

**Environmental Management and Biodiversity Conservation of Forests,  
Woodlands, and Wetlands of the Rufiji Delta and Floodplain**

**An Environmental Awareness Programme Design for  
Rufiji Environment Management Project**

**Paul Vare, Charity Kamau, Stephen Okuta and Keith Budden**



Technical report No. 20

June 2001

**For more information please contact**

Project Manager,

Rufiji Environment Management Project

P O Box 13513

Dar es Salaam, Tanzania.

Tel: 44 Utete Rufiji or 73731 / 0811 322366 Dar es Salaam

Email: [remputel@twiga.com](mailto:remputel@twiga.com) or [iucndar@epiq.or.tz](mailto:iucndar@epiq.or.tz)

<sup>1</sup> The Rufiji District Council implements Rufiji Environment Management Project with technical assistance from IUCN – The World Conservation Union, and funding from the Royal Netherlands Embassy.

## **Rufiji Environment Management Project – REMP**

**Project Goal:** To promote the long-term conservation through ‘wise use’ of the lower Rufiji forests, woodlands and wetlands, such that biodiversity is conserved, critical ecological functions are maintained, renewable natural resources are used sustainably and the livelihoods of the area’s inhabitants are secured and enhanced.

### **Objectives**

- To promote the integration of environmental conservation and sustainable development through environmental planning within the Rufiji Delta and Floodplain.
- To promote the sustainable use of natural resources and enhance the livelihoods of local communities by implementing sustainable pilot development activities based on wise use principles.
- To promote awareness of the values of forests, woodlands and wetlands and the importance of wise use at village, district, regional and central government levels, and to influence national policies on natural resource management.

### **Project Area**

The project area is within Rufiji District in the ecosystems affected by the flooding of the river (floodplain and delta), downstream of the Selous Game Reserve and also including several upland forests of special importance.

### **Project Implementation**

The project is run from the district Headquarters in Utete by the Rufiji District Administration through a district Environmental Management Team coordinated by the District Executive Director. The Project Manager is employed by the project and two Technical Advisers are employed by IUCN.

Project partners, particularly NEMC, the Coast Region, RUBADA, The Royal Netherlands Embassy and the Ministry of Natural Resources and Tourism, collaborate formally through their participation in the Project Steering Committee and also informally.

### **Project Outputs**

At the end of the first five –year phase (1998-2003) of the project the expected outputs are:

An Environmental Management Plan: an integrated plan for the management of the ecosystems (forests, woodlands and wetlands) and natural resources of the project area that has been tested and revised so that it can be assured of success - especially through development hand-in-hand with the District council and the people of Rufiji.

Village (or community) Natural Resource Management Plans: These will be produced in pilot villages to facilitate village planning for natural resource management. The project will support the implementation of these plans by researching the legislation, providing training and some support for zoning, mapping and gazettement of reserves.

Established Wise Use Activities: These will consist of the successful sustainable development activities that are being tried and tested with pilot village and communities and are shown to be sustainable

Key forests will be conserved: Forests in Rufiji District that have shown high levels of plant biodiversity, endemism or other valuable biodiversity characteristics will be conserved by gazettement, forest management for conservation, and /or awareness-raising with their traditional owners.

## Executive Summary

The Final Report on Awareness Programme Design by consultants from Living Earth Foundation builds on the Input One Report submitted in October 2000. The key findings of the survey work carried out under Input One indicate that environmental awareness provision in Rufiji District consists of:

- top-down message dissemination techniques at all levels from village councils to the District Council
- some didactic extension advice given on an occasional basis facilitated by REMP
- ineffective mass media in terms of providing useful, timely and/or relevant information
- isolated NGO activity (WWF project) within the District
- no systematic provision by Government departments

Awareness at the community level is characterised by:

- high levels of awareness among communities of the utilitarian values of natural resources
- low awareness of inherent values of natural resources beyond their immediate utilitarian values
- an understanding that the Government (national and/or district) makes the key decisions on issues relating to natural resource management – including ownership
- a lack of awareness among communities on their rights, roles and responsibilities or how to exercise their rights
- a marked increase in awareness as a result of thorough participatory appraisals carried out in pilot villages by District staff facilitated by REMP
- no evidence of effective community-based self-mobilisation on environmental issues

Investigations into the formal education system reveal:

- scant provision of locally relevant environmental education in schools
- poor academic achievement generally as a result of families moving to tend rice fields for four to five months each year
- generally low literacy levels, especially among females - most marked in the Delta

In framing an approach for the awareness programme, the report warns of the dangers of raising awareness of environmental issues in isolation (i.e. separate from participatory development activities at village level). Such a programme would run the risk of increasing feelings of despondency and fatalism among local people. To avoid this outcome, a strategic approach is recommended which links awareness with practical application wherever possible. The report specifically suggests linking five functions of environmental education:

- Public Relations
- Awareness Raising (learning by watching/listening)
- Learning Support Materials
- Deepening Understanding (learning through dialogue)
- Developing Skills and Confidence (learning by doing)

These functions and the links between them cut across the suggested activities which make up the awareness/education programme.

The overall aim of the programme is defined as increasing people's *action competence* from community to district level in the context of Rufiji District's environmental issues. To achieve this, learners need skills, appropriate knowledge, confidence and the will to make decisions. Development programmes need to provide opportunities for meaningful decision-making if action competence is to be an outcome of the learning. This explains the emphasis on rights, roles and responsibilities in the proposed awareness programme plus the building of trust through dialogue between District officials and local people.

The suggested objectives of the awareness programme are:

- To engender a sense of pride and ownership towards the environment among people and leaders of Rufiji District (necessitating an understanding of rights, responsibilities and opportunities for control in relation to natural resource management)
- To enhance the skills and experience of Rufiji District's staff in relation to community liaison and communication
- To increase awareness of the reasons behind the conservation of the protected areas among local communities and resource users (necessitating an understanding of ecology and wider sets of values attached to natural resources)
- To encourage co-operation between local people and District staff
- To improve the teaching of environmental issues in district primary schools
- To raise national awareness of Rufiji District's community-centred approach to environmental management

Three core themes are identified based on the issues raised in the Input One Report:

1. Roles, rights and responsibilities in relation to natural resource management
2. Develop people rather than things
3. The wealth of society is inextricably linked to the wealth of the environment

The activities specified for the programme are:

- The 'washirika' programme

This is a programme of learning through dialogue. Through a process of 'trust mapping', villagers group themselves according to existing relationships and peer groups (these are the associates or *washirika*). A volunteer *listener* is selected by each group; the listener's role is to listen to the concerns of the group and provide a two-way communication channel between the village environment committee and their friends. In this way every adult in the village is connected to the environmental decision-making process. The programme should be extended to neighbouring resource users before spreading to adjacent villages. Key learners include: District officials, REMP staff, district and ward level facilitators, village environment committees and local communities (chiefly adults).

- Village-based Media

This comprises drama performances based on participatory appraisals conducted by trained drama groups and a series of poster workshops in which communities discuss issues and design their own awareness materials. The key learners include: village environment committees, local communities including all children, district and ward level facilitators.

- Other Mass Media

These include leaflets to accompany permits issued for fishing, timber harvesting and hunting; abridged versions of policies which relate to natural resource management and the publication of a brochure outlining the District's programme of environmental planning. Other aspects of this programme area include securing mass media coverage by maintaining contacts with journalists, celebrating national and international days related to environmental themes and the publication of a newsletter three times a year.

The key learners in this case will include: decision-makers, specific resource users, village environment committees, the general public and District staff involved in the development and distribution of materials.

- Formal Sector Programme

The centrepiece of this component is the teachers' material development workshop which involves

teachers in designing their own environmental education materials. These are to be reviewed and refined by staff at the Institute of Education. Experiential learning programmes are also proposed although these will require external assistance which has yet to be identified – suggestions are made in the report.

It is also recommended the Education Department submit a proposal for the Complimentary Basic Education in Tanzania programme (COBET) to be extended to Rufiji District. Key learners in this area include: local schoolteachers, schoolchildren plus district and ward level education staff.

- **Focused Learning Exercises**

The report recommends that district and ward level staff receive training in the theory and practice of participatory learning and action. They should also be exposed to experiential learning programmes which build an understanding in – and empathy for – ecology.

Monitoring and evaluation is also identified as a way in which staff can learn more about awareness raising by taking a critical look at the effects of the programme. Key learners include: District and ward level facilitators.

- **Programmatic Technical Assistance**

Education and awareness-raising is a process which requires as much on-going support and training as any other technical area. The report concludes with the suggestion that IUCN identify an organisation which can supply technical assistance through a programmatic relationship rather than on a daily basis which may not prove cost effective in the long run.

## **Acknowledgements**

Further to our acknowledgement in our initial report, the Living Earth team would like to extend their sincere gratitude to the Government staff of Rufiji District and the IUCN staff at Utete for all their assistance and hospitality throughout the period of this consultancy.

## Table of Contents

<b>Executive Summary .....</b>	<b>i</b>
<b>Acknowledgements.....</b>	<b>iii</b>
<b>List of Tables.....</b>	<b>iv</b>
<b>Abbreviations.....</b>	<b>v</b>
<b>1 Introduction .....</b>	<b>1</b>
1.1 Work Carried Out Under Inputs One and Two.....	1
<b>2 The Findings.....</b>	<b>3</b>
2.1 Existing Provision.....	3
2.2 Existing Awareness.....	3
<b>3 The Approach .....</b>	<b>5</b>
3.1 Strategically Linking Five Functions.....	5
3.2 Community Education: Transmitting Messages or Building Action Competence? .....	6
<b>4 The Awareness Programme.....</b>	<b>8</b>
4.1 Objectives and Verification of Awareness Programme .....	8
4.2 Core Themes .....	9
4.3 Activities.....	10
4.4 Responsibilities for Activities.....	14
4.5 Awareness Programme Workplan 2001-03 (Table II).....	16
4.6 Awareness Programme Budget 2001-02 (Table III).....	18
4.7 A Note on the Flood Early Warning System .....	19
<b>5 Concluding Comment.....</b>	<b>20</b>
<b>6 Appendices .....</b>	<b>21</b>
Appendix 1: Terms of Reference (abridged).....	21
Appendix 2: List of Accompanying Documents .....	23
Appendix 3: Itinerary .....	24
Appendix 4: Participatory Learning Workshop for District Staff.....	26
Appendix 5: Notes on Drama Workshop .....	30
Appendix 6: Leaflet Development Workshop (9/11/00).....	36
Appendix 7: Notes on Local Leaders Workshop .....	37
Appendix 8: Abridged Policies Development Process.....	41
Appendix 9: Environmental Education Materials Development Workshop .....	43
Appendix 10: Notes on Piloting Washirika.....	54
Appendix 11: Presentation to Wrap-up Meeting with District Staff.....	77
Appendix 12: AWARENESS PROGRAMME: Guidelines for Implementation.....	80

## List of Tables

Table 1: Responsibilities for Activities .....	14
Table 2: Awareness Workplan .....	16
Table 3: Awareness Programme Budget .....	18

## Abbreviations

DED	: District Executive Director
COBET	: Complimentary Basic Education in Tanzania
CTA	: Chief Technical Advisor
ECoSA	: Education and Communication for Sustainability in Africa
EE	: Environmental Education
EMT	: Environmental Management Team (Rufiji District)
IUCN	: The World Conservation Union
JET	: Journalists for the Environment in Tanzania
KAP	: Knowledge - Attitudes – Practice Survey
MMP	: Mangrove Management Project
MUMARU	: Kiswahili form of REMF
NEMC	: National Environment Management Council
NGO	: Non Governmental Organisation
PRA	: Participatory rural appraisal
PSLC	: Primary School Leavers' Certificate
REMP	: Rufiji Environmental Management Plan
TACD	: Technical Adviser Community Development
WWF	: World Wide Fund for Nature

## 1 Introduction

This report builds on the findings and analysis covered in the Input One Report of this consultancy. Much of the background and contextual notes on environmental education in Rufiji District are covered in that report. In this Final Report the Living Earth awareness programme design team addresses the Terms of Reference (Appendix I); these are summarised in terms of providing:

- a clearly defined goal, target group/s and verifiable indicators for the awareness programme
- a suitable theme for the programme
- an action plan for the programme
- materials for the first six month period of the awareness programme
- at least 20 trained implementers capable of implementing at least the first six months of the programme
- at least 40 Rufiji people's environmental awareness raised, and increased interest aroused at district, regional and national levels

Details of the work carried out under Input two of this consultancy are provided under the appendices to this report. Suggestions on carrying out many of the recommendations contained in this report are provided in the supplement *Guidelines for Implementation* (Appendix XII).

