

RAF/92/G32 - POLLUTION CONTROL AND OTHER MEASURES TO  
PROTECT BIODIVERSITY IN LAKE TANGANYIKA

Progress Report No. 8

December 1997 - February 1998

NRInternational

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# 1. Project Co-ordination Unit

## 1.1 Project Co-ordinator and Scientific Liaison Officer

### 1.1.1 General Summary

The major events this quarter, as far as the project as a whole is concerned, were the Tripartite Review Meeting (TPR) and the second meeting of the Project Steering Committee (SCM). These meetings provided a somewhat overdue opportunity for the participating states, UNOPS, GEF, UNDP and PCU to review project progress and agree on priorities for the next twelve months. Rather than summarise the meetings here, the reports from both meetings are given at Appendix 1 to ensure a wide distribution and to act as an aid memoir to all concerned regarding the project's commitments and obligations for the coming year.

Important preparation for the above meetings took place in December when The National Coordinators and other delegates from each of the four riparian countries met with the PCU and other project representatives in Lusaka. This meeting reviewed and revised the conclusions and recommendations of the draft PPER in preparation for the TPR and SCM. Also at this meeting, delegates discussed the implementation of the Strategic Action Plan (SAP) and its relationship to the project's Legal Framework for Regional Co-operation. More detail of the SAP process is given under section 1.1.1. below.

Of general strategic importance to the project is the fact that arrangements are now underway for the Scientific Liaison Officer to move her base of operations from Kigoma to Burundi, hopefully by early May, to ensure that activities in the francophone region are brought up to speed as rapidly as possible, as directed by the TPR/SCM.

Good progress was recorded in most project components during this quarter. Of particular note, because of its potentially far reaching consequences for the conservation of Lake Tanganyika, was the first major workshop under the Legal and Institutional component of the Project. The regional workshop was held in February in Lusaka with all four riparian countries represented. In addition to National Coordinators, delegates were drawn from a range of government departments with both legal and policy experience being represented. Senior people from all four governments attended, reflecting the importance given to this component of the project by all riparian countries. The two principal objectives of the workshop were to reach general agreement on what areas and aspects any future Agreement between the four states should contain, and to agree upon a plan of action for drafting and negotiating an Agreement. The workshop achieved these and other objectives and was considered by all to be a success.

The sedimentation special study conducted a cruise using the R/V Explorer to collect sediment cores from the Tanzanian and Burundian coasts. International teams with members from all riparian nations mapped the bathymetry and deployed sediment corers in heavily impacted and relatively undisturbed regions of similar geomorphology to assess the impact humans have had upon sedimentation rates in the Tanganyika basin.

The socio-economics and fishing practices teams conducted Rapid Rural Appraisals (RRAs) in and around Mahale Mountains National Park, Kasulu and Uvinza. The Mahale mission increased our understanding of land use and resource issues in and around an aquatic park while the Kasulu-Uvinza mission probed land use practices and

initiated the in depth institutional assessment agreed at the SCM, deeper in the Tanganyika catchment, and in areas affected by the refugee crisis. In Zambia the Lake Tanganyika Drama Club toured the lakeside villages performing a play to highlight issues related to the project. This was followed by a successful three day meeting of village head men which subsequently resulted in visits being made by project teams to 111 villages and the formation of 45 village environment committees.

The Minister of Agriculture for Burundi has granted LTBP office space in the Fisheries Compound in Bujumbura. Consisting of a library/computer room, limnology laboratory, biology laboratory, museum of aquaria, and administrative offices, this facility will serve to co-ordinate project activities in the north end of the lake. An administrative assistant has been engaged and equipment is arriving at the site.

Also in Burundi, the Biodiversity special study is getting underway with the appointment of a coordinator for the special study from the University of Burundi and the start of surveys in the Ruzizi delta.

Under the Pollution special study, the Project's second limnological laboratory in the region - in Mpulungu, Zambia - has been furnished and equipped. Preliminary monitoring of physical factors, chemical pollution and associated diversity of microscopic biota in open water and littoral substrata sites has started - in Mpulungu Bay and the less-impacted Nsumbu area. In Tanzania, Dr Francis Chale, a highly qualified consultant limnologist has been taken on to oversee the pollution work there, while Nicki Wiltshire who has settled in well and is providing excellent support to the work, will shortly move to Mpulungu.

The PC and the SLO met with the Coordinator of the Lake Tanganyika Research Project, during his visit to Kigoma, to discuss synthesising the projects' monitoring programs.

The SLO took three weeks leave.

In addition to three visits to Lusaka to participate in the meetings mentioned above, the Project Coordinator visited Kigoma from 2-9 January primarily to assist with preparations for the Sediment special study cruise, in the absence of the SLO.

### 1.1.2 Strategic Action Plan

The project document has as the first immediate objective “...*establish a regional long-term management plan for pollution control, conservation and maintenance of biodiversity in Lake Tanganyika.*”.

Since the project document was prepared, the planning ideas incorporated in the immediate objective have been encapsulated in the concept of a Strategic Action Plan - SAP. Fundamental to this concept is the recognition that management plans have to be continually revised in response to changing circumstances, there can be no final plan. The SAP therefore establishes an agreed planning and management process, and prioritises initial interventions based on present knowledge.

The introduction of this revised concept to project staff and more generally to planners within the four host countries was preceded by the preparation and distribution of the “Consultation Document for the Preliminary Strategic Action Plan” (February 1997).

This was followed by brief presentation at the Technical Coordination Meeting held in Bujumbura in September.

### *1.1.2.1 The SAP Programme*

The first regional meeting in which the concepts of the SAP were addressed, was the National Coordinators Meeting held in Lusaka 18/19 of December. The presentation was led by Nicholas Hodgson, with support from Vicki Cowan.

The meeting endorsed the proposed process of developing the SAP, and proposed a timetable of national and regional meetings culminating in a proposed regional meeting in March 1999, at which a finalised document would be presented for signing by representatives of the four countries. The meeting agreed that the revised programme would be presented to the Steering Committee Meeting scheduled to follow the TriPartite Review in January 1998.

The TPR was held on 19 January and was followed by the Steering Committee on 20 January. Nicholas Hodgson acted as resource person to the TPR and presented the revised SAP programme, based on the conclusions of the National Coordinators Meeting.

The steering committee endorsed the following timetable, moving the first Regional TAC meeting to April.

#### **March 98: Convene the National Working Groups**

National Working Groups, two days per country

#### **April 98: Convene Technical Advisory Committee**

Regional Technical Advisory Committee, two days.

#### **May 98: National Sectoral Problem Review.**

National Working Groups, five days per country

#### **August/September 98: National Environmental Priorities and Strategies Review**

National Working Groups, five days per country

#### **October 98: Transboundary Diagnostic Analysis**

TAC, five days.

#### **January 99: Draft Strategic Action Plan**

Regional Technical Advisory Committee, five days

#### **March 99: Signed Strategic Action**

Extraordinary Steering Committee Meeting and National Ministers, three days.

### **1.1.3 Goals for Next Quarter**

1. Take forward the SAP process through:

- Meetings of National Working Groups in all four countries to establish the terms of reference dealing with the SAP for the National Working Groups, defining required additional or alternate membership and allocating tasks.
- A regional meeting will be held for the Technical Advisory Committee, again to define terms of reference for preparing the SAP and determining additional or alternate membership.

- The project will recruit an additional planner to act as the facilitator for the francophone countries, to work with their national working groups and assist in the regional negotiations.
2. Commence re-habilitation of CRH/Uvira facility.
  3. Increase project activities in Burundi and D.R. Congo through mini workshops for each special study.

## **1.2 Technical Officer**

All remaining information technology (IT) and VHF radio equipment was ordered and shipped to the riparian stations. Inflatable boats and outboard engines were purchased and shipped to Burundi and DR Congo. Final decisions were made concerning the purchase of HF radios and utility boats, for forthcoming special study work. A 4x4 pick-up was purchased and shipped to Bujumbura and the task of transiting the vehicle that has been stored in Kigoma to Uvira resumed.

Email communications were established for the Bujumbura station. They can now be reached at [ltbpbuja@cbinf.com].

A good deal of progress has been made on the LTBP web site. Site hosting and CD-ROM production issues are still being investigated. The deadline for having the web-site up and running is mid-May 1998.

Further discussions have been held with the head of UNDP/GEF distance-learning initiative in which LTBP is a participant.

The project equipment inventory has been updated for Tanzania and Zambia stations. Bujumbura and Uvira will be included as soon as all equipment is delivered. A project document database was compiled and is available from PCU.

The TO spent one week at the project office in Dar-es-Salaam, four days at NRI, UK and one week in Bujumbura. The TO also took 3 weeks holiday leave in this period.

### **1.2.1 Goals for next quarter.**

1. Remaining installation and standardisation of IT equipment in all riparian countries.
2. Order HF radios and utility boats for field stations.
3. Publish first edition of Lakeside, the LTBP newsletter.
4. Install LTBP web site on internet/CD-ROM.

## **1.3 Kigoma Station**

### **1.3.1 Activities**

Tony Bailey-Watts Chris Foxhall and Francis Chale visited the station from 1-12 December. They installed Miss Nikki Wiltshire as a facilitator for the Pollution Special Study in Tanzania and Zambia, discussed potential long-term input into the PSS by Chale, and proceeded with the sampling and training program.

Claude Mung'ong'o and Bartholomew Tarimo led several Rapid Rural Appraisal missions originating from Kigoma. Their trip to Mahale Mountains National Park examined the relationship between a terrestrial + aquatic park and the surrounding villages. Subsequent missions to Kasulu and Uvinza investigated land use practices deeper in the Tanganyika catchment and in areas affected by the refugee crisis.

Nikki Wiltshire arrived in Kigoma 1 December to begin a 15 month contract to facilitate Pollution Special Study activities in Kigoma and Mpulungu. She travelled to Mpulungu from 21 January to 22 February to work with Alex Kirika to set up the laboratory there.

Francis Chale returned to Kigoma 17 February to oversee Pollution Special Studies Activities for Tanzania. He is revising the current sampling program to include transects from heavily impacted areas to pelagic waters and less impacted waters to the north and south of Kigoma Bay, training TAFIRI staff in chemical analyses, and co-ordinating pesticide and heavy metals analyses with other Tanzanian institutions.

