

IUCN
Rep
1984
025

AGRICULTURAL DEVELOPMENT AND ENVIRONMENTAL
CONSERVATION IN THE EAST USAMBARA MOUNTAINS,
TANGA REGION, TANZANIA

MAY 1984

Conservation for Development Centre

International Union for Conservation
of Nature and Natural Resources
Avenue du Mont-Blanc
CH-1196 Gland
Switzerland

CDC-MJC/MH/ph
04/06/84
0127v

IUCN Bibliothèque
CH - 1196 Gland

AGRICULTURAL DEVELOPMENT AND ENVIRONMENTAL
CONSERVATION IN THE EAST USAMBARA MOUNTAINS
TANGA REGION, TANZANIA

Summary: A proposal is presented for a broad-based integrated land-use project in the East Usambara Mountains, where population pressures are posing a serious threat to the natural resources of the region. The project is conceived in two phases, an initial short feasibility and planning phase followed by the implementation phase. This proposal deals only with the first phase.

1. OBJECTIVES

- 1.1 Objective of the overall Project: to achieve a radical improvement in the sustainable benefits accruing to local people through their use of renewable natural resources, by way of a three year programme of technical assistance concentrated on reforestation, agricultural improvement and education and training.
- 1.2 Objective of the Initial Planning Phase: through examination of the current land-use practices and the status of natural forests in the East Usambaras, to prepare with the relevant Tanzanian authorities, a detailed description (including workplan, timetable and budget) of the agreed activities to be carried-out in the main phase of work, within the framework of the EEC funding already approved for this work.

1. INTRODUCTION

Less than two per cent of Tanzania has a natural closed forest cover and this is still decreasing. And yet these forests contain a greater wealth of species than the vast forest expanses of West Africa. Some biologists believe the area is second only to the Galapagos in its importance for understanding biogeography and evolution. For the East Usambaras, which are the best known, over 20% of the forest trees are endemic, as are close to 80% of the millipedes, gastropods and amphibians.

Problems of forest conservation in Tanzania largely concern the question of size of individual forests, for Tanzania's forests are not found in one single block, but on isolated hills and mountains, and are being increasingly fragmented into separate and discrete small forest patches in each locality, posing a threat to the continued existence of both communities and species.

Whereas all Tanzania's forest blocks have some special biological value, three in particular contain outstanding biological diversity; these are the eastern forests of the Usambara, Uluguru and the Uzungwa mountains. In contrast, the forests of Kilimanjaro and Meru mountains, which are recent volcanoes, have much lower levels of diversity and endemism. The eastern forests are a distinct species refuge and differ markedly from the western forests such as Mahari, which in biogeographic terms are part of the Congo region.

Within Tanzania these forests are valued not so much for their unique plants and animals, but for their importance as major water catchments for agricultural, hydroelectric and urban development. Decreasing forest cover has led to a reduction in dry season waterflow, and to problems with river siltation and flooding.

Long term conservation is hampered by rapidly increasing human populations and by consequent land use pressures on these mountain blocks, which have a high rainfall and are highly productive for agriculture. There is a continuous demand for building poles (frequently the straight saplings of canopy species), firewood, wildlife, fungi and medicinal products from the forest. Even the strictest protection, which may prevent timber pit-sawing, has little effect on this semi-casual but incessant exploitation.

In the Usambara Mountains very high and still increasing human densities have caused extreme pressures on the land, and once continuous forest is now fragmented into a patchwork of primary and secondary forest, commercial and peasant agriculture. In some parts, 70% of the forest has been lost since 1954. There are over twenty separate forest reserves, but they are used for timber exploitation and exotic plantations. The West Usambaras supply water for the hydroelectric stations on the Pangani River. The East Usambaras, through the Sigi River, supply the industrial, urban and agricultural requirements of Tanga town. Important cash crops such as cardamon and tea are grown in this area.

If the renewable natural resources of the region are to be exploited on a sustainable basis whereby the people receive the maximum long-term benefits, it is essential that watershed protection and species diversity maintenance be considered alongside the villagers' more pressing needs for agriculture and fuelwood, it is essential that the natural resources be managed in a manner which does not ultimately destroy the basic life-support systems of the region.

To address the current deteriorating situation it has been proposed that a programme of technical assistance be introduced, concentrating on three areas of activity.