### 1.1 Work Carried Out Under Inputs One and Two

Members of the awareness programme design team were accompanied by District staff in the execution of all of these activities with an increasing emphasis on District staff carrying out tasks themselves as the work progressed. Full itineraries for both inputs are provided under Appendix xxx; full field notes and reports on workshops are also provided in the appendices of the relevant report (Input One - First Report; Input Two - Final Report).

Input One activities included:

- Interviews with District staff
- Semi-structured interviews in Mtanza-Msona
- Semi-structured interviews in Twasalie
- Established drama group in Twasalie
- Poster workshop in Twasalie
- Interviews with NGO and Government officials in Dar-es-Salaam
- Preparation of draft report

Input Two activities included:

- PLA workshop for District staff
- Semi-structured interviews and 'trust mapping' in Mbambe Hamlet (Mbunju-Mvuleni)
- Selection and training of 'washirika' in Mbambe
- Drama workshop for pilot villages and Utete drama group
- Training of District Education Department staff on teachers' workshops
- Educational materials production workshop with teachers, Ward Education Officers, and Ward Executive Secretaries
- Abridged natural resource policies for district-wide distribution
- Leaflets to accompany licence/permits for fisheries, forestry and wildlife
- Workshop on roles within proposed awareness programme for local leaders at ward level

- Screen-printing workshop
- Meetings in Mbambe to evaluate the washirika programme
- Wrap-up meetings with REMP and District staff to present and discuss recommendations
- Production of report and guidelines supplement

## **2 The Findings**

The bulk of this report comprises a proposed awareness programme the design of which was informed by the survey work carried out under Input One of this consultancy. This section summarises the key findings of Input One (these are based on data available in the Input One Report).

### **2.1 Existing Provision**

#### **2.1.1 Informal Awareness/Education**

There is no systematic provision of informal environmental education by Government departments. The one consistent feature of informal education is the reliance on top-down message dissemination techniques at all levels from village to District. The Fisheries Department, for example, uses pre-prepared flip charts to instruct local people on fishing techniques and drying methods which are already widely known in the villages. The delivery of such didactic extension advice has been facilitated by REMP and is clearly seen as a discreet activity, distinct from the participatory appraisal work carried out in the pilot villages. Where such appraisal work has taken place there is a marked increase in awareness compared to the findings in non pilot villages (see Kipo Village interviews Appendix IV Input One Report).

At the village level, local government relies on meetings which are generally well attended by men, particularly those living close to village centres. Village interviews revealed a degree of faith in the ability of radio to disseminate information although questioning on this aspect reveals that such information is necessarily of a general nature and therefore not geared to the needs of the listener in either timing or content.

There is some isolated NGO activity (the WWF project was cited by District staff) within the District.

#### **2.1.2 Formal Education**

The formal education system delivers a packed curriculum which, in common with the mass media, is centrally planned and not easily geared to local needs. There is scant provision of locally relevant environmental education in schools.

Teachers complain of families attaching low importance to school leading to poor academic achievement generally. In the floodplain whole families move away to tend rice fields for four to five months each year while in the delta the Islamic madrasa is seen as more relevant and is thus a higher priority to the state education system. The generally low literacy levels, especially among females, are most marked in the Delta.

### **2.2 Existing Awareness**

#### **2.2.1 Community Level**

Local knowledge and attitudes towards the environment are based on patterns of local resource utilisation built up over hundreds of years. The multiple uses for mangroves discovered at the Twasalie workshop (Appendix VI of Input One Report) provide a good illustration of this. However, interviews with villagers, district staff and REMP staff suggest that these resource use patterns are no longer the most significant change agent acting on Ruffiji's ecosystems. The chief threats to biodiversity in the district now come from commercial exploitation by outsiders or by local people harvesting for external markets.

For over two generations, state ownership has been superimposed on traditional patterns of community management thus further weakening the bonds between people and their resources. This also has a negative impact in terms of promoting 'wise use' of resources at village level.

The consultancy team's investigation into awareness at community level suggests a situation characterised by:

- high levels of awareness of the utilitarian values of natural resources
- low awareness of inherent values of natural resources beyond these immediate utilitarian values
- an understanding that the Government (national and/or district) makes the key decisions on issues relating to natural resource management – including ownership
- a lack of awareness among communities on their rights, roles and responsibilities or how to exercise their rights
- no evidence of effective community-based self-mobilisation on environmental issues

Although there is deep knowledge around the resource base, this is a rather parochial view which does not recognise external values. The local view of MUMARU is of a traditional rural development project, not a programme driven by an international value system that identifies biodiversity conservation as its prime objective.

### **2.2.2 District Staff**

When drafting key points for the District brochure, the view of REMP/MUMARU as a route to socio-economic improvement was emphasised once again. The expectation among some District staff of all projects aiming to deliver economic development in a top-down fashion does not appear to have been shaken to any great extent despite the efforts of REMP staff to suggest otherwise.

A paternalistic attitude towards local people reinforces top-down tendencies; this can only be challenged by more meaningful engagement with local people. The awareness team noted the extent to which District staff were struck by the depth of knowledge exhibited by local people in workshops and exercises which provided opportunities for listening to local people rather than disseminating information.

### **3 The Approach**

The approach outlined in the consultants' bid document has been followed and further developed in the design of this awareness/education programme. This section describes the way in which the Living Earth approach has been applied to the awareness programme design for Rufiji District.

#### **3.1 Strategically Linking Five Functions**

Different functions of environmental education are discussed under the following subsections 3.1.1 to 3.1.5. These represent a progression in terms of a steady reduction in the number of people reached and a concomitant increase in the effectiveness of the activity in promoting change among individuals.

The awareness programme, set out under Section Four below, groups specific activities into programme areas (e.g. *mass media* or *formal education*). The following *functions* of environmental education cut across these different programme areas; examples are discussed under each sub-heading.

##### **3.1.1 Public Relations**

Raising the profile of an organisation and/or programme helps to motivate staff, encourage involvement of potential partners and create a conducive atmosphere for further work. This programme recognises the need for profile raising particularly among, decision-makers (peers) and the wider community. The programme brochure, celebrating events and achieving coverage in the mass media all provide public relations opportunities.

NB The possibility of purchasing a TV/video plus camcorder as a public relations tool was raised by District staff. This is not recommended by the consultants because production of a broadcast quality video requires the input of highly trained professionals who would normally use their own (or hired) equipment. Showing videos locally does have a motivating influence but such expensive and delicate equipment is unlikely to be a practical or cost-effective solution in the Rufiji context.

##### **3.1.2 Awareness Raising (learning by watching/listening)**

This is agenda setting, putting ideas/issues into people's minds, ensuring that important information is available to those who make decisions on a given issue. It may deepen existing knowledge or interest or increase receptivity to new ideas but it cannot, on its own, be relied upon to change attitudes or promote action. Although this was the focus of this consultancy, it is only one necessary step in a comprehensive education programme.

The programme brochure and mass media coverage serve to raise awareness of issues as well as the environmental management efforts of the District Council and others. At the village level, dramas and poster workshops are tools for putting issues on the local agenda.

##### **3.1.3 Learning Support Materials**

Generating materials is seen as a specific activity because this provides permanent evidence of the provision of education, they do not however signify the effectiveness of the programme. Materials support the other four functions.

The range of materials suggested under this programme support public relations and awareness raising functions, they also provide detailed information on policies which may in turn promote dialogue on issues of resource management. Although the materials can stand alone, their effectiveness will be greatly increased by using them in conjunction with face-to-face human contact. This is particularly true of the leaflets which accompany permits and the abridged policy documents. The programme brochure is the one publication which is designed with no expectation of any follow up human contact.

The *process* of materials development has provided learning opportunities for district staff and teachers – something which is to be encouraged throughout the implementation of the awareness programme.

### **3.1.4 Deepening Understanding (learning through dialogue)**

Questioning and receiving feedback are essential elements of learning where lessons are being introduced from beyond our personal experience. Dialogue is also critical in building a shared analysis and understanding of a given situation and providing a forum for negotiation through which all parties might learn and change.

Awareness raising and dissemination of printed materials will have a minimal, short-lived impact without ensuring that new ideas are discussed, questioned, contextualised locally and internalised by individual learners. The only way of testing what has been learned (as opposed to what has been taught) is through dialogue. This area or function is therefore the chief focus of the proposed awareness programme. The washirika activity, opening channels for dialogue based on trust, is a novel approach to informal environmental education and it is seen as the best chance that REMP has of achieving a lasting impact on natural resource management in Rufiji District.

Dialogue through the washirika programme should be used to:

- inform practical activities (see below)
- test the suitability of awareness-raising activities and materials
- provide opportunities for raising the profile of the programme nationally and internationally (through meetings, conferences, articles and papers)

### **3.1.5 Developing Skills and Confidence (learning by doing)**

Experiential learning is the most powerful component in the process of human development. Learning by actually ‘doing it’ promotes ownership of activities and learning processes and builds confidence in personal decision-making.

This is exemplified in many aspects of the awareness programme. District staff have been involved developing materials while villagers have participated fully in the development and refining of the washirika programme. Participation in environmental planning is a key activity facilitated by REMP and this should be recognised by staff at all levels as an integral and vital part of the learning process.

## **3.2 Community Education: Transmitting Messages or Building Action Competence?**

### **3.2.1 The danger of Awareness Raising**

The findings discussed in 2.2.1 suggest a deep yet parochial knowledge of local natural resources and an expectation that the Government is in charge. Given this situation, transmitting messages on the threats to biodiversity among the local population would only serve to reinforce global trends recognised by many environmental educationalists, i.e.:

- a growth in environmental problems of greater complexity
- increasing environmental awareness - matched by:
- a growing sense of powerlessness.

**It is the feeling of the Living Earth team that raising awareness of environmental issues in isolation (i.e. separate from participatory development activities at village level), would increase feelings of despondency and fatalism among local people. For this reason we recommend a strategic approach which links awareness with practical application wherever possible.**

The best way to ensure that environmental learning is linked to a positive process of empowerment is to aim for success in terms of increased *action competence* rather than the acquisition of specific predetermined knowledge, skills or attitudes. Put most simply, action competence can be described as an individual's capacity to decide to act (or not to act) in a given situation. To do this one needs skills, appropriate knowledge, confidence and the will to make decisions. This programme seeks to develop action competence in learners from community to district level in the context of Rufiji District's environmental issues.

### 3.2.2 When is an action not an action?

When discussing action competence, the word *action* has a strict two-part definition:

- (i) people should decide for themselves what to do;
- (ii) the activity should be targeted at solving a problem or addressing an issue - not simply skills acquisition for the sake of it.

The following examples all are valid and valuable learning experiences but only one would be considered a true *action* in the sense of developing action competence:

1. People plant trees in response to requests from political leaders and extension workers. Even though this may be a partial solution to problems of deforestation, it cannot be classed as an *action* because the people did not do this as a result of their own decision. This is a short-term change in *behaviour*; it may or may not become a habit.
2. Practical tasks, including farm visits, are used on training courses to balance more academic class-based teaching. These are *activities*, not environmental action.
3. When asked to decide on a short-term project, a wildlife club chooses to clear up the non-biodegradable litter in the village. This time it's their decision but it does not address the causes of litter. It is therefore still an *activity*.
4. People are asked how they intend to address the issue of diminishing fish stocks in the local lake. They discuss the issue among themselves and decide upon a temporary closure of the lake (they may request external expertise in defining a suitable closed season). This can be termed an *action* because it fulfils the two criteria: it seeks to address the causes of the problem and it is a decision by the people themselves.

Although useful contributions to environmental learning, the first three examples will not, in isolation, build action competence.

**Development programmes need to provide opportunities for meaningful decision-making if action competence is to be an outcome of the learning. This explains the emphasis on rights, roles and responsibilities in the proposed awareness programme plus the building of trust through dialogue between district officials and local people.**

### 3.2.3 Is There a Message?

The approach suggested by Living Earth relies on dialogue and negotiation. In this way, learning takes place on all sides of any given issue and resources are not spent on transmitting possibly inappropriate pre-determined messages to large numbers of people. The awareness programme does identify three core themes but these are not 'messages' which can be un-problematically disseminated and received by learners (see 4.2 below).

## 4 The Awareness Programme

The overall aim of the programme is defined as increasing people's action competence from community to district level in the context of Rufiji District's environmental issues.