The Lake Tanganyika Research Project (LTR) is down-sizing as it enters its monitoring phase. George Hanek, the Project Coordinator, visited Kigoma on the 16-17 February and discussed synthesising our sampling and monitoring programs.

Tanzania's electricity company, TANESCO, is a major source of pollution in Kigoma Bay. An agreement was made for LTBP to pay the marginal costs for casual labourers to remove and recycle refuse fuels from holding bins to prevent large-scale lake contamination while LTBP and TANESCO work on a long-term solution to the problem. The agreement broke down after two months. LTBP is now referring the problem to the water and natural resources departments for intervention on behalf of the environment.

Hudson Nkotagu and Mrs. Mbwambo visited Gombe in mid December to continue their rain-gauge and sediment discharge monitoring program.

An international sedimentation cruise, with African scientists from all four riparian nations, collected bathymetric data and cores from 6-28 January from selected deltas in Tanzanian and Burundian waters. These samples will be used to analyse changes in sedimentation history as a function of human population pressure.

TAFIRI has welcomed three new researchers, Mr. Longinus Tegulirwa, Mr. Prosper Mfilinge and Ms. Salome Shayo who will be participating in the Pollution and Biodiversity Special Studies.

LTBP engaged an administrative assistant, Mr. James Bahati, for the Kigoma Station.

### 1.3.2 Goals for Next Quarter

1. Strengthen Biodiversity Special Study with inputs from new researchers.
2. Make progress on the TANESCO pollution issue, meet with UNDP Kigoma Microprojects representatives to discuss long-term solutions.

## 1.4 Mpulungu Station

### 1.4.1 General

The major achievements during this quarter were:

- Holding the Headmen's Meeting on Environmental Education
- Sending the Local Drama group to all villages on the coastline to dramatise the need for conservation
- Forming 45 village committees along the lake shore
- Implementing a recommendation from headmen to ban mosquito nets used for kapenta
- Several village committees have independently declared part of their fishing areas closed to exploitation
- Setting up the laboratory
- Starting a programme of pollution sampling
- Undertaking a number of underwater substrate profiling.

### 1.4.2 Visits

#### *Catherine O' Reilly*

Arrived on Liemba in mid December in order to identify suitable sites for her study on benthic primary production at impacted and non impacted locations. The sites were identified and samples taken for further analysis.

#### *Nikki Wiltshire and Alex Kirika*

Came for a four week and two week visit respectively in January - February, to set up the lab and initiate a program of sampling for pollution studies. Both these activities were completed properly and there is an ongoing sampling program regularly taking place.

#### *Shadreck Nsongela*

Came here in early January for two weeks to take charge of organising the headmans' meeting and drama group tour: these were well done

#### *Chris Kashinga*

Arrived in mid February for one week to liaise with Nikki Wiltshire over the pollution studies.

### 1.4.3 Activities

#### *Laboratory rehabilitation*

Completed. Equipment is now set up and the lab operational and active.

#### *E.E. Program*

A tour of the lakeside villages was undertaken by Lake Tanganyika Drama Club, performing a play first developed by Paul Vare and later further developed by Shadreck Nsongela. This play highlighted some environmental degradation that is occurring around the lake shore with particular emphasis on the disappearance and reduced catches of fish, the need to take action to prevent further degradation, and the fact that the lakeside dwellers can be responsible for their own future, if they take concerted and directed action.



This was immediately followed by a three day meeting of the headmen around the lake in mid January. This started rather dully until one head man wanted to know why we were beating around the bush and why didn't we just announce the new fish conservation measures that were to be imposed. After this the team that went on the three lakes tour explained what they had seen and a lot of discussion was stimulated, finally ending in a resounding success. The headmen collectively decided to set up a hierarchical system of committees of three levels (village, strata and lake). They further elaborated on the number, composition and functions of these committees and agreed to begin their formation immediately. They were further unanimous on the need to control poor methods of fishing and agreed on specifications of nets and methods which would be banned. Many headmen started on the implementation of this recommendation on their way home from the meeting.

As a result of this meeting, and within a week of its finish there were reports of village committees being formed and illegal fishing gears being confiscated. There were also reports of abuses of the decisions and victimisation, and bribery etc. being practised. It was therefore found necessary to send a team around the lake to visit all fishing villages and ensure that a uniform message reached all fishermen and that committees were set up properly and that the jobs of these committees were properly spelt out. Two teams comprised mostly of Fisheries staff but also including representatives of the teachers, council, community development and wildlife spent 20 days each on the lake, visiting 111 villages and electing 45 village committees. Many hitherto unofficial villages have approached their chiefs for charters to exist in their own right and many of these have been favourably received. Three villages have declared closed areas. At Kapata a part of the bay has been closed, and at Kabwata and Chisanse, river mouths have been protected.

One resolution of the headmen was that undersized kapenta should not be offered for sale and that traders should not trade in these tiny fish. As a result of this resolution the Department of Fisheries, Headmen, police etc. have confiscated a number of bags of kapenta which are obviously too small.

Reports are that 90% of the lake population are behind these activities, but are full of practical questions, and if they have any doubts are mainly concerned with how serious we are and whether this move will be sustained. Something like less than 10% of the lakeside fishermen are personally affected by these moves although several kapenta fishermen have had their nets confiscated, and others are converting their nets into liftnet/ring nets.

As a coincidence (probably) there are signs of quite a good kapenta fishing season developing this year. This is more likely to be due to the heavy rains this year, but it certainly doesn't hurt our cause.

#### *BIOSS Program*

After Paul Tierney left, a program of work to undertake surveys of Mbita Island and the Kapembwa coastline was started. These surveys took place in December and January, and the survey teams have produced substrate maps, lists of fish species etc. Reports are available.

The equipment left by Paul has been augmented by extra equipment received. Two new staff members have been helping with these surveys and have proved very useful, though they have not received diving instruction, but are able to help with surface work.

#### *Pollution Assessment Program*

Following the initiation of this work by Nikki Wiltshire, routine weekly sample collections and analyses are proceeding smoothly.

#### *DoF Jetty Extension*

Stones were removed from the water and arranged properly, sand and stones were collected, 50 bags of cement were bought, and then it started to rain and the extension platform is now nearly 2 metres deep under water.

#### *Local Collaboration*

Both the Chongolo Club (local branch of the National Conservation Club, particularly active in schools) and Ulungu Wane ( local traditionalist society have continued to ask me (LTBP) to join their societies.

#### 1.4.4 Goals for next Quarter

1. Attend National Working Group Meetings and particularly ensure that the workplans and PSAP is thoroughly discussed
2. Go to Nsumbu to review the Chisanse Beach issue locally, and Kasama to discuss with wildlife warden
3. Initiate sampling and analysis work monitoring program for trained staff in Sedimentation, Fishing practises and BLOSS
4. Make a delayed start on the SE program
5. Continue with EE program.
6. Rehabilitate Silver Shoal, make sure welding machine is fit
7. Obtain blanket authority for travel of local staff on project activities
8. Finalise the acquisition of office equipment
9. Procure a comprehensive spares supply for Silver Shoal and outboard engine

## 2. Reports of Special Study Groups

### 2.1 Progress Report: December 1997 - February 1998 for "Biodiversity" Special Study and "Conservation Activities"

#### 2.1.1 Overall Summary of Progress

Activities in this quarter have focused on consolidating the progress made in the field during the previous quarter. To this end, Terms of Reference were written for Dr. G. Ntakimazi, Professor at University of Burundi, to be the BIOSS co-ordinator and Mr Felix Nicayenzi to be a full time researcher. Mr Nicayenzi was part of the regional team trained to dive during the last quarter. The teams have begun to survey in Ruzizi, although delays in the arrival of their dive kit has constrained their activities. Through the newly established office in Bujumbura a regular line of communication has been established between Mr Nicayenzi and Vicki Cowan in London. Credit for much of this progress must be given to Dr Kelly West as she has established the Bujumbura office and supported the teams in their field work.

A series of technical reports related to the field programme continue to be prepared by international consultants. These reports serve several purposes, namely:

- to allow assessment of the training and surveying procedures;
- provide a practical resource to guide field activities and ensure consistent approaches in each of the four riparian teams;
- provide a template for the kinds of technical reports BIOSS should produce to inform the SAP, it is expected that in the future these reports will be written in the region.

A new key for cichlid identification has been developed by Mr Bills, a fish expert who taught at the Kigoma workshop. This has been sent to Burundi for the dive teams to test in the field and recommend improvements. The key will then be an important part of the resources available to regional dive teams.

Plans for the next round of dive training progress, this course will concentrate on increasing the number of people from National Parks who are capable of surveying underwater. The experience of running the last dive and survey training course, in two and sometimes three languages (English/French/Kiswahili!) led to the recommendation that future course be taught in one language only. Taking a variety of factors into account such as existing technical capacity, mobility of dive teams and safety, it is clear that the Anglophone countries lag the Francophone in terms of ability to conduct underwater surveys of their coast line. For these reasons BIOSS aims to train several more candidates from Zambia and Tanzania to the level of the existing regional team. The Francophone teams will then join their newly trained colleagues to survey more key sites. It is expected that several Francophone candidates, identified during the last training exercise, will be given instruction to the next level of BSAC dive qualification. Zambian candidates have been nominated and the trained Zambian dive team is teaching them basic skills (swimming, snorkelling etc) so they can take full advantage of the formal dive training.

Terms of reference for three Francophone researchers to undertake collation of literature in order to develop the locational database were written. It is anticipated that these researchers will gather relevant papers from a variety of sources – particularly Japanese and Belgian institutions. These will then become an important regional resource. The

most appropriate papers will then be selected for entry into the database – this work will be managed in the region.