1. Reafforestation and buffer zone plantation.
2. Agricultural improvement, including establishment of dairy herds, agroforestry, enhancement of cardamon production, etc.
3. Education and training.

This current proposal concentrates on an initial planning phase, to be completed prior to the main phase of work.

3. BACKGROUND

The proposal for this project originated out of discussions held during 1983 between Alan Rodgers, WWF/IUCN Tropical Forest Coordinator in Tanzania, and Mr. Paul de Wanckel, Agricultural Advisor to the EEC Delegation in Dar-es-Salaam. During that year, the EEC Commission established the Fight Against Hunger In the World (FAHIW) programme, a fund administered by the Commission itself and independent of the European Development Fund.

As a result of the urgency with which the project proposals had to be submitted to qualify for consideration under the FAHIW programme, Alan Rodgers rapidly prepared a broadly-based, integrated land-use project proposal aimed at tackling the very severe human pressures currently being experienced in the East Usambara Mountains. This proposal was submitted to the EEC Commission in Brussels in mid-1983. However, it was not until late December 1983 that the establishment of the FAHIW programme was officially endorsed by the European Parliament, and then not until early 1984 that funding for the East Usambara proposal itself was secured. By this stage, Rodgers had departed from Tanzania to take up a post with FAO in India, and was therefore not in a position to follow up on the implementation of the various activities called for in the original project proposal to the EEC.

A total of ECU 750,000 has been allocated to the project and a time period of approximately three years is envisioned. The organisations nominated to take a lead responsibility for the three activity areas were:

1. Forest Division, Ministry of Natural Resources and Tourism
2. Tanga Integrated Rural Development Programme (TIRDEP)
3. International Union for Conservation of Nature and Natural Resources (IUCN).

TIRDEP is a long-term, multi-disciplinary, integrated land-use project focusing on increasing agricultural production and controlling soil erosion in the West Usambaras. Its activities are funded by the German Agency for Technical Cooperation (GTZ). In many ways, the EEC East Usambara project is modelled upon TIRDEP's programme of activities.

As a result of the short time schedule involved in the submission of the project proposal to the EEC, and the subsequent uncertainty about whether or not the project would be funded, none of the above organisations was involved to any major degree either before or after submissions of the proposal to Brussels. The result is that none of the organisations was able to provide input into the design of the proposed project activities; likewise, the organisations were not able to give an opinion on the type and extent of the role which they could play in the implementation of the project.

Because of IUCN's continuing involvement in the Usambaras through its tropical forest campaign activities in Tanzania, it seemed appropriate that IUCN should take the lead in drawing the various organisations concerned into a process of refining and ultimately agreeing the project to be undertaken.

To clarify IUCN's potential role in both the programme definition and implementation phases following the approval of the initial proposal by the EEC, R. Malpas and S. Perkin, of the WWF/IUCN Regional Office for Eastern Africa, travelled to Tanzania in May 1984. They met with members of the University of Dar-es-Salaam at Morogoro where the Faculty of Agriculture and Forestry is based, with Mr. Paul de Wanckel in Dar-es-Salaam, and with representatives of TIRDEP in Tanga.

It is as a result of these discussions that IUCN has recommended that a project development mission now visit Tanzania, discuss the feasibility and organization of the overall project with those involved and prepare a detailed implementation plan for the 3-year project.

4. THE INITIAL PLANNING PHASE

It is proposed that a two-man consultancy team, representing a body of expertise in the fields of forestry, agriculture, agroforestry, education and training, and with practical experience in the implementation of this type of project, should visit Tanzania accompanied by a member of the WWF/IUCN Regional office during part or all of their visit. In addition, local recruitment of a junior assistant to the consultants is anticipated, preferably a forester with first-hand knowledge of working in this type of field in Tanzania, to assist as scribe/logistics officer.

The planning mission would carry out the following work:

1. The current agricultural and land-use practices in the East Usambaras would be examined, especially those with a noticeable direct or indirect impact on the natural forest areas. The efficiency of these land-use practices should be assessed in terms of production, sustainability and soil conservation, and an examination made of the possible ways of improving these practices to increase output while at the same time reducing the impact on the natural resources of the area. This whole analysis should include an assessment of the potential for alternative agricultural practices, in particular new crop varieties.
2. A reconnaissance of the natural forest areas of the East Usambara Mountains would be conducted with particular attention to an assessment of the following:
 - rate and nature of forest degradation;
 - nature, extent and trends in human population pressures on surviving natural forest areas, and possible ways of alleviating these pressures.