### 4.1 Objectives and Verification of Awareness Programme

Each of these objectives is followed by suggested indicators and means of verification. The suggested activities are explained below and described in detail in the *Guidelines for Implementation* supplement:

- A. To engender a sense of pride and ownership towards the environment among people and leaders of Rufiji District (necessitating an understanding of rights, responsibilities and opportunities for control in relation to natural resource management)

*Objectively verifiable indicator (OVI): people's own expressions of pride/ownership and their ability to link this to knowledge of rights and responsibilities plus practical activity*

*Means of verification (MOV): results of KAP analyses carried out in 2002/3 compared with baseline survey of September 2000*

Suggested activities: washirika, brochure, events, newsletter, staff participation in processes of materials development, staff training in ecology

- B. To enhance the skills and experience of Rufiji District's staff in relation to community liaison and communication

*OVI: staff at district and ward level operational and effective as community facilitators*

*MOV: observations by experienced staff, REMP and other technical assistants, feedback from washirika*

Suggested activities: PLA training, staff involvement in monitoring and evaluation

- C. To increase awareness of the reasons behind the conservation of the protected areas among local communities and resource users (necessitating an understanding of ecology and wider sets of values attached to natural resources)

*OVI: testimony of local people given in semi-structured interviews*

*MOV: results of KAP analyses carried out in 2002/3 compared with baseline survey of September 2000*

Suggested activities: washirika, drama, village posters, leaflets, policy summaries, brochure, events, newsletter, staff training in ecology

- D. To encourage co-operation between local people and District staff

*OVI: Concrete examples of co-operation*

*MOV: district and ward level staff reports*

Suggested activities: washirika, policy summaries, newsletter

- E. To improve the teaching of environmental issues in district primary schools

*OVI: increased variety of methods used in schools including first-hand experience; improved grades in environment-related subject areas*

*MOV: reports on District officials' school visits plus washirika reports; school records*

Suggested activities: teachers workshops, experiential learning, complimentary education

- F. To raise national awareness of Rufiji District's community-centred approach to environmental management

*OVI: Coverage of district efforts in national mass media, observations made by decision makers and peers from outside the district*

*MOV: records of media coverage kept at District headquarters, records kept of anecdotal evidence*

Suggested activities: brochure, media liaison, Steering Committee, academic papers, newsletter

## 4.2 Core Themes

Three core themes are identified based on the issues raised under Section 5.2 of the Input One Report.

### 4.2.1 Roles, Rights and Responsibilities in Relation to Natural Resource Management

If this theme could be distilled into a single ‘message’ for discussion at village level it would run along these lines: *“It’s up to you to protect and use the natural resources in your village.”*

On the one hand, this has been the *de facto* management pattern for centuries but on the other, resource ownership and exploitation patterns have shifted beyond recognition in the recent past and this theme now runs counter to a lifetime’s experience for many people. This cannot therefore, be a simple matter of message delivery. Such a message would be met with incredulity by many and be usurped by others in order to serve powerful local interests.

There is a need to build up a shared awareness of people’s values in relation to socio-economic and environmental issues and to understand their specific roles in managing natural resources. This includes the values and practices of women, of young people, of specific resource gatherers and many others. A devolvement of power might otherwise replace one inequitable system (dominated by local government) with another led by local male elites.

The composition and function of the nascent village environment committees is critical in this situation. Mechanisms need to be in place to ensure that committee membership covers all major categories of people, not simply to represent their peers but so that they can *learn* from each other.

Extension staff, from district and ward level, have much to learn from local people and *vice versa*. In this way a shared, accurate understanding of the current status and location of local resources and rates of depletion can be achieved. Regular contact is essential to build up relationships, extension agents should stay, if not live, among the people and learn from them through casual inquiry over time.

With a growth in mutual trust and a common understanding of possibilities for change, dramatic advances may take place in the range of responsibilities taken on by community-based groups. This may include community patrolling and the shared development of alternatives to illegal or destructive harvesting of natural resources.

### 4.2.2 Develop People Rather Than Things

This applies both at the District Council level, where REMP is a facilitator working with the District Environmental Management Team and at the village level. If extension staff can appreciate the facilitation role of REMP, this will help them to understand their role at village level, i.e. they don’t ‘do’ anything except facilitate others to plan, to implement their plans and to evaluate their success. This is a process of building action competence not teaching pre-determined messages.

### 4.2.3 The Wealth of Society is Inextricably Linked to the Wealth of the Environment

Nature supports our livelihoods and is greater than ourselves, it therefore demands respect in its own right. Again, this is not something which can be understood from simply receiving the message. Experiential learning is a valuable tool as is dialogue. Information on the global significance of Rufiji District’s biodiversity and the relative scarcity of its resources may be totally new to many people and this will need to be questioned, contextualised and explained in different ways before it is understood.

Awareness-raising on this theme is important because it qualifies the devolvement of power championed by REMP, i.e. local empowerment must not signify a free-for-all. It also puts the current status of local resources and rates of depletion into context. Against this, it should be remembered that such messages should not be separated from issues of local resource management if

we are to avoid engendering a sense of powerlessness.

### 4.3 Activities

Notes:

- The headings used in this section are consistent with those in Tables I, II and III (see sections 4.4 – 4.6).
- The Key Learners heading refers to those stakeholder groups which stand to learn most from each activity; this is not a rigid ‘target’ as learning should take place in many directions.
- The rationale for most of these activities appears in the Input One Report, additional notes are supplied in the *Guidelines for Implementation* supplement.

#### 4.3.1 Washirika Programme

Key Learners: District officials, REMP staff, district and ward level facilitators, village environment committees, local communities (chiefly adults).

This is a programme of learning through dialogue. Through a process of ‘trust mapping’, villagers group themselves according to existing relationships and peer groups (these are the associates or *washirika*). A volunteer is selected by each group; the volunteer’s is to listen to the concerns of the group and pass this back to the village environment committee. The volunteer will also hear about proposals or concerns at village level and take these back to their friends who will in turn respond to any proposals or new information which is being discussed at the committee level.

In this way information is shared and amended in a two-way process of dialogue. The way the system is set up at hamlet level is crucial to the success of the programme. The whole process should be open, transparent and participant-led. Training is given to the volunteers but again, this should reinforce the atmosphere of shared learning and participation, it should not fall into a didactic top-down approach.

##### ***1a Initiate programme***

This should be done hamlet by hamlet, in pilot villages at first. The process should involve religious leaders by informing them about the programme and gaining their support where possible. The initiation of a washirika programme should be used as a means to reinvigorate or mobilise village environment committees and ensure a more comprehensive membership. These committees will require re-training in performing their roles with the advent of a washirika programme.

##### ***1b Extend to neighbouring resource users***

Where environmental issues overlap, the programme should be extended to neighbouring hamlets so that all major stakeholders involved in managing a given resource such as a lake or forest can be involved in defining any new management regime. Such dialogue will be an important tool in resolving conflicts where these exist between communities that share resources.

##### ***1c Monitor and reinvigorate programme***

Facilitators should be identified (particularly at ward level) to maintain relationships with villages over time and provide a consistent human link with officers at District Headquarters. At the District level it is important to allow for flexibility in the provision of technical advice in response to washirika feedback. An example of this occurred in Mbambe Hamlet where the first programme was piloted; here a group of women required specific advice on their horticulture project, this inspired an agricultural extension officer to return to the hamlet to offer assistance at the earliest opportunity. Such advice – given in response to a specific need – is far more valuable than multiple visits made by officers who preach good practice to farmers who have not requested the information.

##### ***1d Extend programme to adjacent villages***

A concern raised by REMP staff is that of extending awareness to the wider community across Rufiji District. As discussed above, an isolated programme of awareness raising is not seen as a

effective use of resources. In answer to this concern, the consultants suggest a long-term 'roll-out' of the washirika programme to communities neighbouring the pilot villages which happen to be well spaced around the district. Where a particular geographical gap is noticed there would be some justification for establishing a fresh programme as an additional point of growth to cover the district evenly over time.

#### **4.3.2 Village-based Media**

Key Learners: Village environment committees, local communities including all children, district and ward level facilitators.

##### ***2a Drama Programme***

Village-based drama groups require training in carrying out local appraisals of natural resource issues so that they can base their performances on the reality of their village. In the first instance, the District Sports and Games Officer (Mr Ndasi) should follow-up the four drama groups in the pilot villages to ensure that their work has benefited from the training given under Input Two (or Input One in the case of Twasalie). This approach to drama can then be extended gradually to all villages in the project area by offering three-day training workshops to clusters of drama groups. Ideally this expansion should follow and support the growth of the washirika programme.

##### ***2b Poster workshops***

This activity requires further technical input. Experience of applying this technique in Uganda (where inks had to be imported but expertise was locally available) showed how successful this activity could be in terms of generating discussion and learning as well as producing locally appropriate awareness materials.

External assistance is required to train a group of facilitators at district and ward level in screen-printing techniques. The possibility of sending staff on a training course at Nyumba ya Sanaa in Dar-es-Salaam should be investigated as this may well serve to fill the skills gap. Facilitators could then run two-day workshops in pilot villages - hamlet by hamlet. Again this should be extended to neighbouring hamlets to shadow the growth of the washirika programme

#### **4.3.3 Other Mass Media**

Key Learners: Village environment committees, specific resource users, decision-makers, general public, district staff involved in development and distribution of materials.

##### ***3a Publish and distribute permit leaflets***

Relevant district staff should be involved in finalising the text of these leaflets which are designed to accompany fishing, timber and hunting permits. Each leaflet should include a facsimile of the relevant permit so that even illiterate people can recognise a genuine permit from a fake.

It is recommended that bulk production of these leaflets take place in Dar-es-Salaam (Agenda, an NGO, is probably the most cost-effective organisation for this – liaise with Mr Tarimo of NEMC). Limited numbers of Arabic script versions should be piloted in the Delta – these will require careful monitoring to check that the additional effort is justified.

Although originally intended for permit applicants, it is recommend that these leaflets be distributed at vehicle check-points and to all villages in the District.

##### ***3b Publish and distribute abridged policies***

The text of the abridged policies should be finalised by relevant staff. The co-ordinating officer should then arrange for bulk production in Dar-es-Salaam (liaise with Tarimo). Again, Arabic script editions should be produced for distribution in the Delta. Distribute policies to all villages in the project area. Investigate collaboration with WWF/MMP as their Rufiji-based operations may benefit from these materials and they may therefore assist with production costs.

### ***3c Publish and distribute brochure***

The suggested format is a slim leaflet (A4 folded twice) printed in full colour. The text should be circulated among EMT members for comment. A Kiswahili translation should be arranged after a final English text has been accepted. Images should be sourced from existing REMP collections. Advantages in quality, cost and time would be achieved by printing the brochure in the UK; Living Earth has offered to follow this job to completion under the terms of the existing contract.

The brochure should be distributed to District staff, village leaders, national institutions, journalists, visitors, donors, colleagues and any other interested parties.

### ***3d Maintain contacts with mass media***

The best way to achieve media coverage is to maintain relationships with individual journalists. It is recommended that Bartholomew Tarimo of NEMC be retained to visit journalists in Dar-es-Salaam on a regular basis and to maintain relationship with JET to ensure coverage of activities in Rufiji.

District staff should maintain vigilance for news-worthy stories and Mr Masoud could provide a contact point, feeding information and press releases to Tarimo on a regular basis. The possibility of Mr Masoud following an appropriate training course in Dar-es-Salaam should be investigated. This should cover the writing of press releases and articles for publication.

At a mid-point in the year it would be helpful to invite journalists to the District to generate a flurry of media coverage and raise national awareness of the programme in Rufiji. This should take place on an annual basis and could be co-ordinated by Tarimo with Masoud co-ordinating at Utete.

### ***3e Celebrations/events***

World Environment Day, Wetlands Day and National Tree Planting Day are all calendar events which provide opportunities for raising awareness of work being done under the District environmental Management Plan. Mr Tarimo of NEMC has experience of organising large-scale celebrations of this kind and organising press coverage while members of the Education Department (Masoud and Ndasi in particular) should be on hand to mobilise drama groups, schools and other participants locally.

### ***3f Occasional newsletter***

An A4 newsletter (A3 folded once) is suggested as a means to update staff, local leaders and others on the successes and challenges of the programme three times a year. This could be compiled by the co-ordinating staff (Masoud and Chande).

## **4.3.4 Formal Sector Programme**

Key Learners: Local schoolteachers, schoolchildren, district and ward level education staff.

### ***4a Teachers material development workshops***

Teachers developing materials for their own use is far more likely to impact on their classroom practice than any material brought in from the outside.

The distribution of the GreenCOM EE book should be followed up to see if in fact it has made a difference to any teacher's practice in the District.

### ***4b Refine, produce and return materials***

Teacher's materials should be checked for content by the Institute of Education (Stephen Mwinuka has been identified as the best person for performing this task).