### 2.1.2 Chronology of Activities

December: ToR's written for Burundian co-ordinator and full time researcher, regular contact established between Bujumbura and London  
Dec-Feb: Technical reports being prepared  
Jan: ToR's written for researchers to collate important literature in the region.  
Dec-Feb: Plans for next round of dive and underwater surveying made. Zambian candidates nominated and taught basic water skills by their trained colleagues in preparation for formal training.  
Feb: Data forms from Tanzanian survey assessed by IT specialists, discussions on improvements and database design with Dr Allison

### 2.1.3 Staffing Schedule

Bujumbura  
Dr Ntakimazi, Burundian Co-ordinator  
Mr Nicayenzi, full time researcher, Bujumbura

#### Regional Dive Team:

Tanzania  
Robert Mwakafumbe TAFIRI BSAC-sports diver  
Fadhili Kimambo TANAPA - Gombe BSAC-sports diver  
Zambia  
Rueben Shapola DoF BSAC-sports diver  
Charles Lukwesa DoF BSAC-sports diver  
Maybin Mwenda DoF BSAC-sports diver  
Congo  
Constantin Amundala CRH BSAC-sports diver  
Patrick Buda CRH BSAC-sports diver  
Donatien Muzumani CRH BSAC-sports diver  
Alexis Basonga CRH BSAC-sports diver  
Burundi Alberic Rugabirori BSAC-sports diver  
Bernard Sinunuoka BSAC-sports diver  
Libere Ndayisenga Ruzizi National Park BSAC-sports diver  
Felix Nicayenzi LTBP BSAC-sports diver

#### International

Dr Ian Payne, MRAG Ltd, BIOSS Director  
Dr Eddie Allison, MRAG Ltd, Field Team Leader  
Vicki Cowan, MRAG Ltd, BIOSS Management  
John Pearce, Simon Holden, MRAG Ltd, BIOSS IT specialists

#### Special Advisors

Dr Rosemary Lowe-McConnell (Independent)  
Dr George Coulter (Independent)

### 2.1.4 Main Outputs and Achievements

1. Key staff in Burundi given formal responsibilities in BIOSS
2. Technical documents/resources for region under development

3. Burundian team undertaking field work largely independent of international support
4. Plans in place to advance the development of the locational database
5. Technical decisions made on survey protocols/forms which will allow development of survey database
6. Zambian participants for the next dive training identified and taught basic water skills

#### 2.1.5 Main Objectives for the Next Quarter

1. Full time BIODIVERSITY co-ordinator identified to manage field programme in all four countries
2. Database for surveying work developed
3. BIODIVERSITY Francophone technical workshop held in Bujumbura (May98)
4. Training course for national parks employees
5. Plans for regional teams to survey key sites (national parks) after second training advanced

#### 2.1.6 Recommendations

1. Relationship between dive teams in Uvira and Bujumbura strengthened – potential for joint field activities explored.
2. Tanzanian participants for dive training identified, taught to swim as soon as possible. One should come from Gombe national park to act as buddy for previously trained Gombe diver.

## **2.2 Progress Report: December 1997 - February 1998 for Fishing Practices Special Study**

### **2.2.1 Overall Summary of Progress**

The Tanzanian team have made good progress this quarter with a joint appraisal to Mahele with the SESS team. This was the first joint appraisal carried out independent of international support and the teams demonstrated their capacity to work well in the field. A work plan for Tanzania was developed, it specifies activities that follow-up previous appraisals and initiates new work. Activities were outlined under four main headings: field work (regular sampling, follow-up work on previous appraisals, new joint appraisals); reporting; training; and, establishing a FPSS base in Kigoma. Responsibility for co-ordination of the FPSS in Tanzania was given to Mrs Marwa (DoF) this is primarily a reporting role. The FPSS team will decide who will take responsibility for each of the other main tasks.

### **2.2.2 Chronology of Activities**

Dec-Feb	Technical reports of work prepared
Dec:	Tanzanian team carried out joint appraisal with SESS in villages bordering Mahele National Park
Jan:	ToR written for Mrs B Marwa to be the FPSS coordinator in Tanzania
Feb:	Workplan sent to FPSS team in Tanzania for consultation, team asked to identify who would take responsibility for different activities.

### **2.2.3 Staffing Schedule**

Regional team

Tanzanian Team

Mr Omari Kashushu (TAFIRI, Kigoma)

Mrs Beatrice Marwa (DoF)

Mr Hamza Maboche (Community Development)

Zambian Team

Mr Joseph Chimanga (DoF, Mpulungu)

Mr Whiteford Chumba (DoF, Mpulungu)

Mr Charles Lukwesa (DoF, Mpulungu)

Mr Isaac Zulu (DoF, Mpulungu)

International team

Dr Ian Payne, MRAG Ltd, FPSS Director

Dr P Petit, MRAG Ltd, Field Team Leader

Dr E Allison, MRAG Ltd, Field Team Leader

Ms Vicki Cowan, MRAG Ltd, FPSS Management

Dr Rosemary Lowe-McConnell Specialist advisor

Dr George Coulter Specialist advisor

### **2.2.4 Main Outputs and Achievements**

1. Tanzanian workplan developed and released for consultation
2. FPSS co-ordinator appointed for Tanzania
3. Technical reports being prepared

### 2.2.5 Main Objectives for the Next Quarter

1. Full time FPSS co-ordinator identified to manage field programme in all four countries
2. Establishing a strategy for working in Francophone countries
3. Develop links with Zambian team in Mpulungu to assess how FPSS can contribute to planned developments. Overlap with SESS and EE will be critical here.
4. Continue synthesis of Tanzanian findings.

## **2.3 Progress Report: December 1997 - February 1998 for Legal and Institutional Component**

### **2.3.1 Summary of Progress**

Significant progress was made in this quarter as the first regional workshop for this component of the project was held in Lusaka [25th – 27th February]. The workshop was well attended with the National Coordinators leading teams of experienced lawyers and high level policy-makers. Two delegations included Permanent Secretaries of ministries with responsibility for Lake Tanganyika. The workshop achieved all of its objectives and was considered by all to be a success. Briefly the objectives were to:-

1. reach general agreement on the content of an Agreement;
2. agree a plan of action for drafting and negotiating agreement;
3. present papers on aspects of relevant international environmental law;
4. share information about national laws affecting management of Lake Tanganyika;
5. open channels of communication.

The recommendations of the workshop were collated into a workshop report (in English/French) which was discussed in the final session and agreed. This document serves as formal instruction to the legal team given responsibility to produce the first draft of an Agreement. The document also contains an agreed process for achieving an Agreement that can be presented to each of the governments for negotiation and signature. The process involves a series of drafting and consultation at national and regional levels before submission to the LTBP Steering Committee. When approved by the Steering Committee, the document will be offered to each of the four riparian governments for agreement.

A full contact list of all those attending the workshop was prepared and distributed to support the regional network of lawyers and policy makers initiated at the workshop. Resources, such as copies of treaties and Agreements from around the world, were copied and made available to all delegations. The workshop was bilingual with presentations and discussions being led in both French and English, all written material was presented in both languages. The delegations appreciated this, as despite the excellent simultaneous translation facilities available in Lusaka, it is a disadvantage to be reliant on the translation, particularly in a workshop situation.

Each of the delegations made a presentation to inform the workshop of relevant laws and institutional arrangements in their countries. The papers will be annexed to a workshop report and circulated. An organogramme illustrating the institutional arrangements in each government was prepared by each delegation. MRAG Ltd is currently reproducing these for distribution within the project.

### **2.3.2 Chronology of Activities**

December:

Presentation (VC) made to regional meeting in Lusaka on the background to the legal study, its relationship to the strategic action plan and an update on the upcoming regional legal workshop. N.C's approved the approach, recognised the need for legal authority for the SAP through some form of regional agreement and kindly agreed to assist in seeking final confirmations of participants.

December:



Letters outlining progress, plans and location of key documents (NC's offices) sent to all people met during the legal consultants' visits in last quarter.

January:

Two key workshop papers translated into French.

January:

National Coordinators confirm each of their delegations.

February:

One workshop paper (Francophone and Anglophone) circulated to National coordinators for distribution to participants before workshop begins.

February:

Legal workshop held in Lusaka, 25th February - 27th February, 1998. Workshop recommendations produced including instructions to drafting team and agreement on process by which an Agreement will be drafted, modified after consultation and accepted by the Steering Committee for submission to each government.

### 2.3.3 Current Staffing Schedule

#### Regional Workshop Delegations

Burundi:

Bihamiriza, Benoit M. - Ministere des Relations Exterieures et de la Cooperation de la Republique du Burundi

Kanyaru, Roger Ir. - Departement des Eaux, Peche et Pisciculture

Kayengeyenge, Etienne Ir. - Ministere de l'Amenagement du Territoire et de l'Environnement

Manirakiza, Jean-Bechmans M. - Institut National pour l'Environnement et la Conservation de la Nature

Nimpagaritse, Didace Prof. Faculte de Droit, Universite du Burundi

Nindorera Damien M. - Institut National pour l'Environnement et la Conservation de la Nature

DR Congo

Kalanbay, Lunpungu Dr. -Universite de Kinshasa

Kumbu, Ndembe Mr. - Ministere des Affaires Etrangeres

Mady, Amule Pascal Mr. - Ministere de l'Environnement, Conservation de la Nature et Tourisme

Mbombo-Mangani, Gode Mme. - Ministere de l'Environnement, Conservation de la Nature et Tourisme

Mbusu, Ngamani - Ministere de l'Environnement, Conservation de la Nature et Tourisme

Nshombo, Muderhwa Dr. - Research Centre for Hydrobiology/Centre de Recherche en Hydrobiologie

Tanzania

Chisara, Peter Kambona Mr. - National Environment Management Council

Macha, Verdiana Macha Ms. - Attorney General's Chambers, Ministry of Justice and Constitutional Affairs

Magabe, Alicia Bosensera Ms. - National Environment Management Council

Mwandembwa, Andy Ackim Mr. - Ministry of Foreign Affairs and International Cooperation

Yonazi, Rawson Piniel Mr. - Vice President's Office, Environment Division

Zambia

Mudenda, Hangoma Gordon Mr. - Ministry of Agriculture Food and Fisheries

Muvwende, Aven Mr. - Environmental Council of Zambia  
Phiri, James Simoko Mr. - Environmental Council of Zambia  
Punabantu, Chanda J. Lubasi Mrs - Ministry of Legal Affairs  
Siame Davy Mr. - Ministry of Environment and Natural Resources, Planning and Information Dept

#### International

Dr Ian Payne, MRAG Ltd, Component Director  
Mr Cormac Cullinan, MRAG Ltd (Legal Specialist, Anglophone)  
Mr Stephen Hodgson, MRAG Ltd (Legal Specialist, Francophone)  
Ms Caroline Blatch (Legal Specialist, Francophone)  
Ms Vicki Cowan Component Management

### 2.3.4 Main Outputs and Achievements

The regional workshop was held in Lusaka with all four riparian countries represented. The delegates were drawn from a range of government departments with both legal and policy experience being represented. Very senior people from all four governments attended, reflecting the importance given to this component of the project by all riparian countries.

