

# The Uluguru Mountains Biodiversity Conservation Project (UMBCP)

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## **Abstract**

*The UMBCP is funded by Danida through Danish Ornithological Foundation (DOF), Denmark in partnership with the Wildlife Conservation Society of Tanzania (WCST) in the host country.*

*This is a three year Project effective as from May 1999 and due to terminate the first phase by 31 January 2002. A Phase II proposal is in the pipeline.*

*The Uluguru Mountains are one of the Eastern Arc Mountain blocks which are the ancient crystalline mountains running from Taita Hills in Kenya to the Makambako Gap, South West of the Udzungwa Mountains, in Tanzania (see Appendix 1).*

*The forests of the Uluguru Mountains are of great importance to a wide range of different stakeholders at local, regional, national and international levels. Apart from providing the local communities with a reliable water resource for growing agricultural products, the catchment value is much higher because the Mountains are the only major water source for the city of Dar es Salaam, Morogoro Municipal and parts of Morogoro and Coast Regions. In terms of biodiversity, the Uluguru Mountains are internationally recognised as a well known "hot-spot" with several endemic species of both fauna and flora.*

## **General description of the project**

### **1. Objectives**

The Development Objective of UMBCP is to assist the development of WCST as a Tanzanian NGO with the capacity to develop and manage biodiversity conservation and awareness-raising projects.

The Immediate Objectives are to:

1. Strengthen organisational capacity and project management skills of WCST secretariat;
2. Improve involvement of WCST members and volunteers in the Society's work;
3. Improve conservation of the globally important Uluguru Mountains forests; and
4. Assist development of sustainable agricultural systems to reduce future agricultural pressure on Uluguru forests.

### **2. Strategies**

1. To develop the capacity of WCST as the lead environment NGO in Tanzania to manage and implement conservation projects which directly involves the local farmers and resource-users as well as up to higher political levels;
2. Training and direct support of the Society, also selecting a biodiversity site of global importance to develop a collaborative programme of on-the-ground actions, undertaken by members of the Society including project partners; and
3. To develop field project work methodologies, for example the start of Joint Forest Management both within Forest Reserves and outside which should be as sustainable as possible.

### **3. Outputs**

Since UMBCP is implemented in collaboration with four partners each has its specific outputs:

- (a) WCST (Wildlife Conservation Society of Tanzania)
  - 1.1 Administration of WCST and skills of its staff enhanced

- 1.2 WCST participate actively in an Integrated Conservation and Development Project in the Uluguru Mountains
  - 1.3 WCST obtains more sustainable funding from new project
  - 2.1 Activities provided to involve Tanzanian members and volunteers in the work of the Society
  - 2.2 Training provided to develop skills of members and volunteers as a resource to promote the work of the Society
  - 2.3 Regional Office developed in Morogoro and plans for a second regional office developed
  - 3.1 Uluguru Project undertakes awareness-raising activities on the biological importance of the Uluguru Mountain forests.
- (b) RNRO (Regional and District Natural Resources Offices)
- 3.2 Uluguru Project assists the formulation of agreements between District Forestry and local people on sustainable uses of the Uluguru general land
  - 3.3 Uluguru Project supports development of eco-tourism in Uluguru Forest Reserves (all partners involved in this output)
  - 4.1 Uluguru Project supports forestry activities in villages adjacent to Uluguru Forest Reserves through community based forest management in which villages can establish their own village forest reserves also encouraging individual, institutional, group and village tree/fruit nurseries.
- (c) Catchment Forest Office
- 3.4 Uluguru Project monitors indicators of biodiversity value and forest quality in Uluguru Forest Reserves
  - 4.4 Uluguru Project produces written materials to promote its work within Tanzania and internationally (all partners).
- (d) UMADEP (Uluguru Mountains Agricultural Development Project)
- 4.2 Uluguru Project supports sustainable agricultural practices in villages adjacent to Uluguru Forest Reserves
  - 4.3 Uluguru Project supports income generation schemes in project area.

