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**SOCIO-ECONOMIC SPECIAL STUDY
Report No. 14**

**Socio-economic and institutional appraisal
of the Mpanda-Sumbawanga catchment
in Rukwa Region, Tanzania**

*Dar es Salaam
August 1998*

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**Pollution control and other measures to protect biodiversity
in Lake Tanganyika (RAF/92/G32)**

**Lutte contre la pollution et autres mesures visant à protéger
la biodiversité du lac Tanganyika (RAF/92/G32)**

The Lake Tanganyika Biodiversity Project has been formulated to help the four riparian states (Burundi, Congo, Tanzania and Zambia) produce an effective and sustainable system for managing and conserving the biodiversity of Lake Tanganyika into the foreseeable future. It is funded by the Global Environmental Facility through the United Nations Development Programme.

Le Projet sur la Biodiversité du Lac Tanganyika a été formulé pour aider les quatre états riverains (Burundi, Congo, Tanzanie et Zambie) à élaborer un système efficace et durable pour gérer et conserver la diversité biologique du lac Tanganyika dans un avenir prévisible. Il est financé par le FEM (Fonds pour l'Environnement Mondial) par le biais du Programme des Nations Unies pour le Développement (PNUD)

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BACKGROUND

From 26 to 27 January 1998 Dr Geoff Griffith, the Socio-Economic Special Study (SESS) Co-ordinator, Dr Claude Mung'ong'o, the prospective National Socio-Economics Co-ordinator (NSEC) for Tanzania, and Mr Bartholomew Tarimo, the National Environmental Education Co-ordinator (NEEC) for Tanzania, met to review the output of the PRA exercises completed to date and assess the general status of the SESS and Environmental Education (EE) component in Tanzania. The meeting revealed that the information gathered so far on the socio-economic conditions and fishing practices of the communities living along the eastern shores of Lake Tanganyika was comprehensive and representative enough to enable the Project to begin to draw reliable conclusions and make sound generalisations. No data were, however, available to the Project on the socio-economics of the catchment areas of the lake and the institutional set-up in the Tanzanian lake basin. It was decided, therefore, that further social surveys be conducted in selected catchment areas to collect data to fill these gaps. The Districts of Kigoma Rural (Uvinza Ward), Kasulu, Sumbawanga, Mpanda and Urambo were selected based on peculiarities in economic activities (agriculture, industry, etc.), habitats (highlands, lowlands, woodlands, etc.) and type of institutions and stakeholder associations existing in the area.

The first field trip was undertaken in Kigoma Region between 8 and 27 February 1998, and incorporated the following research team:

- Dr C.G. Mung'ong'o, NSEC and Team Leader;
- Mr B.T. Tarimo, NEEC;
- Ms Beatrice Marwa, Fisheries Officer, Kigoma;
- Mr Omari Kashushu, Fisheries Officer, Kigoma; and
- Mr Hamza Mabochi, Community Development Officer, Kigoma.

A field report entitled *Socio-economic and institutional appraisal of the Malagarasi-Luiche catchment in Kigoma Region, Tanzania* was produced from that trip.

A second field trip was undertaken between 8 and 24 July 1998 to Mpanda, Nkasi and Sumbawanga Districts in Rukwa Region. This time Beatrice Marwa was not able to accompany the team

FIELD REPORT: 8 – 24 JULY 1998

Wednesday 8 - Sunday 12 July

Dr Mung'ong'o and Mr Tarimo travelled to Mpanda via Dodoma and Kigoma first by road, then by train, and then by road again. In Kigoma they assembled the research team and with the help of Mr Barongo, the Station Administrative Officer, planned and prepared for the trip. The team reached Mpanda late on Saturday evening and spent the following day settling in and making preparations for the following day's work.