The workshop achieved its objectives. The recommendations of the workshop were collated into a workshop report (in English/French) which was discussed and approved in the final session. This document will be bound with a brief report of the workshop, the workshop agenda, the presented papers and the full participant list for circulation. Briefly, the recommendations of the workshop are summarised as follows:

Instructions to drafting team for the Agreement included technical points under the following headings: name of Agreement, preamble, objectives/aims, definitions, scope/application, guiding principles, fundamental rules and obligations (including: the obligation not to pollute the waters of the Lake, environmental impact assessment, prior notification of planned measures, conservation and management and exchange of information), procedural rules, institutions, dispute resolution, liability and compensation.

The procedure for drafting the Agreement was finalised: Each country will nominate two lawyers and a technical expert to participate in the drafting process and the agency in each country which is the lead agency for the purposes of the project will take responsibility for the drafting process in each country.

The Project should be responsible for producing an initial draft in English and French. This would then be discussed at two separate workshops, one for the Francophone countries and one for the Anglophone countries, both attended by the international legal consultants. This would be followed by a joint meeting of the delegates from all the countries to produce harmonised texts in English and French. The harmonised texts would then be discussed informally within each country and another draft would be produced taking into account the comments from each country. This may necessitate another meeting of all the drafting team.

Once the drafting team were satisfied with the draft Agreement it would be presented to the Project Steering Committee for approval. After approval by the Steering Committee it will be submitted to each government for negotiation and signature.

It was agreed by all delegates, particularly the lawyers, that the original focus of the project document on harmonising laws was unnecessary for the project to meet its objectives. They confirmed that harmonisation would be very difficult to achieve given the different legal systems of the four riparian countries: Francophone civil law and Anglophone common law. The delegates verified that it is more important to establish a mechanism for long-term co-operation. This would ensure continuing discussion about national laws so that the outcomes of laws, rather than the legal mechanisms themselves, are similar. In addition, many of the relevant laws are not currently enforced or recognised on the lake. Note that this change in focus in the legal and institutional component has previously been noted in the quarterly reports for this component of the project.

The workshop was made aware of the process currently being planned in the project to develop the SAP (VC presentation). Clear points of overlap exist as the international agreement and regional SAP are complimentary documents. It was agreed that each process must inform the other. Overlap of regional and international personnel should ensure reports and discussion should flow between the two components. Despite the excellent translation facilities available in Lusaka, it is a definite disadvantage to have to rely on the translation, particularly in the more informal circumstances of a workshop where discussion is often less structured. As half of the resource team for the workshop were Francophone, a large proportion of workshop could be conducted in French, including all papers presented by SH. All documents, including both presented papers, the agenda, key points of brain storming sessions, the personal and professional objectives for attending the workshop [written by each participant] and the final workshop recommendations were available to the participants in French and English. The bilingual nature of the resource team ensured that discussions on technical points were fully understood by all four delegations. All participants expressed great appreciation for this aspect of the workshop proceedings.

Each of the participants filled in a form listing their contact details, these were entered into a spreadsheet and a copy given to each participant before their departure from Lusaka. The names and institutions of all delegates are included in this report.

As part of the Terms of Reference provided to each of the National Coordinators to guide their country presentations, a diagram illustrating the institutional arrangements was requested. These diagrams were collated and will be produced for both the formal output of the workshop and to be circulated widely within the project. It was previously noted that this information is critical for all components of the projects.

Wide dissemination of project documents, information and relevant laws/agreements was achieved in this quarter. Documents were all available in French and English. The Baseline review was distributed through the offices of the NC's, all delegates received copies of the two workshop papers. Each of the people who had met the legal consultants during the visits in last quarter received a letter which informed them of recent progress, future plans and the documents available to them through their NC's. During the workshop lawyers had access to many examples of international agreements, many copies were distributed. The country presentations at the workshop ensured that each delegation was made aware of the laws and institutions in other riparian countries. Lack of knowledge about the systems in other countries had been a key point made to the legal consultants during their visits to the capitals in the last quarter.

### 2.3.5 Main Objectives Next Quarter

1. Follow up from legal workshop completed, distribution of papers and workplan.

2. Legal team begin to draft the Agreement.

## 2.4 Progress Report: December 1997 - February 1998 for Special Study on "Sediment Discharge and Its Consequences"

### 2.4.1 Overall Summary of Progress

The main objectives for this quarter were given in the previous quarterly report as follows:

- To successfully carry out the coring cruise timetabled for 5-31 January 1998
- To complete workplans with a number of different project sub-components. All to move towards routine monitoring by the end of this quarter. These include:
  1. Work which has been initiated in the Tanzanian and Zambian drainages of the Lake catchment. This requires strengthening with the installation of suitable gauging stations - to take place during this quarter.
  2. The coring cruise of the *RV Tanganyika Explorer* in January 1998 is intended to provide the material for an exploration of the changing impact of sediment. This work will progress in the period with the material collected and preliminary analysis made.
  3. For the detailed analysis of the of selected catchments it is hoped by the end of this quarter that routine data are being collected from sites in northern Gombe, Tanzania.
  4. A timetable for the installation of the X Ray diffraction analyser in Burundi should be made - we are dependant on Philips engineers agreeing to do this work.
  5. Follow up on the visit of Goeyens and Coveliers to Burundi will (by GP in February) to initiate the nutrient cycle study. To recruit a candidate for visiting Belgium to learn the required techniques and to formalise arrangements with the principal co-operating institute with this work.
  6. A drafted programme for side scan sonar surveys will be produced with the intention of commencing fieldwork in mid 1998
  7. Work on impacts of sediments on productivity is to continue with the addition of pelagic bacterial rates of production during this quarter.
  8. A broad approach is intended to look at impacts of sediments on biota in the region of Mpulungu. This will be a multidisciplinary study involving measurements of sediment composition and sedimentation rates and their impacts on organism distribution and behaviour. Initial aspects of this work and the personnel required should be in place by the end of this quarter.

Overall progress on these activities throughout the quarter was satisfactory. More detail is provided in Section 2.5.4

#### 2.4.2 Chronology of Activities

This section lists one-off activities and does not take count of ongoing activities such as workplan development and field monitoring activities. December 1997 was principally taken up with logistical arrangements for the January cruise.

4-9 December 1997 - Graeme Patterson (GP) attended meeting of IDEAL (International Decade for East African Lakes) committee in San Francisco. This was NOT project sponsored though GP presented an update of project activities to the committee. Back to Office Report available.

3-19 January 1998 - GP to Kigoma to assist in part of the cruise and to provide logistical support. Also to meet with Tanzanian-based participants in the project.

4-31 January 1998 - A research cruise on board the R/V Tanganyika Explorer was held (see 2.5.4).

29 January 1998 - Henry Sichingabula of Dept of Geography, University of Zambia was in UK and was invited to Chatham to meet with GP. During the meeting the final text of a work plan was agreed allowing the PCU to proceed to an MOU between the Project, UNZA and Zambian Dept. of Water Affairs.

17 February 1998 - Meeting with Leo Goeyens and Willie Baeyens of Vrije Universiteit Brussel (VUB) and Peter Coveliers of European Development Bank (EDB) to discuss the proposed linkage between Dept of Chemistry VUB and the Department of Chemistry, University of Burundi (UoB) to examine the impact of sedimentation on nutrients dynamics. Results of this meeting will be transmitted by GP to University of Burundi during his visit to Burundi in the next quarter. It was agreed that it would be appropriate for Evariste Nzeyimana of the UoB to travel to VUB for a period to learn techniques and pick up specialist equipment.

#### 2.4.3 Staffing Schedule

The principal investigators remain as stated in the previous quarterly reports.

Additional:

Paul Tierney who previously conducted the dive and survey training for the project will be contracted to initiate work proposed by Dr Kenneth Irvine (Trinity College, Dublin) during his previous visit to establish the protocols for a sampling programme on the impact of sedimentation on biota (initially based in Zambia).

David Dettman of University of Arizona participated in the cruise and also is involved in the supervision of with Dr Hudson Nkotagu of the University of Dar es Salaam who is sampling the rivers north of Gombe national park with a view to understanding the hydrology of contrasting (low and high human impact) catchments.

UNOPS approval for both the above has been sought.

#### 2.4.4 Main Outputs and Achievements

Monitoring Programmes. Programmes described in Previous reports in the Gombe river system (hydrology and primary production) and the Luiche River are providing data and reports. The work on bacterial production has been put back to the following quarter due

to some equipment supply problems. These were rectified at the end of the reporting period.

Further quarterly reports are due from H. Nkotagu and H. Sichingabula as team leaders.

The programme for impact of sediment on biota has been combined with the side-scan sonar survey (Irvine and Duck in co-operation with staff of the Zambian Department of Fisheries). It is intended that Paul Tierney (see 2.5.3) will travel to Zambia in the next quarter to initiate this work.

### Research Cruise

This cruise was directed by the University of Arizona under contract to the Lake Tanganyika Biodiversity Project. The purpose of the cruise was to collect bathymetric data, sediment cores and water samples as part of an investigation of the long term changes in sedimentation rates resulting from watershed deforestation and subsequent soil erosion, and the effects those changes may have had on the ecology of Lake Tanganyika. Cruise operations were divided into 3 legs of varying duration, working in both Tanzanian and Burundian waters of the lake. The dates and participant lists for each leg are listed below.

#### *Cruise Timetable and Team Members*

4-6 January 1998 - loading and equipment testing.