#### 4. Activities (numbers refer directly to Outputs mentioned above)

- 1.1 To hold important meetings of WCST, to produce reports on WCST activities, to ensure that WCST membership database is functioning, to ensure that information on WCST is produced, and to provide training for WCST staff
- 1.2 To develop Tanzanian staff to take on management of Uluguru Project for WCST, and to establish Steering and Management Committees for Uluguru Project
- 1.3 To produce new WCST funding proposals to international donors, and to generate income for WCST from within Tanzania population
- 2.1 To hold talks to inform and involve WCST volunteer members, to improve the WCST library for volunteer members use, and to provide WCST guided bird and nature tours within and outside Dar es Salaam
- 2.2 To provide WCST training in the identification of Tanzanian wildlife
- 2.3 To establish a WCST regional office in Morogoro, to plan for establishment of a second WCST regional office, to develop regional membership schemes, to implement regional activities, and to develop regional fundraising
- 3.1 To raise awareness on forest conservation issues in Uluguru Mountains, and to produce materials to support Uluguru education programme
  - 3.2 To develop agreements between Forestry Department and local villagers over the allowed use of forest resources in the Uluguru general land forest, to incorporate forest resource agreements within village laws and committee structures, and to provide forestry inputs to re-afforest areas of village land as demonstration plots.
  - 3.3 To develop local eco-tourism facilities, to establish a marked nature trail, and to produce written eco-tourism materials
  - 3.4 To assess status of Uluguru endemic species, and to assess changes in forest distribution and the degree of forest damage in Uluguru
  - 4.1 To provide forestry inputs to improve livelihoods of local people and reduce their potential impact on the Uluguru Forest Reserves
  - 4.2 To provide agricultural inputs to improve livelihoods of local people and reduce their potential impact on the Uluguru Forest Reserves
  - 4.3 To promote the exchange of farmers within project area and beyond, and to encourage the development of local income generating activities
  - 4.4 To promote the results of the Uluguru Project within Tanzania, and to promote the results of the Uluguru Project internationally.

## 5. Inputs

- (a) The inputs from Danida comprise funding and advice of the Royal Danish Embassy in Dar es Salaam
- (b) The inputs from Denmark comprise the provision of volunteers and staff members from DOF who do provide training and advice to WCST and to the UMBCP staff. They also provide a Technical Advisor to the Project
- (c) The inputs from WCST comprise their existing staffing, committees and infrastructure in DSM, and the advice and assistance over the development of an office in Morogoro as well as additional staff members paid by the Project
- (d) The inputs from the Tanzanian Government comprise the advice of the Regional and District Forest and Natural Resources Officers, some of the facilities already existing within District and Regional District Natural Resources Offices, and the political will to allow this NGO to operate within Uluguru Mountains
- (e) UMADEP staff paid by the Project.

## 6. Institutional setting

The UMBCP is operating within the existing government structures, with the following levels: Village, Ward, Division, District, Region and National (in this case respective Ministry of Natural Resources and Tourism).

Participating partners and their roles and responsibilities:

- WCST (Wildlife conservation Society of Tanzania) apart from being a major collaborator of DOF, also responsible for awareness creation, environmental education issues and monitoring project implementation processes;
- Catchment Forest Office, Morogoro, is under the management of the Ministry of Natural Resources and Tourism and responsible for the conservation and management of the Uluguru Mountains Forest Reserves. Under this project it is assigned to conduct assessment of the Uluguru Forest Reserve boundaries and status of the Forest Reserves in general;
- Regional and District Natural Reserves Offices, Morogoro. These offices are under the District and Regional authorities, which are the chief players on the ground. And in terms of mobilisation, these are the useful offices also for linkage between higher and lower levels of Government;
- UMADEP (Uluguru Mountains Agricultural Development Project); and
- This is an NGO operating under the Sokoine University of Agriculture for the purpose of facilitating and informing about agricultural methods to farmers through e.g. training, demo-plots, exchange visits. This is to try to improve the traditional farming methods and to encourage the adoption of modern agricultural practices with consideration of their indigenous knowledge where appropriate.