This assessment may be facilitated by an examination of aerial photo coverage of the East Usambaras currently maintained by the Tanga Integrated Rural Development Programme (TIRDEP) in Tanga.

3. Consultations would be held with regional government natural resources and forestry officials, central government forestry officials, staff of TIRDEP and other key persons and organisations. In particular, through discussions with TIRDEP and by visiting their own programme of activities in the West Usambaras, an examination would be made of the feasibility and likelihood of success of the various activities described in the original project proposal submitted to the EEC entitled "Agricultural Development and Environmental Conservation in the East Usambara Mountains, Tanga Region, Tanzania".
4. Based on the preceding assessments, a comprehensive work plan, budget and timetable for a feasible programme of activities in the East Usambaras would be developed, within the framework of the EEC funding presently committed for this project. The primary objective of these activities should be to reduce pressure on the natural resources of the area, in particular the surviving natural forest, and to increase the efficiency and sustainability of agricultural and fuel wood production. Activities should aim at achieving lasting results wherever possible. In certain cases, limited experimental or pilot activities may be considered desirable. While the impact of such activities is unlikely to be noticeable within the time span of the current project, they will provide useful groundwork for any follow-up activities in the area.

5. Through discussions with the EEC Delegation in Dar-es-Salaam, as well as district, regional and central government officials, TIRDEP, and other concerned individuals and organisations, such as the Faculty of Agriculture and Forestry at Morogoro, the grounds for the implementation of the proposed programme of activities would be prepared. Where the programme calls for the active participation of a government department or other organisation, suitable discussions would be held with a view to determining whether that organisation is willing and able to carry out the assigned tasks. If additional support needs to be provided to the organisation to enable it to effectively implement the activity, detailed information should be given within the planning phase, on the nature of the support required, and how it should best be provided.
6. The need for expatriate expertise to assist in the implementation of the various activities would be assessed, and details given of qualifications required, timing and duration of the input, and other relevant information. If possible, appropriate candidates for these positions would be identified. Suitably qualified local experts (e.g. from the Faculty of Agriculture and Forestry at Morogoro) should be utilized wherever possible.
7. A report containing all the above information would be prepared for presentation to the EEC Delegate in Dar-es-Salaam within seven weeks of the start of project..

5. COORDINATION LOGISTICS AND TIMETABLE

IUCN and in particular its Conservation for Development Centre (CDC) are described in section 7 of this proposal. The project would be carried out by CDC with field coordination provided by the IUCN/WWF Regional Office in Nairobi.

CDC as a "networking" operation, through its consultants register, is able to assemble project teams for conservation/development work throughout the world and ensure appropriate additional expert reviews of the resultant reports. The expert team that will be appropriate to the proposal planning mission will depend upon the timing of the mission. Thus, once EEC approval for the Planning Phase has been given and budgets and time scale agreed, CDC will submit the names and abbreviated CVs of the mission members for approval.

A one-month mission is envisioned, including write-up, as detailed below:

<u>Day Number</u>	<u>Itinerary</u>
1-2	Nairobi: Discussion with WWF/IUCN Regional Office, logistical arrangements, purchase of supplies etc.
3	Travel to Mombasa
4	Travel to Tanga
5-7	Discussions with TIRDEP, Forest Project Officer, Regional Natural Resources Officer, Regional Forestry Officer and others
8-14	Site visit to Usambaras
15	Travel to Dar-es-Salaam
16-17	Discussions with EEC and Forestry Division
18	Travel to Morogoro
19	Discussions with University staff
20	Travel to Tanga
21-22	Final meetings with TIRDEP etc.
23	Travel to Mombasa
24	Travel to Nairobi
25-30	Writing up
35	Submission to EEC Delegate of Draft Report
35-45	IUCN review
49	Submission to EEC Delegate of Final Report

6. FINANCE

The overall cost of the Planning Phase is estimated at US\$ 30,320. IUCN is a "non-for-profit" organisation and follows a policy of ensuring in its conservation work that costs are minimised as far as possible. Full accounts are maintained and any funds unspent at the end of the project are returnable to the project sponsor.