### ***4c Monitor use of materials***

This activity would be incomplete without a thorough programme of teacher follow-up to check on progress and difficulties and to motivate teachers who suffer from professional isolation in rural areas.

#### ***4d Experiential learning programmes***

Teacher's workshops would be far more powerful if they included an experiential learning component (e.g. transect walks and overnight stays in forests, talks and walks with enthusiastic experts, periods of reflection in the natural environment). This would require external expertise to implement it effectively. Mr Tarimo of NEMC received a limited exposure to this approach in the UK in 1997; a better option would be to ask a more experienced individual to assist in this activity. However, the only people in the region known by the consultants to have expertise in implementing experiential learning programmes in EE are in Uganda. The IUCN Mount Elgon Project should be able to put REMP in touch with David Kissa and Stephen Nasasa who ran the Elgon Forest Exploration Centre.

#### ***4e Proposal for complimentary education***

The COBET programme (Complimentary Basic Education in Tanzania) described in the Input One Report would be ideally suited to the needs of local out-of-school youth in Rufiji District. The COBET needs-based curriculum provides a truly environmental education in the widest sense. It is recommended that the Education Department make a case to the Institute of Education and their sponsors, UNICEF, for extending the COBET programme to Rufiji. It should be noted that any proposal would need to stress the extent to which children do not attend or have dropped out of school – not something which education departments tend to emphasise under normal circumstances.

### **4.3.5 Focused Learning Exercises**

Key Learners: District and ward level facilitators.

#### ***5a Staff training in training, PLA and ecology***

Training sessions in facilitation skills and 'participatory learning and action' should accompany the development of washirika programmes as this provides an excellent opportunity for on-the-job learning. Education Department officials who run teachers workshops should receive training in facilitation skills and training methods.

Training in ecology should take the form of experiential learning similar to that suggested for teachers (item 4d). This is important as an ecological understanding underscores the participatory work at village level and clarifies the difference between REMP and a traditional rural development project.

Specific short courses in screen printing (see 4.3.2) and journalism (see 4.3.3) are also recommended.

#### ***5b Monitoring and evaluation***

The semi-structured interviews carried out under Input One and Input Two of this consultancy should serve as baseline data for the awareness programme. Such interviews (and focus group discussions) should be carried out before and after any component of the awareness programme is implemented.

Similarly, detailed reports should be kept of all PRA exercises and these should be compared with the outputs of PRA re-runs carried out after a year of project implementation. The difference in felt needs, ambitions and perceptions will indicate the extent to which people's thinking has changed over time. Semi-structured interviews provide qualitative data which can identify the extent to which the project has facilitated this change compared to other internal and external influences.

Reports on progress and feedback from all meetings, interviews, conversations in the field, etc. should be kept as this all adds to the evidence of change taking place.

Quantifiable data (particularly valued by donors) can be used to indicate the provision of education rather than its effectiveness. Records of numbers and distribution of leaflets, participants on training courses, numbers of washirika, maintaining records of media coverage etc. will all help to illustrate

the nature of work done and will reflect the impact of donor support for this aspect of the project.

#### 4.3.6 Programmatic Technical Assistance

Education and awareness raising is a process which requires as much on-going support and training as any other technical area. In order to ensure that the impacts of the Living Earth Foundation consultancy are maintained and developed, a programmatic approach is recommended. This approach will require Rufiji District and REMP to develop a long-term relationship with a specialist NGO. This will provide consistent inputs based on agreed objectives and provide a framework for developing trust and learning among District staff. Living Earth has prepared an outline proposal and sent this to the CTA of REMP.

In the first instance this may include collaboration and networking with MMP, WWF and NEMC. The regular involvement of Bartholomew Tarimo, Environmental Education Officer of NEMC will assist REMP in implementing this programme in the short to medium term.

#### 4.4 Responsibilities for Activities

Notes:

1. The District Natural Resources Officer (Mr Chande) is the EMT member responsible for co-ordinating REMP activities. This responsibility should extend to the awareness programme.
2. It is recommended that the District Youth Development Officer (Mr Masoud) have a co-ordinating role at the implementation level, ensuring that all programme keeps to schedule.
3. The involvement of Mr Fortunatus Ndasi and Ms Pili Mwambeso in facilitating field activities is highly recommended although it recognised that this may require a reorganisation of their existing responsibilities. The Workplan (Table II) suggests that drama and poster workshops are organised to coincide with activities related to the washirika programme. Trips to the villages with a combined purpose will reduce the travel requirements for these officers.

**Table 1: Responsibilities for Activities**

Activity	Responsible Department (Suggested Staff)
<b>1. Washirika Programme</b>	
1a Initiate programme	Natural Resources (PM/BK/BB/RN + FN + others)
1b Extend to neighbouring resource users	Natural Resources (PM/BK/BB/RN + FN + others)
1c Monitor and reinvigorate programme	Natural Resources (District teams + BT)
1d Extend programme to adjacent villages	Natural Resources (PM/BK/BB/RN + FN + others)
<b>2. Village-based Media</b>	
2a Drama Programme	Education (FN + others)
2b Poster workshops	Education (FN + OK + others + artist)
<b>3. Other Mass Media</b>	
3a Publish and distribute permit leaflets	Natural Resources (JE + MS + MK)
3b Publish and distribute abridged policies	Natural Resources (JE + MS + MK)
3c Publish and distribute brochure	Natural Resources (EMT)
3d Maintain contacts with mass media	EMT (BT + AM)
3e Celebrations/events	EMT (BT + AM/FN)
3f Occasional newsletter	Natural Resources/Education (AM + SC)
<b>4. Formal Sector Programme</b>	
4a Teachers material development wkshps.	Education (DEO + others)
4b Refine, produce and return materials	Education (DEO + S Mwinuka, Institute of Educn.)
4c Monitor use of materials	Education (DEO + others)
4d Experiential learning programmes	Education (DEO + others)
4e Proposal for complimentary education	Education (DEO + others)
<b>5. Focused Learning Exercises</b>	
5a Staff training in PLA and ecology	TACD + Natural Resources (SC)
5b Monitoring and evaluation	TACD + Natural Resources + EMT + BT
<b>6. Programmatic Technical Assistance</b>	EMT/REMP/IUCN (DED/OH)

(Key to staff initials on next page)

**Key to Staff Initials**

<b>Initials</b>	<b>Name</b>	<b>Designation/Department</b>
AM	A Masoud	District Youth Development Officer, Education
MS	M Sagara	Fisheries Officer, Natural Resources
JE	John Eniyoye	District Game Officer, Natural Resources
SC	S Chande	District Natural Resources Officer
MK	M Kinana	Forest Officer, Natural Resources
PM	Pili Mwambeso	VEO, Agriculture
BK	B Kilimba	Agriculture
BB	B Bainga	Agriculture
OK	Oswald Kombe	Statistics and Logistics Officer, Education
FN	Fortunatus Ndasi	District Sports and Games Officer, Education
RN	R Nandi	Agriculture
DEO	Gervas N Sezulu	District Education Officer
BT	Bartholomew Tarimo	Environmental Education Co-ordinator, NEMC
DED	F Q M Fissoo	District Executive Director
OH	Olivier Hamerlynck	Chief Technical Adviser, REMP
TACD	Rose Hogan	Technical Adviser Community Development, REMP

**4.4.1 Role of IUCN Technical Advice**

The agreed role of the Technical Adviser Community Development within REMP is that of adviser and trainer in relation to community development, participatory skills and village environment management plan implementation. This is highlighted in lines 5a and 5b of Table I. However, the principal role of the TACD (and other IUCN staff members, particularly the CTA), is that of ‘critical friend’ to the Rufiji District staff and other individuals who are involved in implementing the awareness programme.

Many of the activities recommended in this programme are new to Rufiji while some are novel approaches even in the wider field of environmental awareness. Therefore there are no experts, only people who are keen to apply the principles and make them work. The role of IUCN continues to centre on giving technical (and moral) support although the relationship between critical friends is characterised as ‘fellow professionals’ rather than the traditional ‘tutor/supervisor’ role which is suggested by funding realities and common practice on donor-funded projects.

4.5 Awareness Programme Workplan 2001-03 (Table II)

Table 2: Awareness Workplan

Activity	2001												2002												(2003 next page)			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D				
<b>1. Washirika programme</b>																												
1a Initiate programme	MB	MT	T	J																								
1b Extend to neighbouring resource users		MB	MT	T	J						MB	MT	T	J														
1c Monitor and reinvigorate programme						MB	MT	T	J						X		X		X		X		X					
1d Extend programme to adjacent villages											X	X	X	X							X	X	X	X				
<b>2. Village-based media</b>																												
2a Drama programme						MB	MT	T	J								MB	MT	T	J								
2b Poster workshops											MB	MT	T	J							MB	MT	T	J				
<b>3. Other Mass Media</b>																												
3a Publish and distribute permit leaflets	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3b Publish and distribute abridged policies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3c Publish and distribute brochure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3d Maintain contacts with mass media	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3e Celebrations/events	X	X				X							X	X				X										
3f Occasional newsletter			X			X					X				X				X					X				
<b>4. Formal Sector Programme</b>																												
4a Teachers' material development workshops	X				X				X				X				X				X							
4b Refine, produce and return materials		X				X				X				X				X				X						
4c Monitor use of materials			X	X			X	X			X	X			X	X			X	X			X	X				
4d Experiential learning programmes		X				X					X						X					X						
4e Proposal for complimentary education	X	X	X																									

KEY: MB = Mbunju-Mvuleni MT = Mtanza-Msona T = Twasalie J = Jaja X = Not location-specific

<b>5. Focused Learning Exercises</b>																											
5a Staff training in PLA and ecology		X				X					X	X	X	X								X	X	X	X		
5b Monitoring and evaluation				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>6. Programmatic Technical Assistance</b>																											
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## Awareness Programme Workplan 2001-03 (Table II), continued...

Activity	2003											
	J	F	M	A	M	J	J	A	S	O	N	D
<b>1. Washirika programme</b>												
1a Initiate programme												
1b Extend to neighbouring resource users												
1c Monitor and reinvigorate programme		X		X		X		X		X		X
1d Extend programme to adjacent villages				X	X	X	X			X	X	X
<b>2. Village-based media</b>												
2a Drama programme	X		X		X		X		X		X	
2b Poster workshops		X		X		X		X		X		X
<b>3. Other Mass Media</b>												
3a Distribute permit leaflets	X		X		X		X		X		X	
3b Distribute abridged policies		X		X		X		X		X		X
3c Distribute brochure	X	X	X	X	X	X	X	X	X	X	X	X
3d Maintain contacts with mass media	X	X	X	X	X	X	X	X	X	X	X	X
3e Celebrations/events	X	X				X						
3f Occasional newsletter			X				X				X	
<b>4. Formal Sector Programme</b>												
4a Teachers' material development workshops	X				X				X			
4b Refine, produce and return materials		X				X				X		
4c Monitor use of materials			X	X			X	X			X	X
4d Experiential learning programmes		X					X					X
4e Proposal for complimentary education												
<b>5. Focused Learning Exercises</b>												
5a Staff training in PLA and ecology												
5b Monitoring and evaluation	X	X	X	X	X	X	X	X	X	X	X	X
<b>6. Programmatic Technical Assistance</b>												
	X	X	X	X	X	X	X	X	X	X	X	X