## Specific description of community involvement in forest and natural resources management

### 1. Description of processes and methodology in project implementation

- Initially there was a Participatory Rural Appraisal (PRA) conducted in 1995-96 to identify socio-economic aspects around the Uluguru Mountains;
- This Project is working with reference to what was found and recommended during the 1995-96 PRA which involved the farmers themselves as primary sources of information, and extension agents, previous records, Government officials and NGOs as secondary sources; and
- Methodologies used in the Project include several approaches:
  - (a) The Project is involving the local communities through Community-Based Forest Management right from planning stages to the implementation. Eventually evaluation is done together to see whether the outputs intended for are achieved or not. Local people is the target group and resource users so they play an important role.
  - (b) The Project is implemented through collaboration between the partners mentioned above in an integrated manner, so that farmers can enjoy various inputs and technologies at the same time.
  - (c) The environmental education is conducted through meetings with communities within their localities, conducting workshops with farmers/primary schoolteachers, exchange visits within project areas and outside, training of Project staff and farmers, production and distribution of environmental materials within Project area.
  - (d) During implementation all decision-makers are involved who are assisting in solving some difficulties especially in case of political, social and administrative issues related to Government staff and the local people themselves. It also makes decision-makers aware of what is happening within their areas and where uncertainties are noted; immediate remedial measures are taken before things are getting out of hand.

## 2. Identification of success stories

During the two-year Project period (May 1999 to April 2001) successes recorded include:

1. Primary Schools in the project area have managed to set aside land (belonging to the schools) on steep slopes for natural and plantation woodlots to prevent soil-erosion and to maintain a steady supply of fuel wood, building poles, and timber both for own consumption and as an income generating activity;
2. Individuals and group nurseries have been established, and a total of 50,000 seedlings have been raised and planted. Many of the seedlings have been planted on riverbanks and other water sources, in degraded areas and around homesteads to prevent soil-erosion, others are used for plantations and yet others are sold to other villagers to create an income to run the nurseries as a commercial enterprise;
3. Villages within the project area have set aside land for village woodlots and planting has been effected. These woodlots are made to cater for the needs of the villages involved in terms of e.g. building poles, timber, and fuel wood;
4. Agreements have been made between the Project and forest adjacent communities to re-afforest depleted forest areas under the authority of Chief Kingalu, and in turn to declare these as Village Forest Reserves with very restricted use only;
5. Greening of both Primary and Secondary Schools have been implemented by the pupils and teachers themselves with assistance from the Project. This has secured the environment in the immediate surroundings of each school;
6. Village communities in the project area are now more conscious about environmental conservation in general after several workshops, seminars, meetings, excursions, exchange visits, and extension services have been implemented by the Project. This environmental education has also been implemented on Primary and Secondary Schools within and outside the project area. This includes an increased knowledge of the value of the natural forests as very important catchment areas as well as areas of flora and fauna of significant value.
7. After the Catchment Forest Reserve boundaries were re-surveyed during the first part of the Project, the local communities have started respecting the Catchment Forest Reserve boundaries, which was not the case before;
8. In general, the Project has a good cooperation with the target communities, and it is developing all the time to get even better. This is due to people's knowledge about the Project, which has been spurred by the many interactions mentioned under point 6;
9. More environmentally and economically sustainable agricultural practices have been made possible through the work of the project partner UMADEP. They have established and managed pineapple and banana demo-plots, and agroforestry-plots to which farmers are taken for training and they have started copying the techniques for their own fields in the project area. A more interesting achievement is that farmers who were not trained by the Project are also copying from their colleagues who attended training and did subsequent implementation; and
10. The project has mapped the area of forest on the Ulugurus in 1955, 1977 and 2000. These data are held in an Arc-View GIS system, which also contains topographical maps, Forest Reserve boundaries, forest degradation data, roads, rivers, villages, degradation and population densities etc. These data can be combined in many different ways for different purposes, and provide a valuable way to monitor natural resources and other attributes of relevance to conservation on the Ulugurus. Many of these data have been compiled with the assistance of villagers, and will prove very useful when plans for Village Forest Reserves, Community Based Forest Management, and later Joint Forest Management activities have to be drawn-up.

