

# **Wildlife resources and tourism in wetlands of Tanzania**

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## **Summary**

The presence of wetlands in the various protected areas in Tanzania (national parks, game reserves, controlled areas and the Ngorongoro Special Conservation Area) is described. The value of tourism in wetlands and the problems of wildlife in wetlands is discussed. Recommendations for the management of wetlands in reserves emphasises the necessary involvement of people who live adjacent to these areas and are affected by management decisions.

## **Introduction**

The reserved areas in Tanzania are summarised in Table I. In Table 2 the conservation status of large freshwater wetlands of the Zaire River drainage and Lakes Tanganyika, Nyasa, and Victoria are shown. Table 3 shows the wetlands of the eastern Rift Valley and the eastern drainage -system.

There are 56 controlled areas where wildlife exists alongside human activities such as farming and fishing.

## **Laws governing wetlands**

If a wetland is within a national park or game reserve, then its management falls under the control of the Director of Wildlife. Hydropower dams are controlled by the Tanzanian Electricity Company (TANESCO). In some areas, for example the Bahi Swamps, the wildlife is under the control of the Director of Wildlife but the wetland is managed by the villagers.

Table 1 Protected areas of Tanzania and their status, with reference to wetland conservation

| Protected areas           | Area (km <sup>2</sup> ) | Wetland system                   | Features of significance                                    |
|---------------------------|-------------------------|----------------------------------|---|
| <b>National parks</b>     |                         |                                  |   |
| Arusha                    | 137                     | Riverine, lacustrine, palustrine | Ngurudoto Crater. watershed for pangani system              |
| Katavi                    | 2,253                   | Riverine. palustrine             | Rukuru, Katavi Swamp system                                 |
| Kilimanjaro               | 756                     | Riverine. palustrine             | Watershed   |
| lake Manyara              | 320                     | lacustrine, palustrine. riverine | lake Manyara  |
| Mikumi                    | 3,230                   | Riverine, palustrine             | Ruvu. Wami and Ruaha watersheds                             |
| Ruaha                     | 12,950                  | Riverine, palustrine             | Usangu plain, Ruaha watershed                               |
| Rubondo                   | 457                     | lacustrine                       | lake Victoria shore   |
| Serengeti                 | 14,763                  | Riverine, palustrine, lacustrine | Watershed to part of lake Victoria                          |
| Tarangire                 | 2,600                   | Riverine. palustrine             | Tarangire Swamp   |
| <b>Game reserves</b>      |                         |                                  |   |
| Biharamulo                | 1,300                   | lacustrine, riverine             | lake Victoria shore   |
| Burigi                    | 2,200                   | lacustrine. riverine             | lake Burigi   |
| Ibanda                    | 200                     | Riverine. lacustrine             | lake Twamwala and Kagera River                              |
| Kizigo                    | 4,000                   | Riverine. palustrine             | Ruaha watershed   |
| Maswa                     | 2,200                   | Riverine                         | lake Eyasi and Wembere watershed                            |
| Mkomazi                   | 1,000                   | Riverine                         | Pangani watershed   |
| Moyowosi                  | 6,000                   | Riverine                         | Moyowosi watershed  |
| Rumanyika                 | 800                     | Riverine                         | Kagera watershed  |
| Rungwa                    | 9,000                   | Riverine. palustrine             | Rungwa and Ruaha watersheds                                 |
| Sadani                    | 300                     | Marine. estuarine                | Marine and estuarine habitats                               |
| Selous                    | 50,000                  | Palustrine, riverine             | Rufiji floodplain. Rufiji watershed                         |
| Ugalla                    | 5,000                   | Riverine                         | Malagarasi-Moyowosi system                                  |
| Uwanda                    | 5,000                   | lacustrine. riverine             | lake Rukwa system   |
| <b>Conservation areas</b> |                         |                                  |   |
| Ngorongoro                | 8,288                   | Riverine. lacustrine             | lake Magadi, watersheds for lakes Eyasi. Manyara and Natron |