Monday 13 July

The team visited the Mpanda District Council where they met Mr Kalimalwendo, the District Planning Officer, who was also at that time Acting District Executive Director. The team also met with the District Natural Resources Officer, Mr Pallangyo, the District Agricultural & Livestock Development Officer, Dr Mwakasungula, and Ms Kasonso and Mr Magai, both of the District Water Engineer's Office. These officers briefed the team on the economic activities of the District, resultant environmental problems, and the efforts of the District in environmental conservation. In the afternoon the team visited the State Mining Company offices in Mpanda where they met Mr Kukumo, the Acting Zonal Officer. Gold mining on a small scale currently involves about 1,500 people. The main environmental threat posed by this activity is the use of mercury in binding the gold. If not handled properly, mercury residues can pollute the rivers used by the miners to process their gold. However, as all of the rivers passing through the mineral fields discharge their waters into Lake Rukwa, this is not an immediate problem for Lake Tanganyika

Tuesday 14 July

The team spent the day visiting the two lake villages of Karema and Ikola. At Ikola the team met Mr Rajabu, the Ward Executive Officer, and Mr Mapunda, the Ward Fisheries Officer. They informed the team about fishing practices in the area. There are four types of fishing practices carried out in this part of the lake: lift netting, beach seining, long line fishing, and gill netting. Lift netting is the most popular type of fishing in Rukwa Region. Under normal circumstances there are 10 lift net fishermen in Ikola alone. However, during the peak season (July/August) this number can rise to 100. Unlike Kirando and Buhingu where outboard engines are used, in Ikola and Karema fishermen use rowing boats only because they fear pirates from the Democratic Republic of Congo. The main types of fish caught by lift nets are *dagaa* (*Stolothrissa tanganyicae*) and *migebuka* (*Lates stappersii*). Mpanda District produces approximately 213 tons of fish annually.

Although beach seining has been banned throughout Tanzania, including Lake Tanganyika, some fishermen in Ikola are still practising it illegally. Until recently some types of fish such as *sangara* and *singa* (*Lates* spp.) were said to be locally extinct due to beach seining; with the ban these species are increasingly seen among the catches from long lines and gillnets. However, policing by the Fisheries Department is insufficient as there are very few staff and no equipment to carry out such duties. More participatory methods might be more effective, but there are no NGOs in the area that deal with environmental problems related to fishing such as beach seining or deforestation from high levels of use of wood for smoking fish, a serious problem. The Wazee Millers Group in Kirando and the Tujaribu Vijana Group in Sumbawanga both showed an interest in extending their conservation activities to the coastal areas of Lake Tanganyika, but both are still in their formative stages and their organisational structures may not allow them to expand effectively without external help.

Wednesday 15 July

Dr Mung'ong'o spent the day collating the information acquired in Mpanda and planning the activities to be accomplished in Sumbawanga while the vehicle was repaired.

Thursday 16 July

The team travelled to Sumbawanga, arriving late in the evening. En route they passed through Katavi Plains National Park and the Nkasi District Headquarters at Namanyere and made appointments for interviews on their return.

Friday 17 July

The team visited the Regional Commissioner's Office in Sumbawanga where they met Mr Muyumvi, the Acting Regional Administrative Secretary, and Mr Mtama, an Agricultural Officer with the Southern Highlands Extension and Rural Financial Services Project in the Ministry of Agriculture. They informed the team of the economic activities of Rukwa Region, as well as the major environmental problems associated with these activities. Deforestation resulting from agricultural expansion and overgrazing due to an influx of livestock from Sukumaland have increased erosion, which had caused flooding in coastal areas and siltation of both Lake Tanganyika and Lake Rukwa, which is "almost dried out".

Saturday 18 July

The team visited the offices of the Rukwa Association of Non Governmental Organisations (RANGO), an umbrella organisation, where they met Mr Mshana, the Secretary General, who listed the member NGOs that dealt with environmental conservation:

Nkasi District

- Wazee Millers Group, Kirando
- Chala Mission

Mpanda District

- Rukwa Regional Mining Association (rehabilitation of areas damaged by mining)
- Katumba Multipurpose Association (reforestation of areas deforested by tobacco curing)
- Nfishaino Multipurpose Association (reforestation in areas deforested by refugees)

Sumbawanga Rural District:

- Molo Co-operative Society
- Kanye Primary Co-operative Society
- Itaku Primary Co-operative Society

Sumbawanga Urban District:

- Kanisa la Neema (re/afforestation)
- Pentecostal Church (re/afforestation)
- Diocese of Western Tanzania (re/afforestation)
- Chama cha Walemavu Tanzania (tree seedling production)
- Malihai Club (re/afforestation)
- Rukwa Environmental Conservation Society (training for re/afforestation and supply of seedlings)
- Rukwa Environmental Management Society (re/afforestation)
- Kaengesa Environmental Society (re/afforestation)
- Tujaribu Vijana Group (tree seedling production and distribution)

RANGO was started by the Regional Commissioner in an effort to have just one organisation through which donor funds could be channelled into the Region. However bureaucratic inertia, characteristic of such umbrella organisations, and mismanagement in individual member organisations has led to acrimonious relationships between RANGO and some of its members. Some new NGOs (e.g. MPECO in Mpanda) have, as a result, been wary of joining.

Sunday 19 July

The team met representatives from two local NGOs, Rukwa Environmental Conservation Society (RECOSO) and Tujaribu Vijana Group. RECOSO was established in 1993 and registered the following year. It has 15 members, mainly retirees from the Department of Lands. Its main work to date has been environmental conservation through re/afforestation, beginning in Kantalamba and expanding to other areas around Sumbawanga town. It has also trained groups of citizens in environmental management (land issues and forestry) and gender. The main problems have been lack of funds and equipment. Tujaribu Vijana Group was established in 1994 and began work in 1996. It has 15 members. Its objectives are to give youth an opportunity to employ themselves and to educate the local population in environmental management and conservation. They have expertise in forestry, accounts and health, and their work to date includes production of tree seedlings and tree planting in various urban and rural areas of Sumbawanga. They have benefited from various donations from GTZ, NPF, and the Regional Commissioner's Office, but like RECOSO they are short of funds and lack knowledgeable and hence effective leadership; as a result people's response to joining has been rather low.

Monday 20 July

The team visited the Sumbawanga Rural District Natural Resources Officer (DNRO), Mr Mkahiu, and the District Forest Officer, Mr Mayerere. They informed the team that the District had five Forest Reserves (FR) and Game Reserves (GR): Kalambo River FR; Kalambo Falls FR; Uwanda GR; Kwela GR; and Rukwa GR. Poaching is rampant in the GRs, and approximately 18% of the FRs have been destroyed by timber extraction, agricultural expansion, and fuelwood collection, especially for the flue-cured tobacco grown in Kasanga. Unfortunately the office is not in a position to contain these problems or to regulate and control the use of natural resources as recent retrenchments have reduced manpower to 25%, and there is a lack of funds, transport and other equipment.

The team then met the Acting Regional Administrative Secretary, Mr Mwandumba, who expressed appreciation for the Project's activities in the Region; in his opinion the siltation of not only Lake Tanganyika but also of Lake Rukwa requires immediate attention. He welcomed the idea of opening a Project co-ordination office at Sumbawanga, and said that the Regional Commissioner's Office was prepared to offer office space upon official request. (Apparently after the Regional staff reorganisation exercise there is plenty of room in the Regional Block...)

Tuesday 21 July

The team left for Namanyere early in the morning, arriving at around 10:00am, but, unfortunately, there was no one to meet the team, so they spent the day consolidating the information gathered so far.

Wednesday 22 July

The team left Namanyere early in the morning and travelled to Mpanda via Katavi Plains National Park. The team met Mr Chuwa, the Community Conservation Services Officer, who outlined the history of the Park and some of the major achievements and problems of the Community Conservation Services (CCS). When it was first gazetted in 1974 the Park had an area of 2,250km², but it has now expanded to encompass 4,500km². Major problems facing the Park include encroachment by livestock keepers and poaching which have led to poor relations with neighbouring communities, and difficulties in attracting visitors due to poor access roads, lack of hotels of international standards, and insufficient publicity. The CCS had assisted 15 local villages with potable water, and provided materials such as cement, iron sheets, and timber to enable some of them to complete school and/or dispensary buildings. However, they have not addressed the underlying problems of reduced pastures for livestock and lack of meat.