## 4.6 Awareness Programme Budget 2001-02 (Table III)

Table 3: Awareness Programme Budget

Activity	Budget Details	Total (TShs)			
		2000	2001	2002	2003
<b>1. Washirika Programme**</b>					
1a Initiate programme	District staff x 3 – 10 days per programme x 3 programmes per year		(2m)	(2m)	(2m)
1b Extend to neighbouring resource users	District staff x 3 – 10 days per programme x 3 programmes per year		(2m)	(2m)	(2m)
1c Monitor and reinvigorate programme	Local TA @ 30,000 per day + 3 district staff x 12 days per year		(1.5m)	(1.5m)	(1.5m)
1d Extend programme to adjacent villages	District staff x 3 – 5 days per programme x 3 programmes per year + materials		(1m)	(1m)	(1m)
<b>2. Village-based Media</b>					
2a Drama Programme	District staff x 1 – 10 days per programme x 2 programmes per year		.3m	.3m	.3m
2b Poster workshops	Dependent upon fees for technical assistance + district staff + materials		1.5m	1.5m	1.5m
<b>3. Other Mass Media</b>					
3a Publish and distribute permit leaflets	3 types - runs of 100 printed on demand at Utete	.5m	.5m	.5m	.5m
3b Publish and distribute abridged policies	Approx. 5 x 4 page A5 booklets (one colour) with cardboard two-colour cover 3,000 copies of each policy. Printed by Agenda – reprinted on demand in 2002	1m	3m	3m	3m
3c Publish and distribute brochure	4,000 colour brochures (A4 folded twice) design and print \$2,000	2m		2m	2m
3d Maintain contacts with mass media	Retain local TA + annual visit by approx. 8 journalists	1.5m	1.5m	1.5m	1.5m
3e Celebrations/events	30 days local TA @ 40,000 per day + performers, materials, hospitality, etc.		4m	4m	4m
3f Occasional newsletter	District staff x 3, 5 days x 3 editions per year + printing by Agenda 3,000 copies		1m	1m	1m
<b>4. Formal Sector Programme</b>					
4a Teachers material development workshops	20 teachers (max.) + paper/pens + co-ordination/facilitation by district staff x 2 = .6m approx. per 2 day workshop x 3 per year		1.8m	1.8m	1.8m
4b Refine, produce and return materials	Institute 5 days @ 20,000 = 100,000 per programme x 3 programmes per year.	.1m	.3m	.3m	.3m
4c Monitor use of materials	District staff x 1 – 5 days per programme x 3 programmes per year	.1m	.3m	.3m	.3m
4d Experiential learning programmes	Dependent upon fees for technical assistance	?	?	?	?
4e Proposal for complimentary education	REMP plus district staff time (not part of existing budget)	-	-	-	-
<b>5. Focused Learning Exercises</b>					
5a Staff training in PLA and ecology	Dependent upon fees for technical assistance (training budget)	-	-	-	-
5b Monitoring and evaluation	Local TA @ 30,000 per day x 10 + District staff		1m	1m	1m
<b>6. Programmatic Technical Assistance</b>			(50m*)	(50m*)	(50m*)
<b>Formal Sector Programme Total:</b>		5.2m	21.7m	23.7m	23.7m

\*\* Suggest future Washirika programme funded from 2000 budget underspend \* TShs 50m not covered by this awareness budget

#### **4.7 A Note on the Flood Early Warning System**

It was noted that radio calls could be used for early flood warning where hospitals exist. However these are widely spaced across Rufiji District.

Drums are used traditionally for communicating many different messages across and between communities. The revival of drumming for such a life-saving function may well be taken up enthusiastically by local communities. This is a simple idea which can be transmitted through the existing top-down channels using the village leadership.

Given a high level of agreement, the system would need to be tested through a District wide practice run. State radio should also be used to inform people of the system and may even broadcast the drumming pattern so that as many people as possible are aware of the experiment. State radio should also be called upon to alert communities of real floods as a support to the local system.

## 5 Concluding Comment

This awareness programme has been designed through the development and piloting of ideas alongside District staff and local communities. The consultants recognise that the outputs are not identical to those envisaged in the original contract, such is the nature of contextualised programmes.

Instead of target groups we have identified learners in all directions, instead of messages we have identified themes for discussion. Materials have been designed although production has been a far lengthier process than that envisaged in the terms of reference. This is because the materials development process has been seen as an opportunity for learning and capacity building among District staff and teachers.

As far as possible this consultancy has been carried out in a way which illustrates the principles which underpin the resulting programme. In this way it is hoped that members of staff who implement the programme will be able to reflect upon these methods and go some way in adopting them in their interactions with communities.

It is the conviction of the Living Earth consultancy team that the environment does not have a problem – the Rufiji River will continue to flow into the Indian Ocean long after present generations are forgotten. It is people who have a problem. Local communities watch their livelihoods disappear as their resources are exploited for external markets while the international community fears the loss of Rufiji's irreplaceable biodiversity.

The problems are human and so are the solutions. The problems are shared but not fully understood by all those concerned – the same must be said of the solutions. The long-term survival of Rufiji lies in the human processes of conflict resolution and human capacity building so that local people can manage their resources in a changing world. We hope this programme will prove to be a valuable contribution to these processes.

## 6 Appendices

### Appendix 1: Terms of Reference (abridged)

**The full Terms of Reference appear under Appendix I of the Input One Report**

#### Objectives of the consultancy

The proposed consultancy has five major objectives;

- To clarify the goal, outputs, target groups and verifiable indicators of the awareness programme.
- To design an environment awareness programme for the project incorporating a suitable theme and action plan for the next three years.
- To prepare materials.
- To train some programme implementors.
- To run at least one environment awareness workshop.

#### Tasks of the consultancy

The detailed activities envisaged for the achievement of the five main objectives of this consultancy are outlined below.

- Facilitate the district environment Management Team to clarify the aim of the environment awareness programme and to produce one clear goal, with expected outputs, a description of target groups at village, ward, district and national levels and verifiable indicators.
- Identify a suitable environmental awareness theme.
- Design a three year action programme
- Prepare the materials required for the first six months of the programme.
- Train at least twenty of the implementors as identified in the plan
- In collaboration with representatives from the National Environment Management Council and the Regional authorities, run at least one environmental awareness workshop for at least 40 participants from the project area.

#### Outputs

- A clearly defined goal, target group/s and verifiable indicators for the awareness programme.
- A suitable theme for the programme.
- An action plan for the programme.
- Materials for the first six-month period of the awareness programme.
- At least 20 trained implementors capable of implementing at least the first six months of the programme.
- At least 40 Rufiji people's environmental awareness raised, and increased interest aroused at district, regional and national levels.

#### Reporting

Three reports will be prepared corresponding with the three outputs mentioned in 5.0 above. Drafts of all reports will be prepared in English and submitted in MSWord floppy disk and hard copy, as per the reporting schedule below. The final report, including a Swahili summary, will be submitted on or before 11 December 2000. Data should be presented on floppy disk using MS Access and Ms. Excel programmes.

#### Time Schedule

The work should be carried over a three-month period, supplying 110 consultancy days.

- **Input One** (16-30 Sept - 56 days)

One week with Stephen Okuta, Charity Kamau, Keith Budden and Paul Vare followed by one week without Keith Budden (*NB Keith Budden's input was moved to Input Two*)

Input to include meeting with management of REMP, institutional visits, tour of project activity,

stakeholder workshop, field analysis, initial staff /implementor identification and training.

- **Input Two** (30 October - 19 November - 49 days)

Three weeks with Stephen Okuta and Charity Kamau - joined in the last week by Paul Vare.

Input to include participatory analysis, skills training, detailed planning of education component, preparation of report and summary in Kiswahili.

- **Input Three** (27 November - 8 December - 5 days)

To include final edit of report and preparation of implementors manual by Paul Vare.

### **Appendix 2: List of Accompanying Documents**

For purposes of accessibility, this report does not carry bulky appendices. Supporting documents have been sent as separate items although they all form an integral part of the Final Report.

The following documents have been submitted separately:

- Guidelines for Implementation of the Awareness Programme
- District Staff PLA Workshop Notes
- Drama workshop notes
- Leaflet Development Workshop Notes
- Abridges Policy Development Workshop Notes
- Local Leaders workshop Notes
- Teachers' Materials Development Workshop Notes
- Notes on Piloting the Washirika Programme in Mbambe Hamlet
- Notes on Wrap-up Meeting
- Draft Washirika Manual
- Notes on the Elgon Forest Exploration Centre Experiential Learning Programme

The following materials have also been submitted in draft form:

- Draft text for EMT brochure
- Leaflet to accompany hunting permit (English)
- Leaflet to accompany fishing permit (English)
- Leaflet to accompany fishing permit (Kiswahili)
- Leaflet to accompany timber permit (English)
- Abridged versions of all NR-related policies (Kiswahili)
- Outcome of teachers' workshop
- Outcome of teachers' workshop

Appendix 3: Itinerary

<b>Input One</b>	<b>Input two</b>
<b>Sunday 17 September</b> Travel to Utete	<b>Monday 30<sup>th</sup> October 2000</b> Travelling from Kampala to Dar (CK, SO, KB)
<b>Monday 18 September</b> Meetings in Utete	<b>Tuesday 31<sup>st</sup> October 2000</b> Travelling from Dar to Utete
<b>Tuesday 19 September</b> Meetings in Utete	Meeting with Rufiji District and REMP staff (CK, SO, KB)
<b>Wednesday 20 September</b> Travel to Mtanza-Msona	<b>Wednesday 1<sup>st</sup> November 2000</b> Facilitating a District Staff workshop on Participatory Learning (CK, SO, KB)
<b>Thursday 21 September</b> Travel to Utete	<b>Thursday 2<sup>nd</sup> November 2000</b> Piloting development of village neighbours programme at Mbambe hamlet (CK, KB) Development of abridged fisheries policy document (SO)
<b>Friday 22 September</b> Writing up data	<b>Friday 3<sup>rd</sup> November 2000</b> Piloting development of village neighbours programme at Mbambe hamlet (CK, KB)
<b>Saturday 23 September</b> Travel to Twasalie	Development of abridged wildlife and forestry policy documents. EMT Meeting (SO)
<b>Sunday 24 September</b> In Twasalie	<b>Saturday 4<sup>th</sup> November 2000</b> Facilitating a training workshop for the drama groups from four villages. (CK, KB) Development of abridged agriculture and beekeeping policy documents (SO)
<b>Monday 25 September</b> Return from Twasalie	<b>Sunday 5<sup>th</sup> November 2000</b> Piloting EE & awareness through drama by facilitating the participants to prepare and present a drama in Utete. (CK, KB)
<b>Tuesday 26 September</b> Writing up notes	Development of abridged environment and health policy documents (SO)
<b>Wednesday 27 September</b> Workshop	<b>Monday 6<sup>th</sup> November 2000</b> Meeting with REMP project officer (CK, KB) Writing up and prepared a draft neighbours guide (CK, KB)
Travel to DSM	Workshop for district education staff (SO)
<b>Thursday 28 September</b> Meetings in Dar es Salaam	<b>Tuesday 7<sup>th</sup> November 2000</b> Facilitating a training workshop for village neighbours at Mbunju (CK, KB)
<b>Friday 29 September</b> Meetings in Dar es Salaam	Workshop for district education staff, WECs, WEOs, headteachers and teachers (SO)
<b>Saturday 30 September</b> Writing up notes	<b>Wednesday 8<sup>th</sup> November 2000</b> Meeting with REMP CTA & Project officer (CK, KB) Translating, compiling & typing of notes (CK)
<b>Sunday 1 October</b> Arrive home	Workshop for district education staff, WECs, WEOs, headteachers and teachers (SO) Leave (KB)
<b>Thursday 5 October</b> Preparation of report	<b>Thursday 9<sup>th</sup> November 2000</b> Development of fisheries and wildlife leaflets (CK, SO)
<b>Friday 6 October</b> Preparation of report	<b>Friday 10<sup>th</sup> November 2000</b> Development of forestry leaflet (CK, SO)
<b>Monday 9 October</b> Preparation of report	<b>Saturday 11<sup>th</sup> November 2000</b> Translation, write up and compilation of information (CK, SO)
<b>Tuesday 10 October</b> Preparation of report	<b>Sunday 12<sup>th</sup> November 2000</b> Meeting with Masoud to organise for the leaders workshop (CK, SO) Write up and compilation of information (CK, SO)

**Input two cont.**

**Monday 13<sup>th</sup> November 2000**

Translation, write up and compilation of information (CK, SO)

Preparations for Local Leaders workshop (CK, SO)

Travel to Tanzania (PV)

**Tuesday 14<sup>th</sup> November 2000**

Facilitating the Local Leaders Workshop (CK, SO)

Travel to Utete (PV)

**Wednesday 15<sup>th</sup> November 2000**

Evaluating the Washirika programme at Mbambe hamlet (CK, PV)

Review, editing and translation of leaflets (SO)

**Thursday 16<sup>th</sup> November 2000**

Write up, compilation and team discussions (SO, CK, PV)

Pilot poster workshop (PV)

**Friday 17<sup>th</sup> November 2000**

Meeting with REMP (SO, CK, PV)

Meeting with district staff (SO, CK, PV)

**Saturday 18<sup>th</sup> November 2000**

Travelling from Utete to Dar (SO, CK, PV)

Discussing the awareness programme and work plan (SO, CK, PV)

**Sunday 19<sup>th</sup> November 2000**

Travel from Dar to Kampala (SO, CK)

Travel from Dar to UK (PV)

**20 November - 11 December 2000**

Team writing up notes and preparation of report and guidelines document.