Table 2 Large freshwater wetlands associated with the Zaire River, and Lakes Tanganyika, Nyasa and Victoria; their status and special features (Source: Chabwela, 1991)

| Name              | Wetland types           | Approx. size<br>(km <sup>2</sup> ) | Conservation<br>status  | .special<br>features                    |
|-------------------|-------------------------|------------------------------------|---|---|
| Rukwa             | Shallow lake            | 2,300                              | Partially<br>protected as<br>controlled area<br>and game<br>reserve | Wildlife, grazing<br>and fishery        |
| Malagarasi        | Floodplain and<br>swamp | 7,360                              | Partially<br>protected as<br>game reserve<br>and controlled<br>area | Wildlife, grazing<br>and fishery        |
| Moyowosi          | Swamp and<br>floodplain | -                                  | Partially<br>protected and<br>controlled area                       | Wildlife                                |
| Lake Tanganyika   | Swamp, shore            | -                                  | Uncontrolled  | Fishery                                 |
| Lake Nyasa        | Swamp, shore            | -                                  | Unprotected   | Fishery,<br>agriculture and<br>grazing  |
| Lake Burigi       | Shallow lake            | -                                  | Unprotected   | Fishery,<br>agriculture and<br>grazing  |
| Upper Kagera      | Shallow lake            | 350                                | Partly protected<br>as controlled area                              | Wildlife,<br>agriculture and<br>grazing |
| Lake Ikimba       | Shallow lake            | -                                  | Unprotected   | Fishery and<br>agriculture              |
| Lake Victoria     | Swamp, shore            | -                                  | Largely<br>unprotected  | Fishery,<br>agriculture and<br>grazing  |
| Mara River system | Swamp and<br>floodplain | 30,000                             | Unprotected   | Agriculture,<br>fishery and<br>grazing  |

Table 3 Large wetlands of the East Rift Valley and the eastern hydrological systems; their status and special features (Source: Chabwela, 1991; IUCN/WWF/NEMC, 1990)

| Name                | Wetland types  | Conservation status  | Special features                           |
|---------------------|--|--|--|
| Usangu              | Floodplain, swamp<br>(520 km <sup>2</sup> )                  | Partially protected as<br>controlled area                      | Wildlife, grazing,<br>agriculture          |
| Kilombero           | Floodplain, swamp<br>(6,650 km <sup>2</sup> )                | Partially protected as<br>controlled area                      | Fishery, wildlife,<br>grazing, agriculture |
| Rufiji              | Floodplain<br>(1,450 km <sup>2</sup> )                       | Partially protected as<br>game reserve                         | Agriculture, wildlife,<br>fishery          |
| Liwale              | Swamp  | Unprotected  | Fishery, agriculture                       |
| Ruvu River system   | Floodplain, swamp<br>(43,000 km <sup>2</sup> )               | Partially protected as<br>controlled area                      | Fishery, grazing,<br>agriculture           |
| Mkata- Tendigo      | Floodplain and swamp   | Unprotected  | Fishery, grazing,<br>agriculture           |
| Bahi Swamp          | Swamp (125,000 km <sup>2</sup> )                             | Unprotected  | Fishery, wildlife,<br>grazing              |
| pangani system      | Swamp, floodplain<br>(90,000 km <sup>2</sup> )               | Fully protected as<br>controlled area                          | Agriculture, fishery,<br>grazing           |
| Olgarwa-Shambari    | Swamp  | Fully protected as<br>controlled area                          | Agriculture, fishery,<br>grazing           |
| Ngusero             | Swamp  | Protected as<br>controlled area                                | Agriculture,<br>grazing,<br>wildlife       |
| Tarangire           | Swamp (60,000 km <sup>2</sup> )                              | Protected as part of a<br>National Park                        | Wildlife                                   |
| Lake Manyara        | Shallow sodic lake,<br>swamp (41,300 km <sup>2</sup> )       | Partially protected as<br>National Park and<br>controlled area | Wildlife, grazing,<br>agriculture          |
| lake Natron         | Shallow sodic lake<br>(85,500 km <sup>2</sup> )              | Protected as<br>controlled area                                | Grazing, wildlife                          |
| lake Balangida      | Shallow sodic lake<br>(6,000 km <sup>2</sup> )               | Unprotected  | Agriculture, grazing                       |
| lake Balangida lelu | Shallow sodic lake<br>(3,000 km <sup>2</sup> )               | Unprotected  | Agriculture, grazing                       |
| Ngorongoro Crater   | Shallow lake   | Protected as<br>conservation area                              | Wildlife, grazing                          |
| lake Eyasi          | Seasonal shallow<br>sodic lake<br>(116,000 km <sup>2</sup> ) | Partially protected as<br>controlled area                      | Agriculture, fishery,<br>wildlife          |
| Wembere             | Floodplain, swamp  | Unprotected  | Wildlife, agriculture,<br>fishery, grazing |
| lake Kitangiri      | Shallow lake   | Unprotected  | Fishery, agriculture                       |
| Wami River          | Estuarine  | Unprotected  | Fishery, agriculture                       |
| Rufiji Delta        | Estuarine  | Unprotected  | Fishery, wildlife,<br>agriculture          |