BUDGET	
Cost Item	Cost US\$
<u>Personnel Costs</u>	
1. IUCN coordination, technical input, review:	
- Headquarters	3,200
- Regional Office	1,500
2. Consultants fees (60 days at \$150 per day)	9,000
3. Locally-hired assistant (30 days at \$50 per day)	1,500
4. Secretariat expenses (5 days at \$50 per day)	250
SUB TOTAL	15,450
<u>Expenses and Travel</u>	
5. International travel (2 tickets Europe-Tanzania)	3,800
6. Vehicle operating costs:	
- Landrover rental	3,500
- Fuel	350
- Nairobi office vehicle use	250
7. Per diems:	
- Nairobi and Mombasa:	
33 person days	
- Tanzania, Dar-es-Salaam and Morogoro:	
46 person days	
- Usambaras:	
21 person days	6,170
8. Communications, computer, miscellaneous	800
SUB-TOTAL	14,870
GRAND TOTAL	30,320

7. QUALIFICATIONS

7.1 International Union for Conservation of Nature and Natural Resources - IUCN

IUCN is an independent, international organisation with extensive membership of states, government agencies and non-governmental organisations. Its purpose is to ensure, as far as it is capable, that the process of socio-economic development throughout the world is sustainable and that man's use of the biosphere is managed for the overall sustainable benefit of mankind.

IUCN was founded in 1948 as a result of concern throughout the international scientific community at the extent to which economic development and the growth of the human population were causing significant adverse and often irreversible effects on the environment. The link between conservation and development has been a recurrent theme within IUCN over the last third of a century although, in recent years, the theme has assumed ever increasing importance. The World Conservation Strategy (prepared by IUCN with assistance from UNEP and WWF, in collaboration with FAO and Unesco, and launched in 1980) stressed the critical importance of sustainable development throughout the world today. The network of scientists and development experts which was drawn upon in the elaboration of the WCS is still intact, and acts as IUCN's principal source of expertise in conservation for development issues.

IUCN's three year working programme, the "Conservation Programme for Sustainable Development", provides the basic framework within which activities, including field and support projects are planned and executed. The IUCN Project Management Division is currently looking after 250 field projects throughout the world.

An essential component of the IUCN network is the six Commissions. These are made up of more than 1200 experts in 120 countries and over 2000 correspondents and consultants who constitute the intellectual resources of IUCN, keeping it abreast of the priority conservation problems and developing the solutions. The Commissions are:

- Environmental Planning
- Policy, Law and Administration
- Environmental Education
- Ecology
- National Parks and Protected Areas
- Species Survival

IUCN operates the Conservation Monitoring Centre in the United Kingdom, which includes a Species Conservation Monitoring Unit, a Wildlife Trade Monitoring Unit (both in Cambridge), a Protected Areas Data Unit and a Threatened Plants Unit (both at the Royal Botanic Gardens, Kew). The IUCN Environmental Law Centre in Bonn (Federal Republic of Germany) is IUCN's main focus for work in the development of environmental policy and legislation. These specialised IUCN centres, which are equipped with automated data processing facilities, maintain regular contact with several thousand consultants and correspondents throughout the world.

7.2 Conservation for Development Centre - CDC

CDC was established by IUCN in April 1981 its headquarters in Switzerland, under an initial grant from the Ford Foundation. Its terms of reference were to obtain tangible sustainable benefits for mankind, with concentration on the poorest communities, through the application of practical conservation principles.

CDC is backed-up by an extensive world-wide registry of consultants and experts and by the intellectual resources of IUCN and collaborating organisations. CDC operates in two distinct modes: by initiating and managing its own projects addressing critical conservation problems identified by IUCN; and by providing assistance in the planning and management of living natural resources as requested by other organisations.

CDC projects focus on helping countries ensure that their living resources are used to provide maximum sustainable benefits locally, and to the country and region as a whole. Concentration is on:

- development and implementation of environmental management plans and strategies
- education and training
- institution building
- development of policy and legislation
- environmental impact assessment.

Priority is given to environments which are poorly utilized or which are threatened with needless degradation. This includes tropical forests, semi-arid and arid lands, river basins and watershed regions, and coastal areas.

CDC-MJC/MH/ph
04.06.84
0127v