## Appendix 4: Participatory Learning Workshop for District Staff

(Wednesday 1<sup>st</sup> November 2000)

### 1. Objectives of the Workshop

- To understand why participation is important for learning to take place
- To consider the importance of Gender issues in Natural Resource Management
- To outline the process of developing environmental learning from neighbours

### 2. Participants' Expectations

- To get enough knowledge on mazingira
- To understand why mazingira is getting more emphasis than other areas (things)?
- To know the objectives of the project
- To know who are involved in the project
- To know how to conserve the environment
- To learn different ideas of how to educate the community on environment especially women
- To get more knowledge on how to conduct environmental awareness to the community
- I do expect to have good means of PRA
- To know the environmental activities in the district
- To learn how to impact environmental awareness to the community
- To acquire more knowledge about environmental awareness and experience sharing with my fellow members of this workshop
- To learn and understand ideas on awareness in order to educate others
- To learn participatory learning skills
- To learn about the values of natural resources
- To promote awareness to people in the villages through learning especially in the pilot villages
- To know each other from different departments
- To promote acquisition of knowledge through participatory learning approaches
- To learn about the integration of other departments in environmental activities e.g. Health concerns in environmental issues
- To promote my capacity on Environmental awareness
- To share experiences from different sectors regarding awareness
- To know why we were invited
- To get knowledge on participation

### 3. Benefits of Attending the Workshop

(Who benefits from your attendance of this workshop?)

1. People will understand the meaning of environmental conservation in their life time (Participants and others)
2. To get new ideas which might be of help to me and others (Participants, facilitators and others)
3. Hoping to know the meaning of the word mazingira (Participants)
4. Getting to know each other (Participants, facilitators)
5. To share experiences of environmental conservation (Participants, facilitators)
6. What the seminar is all about (Participants)

### 4. Types of Participation (Lecture, role play and discussions)

This involved a role-play of the four types of participation namely, passive, consultative, interactive and self-mobilisation. These role-plays by workshop participants followed a lecture exposition by

the facilitators. Each group was given instructions to prepare and stage a role-play and keep the type of participation they were depicting secret. Other participants were then required to identify the type of participation and explain why they thought so. This was necessary in order to assess participants understanding of the different characteristics of the types of participation. The exercise was concluded with a discussion that highlighted the fact that all the four types of participation are useful in different circumstances and it was important to acknowledge the usefulness of each. However, it became apparent during the discussions that they may not ideally apply independently but need to be used concurrently as the situation warrants. It was further recognised that self-motivation participation is the most desirable type as it empowers the people to make decisions to act upon their given concerns.

### **5. Learning, Teaching and Education**

Participants were split into four groups and asked to discuss and then draw what they understood by the terms teaching, education and learning.

-Through: T.V, posters, Radio, Books, Newspapers, Leaflets, From Environmental experiences, posters, Billboards.

-By doing

-From other people especially parents, peer groups, neighbours, friends, professionals (experts)

-Through life experience

-From religious leaders

-From political leaders

-Through tours

### **6. Gender in Natural Resource Management**

What is gender?

Participants were required to write what they understand by the term Gender using cards.

#### **Participants' responses:**

1. Being male or female
2. Female + Male + children + olds = Gender
3. The difference of being either a woman or man
4. A way of describing a woman
5. A body physique that differentiate a man or woman
6. Issues of rights and roles in the community
7. Relationship between a man & woman
8. Father or mother
9. Human being regardless of age
10. Equality between men and woman
11. Relation of man and woman in their daily life's
12. Biological make up of a person whether male or female
13. Interrelationship between a man and woman in their creation and participation in their development activities
14. Different types of sex-male and female
15. Age differences
16. Race differences
17. Nationality tribe and religion and character

From these responses it was clear that people had different perceptions of what gender is.

### Open discussion

Definition of gender: The social roles assigned to men and women by society

Examples from participants:

Men

Fishing

Hunting

Logging

Women

Cooking

Child rearing

Fetching water

Collecting firewood

These were recognised to be different from sex roles, which are:

The biological roles assigned to male and female by nature. Examples from participants:

Men

Fathering

Women

Child bearing

Breastfeeding

### Conclusions:

1. Gender roles are only for human beings; sex roles are for all living things.
2. Social roles can change biological roles cannot change.

### Importance of gender in Natural resource management

1. To ensure that all persons in the community (men, women, boys and girls) are consulted and involved.
2. With each role is a responsibility and each responsibility comes an action.
3. To understand and respect that each has roles assigned to them and that these roles are not static as demonstrated by male nurses, male chefs, women leaders, working mothers, etc.
4. Most roles assigned to women directly impact on the environment because it involves exploiting the natural resources e.g. food production, cooking, fetching water and firewood; hence women should be involved in decision making in the management of natural resources.

### 7. Use of PLA Techniques to Generate Information

#### Trust Mapping Group Work by One of the Two Groups

This involved drawing a Map of Utete indicating locations of important places and natural resources, participants' Trusted Neighbours and places where they learn.

1. Participants started by indicating on the map where the "Boma" is
2. They then drew the main roads of Utete; Muhoro, Ferry, Sokoni and Ngarambe roads
3. Social hall, Primary schools, the district hospital, church and mosque were also indicated
4. The natural features that form the boundaries of Utete were indicated, i.e. River Rufiji and Lake Lugongwe

Participants indicated areas where they live, places they like visiting to get information, guidance, etc. The mapping exercise brought out two general sources of information:

- Men mostly get information from the mosque, church and bars. Others get information from people with different technical skills like agriculture, livestock keeping, politics, health and social affairs in general.
- Women mostly learn from their gardens, woodlands where they fetch firewood, the mosque, church and hospital. They mostly learn about childcare, nutrition and obtain spiritual guidance.

The learning sources of men and women showed clear demarcations that originate from the differing social roles that society has bestowed upon them along gender lines. Another outcome of the mapping exercise was that people learn from those they trust and these are not necessarily their immediate neighbours.

**LIST OF PARTICIPANTS**

<b>Name</b>	<b>Designation/Department</b>
Masoud A.	DYDO/Education
Kilindo H	Health
Mwanuke V	Health
Kilwa B	FO/Natural Resources
Sagara M	FO/Natural Resources
Eniyoye J	DGO/Natural Resources
Nindai O	Natural Resources
Chande S	DNRO/Natural Resources
Kipengere Y	Planning
Mwambeso P	VEO/Agriculture
Mwakalinga A	DSMS
Kilimba B	Agriculture
Bainga B	Agriculture
Ndumbogani S	DCUO/Education
Musumeno M	Education
Mwapinga J	SLOA
Kombe P	SLOA
Mwinge T (Dr)	MO/Health
Mpilli B	Health
Mukikima A	Health
Ndasi F	CUO/Education
Mwinchande K	Education
Nandi R	Agriculture
Mmbaga N	CDO/Community Development

**Appendix 5: Notes on Drama Workshop**  
**(Held on 4 & 5.11.00 at Utete Community Hall)**

**List of participants**

<b>Name</b>	<b>village</b>
Chuki Mtambo	Mtanza
Bimushi Mgonza	Mtanza
Mohammed Mtoteke	Mtanza
Hasara Mangita	Mtanza
Said Mirandu	Mtanza
Ali Makutika	Jaja
Hamida Matibwa	Jaja
Awawi Mziwanda	Jaja
Hadija Yeleu	Jaja
Saidi Rumbonea	Jaja
Moza M. Dodo	Mbunju
Tatu S. Jicho	Mbunju
Bakari Kitambulio	Mbunju
Maisaisa Mbonde	Mbunju
Omari Ndanga	Mbunju
Yonas Cosmas	Mbunju
Salum S. Bora	Utete
Mwanaisha Maina	Utete
Hamisi F. Hamisi	Utete
Moza Kindeka	Utete
Maulidi Muku	Utete

**Day 1 Process**

1. Introductions: Using pairwork—for each pair to introduce themselves to each other, whether they have any idea or experience in drama and thereafter introduce their partners to all the participants.
2. Fruit salad game – To liven the participants and form groups.
3. Facilitator lecture--- What is drama, its principles and stage craft.
4. Participatory learning through PLA techniques --- Timeline to analyse issues/events that have happened overtime. One listener and recorder selected. The facilitators encourage discussions by asking questions like why?, What was it like?, Why do you think it happened or is happening?, are there any positive or negative changes overtime?
5. Establishing a storyline for drama using a mapping exercise of natural resources of each village (groups from each village)
6. Role-plays using playlets--- each village using the established storyline develop a playlet and present it.

**Groups' feedback**

**Timeline exercise of Rufiji**

Issues:-- ( from group 1 -an example)

- 1999-now --- There was limited rain and a flood, the harvest was less compared to other year. This is due to changes in climatic conditions. Fish at that time were many and big in size because during the rainy season vegetation around the lakes closed down the lakes naturally hence limited fishing.
- 1998--- Major floods due to El-Nino rains. It caused damage to life and properties, transport was difficult it took one 10 days to reach where one used to reach within 1 day. The major difference with these floods is that it started in December unlike other years when it starts in April. The floods brought a lot of crocodiles to R. Rufiji, fish and silt from upstream.
- 1997—Drought, which made animals run away from the forests and came to the villages. Lions

and leopards ate some people from the villages.

- 1995--- The harvest was abundant due to enough rain and silt from the floods. The fish was also a lot and big.
- 1992-93—An outbreak of cholera in the district due to an abundant season of mangoes, which brought in a lot of flies and dirt.
- 1954 – Drought and hunger known as ‘Yange’. After District Commissioner Young who distributed food to the starving.
- 1962—Major floods. The government had to rescue people using a helicopter and also provided aid food.
- 1968 – Government shifted people from the flood plain to Ujamaa villages.

#### **CHANGES OVERTIME**

- The fish catch has gone down drastically compared to previous years due to trawling in the ocean, using wrong fishing nets, over fishing and the drought.
- Depletion of forest and some wood species due to logging and unmanaged use of resources. Logging has been encouraged by use of power saws.
- Cholera incidences have reduced due to awareness and sensitisation from the health department on preventive measures.
- Loss of life and properties due to floods has reduced due to shifting from the plains.
- Soil fertility has reduced due to reduced floods, deforestation causing soil erosion and reduced rains.
- Reduced harvests due loss of soil fertility and limited workforce as the young generation don’t want to farm and are engaged with other activities.

Possible storylines:

1. Effects of flooding
2. Environmental degradation due to deforestation, bush burning and improper fishing methods.
3. Conservation of environment
4. Ways of preventing a cholera outbreak.
5. Effects of poor soils on farming.

#### **What is drama?**

It is an art of role assumption performed by a human being through actions in front of the audience. It is performed for the purpose of education or leisure to the audience or actors as well.

Components.

- i) Must carry special or specific concept.
- ii) Performer or role assumption must be capable of acting.
- iii) A place should be available for the performance.
- iv) The performance or drama should be presented in front of the targeted or intended people for specific aim.

Principles of drama

- i) Preparation: a drama should be well prepared and structured showing clearly three main parts; Beginning, Middle and end or finishing.
- ii) Actions: a drama is not a speech; it should be acted indicating clear actions.
- iii) Feelings: the series of actions should be comprehensive to the audience to cause attitudinal change.
- iv) Monotony: actions in a drama should not be repeated too much to cause boredom.
- v) Culture acceptance: a drama should adhere to the people’s culture in order to be accepted by the audience. It should be relevant to the people’s needs and traditional beliefs.

- vi) Theme: should be clear to the audience.
- vii) Language: Actors should speak loudly and clearly using a language that the audience can understand in order to communicate effectively. The language should also coincide with their role or position.

#### Techniques of a drama

- a) Selection of actors/characters: could be identified through body make up, social appearance or psychological state.
- b) Memory: an actor must understand clearly the whole drama, his/her position and remember the roles through practising and reading between the lines of the play.
- c) Dramatising: Important tools are voice and body.

#### Stage Craft

This is the relationship between the design of a drama and the drama itself therefore the stage should be set accordingly.

- i) Good arrangement of the materials to be used.
- ii) Actors must face the audience while dramatising
- iii) Costumes and clothing should be relevant to the theme of the drama and the role of the actor.
- iv) Message should be loud and clear.
- v) Contents, series and steps in every scene must lead the audience to the theme.
- vi) Each action should be at a time without confusion.
- vii) Fictitious names should be used.
- viii) There should be discipline on the stage.

Storylines for play lets:--

JAJA—Poor fishing methods and their effects to livelihood.

UTETE—Corruption causing deforestation and unsustainable use of forest resources.

MTANZA—Problems of crocodiles in the R. Rufiji.

MBUNJU -- Dangers of lack of proper knowledge on traditional herbs and lack of a dispensary.