## 3. Identification of constraints:

During project implementation there have been some constraints, however not with any serious impact on the general performance of the project activities, they only delayed the finishing according to time schedules. Some of these constraints were:

- (a) Political issues:
  - ? During national election (2000) it was difficult to involve Government officials on project activities because they were busy with election issues, the Project had to postpone e.g. an important fundraising event;
  - ? In some cases individual village leaders needed special respect and sensitisation before understanding and accepting project activities with villagers in their respective areas;
  - ? In a traditionally hierarchical political system like the Tanzanian, it has turned out that it is not enough to gain support from the villagers to implement project activities successfully (i.e. the "bottom-up" approach). Often the information and sensitisation about the project has to go through the top-level politicians before the activities with the local communities can proceed smoothly.
- (b) Legal issues pertaining to drawing-up of plans for Community Based Forest Management (CBFM) and Joint Forest Management (JFM):

According to the newly passed Forest Policy in Tanzania, local communities are empowered to take care of the forests

within/around their villages in so doing they are also encouraged to establish village, group, individual and institutional forest reserves. Such forest reserves must be identified, recognized, demarcated and gazetted, management plans made, memorandum of understanding between villages and Forest and Bee-keeping Division be prepared and accepted by both parties and eventually by-laws have to be made to support ownership rights in practice. The Project has noted that despite CBFM being an ideal approach towards forest management in General land areas (outside areas owned by the Government), it is a very time consuming and tedious process, involving especially many legal considerations before activities can actually start getting implemented on-the-ground. JFM is a kind of CBFM, which is specific to Forest Reserves (in this case Catchment Forest Reserves). The two Catchment Forest Reserves in the Uluguru Mountains are maintained for securing the catchment functions and safeguarding the biodiversity within these areas. It would have been the best option to introduce JFM when it comes to management of these forest areas, but the management of the Catchment Forest Office has been reluctant to outright accept to involve local people in JFM on the ground. They state that it takes time to sensitise the local communities due to the delicate nature and the dual functions of these forest areas. The Project staff had to follow-up on this issue and eventually the Catchment management has reached a situation where they are only waiting for the new Forest Act to come out after being passed by Parliament. This should give room to practice JFM in the future.

#### 4. Summary of lessons learned:

During two years of project implementation the Project has learned some lessons, which need to be followed-up in case of a second phase funding or by any other project/programme likely to work in the Uluguru Mountains. These lessons are not so unique in a Tanzanian situation. Some are specific to the Ulugurus in terms of local, national and international importance of the hydrological aspects, biodiversity abundance and endemism, eco-tourism potentiality and general landscape attractions.

Lessons learnt include:

- (a) In terms of agriculture, detailed and specific activity PRAs must be conducted before interventions are put into practice to ensure proper implementation, and only after the local communities are sensitised towards such a component;
- (b) Due to the fact that most villagers in the project areas have not been exposed to development interventions in the past, it has been necessary for farmers from within the project areas to participate in exchange-visits. The Project anticipate to make more use of exchange visits in the remaining part of the first phase, to e.g. villages in Mgeta Division, where traditional irrigation, terracing, and self-help developmental work, (like road maintenance) has been practiced for some time;
- (c) Proper forest management has to involve the villagers surrounding Forest Reserves through Joint Forest Management programmes because local people are the full time managers while extension agents are only occasional in many points of the forests. In the case of general land forests, Community Based Forest Management has proven to be the only feasible solution to management issues pertaining to these areas;
- (d) In terms of management of the Catchment Forest Reserves (which are the Central Government Forest Reserves) in the Uluguru Mountains, it has been strikingly clear that it has not been appropriate due to:
  - They cover around 300 km<sup>2</sup> (flat projection!), but only three Catchment Forest Office staff are employed to carry out the task of assuring the integrity of these forests, and no facilities are allocated to these officers by the Tanzanian Central Government;
  - The local communities are not involved in guarding these reserves regardless of being close to this asset. They are left on their own almost the whole year without being visited by extension staff (e.g. foresters) from the Ministry, Regional or District levels. In this situation, some individuals take advantage and gain uncontrolled access to the Catchment Forest Reserves for any kind of activities whether sustainable or not, thus resulting in degradation of the Reserves; and
  - Adding to the problem is the poor state of the Catchment Forest Reserve boundaries. According to information generated by local people, retired foresters and others, there has been no boundary maintenance for the past 20–30 years confusing all stakeholders in terms of land-use and making it easy for illegal activities to take place.
- (a) The role of local politicians and Government officials can be crucial. Local communities are sometimes not very efficient in adopting new ideas without politicians pushing the issues. Many planned interventions must be either approved or accepted by the local politician(s), otherwise it may not be considered for implementation. So prior to involvement of the communities, the Project has been forced to use the strategy of communicating intended activities within the local setting to politicians and Government officials for their knowledge and acceptance, before embarking on any implementation. They have turned out to be instrumental, and the ones to influence local people; and
- (b) A large project component of environmental awareness creation has proven crucial in the case of UMBCP. Many local communities are not very aware of and sensitised on general issues of environmental protection. In the project areas, they

were not aware of the importance of the forests on the Uluguru Mountains on both the local, national and international scales in terms of especially catchment and local climate values, and biodiversity. The Project is constantly trying to inform decision-makers, politicians and the local communities at large on the values of Uluguru Mountains and the recognition of its biodiversity "hot-spot" status the World over.

## **5. Major recommendations on project implementation**

Apart from trying to take full notice of the above-mentioned "lessons learned", the future of UMBCP or any other project implementing in the Uluguru Mountains should ideally entail:

1. 3 years is not enough to implement all activities in full and on a sustainable level, as well as do monitoring of the same within the same period. So for a healthy and sustainable continuation of the Project, funding should be sought for at least five more years;
2. Moreover, Project activities have to cover the whole of the Uluguru Mountains, i.e. both the two Catchment Forest Reserves and adjacent village areas. At the moment, comparison in terms of achievements is not possible because the Project is only confined in the North East of the North Uluguru Forest Reserve in two Wards. The Project has already received demands from other areas of the Ulugurus who are interested in getting project activities in their respective areas;
3. Attempt to build on already existing capacity. Many villagers need training and study tours on environmental concepts, building on knowledge both from within and outside the country because technology is changing and environmental aspects are now on the worldwide agenda;
4. Politicians have turned out to be the influencing people in many local communities, so they should be involved in Project activities right from the beginning. Both during planning, implementation, monitoring and evaluation exercises, failure to which they are the corner stone in giving Project support; and
5. More financial support is needed from the donor community and the Government of the United Republic of Tanzania to further improve the livelihoods of the forest adjacent communities as well as the conservation of the Ulugurus, because there are still many areas without any project interventions at all.

