

8.5. Conservation of representative areas of various ecosystems

(objective a):

Background and justification: Different ecosystems and their biodiversity are being destroyed at an alarming rate. Increased population, depletion of natural resources and drought are contributing to the loss of biodiversity. Areas under several forests and protected wildlife areas should be increased.

Objectives and methodology

- Conservation of representative ecosystems;
- The following areas are proposed for conservation, through legal zoning, developing and implementation of management plans:
 - a. Wadi Hawar (historical heritage and wildlife in desert ecosystem);
 - b. Red Sea marine ecosystems;
 - c. Red Sea coastal plains and oasis;
 - d. Bowl Forests in Equatoria;
 - e. Sudd wetlands;
 - f. Natural Bamboo Forests in Southern Kordofan and Southern Darfur;
 - g. Hill vegetation in several parts of the country;
 - h. Parts of watershed areas of Equatoria, Upper Nile and Bahr El Ghazal states;
 - i. Parts of rangelands in Butana;
 - j. Parts of Gizzu areas in Northern Kordofan; and
 - k. Parts of Jebel Marra.

Lead agency: HCENR.

Cooperating agencies: Such line ministries as MAF (FNC - RPA), MEAT (WCGA), Survey, Justice.

Estimated cost: US \$ 11,000,000

8.6. Rangelands conservation and sustainable use (objective a, b and d):

Background and justification: Major changes are taking place in nomadic grazing patterns. Such changes are due to increased numbers of livestock and drought. Tribal seasonal use of land has not been studied recently. With recent development of water resources and increase in export of livestock drastic changes in grazing systems could occur.

Objectives and methodology:

- To update information on rangeland utilization in Sudan;
- To study changes in nomadic systems; and
- To suggest new grazing systems and conservation measures.

Lead agency: MAF (RPA – FNC).

Estimated cost: US \$ 1,000,000

8.7. Ex-situ conservation (objective a)

Background and justification: establishment of arboreta, museums, marine and fresh water aquaria and zoological gardens could greatly enhance biodiversity conservation.

Objectives and methodology:

- To enhance biodiversity conservation; and
- To increase awareness about biodiversity.

The following ex-situ conservation initiatives are suggested:

- Establishment of arboreta and botanic gardens at the federal and the state levels (10 centers);
- Establishment of herbaria at the federal and the state levels (10 centers);
- Establishment of gene banks for some of the important species at Soba and Wad Medani;
- Establishment of marine aquarium and museum at Port Sudan;
- Establishment of zoological gardens at Gedarif, Nyala, El Obeid, Malakal, Juba and Wau; and
- Models for wildlife breeding farms and game ranching.

Lead agency: HCENR.

Cooperating agencies: MAF (FNC - RPA), MEAT (WCGA), Survey, Justice.

Estimated cost: US \$ 41,000,000

B.8. Capacity building in systematics (objective d)

Background and justification: To conserve biodiversity it is very important to have good knowledge of the varieties available, distribution and abundance. Monitoring change in biodiversity is a continuous task, which requires a good number of specialists in systematics.

Objectives and methodology:

1. Capacity building of several relevant departments in universities and research institutes, and
2. Training of young scientists in systematics on plants and animals in country and abroad.

Lead agency: HCENR.

Cooperating agencies: Systematic Departments in universities.

Estimated cost: US \$ 1, 500, 000