#### DAY 2

##### PROCESS

1. Buzz groups ( 3 persons per group) to discuss what they understand by the term Environment; and natural resources.
2. Feedback from groups outlining the meaning and the list of natural resources; facilitator input.
3. Open discussion on what they use natural resources for and or how they benefit the communities.
4. Discussion on changes overtime, associated problems, how it was before and now and if any changes; why?
5. Open interview with the Utete group. Questions on the natural resources available in Utete, associated environmental problems, causes, effects and possible solution.
6. Prioritising the major environmental issue in Utete, which could be used to develop a storyline for drama.
7. Group work to develop a storyline and present/perform.
8. Developing a drama using the acted scenes. Rehearse; and discuss the 3 main stages of the drama.

Feedback from groups

What is environment?

- A mixture of land, forest, rivers, lakes and houses.
- All that surrounds where human beings live

- Things that are around human beings like animals, forests lakes etc.
- Special areas reserved by the Government to preserve; lakes, forests, animals and trees.
- To take care of environment, to preserve land, animals, sea and to safeguard them.
- Areas where living things stay for different activities.

Natural Resources are:

- Land
- Animals forest
- Sea
- Rivers
- Lakes
- Fish
- Diamonds

Values/ Uses of N.R

Land

- Farming
- Living
- Forests
- Conserving rainwater (soil)
- Burial place
- Soil or clay for constructing houses
- Construction of roads

Forests

- Attracts rain
- Breaks strong wind
- Timber
- Supports animals
- Prevents soil erosion
- Poles and wood for house construction
- Firewood & charcoal
- Attracts tourists
- Traditional herbs
- Palm leaves for weaving and house making
- Fruits and vegetables

Lakes, ocean and rivers

- Transport
- Fish
- Attract rain
- Water for household uses
- Floods bring silt to the shambas
- From the sea; salt
- Supports animals like crocodiles and hippos

- Fish
- 1 Food
  - 2 Business
  - 3 Provides proteins for body building

#### Animals

- Attracts tourists
- Food (meat)
- Business for hunters
- Manure from their waste
- Milk
- Skin for making drums and traditional attires

### Discussion on changes on Utete's natural resources overtime

#### Forests

The only forest around Utete is Mbagala. From it they get firewood. But the forest is depleted and plans are underway to close it from various activities like timber and wood harvesting.

Changes:

- Firewood we get it from far. To reduce the problem we are using charcoal more.
- There are price changes of charcoal from Tsh 300/= in 1994 a sack to 1500/= now.
- We also get herbs, mushrooms, and wood for house construction, palm leaves but now they are limited due to high demand.
- When the timber company started more wood was cut. They never planted any trees. We don't know why they closed down. We used to buy off cuts for firewood
- One pole of construction used to cost 50/= but now it is 500/=
- One bunch of palm leaves used to cost 50/= but now it is 500/=; in other areas it costs 200/=.

Reason for depletion of the forests

- Cutting of trees without proper management.
- Timber factory that was in Utete.
- Lack of jobs and increase in population.
- Burning of bushes.
- Business of charcoal, timber and wood.

#### Fish

- The lakes we have are Uba, Chemchem, Weme and Lugongwe
- We use nets and hooks for fishing.
- The catch has gone due to the drought, and lack of alternatives jobs, poor fishing methods and lack of proper management of the lakes.
- The only solution is to refuse the fishermen do it without proper management

#### Animals

In Utete we don't have a reserve but we border Selous game reserve.

There are animals like wild pigs, monkeys, hippos, warthog, lions, and elephant's etc.

- Accidents of crocodile and hippos happen often in the lakes. The floods brought more crocodiles but before there were hunters who would hunt and get the skin for sale.
- Drought also makes animals come near where people live.
- There are vermin that destroy our crops like wild pigs, baboons and monkeys.

## Land

In Utete there are no shambas people farm across the river.

- The harvests are less compared to some years back. This is due to the drought and reduced soil fertility caused by lots of sand being deposited in the shambas overtime.
- The wild animals destroy crops.
- Degradation of soils due to overuse.
- Around Utete the major farming activity is vegetable growing along the river valley.

Prioritised storyline for Utete

## Destruction of forests around Utete

### SCENES

There were three main scenes:

- i) The way it was before in Utete- how people used to benefit from the forests ( see benefits above).
- ii) How it is now—Depleted forest due to various activities and how it has impacted on peoples lives (changes overtime, causes and effects).
- iii) Community realisation of the effects and a discussion of how they could solve the problem.

NB: The drama was presented to the Utete community at the social hall.

## EVALUATION OF THE DRAMA WORKSHOP BY THE PARTICIPANTS

- We are happy for the good reception by the trainers.
- We were not happy about coming and being sent to the guest house without food and breakfast.
- Training time should be added. The drama preparation required more time.
- I'm happy to have learnt about environmental conservation.
- We are requesting that the plans and procedures of payment of allowances be made clear why some people get more than the others.
- We are happy about the training.
- We are happy about the drama we have shown; it is a good lesson.
- I will tell the others in our village about the importance of environment from what I have learnt.

## RECOMMENDATIONS/ACTION POINTS

- Implement participatory drama based on natural resources issues in all pilot villages by running participatory drama development and training in stagecraft workshops over 3 days in each village.
- Implementation and follow up could be done by the education and culture department (Mr Ndasi who has technical knowledge and has been part of participatory learning; and or a resource person with technical skills on drama development using participatory methods)
- Establish such drama groups in all villages in the project area.
- Organise competitions between pilot villages.
- Video record all plays which could be used in video shows places.
- Fish for home consumption and for income generation.
- Income generation from selling of crocodile skin.

Changes overtime:- Previously there were very many fish and were big in size. But nowadays there are less fish and are very small in size due to use of improper fishing methods, limited alternatives of income generation and drought.

### Appendix 6: Leaflet Development Workshop (9/11/00)

In a meeting with some members of the wildlife and fisheries departments, we took a careful look at the licensing procedure for the various types of licenses issued by the district. These included:

#### **Fisheries Department**

Vessel permits (for vessels of length 1 - 11 metres only, – permits for bigger vessels are issued at headquarters)

Vessel licenses (as above)

Fishing permit

Fish trading permit

#### **Wildlife Department**

Local hunting Licenses

All other wildlife licenses and permits are issued at headquarters. These include: trophy dealers license, tourist-hunting licenses, capture permits and commercial game photography permit/license.

The existing procedures for obtaining licenses and permits from these two departments in the district involve elaborate application procedures that make sure that the applicants are made aware of the existing procedures, regulations and laws regarding the particular activity he wishes to undertake as well as the associated penalties in case of breach of these laws and regulations. In this respect, therefore, resource users who obtain permits ought to be aware at least about what the law says in the book. They may therefore not gain any new knowledge from a leaflet that repeats these regulations and laws to them.

However, their willingness to follow the regulations and laws are very much dependant on the chances of being caught and this seems to be slim in some cases because of the limited number of district personnel to police the district, let alone ensure the correctness of information provided by the applicant. The ability of the district to enforce the laws more effectively is therefore an area that should be looked into. The concept of community-based conservation may provide support to existing district efforts to enforce resource exploitation regulations and any such relationships should be developed with this purpose at the forefront.

Nevertheless, there is still need to raise awareness among this group of stakeholders about more general issues regarding the resources they exploit. Brief leaflets giving general information about the resources nationally and in the district, their benefits, challenges of their conservation, the stakeholders and suggested ways of ensuring their conservation were therefore developed together with the district staff. Swahili and English versions of the leaflets were therefore developed and should be made available to all licensees.

The same was done with the staff of forest department. However, unlike the other two, the forest department does not have an approved application procedure. This problem is however being addressed and a draft license application form is being tested though in a very limited manner if at all due to personnel and logistical inadequacies. As with the other two departments, should the licensing process be ironed out and approved, community-based conservation initiatives remains one of the most practicable ways of enforcing the regulations and laws of this sector.

Two action points can be drawn out from this exercise:

- There is need to facilitate the finalisation of the “forest license application” procedure
- The natural resources department should be further facilitated to establish community-based conservation programs in the pilot villages to begin with and through these, promote community policing of resource exploitation

<b>Participants</b>	<b>Department</b>
Sagara	Fisheries
Msuguri Juma	Fisheries
Eniyoye J.	Wildlife
Kilapilo,E	Wildlife

**Appendix 7: Notes on Local Leaders Workshop  
(14<sup>th</sup> November 2000)**

**Participants**

<b>Name</b>	<b>Designation</b>	<b>Area</b>
Juma Lipwemwike	WEO	Maporoni
Salima Mohamedi	Farmer	Twasalie
Moshi Ali Mlanzi	Chairman	Mbunju
Kassim Mkima	Councillor	Ruwe
Uwesu S. Mbembeni	WEO	Mwaseni
Halfani A. Mazela	Chairman	Mtanza/Msona
Jafar M. Ngaima	Chairman	Jaja
Rajabu Ramazani	Chairman	Twasalie
R. B. Mng'ombe	M/Mpango	Jaja
Mwipi R. U	WEO	Kiongoroni
K. H. Mkwanywe	WEO	Mkongo
Hussein Harry G.	Agriculture	Utete
Nandi Revis H.	LUP	Utete
Ismail Said Lussongo	Chairman	Mtanza/Msona
K. A. Palla	Councilor	Kiongoroni
A. K. Chamtungu	Councilor	Maporoni
S. Y. Msumi	Councilor	Mwaseni
F. Ndasi	DSGO	Utete
S. A. Ndumbogani	DCUO	Utete
A. Masoud	DYDO	Utete
Kinana	FO	Utete

**Introduction**

The workshop drew participants that included village leaders, Ward Executive Officers, Elected Councillors and Chairpersons of Environment Committees from the four pilot villages.

The objectives of the workshop were explained to the participants as:

- To update the participants on the awareness programme and how it had rolled out.
- To discuss the recommendations outlined in the programme
- To discuss and outline the roles of the stakeholders
- To outline the flow of information and identify linkages

**Pair work**

This exercise was used for introduction of participants and livening up.

**Group work**

Participants formed four groups that were categorised according to the areas they were representing. Each group held discussions to answer the following questions:

What is environment?

What are natural resources?

Name the natural resources found in your area?

**Presentations from the groups**

**Twasalie Group**

Environment means things we always see

Natural resources are wealth which is available that was left to us by our ancestors

Natural resources in our area are ocean, land and ponds

### **Mbunju/Mvuleni Group**

Environment means the total of things which surrounds people

Natural resources are all things that are in our environment

### **Mtanza/Msona Group**

Environment means things that surround people

Natural resources in our area are animals, forests, land, water, ponds, ocean, and rivers

### **Jaja Group**

Environment is mixture of living things

Natural resources is a mixture of living and non-living things

Natural resources in our area are:

In ocean – stones, lime, prawns, minerals found in the fish, salt, sea-dermar

On land – mangrove forests, grass, animals, birds, insects, rivers, crops, fruits, water for drinking

## **Plenary discussion of changes in the environment and natural resources**

### **Changes in forests**

- Non-availability of indigenous timber trees due to improper management of forest resources. This is caused by bush burning, lack of awareness, commercial timber harvesting, lack of afforestation, issuing of timber harvest permits without consultation with the concerned villages.

### **Suggested Solutions**

- Strengthen cooperation between village and district governments
- Raising of awareness among all people
- Implement the laws, byelaws and regulations
- Hold consultations between Kisarawe and Rufiji districts on issuing of permits

### **Changes on land**

- Loss of fertility due to increased soil erosion that has resulted from reduced vegetation cover and low silt deposition from river floods due to increased incidences of drought

### **Changes in wildlife**

- Poaching on the increase due to population increase causing increased demand for meat
- Control of wildlife has greatly reduced
- Commercial game hunting that used not to be practiced at all has greatly increased and government is making use of it as a major revenue source

### **Suggested solutions**

- Increase the number of game guards
- Inculcate people with interest in wildlife conservation for its intrinsic value
- Agriculture department should promote livestock rearing in order to reduce stress on wildlife
- Promote alternative income generating activities
- Vermin control should be strengthened

### **Changes in ocean**

- Reduced fish catch due to use of improper fishing methods like explosives
- Trawling activities damage fish breeding grounds have increased due to uncontrolled issuing of permits by government
- Increased soil erosion at the delta caused by uncontrolled cutting of mangroves at the banks has led to expansion of the ocean inland
- Salt deposits have increased and local production is so much that there isn't enough market for

it

#### **Suggested solutions**

- Government should be notified about the problems caused by uncontrolled issuing of permits
- Government should close fishing for a period of approximately three years to allow fish stocks to recover

#### **Changes in lakes**

- Reduces fish catch due to drought and improper fishing methods
- Reduced amount of water due to drought, the construction of the dam upstream and reduced vegetation cover at the lake shores that has increased the rate of evaporation

#### **Suggested solutions**

- Control farming along the lakeshores and bush burning
- Planting of trees along the lake shores
- Village government should control destructive fishing methods
- Power generation authority should ensure continued flow of water downstream

#### **Changes in rivers**

- Water levels in the rivers has reduced due to reduced rains and/or drought
- Fish breeding grounds have been destroyed
- Uncontrolled cutting of trees has reduced vegetation along the riverbanks
- Fish catch has reduced
- Seasonal river fluctuations have been greatly modified by the construction of the dam upstream and drought. This has affected the crop yields and fish catch

#### **Suggested solutions**

- Control farming along the riverbanks and bush burning
- Planting of trees along the riverbanks
- Village government should control destructive fishing methods
- Power generation authority should ensure continued flow of water downstream

#### **Update on MUMARU**

Mr. Nandi, of the department of Agriculture updated the participants on the REMP activities through a discussion that addressed

- What MUMARU is?
- Its objectives and activities
- Organisational structure
- Institutional set up at the village level

#### **Why the awareness consultancy?**

#### **Update on Awareness Consultancy work**

Stephen updated the participants on all the activities that had so far been carried out by the consultancy team. This involved highlighting why each of those activities was carried out and their outcomes.