Leg 1 (6-16 Jan., 1998)

Andrew Cohen - University of Arizona (Chief Scientist )  
Manuel Palacios Fest - University of Arizona  
Jeffrey Houser - University of Wisconsin  
James McGill - Embangweni Hospital, Malawi  
Emma Msaky - Tanzania Petroleum Development Corporation  
Catherine O'Reilly - University of Arizona  
Graeme Patterson - LTBP sediment study co-ordinator  
Robert Sinyinza - Zambia Dept. of Fisheries  
Peter Swarzenski - US Geological Survey  
Mutanga Syampila - Zambia Dept. of Fisheries  
Dirk Verschuren - University of Ghent

Leg 2 (19-24 Jan., 1998)

Andrew Cohen - University of Arizona (Chief Scientist )  
Manuel Palacios Fest - University of Arizona  
David Dettman - University of Arizona  
Jeffrey Houser - University of Wisconsin  
Kiram Lezzar - Univ. of West Brittany  
James McGill - Embangweni Hospital  
Catherine O'Reilly - University of Arizona  
Robert Sinyinza - Zambia Dept. of Fisheries  
Mutanga Syampila - Zambia Dept. of Fisheries

Leg 3 (24-28 Jan, 1998)

Manuel Palacios Fest - University of Arizona (Chief Scientist for Leg 3)  
Gaspard Bikwemu - University of Burundi  
David Dettman - University of Arizona  
Jeffrey Houser - University of Wisconsin  
Rombi Kakezo - CPD/Uwigo, DP Congo

Kiram Lezzar - Univ. of West Brittany  
Louis Nahimana - Univ. of Burundi  
Gerard Ntungumburanye - IGEBU, Burundi  
Catherine O'Reilly - University of Arizona  
Tharcisse Songore - Géologie et Mines (Burundi)  
Kelly West - LTBP Scientific Co-ordinator

28-31 January clean up operations.

Cruise operations, logistics and science activities all ran extremely smoothly on this cruise, thanks to the hard work of the many team members involved as well as the excellent crew. The productivity of the cruise can be judged by the fact that our original coring plan was vastly exceeded - successful and timely completion of the planned coring targets during all legs of the cruise allowed us to obtain cores from two additional deltas (the Luiche and Gatorongoro) which were not originally planned for study. Also the number of cores obtained significantly exceeded our expectations. A full cruise report has been completed (with maps and basic descriptions of cores). In addition a report has been compiled of the observations of all active participants on the cruise. Still awaiting the contribution from the Burundian and Congolese scientists involved in Leg 3.

Correspondence with the Phillips engineers suggest that they do not have sufficient information regarding the XRD system at the University of Burundi to send an engineer without risk of him being unable to install the apparatus. Dept. of Geology at present are unable to provide the installation manual provided with the apparatus (see 2.5.5)

#### 2.4.5 Main Objectives for the next quarter (March 1997 - May 1998)

Current programmes continue to run and are actively supported by the Special Study co-ordination.

GP to visit Burundi and DR Congo to set up ToRs for active participation of National Institutions in the Special study and particularly to assess general needs for refurbishment of the CRH laboratory in Uvira, DRC. Principal institutions which will be involved with the Sediment work will be:

Burundi: Géologie et Mines (GEOMINES), Institute Geographique du Burundi (IGEBU), University of Burundi (Depts of Chemistry, Geology and Agriculture)

Democratic Republic of Congo: CRH (Uvira) and Institute of Natural Sciences (Bukavu)

GP to visit Tanzania to establish protocols for the involvement of Tanzanian Bureau of Standards (Mrs Mbwambo) and the terms of their co-operation with the Gombe Hydrological work (managed by Nkotagu of the University of Dar es Salaam).

Emma Msaky of Tanzanian Petroleum Development Corporation, Tharcisse Songore of Géologie et Mines (Burundi) and Gaspard Bikwemu of University of Burundi to be incorporated into long-term programme with University of Arizona on analysis of sediment cores.

Follow up on efforts to establish the requirements of Dept of Geology, University of Burundi with respect to x-ray diffraction analyser. Visit to Burundi by GP should assist.



Tierney to visit Zambia (see 2.5.4).

It is hope to commence a training period at VUB for Evariste Nzeyimana of Dept. of Chemistry , University of Burundi during this quarter (note meeting on February 17 in Section 2.5.2).

## **2.5 Progress Report: December 1997 to February 1998 for the Special Study on Pollution and its Effects on Biodiversity.**

### **2.5.1 Overall summary of progress**

It is most satisfactory to note that Mr Longinus Tegulirwa has returned to TAFIRI following his Master's studies in Finland, and is working with the Pollution SS together with two other new arrivals Ms Salome and Mr Prosper Mfilinge. In addition Miss Nicola Wiltshire joined the Project at the end of November 1997, as a consultant based long term in the region. She has fully met the requirements of her post as outlined in the previous quarterly report. The significant progress and increase in the scope of the PSS field and laboratory programme outlined in this report is due to her appointment and the thoroughly good way in which the regional personnel have worked with her.

The Project's second limnological laboratory in the region - in Mpulungu, Zambia - has been furnished and equipped.

Preliminary monitoring of physical factors, chemical pollution and associated diversity of microscopic biota in open water and littoral substrata sites has started - in Mpulungu Bay and the less-impacted Nsumbu area.

The skills of the Pollution Special Study Tanzanian and Zambian teams, have been considerably strengthened in all aspects of the PSS Work Plan - from the planning and execution of field programmes, through to analysing, displaying and interpreting the results. Most importantly, during the end of December and beginning of January, staff became increasingly familiar with the laboratory equipment and methods of chemical analysis. They are to be congratulated also in becoming more efficient in the work; as a consequence, a backlog samples from October and November have been processed, and the range of field and laboratory activities have been significantly increased.

### **2.5.2 Brief chronology of activities and visits**

Drs Bailey-Watts and Foxall visited the region from 28 November to 15 December, mainly based in Kigoma, but with visits to the Project Coordinator in Dar es Salaam on both inward and outward journeys.

With the view to his joining the Study as a National Consultant on a long-term basis, Dr Chale (Freshwater Ecologist, Dar es Salaam) helped the PSS from 1 to 12 December in Kigoma, in all aspects and training of TAFIRI staff and the implementation of investigations under the PSS.

Dr Foxall also went to the Tanzanian Pesticide Research Institute, Arusha 13-15 December. Mr Kirika travelled to Mpulungu to help Miss Wiltshire with the Mpulungu Laboratory (20 January to 13 February). Dr Chale joined the team again, for an 8-week assignment starting late February aimed at gathering detailed information on all likely sources of pollution in the Kigoma area e.g. sewage outfalls, domestic latrines, barges and other boats, factories and the TANESCO plant (see below; Dr Chale has also been busy setting up additional sampling and analytical programmes that this assignment requires.

Dr Foxall has submitted a report on his findings regarding the oil pollution from the TANESCO plant in Kigoma.

Along with the TAFIRI-based staff assigned to the PSS (Miss Bwathondi and Messrs Katonda, Kajelelo, Kadula, Lyoba, Muhoza and Wakafumbe), Dr Chale, Miss Wiltshire

and Drs Bailey-Watts and Foxall were variously involved in the following while in Kigoma (1-12 December): installing equipment (for both the Kigoma and the Mpulungu project centres), including microscopes and accessories, a wide range of laboratory consumable items, and literature to aid the identification of microscopic biota. A number of general discussion and reviews of sampling programmes were also held, and these covered such issues as data interpretation and the need to display results in as illustrative manner as possible. Database spreadsheets have thus been set up. Ms Bwathondi has been entering all of the physical and chemical data collected so far, while the other members of the team have graphed some of the results. All participated in routine sampling (in the Gombe and Kigoma Bay areas) and attended to the backlog of nutrient analyses - these having accumulated due to temporary shortage of reagent supplies.

The working hours of the national personnel and international consultants were harmonised (3 December) - there having been some shortfalls in progress prior to this. The PSS Co-ordinator discussed with the Scientific Liaison Officer (Dr Kelly West) and Dr Chale, the latter's potential future role (6 December). Drs Foxall and Chale took samples on 9 December for assessing the nature of the oils seeping from the TANESCO electricity generating plant, and made a fact-finding tour of the plant on 11 December.

Sessions on the presentation and interpretation of data were held on 8 and 10 December, and the first attempts (since the training workshop in September 1997) at generating phytoplankton diversity indices were made (8 and 12 December); the need for the simple and repeatable methods that the PSS Coordinator has recommended was further stressed.

Miss Wiltshire, Mr Lyoba and myself met with senior administrative staff of TAFIRI (the Director, Mr Chitamwebwe, Mr Katonda and Mr Kajelelo) on 11 December to establish a joint line management system for deciding on the plethora of responsibilities within the PSS programme.

Work plans were updated to expand the field sampling and laboratory programmes; the study has established two new point sampling sites approximately 200m offshore (but GPS-fixed) in each of the Jacobsen's (TJ1 and 2) and TAFIRI (TT1 and 2) Bays. With help from Mr Lyoba, NJW met with Mr Zinga Ndugumbi (Branch Manager of AMI Port Operations) on 13 January, to explore the possibility of the Project gaining entrance farther into the port than hitherto to collect samples. There will be no problem with this as long as the port authorities are supplied with (a) a copy of our sampling programme, (b) notification of sampling dates, and (iii) the vessel we would be using. This is a vital development for the PSS and other Special Studies bearing in mind that the inner port is potentially the most polluted zone within Tanzanian waters of the Lake. Previous sampling did not extend as far into the bay. As usual, the sampling involved (a) temperature, pH, conductivity and dissolved oxygen probe readings, and water clarity measurements taken at 5-minute intervals during the boat cruises, and (b) the collection at specific point sites, of (duplicate) 0-10m tube samples nutrient determinations, and 5-minute phytoplankton-net concentrates. These activities will continue weekly for one year in order to assess seasonal variation in pollutant status and phytoplankton biodiversity.