## **Potential areas of donor/recipient, country and regional cooperation**

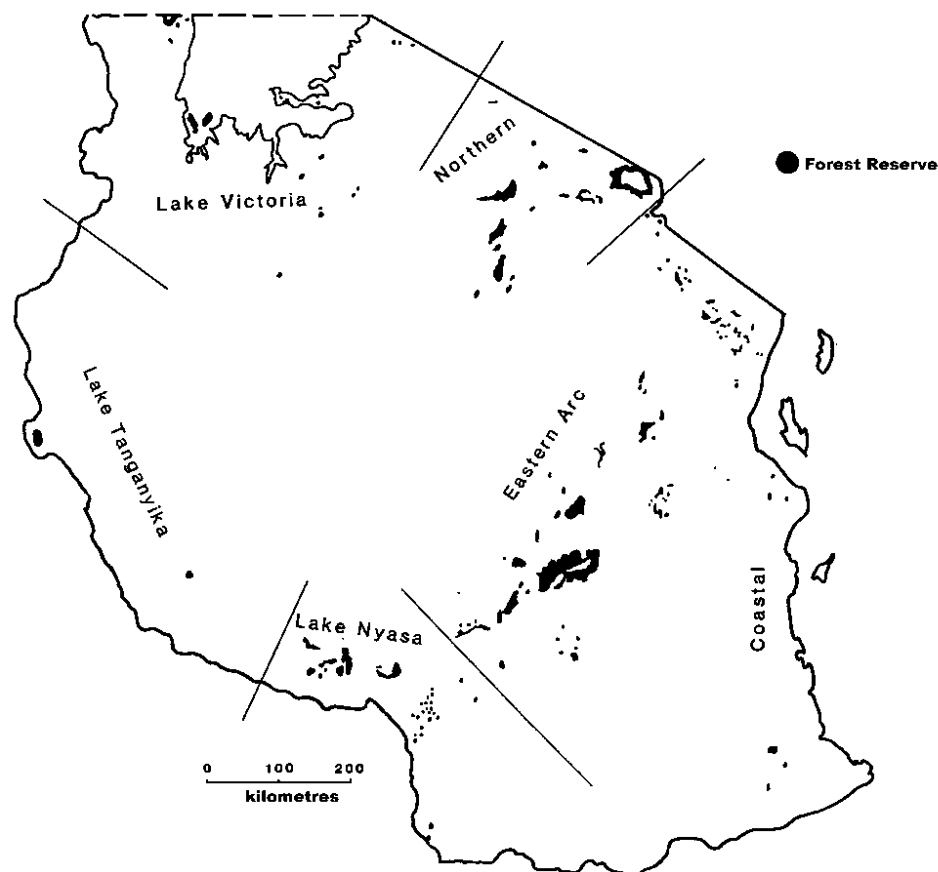
- (a) The UMBCP would like to see the presence of more projects with full Government of the Republic of Tanzania support and proper donor funding in place. Particularly in areas within the Uluguru Mountains where the UMBCP do not have on-going project activities at the moment. The UMBCP would be very willing to share its experiences and participate in any coordinating and cooperating efforts to improve impacts of any ICDP. During the last year, UMBCP has been involved in a cooperation with GEF/UNDP as well as the above-mentioned Project partners in designing a GEF/UNDP project component aimed at targeting the areas not covered by UMBCP at present. This work has been (and is) very fruitful, and it is expected to continue to the stage of implementation if funding for both projects is likely to be met,
- (b) At the national level, there is a good cooperation at present with the bilaterally funded Danida projects in various parts of the country, many of which have environmental and natural resource management components. More cooperation with and information about other projects with CBFM and JFM components is constantly sought; and
- (c) With respect to regional cooperation, there are still much to be desired, but more networking should definitely be established through e.g. links on the Internet (see next section).

## **Options for collaboration and networking with other partners in the region**

The main option, apart from physically meeting at workshops, seminars, conferences, for networking with partners and colleagues in the region is to make full use of Internet. This is not only intended to be setting-up of descriptive web sites for each and every project. It can be explored and developed more e.g. in terms of making discussion groups through emails, linking the different partner's web-sites, making all written materials from each project available on their respective web-sites. All these efforts should be geared towards increasing information sharing for the benefit of partners, but also for use by the general public and any interested party or stakeholder anywhere in the World.

The UMBCP web site is: <http://www.africanconservation.com/uluguru>





**Figure 1. Division of Tanzanian forests on the basis of geology and climate (from Lovett, 1990)**

Forest distribution is based on forest reserves containing closed forest formations. Coastal, Eastern Arc and Northern forests are under the direct climatic influence of the Indian Ocean, but Coastal forests are predominantly on sedimentary rocks, the Eastern Arc are on igneous and metamorphic rocks, and Northern forests are predominantly on volcanic areas (with the exception of the Mbulu highlands). Forests associated with the great lakes of Victoria, Tanganyika and Nyasa are subject to environmental fluctuations associated with variation in the local climates associated with these lakes.