Thursday 23 July

The team left Mpanda for Kigoma, arriving at around 4:00pm.

Friday 24 July

Dr Mung'ong'o and Mr Tarimo left for Dar es Salaam by air.

MAJOR OBSERVATIONS

1 Environmental threats

1.1 Agriculture and livestock keeping

The major environmental threats identified in Mpanda and Sumbawanga Districts are deforestation resulting from agricultural expansion (between 1996 and 1997 the area cultivated increased by 17% in Mpanda District and 14% in Sumbawanga District) and overgrazing due to an influx of livestock from Sukumaland and growth of local livestock numbers. These activities have led to increased erosion, which had caused increased flooding in coastal areas and the siltation of both Lake Tanganyika and Lake Rukwa.

1.2 Fishing practices

Beach seining was identified as the most destructive fishing method used in the inshore areas of Lake Tanganyika and in Lake Rukwa. The ban appears to be functioning to some degree, although policing by the Fisheries Department is insufficient as there are very few staff and no equipment to carry out such duties. More participatory methods might be more effective, but there are no NGOs in the area that deal with environmental problems related to fishing (beach seining and deforestation from high levels of use of wood for smoking fish).

1.3 Gold mining

The main environmental threat posed by this activity is the use of mercury in binding the gold. If not handled properly, mercury residues can pollute the rivers used by the miners to process their gold. However, as all of the rivers passing through the mineral fields discharge their waters into Lake Rukwa, this is not an immediate problem for Lake Tanganyika.

1.4 Status of protected areas

Mpanda District has six Protected Areas (one National Park, three Game Reserves and two Forest Reserves). However, the Park suffers from encroachment by livestock keepers and some poaching, poaching is a rampant in the GRs, and approximately 18% of the FRs have been destroyed by timber extraction, fuelwood collection, and agricultural expansion. Lack of manpower due to recent retrenchments and lack of funds, transport and other equipment makes it difficult to combat these problems. Attempts by the Park's CCS to improve relations with local communities do not address the underlying problems of reduced pastures for livestock and lack of meat.

2 Institutional set-up

2.1 Government departments

As observed in Kigoma Region, all departments lack the basic resources to perform their duties well. Recent retrenchments have reduced the manpower of some departments to their barest minimum. Most have no transport to enable them to reach their areas of operation; those which depend on facilities provided by donor and/or international NGOs cannot even maintain such vehicles due to lack of recurrent funds.

2.2 Non Governmental Organisations

There is a proliferation of NGOs of all sizes and capacities. Most of them, however, conceptualise environmental conservation as equivalent to re/afforestation; other environmental issues may not be in vogue due to the predominance of foresters in these institutions. Management is a major problem, and many are run as a one man show, while others are groups of people with vested interests and ulterior motives. Shortage of funds and lack of knowledgeable and hence effective leadership has resulted in poor responses to joining. These problems are compounded by the fact that the umbrella organisation, RANGO, suffers from bureaucratic inertia and has acrimonious relationships with some of its members. Some new NGOs (e.g. MPECO in Mpanda) have, as a result, been wary of joining. However, some potential counterpart organisations were identified, including RECOSO, Wazee Millers Group (Kirando), Malihai Club, Tujaribu Vijana Group, and the Pentecostal Church in Sumbawanga, although they need capacity building through training and investment of resources.

3 Perceptions of LTBP

As observed in Kigoma Region, the Project is little known in Mpanda and Sumbawanga Districts. However, the Regional Administration expressed appreciation for the Project's activities in the Region, and pledged support for a Project co-ordination office in Sumbawanga. Alternatively, a participant in the 1997 Kirando PRA who is now working with the Sumbawanga District Council, Mrs Malabeja, offered to be a local contact person. The team feels strongly that this issue should be decided upon in the very near future to avoid raising false expectations.