A parallel programme of monitoring on the way to, and at Gombe has been established in order to gain information on what is presently perceived as a less polluted area. Five new sites on the way to Gombe were sampled. At each of these water and phytoplankton samples were collected and probe readings were taken. Probe readings were also taken at intervals along a transect between the new sites. Sites TG1 and TG2 at Gombe were

sampled and an extra site was established at the end of the transect perpendicular to the shore at Gombe stream. As standard practice, all new sampling sites were logged onto the GPS system.

New equipment (primarily bottles and other containers lost or damaged in the fire in Dar Station) arrived in Kigoma in late February. This consignment has been sorted and is in use in the laboratory. Also, in February, Ms Catherine O'Reilly demonstrated to Mr Wakafumbe and Miss Wiltshire (all qualified divers) the underwater sampling methods for collecting algae and other microscopic biota from rocky and sandy substrata. The diving expertise and what it can facilitate will be further strengthened by Ms Salome.

### 2.5.3 Current staffing schedule

In Tanzania: Miss Bwathondi and Messrs Katonda, Kajelelo, Kadula, Lyoba, Mfilinge, Muhoza, Tegulirwa, Ms Salome, Mr Wakafumbe and Dr Chale - in addition to Miss Wiltshire and Drs Bailey-Watts and Foxall. In Zambia: in Mpulungu: Messrs Mwape, Kaweme, Lukwesa, Sinyinza and Zulu; Mr Reuben Shapola and others contributing also to the Biodiversity and Sediment Pollution Special Studies are associated with the PSS. In Lusaka (ECZ): Christopher Kashinga is involved as facilitators for the PSS.

### 2.5.4 Main objectives for next quarter (March to May 1998)

There are two major objectives to be achieved over the next 3 months. The first concerns the formal appointment of staff in Burundi and the new Congo. The PSS C-coordinator has met all of the following (also listed in the previous report) but who now each need to be re-visited in order to ascertain present and future commitments and hold discussions regarding detailed Terms of Reference:

in Burundi (Bujumbura area) we are collaborating with Renovat Baragengana (Director, Soil Sciences and Environmental Studies Department, ISABU), Denis Barandemaje (Dir. du Dept. de Gestion des Ressources Hydrauliques), Pascal Mdzizeye (Dir. des Transport Lacustres et Internale), Gregoire Njezimana (University of Burundi), Nsabimana Libérat (Directeur de l'eau, Régie de Production et Distribution d'eau et d'Electricité (REGIDESO)), and Gabriel Hakizimana (Ingenieur en Genie de l'Environnement).

in the Democratic Republic of the Congo (Uvira): Mr Kalala Tshibangu, Sona Kimbadi, Mavula Mbemba and Mr M Kamalebo, with yet more people to be appointed.

It is hoped that in the same time period, equipment (equivalent to that already installed in the Anglophone countries) can be delivered and processed for customs clearance.

The second objective concerns microscopy and the biological studies included in the PSS work programme i.e. the diversity and (where appropriate) and population densities of the biota of  $\leq 1$ mm. This includes free-living plankton - mainly algae - and what appear to be much more species-rich assemblages associated with underwater substrata ('Aufwuchs') on e.g. muds (epipellic organisms), on sand grains (epipsammic) and on more substantial surfaces such as stones, pebbles, cobbles and boulders and submerged rock faces (epilithic forms). Assessment of these organisms must be done in concert with the water chemistry and physics studies already mentioned, in order to assess the effects of the pollution on these organisms. To this end, plankton samples are preserved. Owing to equipment repairs and staff having other commitments within TAFIRI, progress with the microscopy work was initially but unavoidably slow. At the end of January, however, Mr Muhoza and Mr Wakafumbe began counting and measuring planktonic algae, and as already indicated, training in the collection of attached organisms has also begun.

Within the next quarter, the PSS Co-ordinator thus intends to visit Bujumbura and, if possible, Uvira, to set up formal project links there, and Kigoma and Mpulungu and environs to progress the training in the quantitative assessment of the diversity of the lower organisms.

## **2.6 Progress report: December 1997 - February 1998 for Socio-economics and Environmental Education components**

### **2.6.1 Overall summary of progress**

An overall logical framework has been designed for the socio-economic and environmental studies component. Work plans have been developed for Zambia and Tanzania. Work plans for Congo and Burundi to be drawn up by April at the latest. The work plans developed in both countries relate to the logical framework and will contribute to its successful implementation. Changes and further development of the Tanzanian work plan are expected during the year, due the relatively recent establishment of the Tanzanian team and the scale of the catchment area involved.

The outputs of both work plans will focus on the following:

- A system through which the interests of stakeholders within the catchment can partake in the management process;
- Pilot projects to test different approaches to problem solving through capacity building;
- Project proposals for continuing relevant processes.

### **2.6.2 Brief chronology of activities and visits**

January-February 1998

Visit to Tanzania and Zambia to improve coordination of the socio-economic component of the LTBP, to draw up a logical framework applicable to all four countries for the socio-economic component and to agree February to December 1998 workplans for each country.

### **2.6.3 Current staffing schedule**

International

Geoff Griffiths, NRI Socio-economics and Environmental Education Coordinator

Paul Vare, ICCE Technical Advisors, Environmental Education

Steve Evison, PRA trainer/facilitator and community forestry/terrestrial resource use specialist (recruited specifically for Rukwa PRA).

National

*National project posts/secondees:*

Shadrick Nsongela, ECZ: National EE coordinator, Zambia

Blandine Cheche (NEMC): National EE coordinator/project information officer, Tanzania

Mlotha Damaseke, MAFF: national social science advisor, Zambia

Beatrice Marwa (Kigoma Region Fisheries Department) Local Environment Education Coordinator, Kigoma, Tanzania

Dattamaz Selanyika (Gombe) and James Wakibara (Mahale): TANAPA collaborators with proejct EE activities

*Consultants*

Dr Claude Mung'ong'o: Social science consultant, Tanzania (Institute of Resource Assessment, University of Dar-es-Salaam)

Dr Patrick Chipungu, consultant, Zambia

#### 2.6.4 Main objectives and achievements

- Logical framework for the socio-economic component applicable to all four countries developed.
- Workplans covering the period February to December 1998 for Tanzania and Zambian socio-economic and environmental teams drawn up.
- Outputs of PRAs reviewed, findings synthesised and incorporated into the planning process.
- Baseline information available with relevant persons examined, and relevance for the institutional analysis considered. Additional background data collected for planning of capacity building exercises.

#### 2.6.5 Recommendations/conclusions

Workplans need to be developed for Congo and Burundi. Proposed activities increase the need for a training needs analysis and the possibility of carrying this out is being considered.

The link between environment and socio-economics is intrinsic to the implementation of the programme and development and coordination of these programmes needs to be reviewed. The workplans provide a bottom-up perspective which will guide the development and integration of stakeholders participation in national level management processes. Budgets should be reviewed to represent this new bottom-up perspective (now an overarching principle within the UN system) so that they represent the new perspective and so that those charged with specific responsibilities have clear funding channels upon which to draw.

The gender perspective of the project needs to be strengthened at all levels. A gender specialist will visit the region in April 1998 to facilitate this. It is recommended that field level coordinators should be placed in each riparian state, due to the extent of work to be carried out and to overcome logistical problems.

APPENDIX 1.



RAF/92/G32 - POLLUTION CONTROL AND OTHER MEASURES TO PROTECT  
BIODIVERSITY IN LAKE TANGANYIKA

REPORT OF TRIPARTITE REVIEW MEETING

Lusaka, Zambia  
19-20 January 1998

## 1. Introduction

The first Tripartite Review Meeting was held in Zambia at the Mulungushi International Conference Centre. A full list of participants is given in Appendix 1. This meeting had originally been planned for early 1997 but it had proved difficult at that time to get all parties together because of civil unrest in parts of the region.

Owing to an unscheduled change by the airline in its flight plan the Burundi delegation missed the first days proceedings. In order to compensate for this the review meeting continued beyond the one day originally scheduled into the morning of the second day. This provided the Burundi delegation the opportunity to make their country presentation and for them to comment on the conclusions and recommendations of the previous sessions. The meeting was chaired by the head of the Zambian delegation.

The principal background document for the meeting was the Project Performance Evaluation Report (PPER) that had been distributed in advance and the main conclusions and recommendations of which had been previously discussed and agreed upon by the PCU, National Coordinators and technical advisers at a two day meeting held on 19-20 December 1997.

The agenda for the meeting was approved subject to certain amendments and is given in Appendix 2. The meeting proceeded through an overview of project progress by the Project Coordinator followed by presentations by each of the four country delegations and comments from UNOPS and UNDP/GEF. After the presentations, the main issues arising were discussed and recommendations agreed upon. This report summarises the principal points raised and the resulting decisions and recommendations.

The decisions of the Tripartite Review were taken to the second meeting of the Project Steering Committee for further discussion regarding their implementation.

## **2. Summary of Main Recommendations**

The Tripartite Review recommends that:

1. The Project should make every effort to bring the schedule of activities planned for the francophone region in line with those of the anglophone region.
2. National Steering Committees are set up by the four riparian countries.
3. The role of the National Working Groups should be strengthened through clear terms of reference, and the enhancement of their role in the planning process.
4. An in-depth institutional analysis and assessment exercise should be carried out as indicated under Output 5.6 of the PPER.
5. The process leading to a Lake Tanganyika Strategic Action Plan proposed under Output 1.4 of the PPER should be adopted by the project.
6. Additional full time bilingual facilitators/trainers should be placed in the field, one for each of the project special study areas: Socio-economics, Fishing Practices, Sediment Studies, Pollution Studies and Biodiversity Studies.
7. Countries may recruit full time Assistant National Co-ordinators to take work load off National Co-ordinators and the resources available for National Coordination activities are to be reviewed.
8. Electronic communications should be enhanced between the capital cities, and between the capitals and the lake-side field sites.
9. Rates of remuneration for private consultants (including university staff) and allowances for all staff to remain under present guidelines.
10. A Mid-term Evaluation of the project should take place in April 1998.
11. A decision for any extension of project duration should be considered as part of the Mid-term Evaluation.
12. The Project Budget, as amended in Annex 1 of the PPER should not be approved until cost implications of other recommendations are incorporated. This process should be initiated without waiting for the Mid Term Evaluation.
13. The project workplan be approved but that future plans should be seen in the context of the overall project timetable and should be set against objective indicators.

