difficult for locals and poachers' free entrance to the Park is facilitated.

Financial commitment to the Project amounts to almost 2 million euros. The University of Pavia's Department of Animal Biology is responsible for project execution, scientific monitoring and backstopping and implementation, the latter being carried out in partnership with the Italian non governmental organisation (NGO) COOPI.

*Top of the page:  
Karsa well, the decrease  
of the water level*

*Below: buffer zones South-east of  
Sibiloi, near Hurran Hurra well,  
with relics of votive structures,  
about 1000 years old*



## Goal, objectives and expected outputs

The development goal of the Project is to contribute, through the systemic improvement and diversification of present forms of environmental resources use, to the planning and management of biological diversity conservation, of natural and cultural resources and to the development of sustainable livelihoods in the arid zones of Lake Turkana area. Both Protected Areas and their buffer zones are taken in consideration, where the quality level of livelihoods and the productivity of renewable natural resources are closely connected in a fragile web of inter-dependency.

The specific objectives are as follows.

- Promote social and economic development and the improvement of health conditions, and build the local population's management capacities, through the introduction of planning methods and technologies aimed at the sustainable use of natural resources.
- Ensure the conservation of the natural environment, of the



*Right:  
Lake Turkana  
near Loiyangalani*

*Below:  
A Gabbra  
nomad campment,  
recently abandoned*



Protected Areas and of the ethno-biologic ecosystem of Lake Turkana, including Sibiloi National Park, the paleo-anthropologic Koobi Fora site, Mount Kulal Biosphere Reserve and related buffer zones.

- Increase efficiency and sustainability of strategies and development actions concerning the man-environment balance, by improving specific knowledge and institutional capacity. The aim is to raise the living standards of the local nomadic and sedentary populations and decrease the environmental impact of productive activities.

**The Project is structured in three components.**

- Sustainable use of renewable natural resources management in and around the Protected Areas, aimed at improving the livelihoods of the local population.
- Conservation of wildlife and natural resources, and preservation of ecological balances vital to sustainable development and biodiversity conservation in Northern Kenya Protected Areas.

- Production and diffusion of information on potential uses and development of environmental and ethno-biologic resources, to conserve and enhance the value of traditional knowledge.

**Expected outputs are the following.**

- A Decision Support System (DSS) is formulated through in-service training and involvement of national institutions, to allow KWS, NMK and district authorities decide on alternative social and economic development initiatives, based on ecosystem features vital to the sustainability of the same initiatives.
- Technologies and methodologies are identified for the sustainable use of natural resources and social, economic and environmental indicators are defined, and all this information is included in the DSS.
- Links and synergies are developed between the Project and local and international institutions concerned with development, conservation, health and tourism issues in the region.

- Participatory methodologies, including Primary Environmental Care, are adopted and diffused in the planning and management of sustainable development initiatives.

- A number of micro-projects for integrated and sustainable natural resources use are implemented, and community rotating funds are established, aiming at income-generating activities.
- Primary Health Care activities are implemented in the area.
- The Desert Museum is set-up, organised and operational.

Finally, the overall Project strategy also aims to focus attention on tourism and related resources in the Northern regions of the Country and to enlarge the scope of attractions the Country as a whole can offer.

## Implementation and results

Project activities started in the second half of 2001, with the establishment of the Project Management Unit responsible for the overall implementation and coordination, and the fielding of a number of short term missions from the University of Pavia.

*Southern entrance gate  
to Sibiloi National Park*