## **Wildlife in wetlands**

Animals tend to congregate around wetlands. There are some species which are always found near water, such as hippopotamus, waterbuck, warthog, elephant, crocodile, sitatunga, and waterbirds such as flamingos and ducks. These animals are part of a complex food chain which is reflected in the high diversity of biota in wetlands.

## **Economic value of wildlife in wetlands**

Wetlands provide people with a source of food and skins. Local people hunt for food while the tourist from abroad hunts for trophies, such as skins, horns and ivory. In some areas, illegal hunting has caused wildlife numbers to decline and the Government of Tanzania has neither the finance nor the manpower to control it. The international community has provided funds to assist Tanzania to manage its wildlife. Also, *NGOs* such as the World Wildlife Fund (WWF), the African Wildlife Fund (AWF), the World Conservation Union (IUCN), German Technical Assistance, *YOU Magazine* and individuals have been involved in wildlife conservation and management in Tanzania.

## **Tourism**

Tourism is the major activity in wetlands where there is a high concentration of wildlife. It is impossible to develop infrastructures in all wetlands of Tanzania because many are very remote. The Bahi Swamps, in Dodoma Region, and Lake Kitangiri, in Singida Region, are well known for their bird life but the long and rough road from Dodoma to these places precludes any tourist development there. Perhaps future generations will develop these areas and use them for recreation.

If these areas can be developed then tourism has the potential to become a major foreign exchange earner in Tanzania.

## **Human-wildlife interactions in wetlands**

The major problem in wetlands is poaching for both meat and ivory. The wildlife resource is threatened by the greed and short term views of the poachers and their masters.

There is a conflict of interest between the conservators of wildlife and farmers. When wild animals destroy crops, property and livestock no compensation is paid to the farmers. This has resulted in the farming community resenting the presence of wildlife. In some areas, there is competition between livestock and wildlife for

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grazing areas; villagers in Mkomazi and U galla want the game reserves to be available for livestock grazing.

No traditional fishing and honey collecting is allowed in national parks and game reserves. People resent this as they receive no tangible benefits from the presence of these protected areas in their vicinity.

## **Recommendations**

The Wildlife Division of the Ministry of Tourism Natural Resources and Environment should work closely with villagers who live near the wetlands so that they are involved in the management of the wetland and can see the value of conservation.

The government should create a wetland authority which will be responsible for planning the management of wetlands for the whole country.

Since the government owns the wildlife and receives monetary benefit from its existence, it should compensate villagers for damage done to property, crops and livestock.

Legislation governing the conservation of wetlands should be made more relevant to current needs.

International bodies should be approached to assist Tanzania in the development of remote wetland areas, such as Wembere, Malagarasi, Lake Kitangiri and Bahi Swamps.

## **Bibliography**

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