## **3. Main issues arising**

### **3.1 Overall project progress**

The Project Performance Evaluation Report (PPER) indicates that in spite of delays in project implementation, most notably in the francophone region, progress under the majority output headings was generally held to be satisfactory. Whilst this was accepted with regard to the anglophone region, it was felt that in spite of the understandable reasons for the lack of

implementation in the francophone region, overall project progress must be considered unsatisfactory when compared with the expected rate of implementation.

### 3.2 Pace of activity in Francophone region

Satisfaction was expressed by the delegates from Burundi and Congo at the pace of project activity in Bujumbura and Uvira since the technical planning workshop held in Bujumbura in September. A project administration office is being established in Bujumbura and the Scientific Liaison Officer together with national colleagues, have been working hard to initiate special study activities. It was stressed, however, that it is essential that every effort should be made to ensure that the pace does not slacken and that the level of implementation in the francophone region is brought into line with that in the anglophone region. It was noted that this would be greatly facilitated by the experience gained from work already done in the anglophone region.

The need for the refurbishment and equipping of the Uvira station was highlighted as was the need to ensure that the Uvira station became an effective centre for special study operations in Congo without being subsumed by the Bujumbura station. The meeting was assured that the project coordination office in Bujumbura, whilst being the focal point for project administration in the area, would not be the sole technical centre and that full support would be given to the development of the Uvira station.

### 3.3 National ownership

A major item of discussion was the issue of project ownership, what this meant and how it could be engendered at the different levels from national to community level. It was noted that many similar GEF projects found that project ownership was low in the early stages of project implementation but that it usually developed to a high level as the project progressed. Nevertheless, it was felt that specific actions should be taken to enhance the process.

At the National level, it was recommended that National Steering Committees should be formed. It was suggested that all relevant line ministries should be invited to be represented at Permanent Secretary level. In addition, local/provincial, private sector and NGO representation should be invited, at the discretion of the country concerned. This should ensure that the level of ownership and commitment will be enhanced at the highest levels. This committee would be informed by the National Working Groups and would in turn inform the Regional Steering Committee. UNDP/GEF agreed to supply information on the composition and terms of reference of similar committees on other projects to assist with the formation of the National Steering Committees.

At the level of implementing institutions, the National Working Groups and National Coordinators were recognised as a critical focus for the development of project ownership. It was recommended that the composition and terms of reference be reviewed by the Steering Committee and that the project should provide all necessary assistance, within budgetary limitations, to support the national coordination of project activities and that the current level of assistance be reviewed.

The benefit of holding occasional National Working Group meetings on the lake shore was recognised and it was recommended that the project should facilitate this.

In order to further ownership at the community level, the proposal for an in-depth institutional analysis and assessment exercise as recommended in the PPER was supported on the understanding that this would involve broad stakeholder participation as a means, *inter alia*, of enhancing project ownership and involvement at the community, local and regional levels.

Similarly support was given to the process for the development of the Lake Tanganyika Strategic Action plan as proposed in the PPER. It was recognised that the specific tasks allocated to the various project committees by the proposed Strategic Planning Process would enhance project ownership through the direct involvement in planning by the principal stakeholders.

### **3.4 Additional full time field staff**

Two areas were identified as requiring additional full time support staff; first for the support of the National Coordinators and the National Working Groups and second for trainers/facilitators in the special study areas of Biodiversity, Sediment, Pollution, Socio-economics and Fishing Practices.

The requirement for aides to the National Coordinators was expressed by Tanzania and Zambia only; Congo and Burundi preferring to wait and review their requirements again at a later date. It was suggested that it might be possible to recruit the aides directly through UNDP country offices to enhance the links between the project and UNDP. Candidates would be recruited from outside government institutions by national advertising

Regarding special study trainers/facilitators, whilst the need was accepted by all in order to maintain continuity of special study investigations, to enhance capacity building, identify training needs, provide an easily accessible and readily available source of advice and direction and provide an effective link with consortium coordinators and other project advisers; it was stressed that these officers should have a good working knowledge of both French and English and that the posts should be advertised both internationally and within the four riparian states. Furthermore at least one of the different specialist would be based in each of the four riparian states.

### **3.5 Communications**

There is a need for an improved communications network between capitals and lake shore bases. In addition to the currently planned radio network between the lake shore stations, the meeting recommended that a radio with data/fax transmission facilities be installed in Kinshasa. This would be in addition to the provision already made for a telephone link for the National Coordinator in Kinshasa. Email/phone and fax links are currently available in Zambia at Lusaka and Mpulungu; in Tanzania at Dar es Salaam and Kigoma and in Burundi at Bujumbura. HF radios with data/fax facilities in Kinshasa and Uvira will provide a complete communications network. A satellite phone link is also currently available for remote communication when alternatives are not available.

### **3.6 Remuneration to project staff**

Levels and means of remuneration to Project staff was seen as a key issue in ensuring that high quality staff were attracted to the project. Project staff fall into two broad categories:

#### **3.6.1 Government civil servants assigned to the project either part or full time**

Under UN regulations such staff may not receive direct salary supplements from project funds and this includes Project Coordinators. Payments are permitted for special duties and overtime related to project activities and DSA for field work. It is current project practice to write Letters of Agreement with collaborating institutions which stipulate levels of support, both in kind and financial, for project activities. The financial compensation contains an element for each member of staff assigned to the project. The means and levels of compensation for staff were agreed to be adequate for general staff assigned to the project but the levels for staff associated with project co-ordination required review, especially in light of the additional tasks related to the enhanced role of the National Working Groups and support to the proposed National Steering Committees.

#### **3.6.2 Staff from private consultant companies (or individuals ) and universities**

Levels of payment to this category are based on the local market rate for the qualification and experience of the individuals involved and it was agreed that it is for the PCU to obtain the best value for the project. Such individuals or institutions are contracted directly by the project using a standard services contract or through modified Letters of Agreement.

In addition all project staff receive daily subsistence allowances when away from home base. It was agreed that these would continue to be set by the project based on current cost of adequate

accommodation and meals in the various centres of project activity and that a full list of the current rates would be circulated. All rates to be reviewed at regular intervals.

### **3.7 Mid-Term Evaluation**

It was brought to the attention of the meeting that Under GEF monitoring procedures all GEF projects must undergo a Mid-Term Evaluation and that under the current project timetable this was due in April 1998. Arrangements for this would be set in motion by GEF as soon as possible.

### **3.8 Extension of project duration**

Project participants in general, through the PPER, and the francophone delegations in particular raised the need for an extension of the project period. This was considered necessary in order to redress the shortfall in project progress, especially in the francophone region. Given that a full Mid-term Evaluation was due in April, it was agreed that whether or not an extension was appropriate would best be considered by the evaluation and that this should form part of the TOR for the evaluation.

### **3.9 Budget**

Several of the recommendations made during the Review have budgetary implications especially those relating to staffing, National Steering Committees and additional resources for National Coordination. NRI were asked to re-work the budget to accommodate these changes and submit this to UNOPS, along the lines of a draft revision submitted in August 1997.

### **3.10 Future Work Plan**

A summary of the main project activities to be completed over the twelve month period November 1997 to October 1998 was presented to the meeting. The work plan was approved. In future, however, it was decided that such partial work plans should be set in the context of the whole project period and furthermore that it was necessary for the project to develop objective indicators to allow project progress to be assessed against stated objectives.

### **3.11 Project HQ**

The Burundi delegation requested that the meeting consider a tripartite mission to visit Bujumbura to investigate the possibility of establishing the project centre in Burundi as specified in the original project document. A UNDP spokesperson pointed out that although the project document initially anticipated that the Project HQ would be in Bujumbura, UNDP rules concerning project safety at the time of project inception prevented this. It was agreed at that time the HQ should be based in Dar es Salaam and this was further confirmed at the first meeting of the project Steering Committee. The possibility of a later relocation to Bujumbura as the security situation improved was never envisaged.

Appendix 1.

PARTICIPANTS

BURUNDI

1. Jean-Berchmans Manirakiza National Coordinator, Director General, Institute National pour l'Environnement et la Conservation de la Nature.
2. Roger Kanyaru Directeur du Departement des Eaux, Peches et Pisciculture.

CONGO

3. M Ngamani Sus-directeur Generale, Ministere de l'Environnement et Conservation de la Nature.
4. Mady Amule National Coordinator (Directeur-Ministere de l'Environnement et Conservation de la Nature)
5. Nshombo Mudherwa Directeur du Centre de Recherche Hydrobiologique d'Uvira

TANZANIA

6. E.K. Mugurusi Director, Division of Environment. Vice-Presidents office
7. Rawson Yonazi National Coordinator, Principal Environment Officer, Division of Environment.

ZAMBIA

8. Peter L Mwamfuli Permanent Secretary, Ministry of Environment and Natural Resources
9. James Phiri National Coordinator, Director, Environmental Council of Zambia
10. G. Chilukusha Ministry of Environment and Natural Resources

UNDP

11. Amos Muchanga Lusaka
12. Not represented Bujumbura
13. Not represented Kinshasa
14. Silvester Sisila Dar es Salaam

PCU

15. Andrew Menz Project Coordinator

UNOPS

16. Ingolf Schuetz-Mueller Division Chief, Division for Environmental Programmes, UNOPS
17. Pierre Jullien Project Management Officer, Division for Environmental programmes, UNOPS18.

GEF

18. John Hough Regional Coordinator for Biodiversity and International Waters, UNDP/GEF

NRI

19. Tim Bostock UK Project Manager
20. Nick Willoughby UK Project Manager
21. Nick Hodgson Resource person - Strategic Action Plan

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Appendix 2.

## AGENDA

- Welcome from Leader of *Zambian Delegation*
1. Selection of Chairperson
  2. Approval of Agenda
  3. Overview of Project Progress
  4. Country Presentation - Burundi
  5. Country Presentation - Tanzania
  6. Country Presentation - Congo
  7. Country Presentation - Zambia
  8. Presentation by UNOPS - additional item, see Item 2
  9. Presentation by UNDP - additional item, see Item 2
  10. Matters Arising from presentations
  11. Recommendations of PPER
  12. Project Work Plan 1997/98
  13. Discussion of Work-plan
  14. Decisions and Recommendations
  15. Meeting Closure

RAF/92/G32 - POLLUTION CONTROL AND OTHER MEASURES  
TO PROTECT BIODIVERSITY IN LAKE TANGANYIKA

MINUTES OF THE SECOND STEERING COMMITTEE MEETING  
20 January 1998, Lusaka, Zambia

**Venue:**

The second meeting of the project Steering Committee took place at the Mulungushi Conference Centre immediately following the first Tripartite Review Meeting that is reported on separately. A full list of participants is given at Appendix 1.

**Item 1: Welcome and Introduction**

A formal welcome to the delegates was given by the leader of the Zambian Delegation, Mr P. Mwamfuli, Permanent Secretary, Ministry of Environment and Natural Resources.

**Item 2: Selection of Chair**

The head of the Zambian delegation was nominated to Chair the Steering Committee Meeting by Tanzania. The meeting approved this nomination.

**Item 3: Approval of Agenda**

The meeting perused the provisional agenda and adopted the agenda as shown below.

Agenda of the meeting:

1. Welcome and Introduction
2. Selection of Chairperson
3. Approval of Agenda
4. Matters arising from Tri-partite Review
5. Strategic Action Plan
  - 5.1 Overview
  - 5.2 Role of Steering Committee
  - 5.3 Role of National Working Groups
  - 5.4 Role of Technical Advisor Committee
6. Training Programme
7. Any other business
8. Date and venue of next Steering Committee Meeting
9. Closure

**Item 4. Matters Arising from TPR**

The decisions and recommendations arrived at by the Tripartite Review Meeting were considered individually. Note that only points raised that were not discussed during the Tripartite review meeting are recorded here; for a complete record reference should be made to the report<sup>1</sup> of that meeting in addition to these minutes.

The Tripartite Review had recommended that:-

*4.1 The Project should make every effort to bring the schedule of activities planned for the francophone region in line with those of the anglophone region.*

It was noted that there was a team of workers at Uvira awaiting a detailed work plan. A plan of action was requested urgently of the project. The Project Coordinator noted that the SLO was currently in Bujumbura, together with the project technical officer, and would visit Uvira again to review the quotes received for refurbishment of the CRH building. The SLO would return to

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<sup>1</sup> Report of TPR issued by UNDP office Dar es Salaam.



Bujumbura in February after visiting Kigoma and in early March the Project Coordinator would visit Bujumbura to prepare Letters of Agreement etc. **Approved.**

*4.2 National Steering Committees are set up by the four riparian countries.*

Discussion centred on the composition of the NSCs. It was suggested that all relevant line ministries should be invited to be represented at Permanent Secretary level. In addition, local/provincial, private sector and NGO representation should be invited, at the discretion of the country concerned. It was noted that some of the TORs suggested for the National Working Groups would more appropriately fit this new body. **Approved.**

*4.3 The role of the National Working Groups should be strengthened through clear terms of reference, and the enhancement of their role in the planning process.*

For discussion under Item 5. **Deferred.**

*4.4 An in-depth institutional analysis and assessment exercise should be carried out as indicated under Output 5.6 of the PPER.*

The analysis was welcomed and would be expected to be rigorous and investigate the whole system especially at the community, local and regional level. **Approved.**

*4.5 The process leading to a Lake Tanganyika Strategic Action Plan proposed under Output 1.4 of the PPER should be adopted by the project.*

For discussion under Item 5. **Deferred.**

*4.6 Additional full time bilingual facilitators/trainers should be placed in the field, one for each of the project special study areas: Socio-economics, Fishing Practices, Sediment Studies, Pollution Studies and Biodiversity Studies.*

The purpose of these staff is to provide continuity of contact and advice on each of the special studies as and when required. They will be regional posts with training and facilitating roles. There was considerable discussion on the importance of designating lead national institutions and their roles in both the placement and activities of these staff. The probable balance will be one facilitator (with regional remit) located in each country, with perhaps the fifth staff member based in a capital city.

*4.7 Countries may recruit full time Assistant National Co-ordinators to take work load off National Co-ordinators and the resources available for National Coordination activities to be reviewed.*

This was approved by Tanzanian and Zambian delegations. Burundi and Congo wish to await the development of the programme and its associated workload before deciding. Despite the hope for a decision on increased resources for National Co-ordination from this meeting, it was felt necessary that the budgetary implications of this and the several other recommendations that were made with budgetary implications should be calculated by the NRI/PCU and submitted to UNOPS for a decision. **Approved.**

*4.8 Electronic communications should be enhanced between the capital cities, and between the capitals and the lake-side field sites.*

CODAN HF radios are on order for Uvira, Bujumbura, Kigoma and Mpulungu. The choice of system was delayed in order to ensure that the system would operate effectively between all stations. This was necessary because The LTR system currently installed can barely communicate between some stations. An additional set will be purchased for Kinshasa. Email will be installed shortly in Bujumbura, and the requirements for Kinshasa will be investigated. If no ground line is possible, fax communication through HF radio will be considered. **Approved.**

*4.9 Rates of remuneration for private consultants (including university staff) and allowances for all staff to remain under present guidelines. **Approved.***

*4.10 A Mid-term Evaluation of the project should take place in April 1998. **No further comment.***

*4.11 A decision for any extension of project duration should be considered as part of the Mid-term Evaluation. No further comment*

*4.12 The Project Budget, as amended in Annex 1 of the PPER should not be approved until cost implications of other recommendations are incorporated. This process should be initiated without waiting for the Mid Term Evaluation. Approved.*

*4.13 The project workplan be approved but that future plans should be seen in the context of the overall project timetable and should set against objective indicators.*

No further comment

#### **Item 5: The Strategic Action Plan**

5.1 An overview was provided by Mr Nick Hodgson of NRI based on the description given in the PPER. The Committee approved the proposed process for the development of the SAP.

5.2 The role of the Steering Committee was defined as being in two parts - to develop the SAP with its prioritised interventions; and to facilitate information collection which would allow better future management of the lake.

5.3 The role of the National Working Groups was discussed. TORs for these need to be drafted which will define their roles in relation to the National Steering Committees. Each country should prepare its own TORs for their NSCs, perhaps drawing on some of the TORs already prepared for the NWGs, and send them to the Project Co-ordination Unit for comparison and harmonisation at the next Steering Committee Meeting.

5.4 Role of Technical Advisory Committee. This is scheduled to meet in April 1998, when it should review its own composition and TORs as a body with the specific tasks assigned to it under the Strategic Planning Process and for providing scientific knowledge/guidance for other committees.

#### **Item 6: Training Strategy**

An overview of the proposed training strategy was provided by Dr Nick Willoughby. This stressed the need for management training as well as the development of scientific excellence. The presentation gave an analysis of the different areas of training which could be provided, but did not indicate what possibilities for additional qualifications or courses would be offered to the four countries.

The countries stressed the importance of training within the project, but several delegates were unhappy with the lack of detail or specific proposals in the current strategy.

Later interventions, notably from the UNDP delegate, strongly questioned the need for PhD training and requested urgent attention be focused on a capacity building needs assessment, rather than merely apportioning numbers to courses.

It was agreed that a fully costed programme of training based on a formal needs assessment exercise should be prepared in the immediate future.

#### **Item 7: Any Other Business**

The Project Co-ordinator asked all countries to provide him as soon as possible with their nominations for the forthcoming Legal Workshop.

All the delegates, together with UNDP and UNOPS, thanked the Chairman for his handling of the meeting, and there were general expressions of satisfaction with the organisation and outputs from both the SCM and yesterday's TPR meetings.

#### **Item 8. Date and Venue of Next SCM**

It was decided that the next SCM would be held in Arusha, Tanzania, in mid July (date to be fixed later).

**Item 9: Closure**

The Chairman thanked all participants and closed the meeting at 17.00 hours.

Appendix 1.

**PARTICIPANTS**

**BURUNDI**

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|------------------------------|--|
| 1. Jean-Berchmans Manirakiza | National Coordinator, Director General, Institute National pour l'Environnement et la Conservation de la Nature. |
| 2. Roger Kanyaru             | Directeur du Departement des Eaux, Peches et Pisciculture.   |

**CONGO**

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| 3. M Ngamani        | Sus-directeur General, Ministere de l'Environnement et Conservation de la Nature.          |
| 4. Mady Amule       | National Coordinator (Directeur-Ministere de l'Environnement et Conservation de la Nature) |
| 5. Nshombo Mudherwa | Directeur du Centre de Recherche Hydrobiologique d'Uvira                                   |

**TANZANIA**

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| 6. E.K. Mugurusi | Director, Division of Environment. Vice-Presidents office                     |
| 7. Rawson Yonazi | National Coordinator, Principal Environment Officer, Division of Environment. |

**ZAMBIA**

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| 8. Peter L Mwamfuli | Permanent Secretary, Ministry of Environment and Natural Resources |
| 9. James Phiri      | National Coordinator, Director, Environmental Council of Zambia    |
| 10. G. Chilukusha   | Ministry of Environment and Natural Resources                      |

**UNDP**

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|----------------------|---------------|
| 11. Amos Muchanga    | Lusaka        |
| 12. Not represented  | Bujumbura     |
| 13. Not represented  | Kinshasa      |
| 14. Silvester Sisila | Dar es Salaam |

**PCU**

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| 15. Andrew Menz | Project Coordinator |
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**UNOPS**

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| 16. Ingolf Schuetz-Mueller | Division Chief, Division for Environmental Programmes, UNOPS                |
| 17. Pierre Jullien         | Project Management Officer, Division for Environmental programmes, UNOPS18. |

**GEF**

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| 18. John Hough | Regional Coordinator for Biodiversity and International Waters, UNDP/GEF |
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**NRI**

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| 19. Tim Bostock     | UK Project Manager                      |
| 20. Nick Willoughby | UK Project Manager                      |
| 21. Nick Hodgson    | Resource person - Strategic Action Plan |