#### **Discussion of proposed recommendations**

All the recommendations that had been suggested in the draft report were discussed.

Input from the participants:

- ❖ Project activities including awareness that are to be carried out in the pilot villages should be extended to all those other villages or areas that share certain resources with those pilot villages for easier management and monitoring by the local authorities

- ❖ The unique biodiversity of Rufiji should be emphasised in the awareness program locally, nationally and internationally as this would attract more tourism and therefore increased revenue to the district and nation
- ❖ There should be proper interlinkages between all levels of resource users and administrations i.e. communities, local leaders, district departments and leaders and national institutions in order to address trans-boundary natural resource issues like trawling

### **Roles of Stakeholders**

Through a plenary discussion participants identified key stakeholders for REMP activities. These were recorded as:

1. Local Leaders: village leaders, religious leaders, opinion leaders
2. District Leaders: DC, DED, MP and Councillors
3. District technical staff
4. Village Environment Committee
5. Washirika

Participants worked in five groups to discuss the roles of these stakeholders, with each group discussing the roles of one category of stakeholders.

#### **Local Leaders:**

They are the link the district and village

Mobilise and sensitise the communities on development programs

#### **District Leaders:**

To plan for all the development activities in the district

To ensure that all the planned activities are implemented by monitoring and supervising

#### **District technical staff:**

To facilitate communities in development activities by giving technical advice on fishing, education, agriculture and weather conditions

#### **Village Environment Committee (Ten members):**

To educate the communities on environment and natural resource utilisation

To obtain information on local environment and natural resource utilisation and degradation, and to forward that information to the district and REMP

#### **Washirika:**

To disseminate information to community members

To get involved in all activities through action

To be good examples or role models

To give feedback from communities to the Environment Committee and vice versa

To act as the link between the communities and REMP

To promote learning within themselves

#### **Other views**

- Ward leaders should be engaged in resolving natural resource use conflicts between different villages
- Ward leaders should be involved in creating awareness beyond the pilot villages
- Councillors should forward big issues to the district council
- MP should forward big issues to the national level e.g. the environmental degradation at the delta caused by dumping of rejected aquatic creatures by trawlers

## Appendix 8: Abridged Policies Development Process

(Wednesday 2nd – Saturday 5th November 2000)

This process that was initially scheduled to last three days spilled over to a fourth day. Over this period, abridged versions of the policies for the following sectors/sub sectors were developed:

1. Fisheries
2. Wildlife
3. Agriculture
4. Environment
5. Forestry
6. Beekeeping
7. Health

A total of eight staff from the departments of Natural Resources and Agriculture participated in the exercise and the process generated animated discussions among the participants as they sought consensus over each and every strategy, statement or direction stipulated in the various policies.

The discussions revolved around the following considerations:

- Is the strategy, statement or directive relevant to the local communities of Rufiji;
- Does it stipulate any right, obligation, responsibility or role for the local communities;
- Is it relevant to the environment and natural resource endowment of Rufiji;
- Is it relevant to the socio-economic environment of Rufiji;
- Does it convey any “new message” to the local communities of Rufiji; and
- If the message in it gets to be understood well by the local communities, might it provoke appropriate action among them or further inquiries from them to their local leaders and district technical departments.

One or more of the above points could render the various strategies, statements and directives of the policies a useful inclusion in the abridged versions that were being developed. The participating staff also endeared the principle of listening to the concerns or what were deemed to be important points of view of members from the respective department responsible for the implementation of each policy in the district. This is not to say that their views were always taken but if they were not, members made sure that it was for good reason and such reasons were given and discussed amicably until a consensus was made.

As a learning process, this exercise enabled the participating district staff to:

- Know their policies (some admitted having no prior knowledge of some contents)
- Recognise the interlinkages between the different policies (and hence the need for interdisciplinary approach in the implementation of REMP’s activities)
- Deepen their understanding of their roles and responsibilities as district technical staff in the implementation of the policies (and by extension in supporting the implementation of REMP’s activities)
- Recognise the potential of the various policies as awareness tools and materials among the different stakeholders of REMP
- Appreciate the need for abridged versions of the policies especially for local communities of Rufiji
- Associate the implementation of REMP’s activities with the furtherance of the implementation of the various policies in Rufiji District

We are however aware of the fact that some policies like the forest policy do not have accompanying legislation to enable its effective implementation (Olivier. Pers comm.). The abridged version may

therefore raise expectations about what may not be immediately possible and the district as well as REMP staff needs to be aware of this possibility. Furthermore, it is our submission that all staff in the associated departments as well as other local government officials need to be prepared/sensitised further in anticipation of the inquiries that the abridged policies may generate among the local communities. We would want to believe that responding to such inquiries is their natural role for which they are prepared but may lack adequate facilitation/motivation to provide the appropriate response.

The Land Act, another of the documents that needs to be abridged could not be done but the participating district staff agreed to do it at a later date within this Input period. This has not been possible and we would like to suggest that the staff who participated in the development of the other versions should work together with staff of the department of Land to develop a version tailored to local community needs. Copies of all the abridged policies were distributed to members from the departments concerned for their comments and these have already been incorporated.

<b>Participants</b>	<b>Department</b>
Nandi R.X.L	Agriculture
Kilimba B.E	“
Bainga B. I	“
Eniyoye J. J	Natural Resources
Sagara S M	Natural Resources
Nindai S. O	Natural Resources
Chande M. S	Natural Resources
Kinana M.	Natural Resources

## **Appendix 9: Environmental Education Materials Development Workshop (7-8 November 2000)**

### **Day 1**

#### **Introduction**

This session was used to discuss with participants the aim and objectives of the workshop.

The aim was to develop the capacity of district education staff and teachers to facilitate environmental awareness among primary school children.

The objectives included:

- Raising awareness among participants on the scope and content of the environment of Rufiji district
- Enable participants to identify the environmental topics within the primary school syllabi
- Develop sample environmental education materials
- Train participants on participatory techniques

#### **Learning by Association**

This exercise that was performed by two groups formed among the participants was intended to impress upon the participants the importance organization in presenting new materials to learners. It was designed to show that information that is presented in an organized manner improved the efficiency of the learning process. This was achieved through a discussion of the outcome of the individual group discussion and scoring exercises that further enabled participants to appreciate the advantage of concept learning over rote learning. The main aim of this session was to emphasise to the participants the importance of the concept of learning by association and demonstrate that it can be achieved or hampered by different educational materials. Hence the need for appropriate educational materials that enhance learning by association.

#### **Johari's Window Exercise on Environment**

This session hinged on participants' individual responses to the following four areas about the environment of Rufiji:

- Things that one knows and others also know
- Things that one knows but others don't know
- Things that others know but one doesn't know
- Things that no one knows

A plenary discussion of all the responses by each individual enabled the participants to collectively generate an expanded content of what constituted the environment of Rufiji. All responses were discussed and what was agreed by consensus to constitute the environment of Rufiji was recorded to form a body of information (appendix 1) with a much wider scope than what came up from each individual. In this respect the exercise achieved its aim of increasing self-awareness about the environment of Rufiji among the participants. The discussion process also enabled participants to share their ideas and personal feelings and in so doing enrich their perceptions about the different contexts of environment.

### **Teaching and Learning Methods/Materials**

The facilitator coined a simple participatory exercise for this session. The following procedure was followed:

1. Participants sat in a circle
2. Each participant was provided with a sheet of paper
3. Instructions were given for each participant to write down the name of one educational material s/he can think of then pass his script to the person on his right
4. Upon receiving the script from one's neighbour, each participant was required to read whatever is written in it and add the name of one other educational material that does not appear on that script and pass it on as before
5. This was done repeatedly until no more new names of educational materials were forthcoming from most participants

From the contents of all the written scripts were generated lists of educational materials, educational media and educational methods (Appendix 2). The precise differences between these three is not always very apparent to most people so they will normally include all of them even when they had been asked for the first one alone This group was no exception. It is also worth pointing out that some items can fall into one or more of these categories.

The plenary discussions that ensued during the formulation of the three lists enabled participants to interpret their submissions more deeply.

### **Environment in the Primary School Syllabi**

Plenary discussion of environmental components in the primary school syllabi revealed that environmental topics were predominant in the following primary school syllabi:

Agriculture: Std 5 – 7

Science: Std 3 – 7

Maafira ya Jamii: Std 1 – 7

Stadi za Kazi: Std 1 – 7

The participants working in four groups then proceeded to identify these topics and discuss appropriate methods and materials that may be used to teach them. This was done with the understanding that Ward Executive Officers, Ward Education Coordinators, headteachers and teachers would join each group over the next two days to develop educational materials.

### **Day 2**

#### **Opening address by the Ag. DED**

#### **Introduction**

Participants were guided through a plenary discussion that generated additions and modifications to the environment of Rufiji developed the previous day through Johari's window exercise. This was necessary in order to raise environmental awareness among the new participants and to broaden their scope of knowledge as was done with the initial group. This was also to prepare them for the group exercises that were to be facilitated in each group by members of each team who participated in the previous day's exercise. New participants therefore beefed up the groups that had been formed the previous day and selected group leaders facilitated their groups through the following stages of the process:

- educational materials identification;
- identification of environmental topics in the syllabus (one syllabus for each group);
- identification of materials to be developed; and
- participatory development of the proposed materials.

A few materials in the form of posters and sketch maps were developed and this demonstrates the potential for using this available human resource to develop materials that can enable them advance the message of environmental awareness among their pupils and to the wider community in general.

### **Environmental Proverbs**

Through a plenary discussion exercise, participants came up with local proverbs that carried an environmental message or meaning. Each proverb suggested was subjected to analysis by participants upon which it was pronounced relevant to environment or otherwise. A list of what participants agreed to be relevant proverbs were recorded and compiled. It was made clear to participants that many proverbs are liable to being misunderstood and need therefore to be used as awareness materials/methods with much caution. Teachers particularly need more of this caution if they are to be used among children as in readers.

### **Day 3**

#### **Story Writing**

Using the contents of the environment of Rufiji that was previously developed, participants suggested topics that could serve as headings upon which educative stories could be developed. Six story lines were agreed upon and each group took up two and produced short stories (Appendix 4).

#### **The Margolis Wheel**

This exercise involved seating participants in concentric circles with the inside ones facing the outside. Participants forming the outside circles acted as clients to consultants who formed the inside circles. Clients presented environmental problems facing their areas to the consultants who provided them with “expert” advice on how to deal with the problems. This entailed a discussion in which each participant made notes about the problem and prescribed solution and each pair was therefore given 5 minutes after which the clients rotate by one chair.

In case there was adequate time the exercise ought to have been continued until each consultant has attended to all the clients in his group then they change roles with clients if it is a one circle group or the consultants switch circles after the first round if there are more than one circle.

This exercise was intended to give individuals a chance to discuss existing and likely environmental problem in their areas and generate potential solutions. It also highlights the fact that all people have relevant and valuable experiences and what is needed is for people to share their problems and actively seek experiences and suggestions from each other. As a participatory exercise it emphasizes equality in power and authority within the group and could therefore serve the purpose of inculcating mutual respect for varied abilities among participants.

A program to carry out similar exercises preferably in different wards should therefore be developed by the Education Department.

## **THE ENVIRONMENT OF RUFJI**

### **Water Resources**

- River Rufiji
- Tributaries of River Rufiji
- Fish
- Ponds
- Indian ocean
- Fishing areas
- Rufiji delta
- Hotsprings
- Sources of River Rufiji
- Coldsprings

### **Seabeach – dermar**

- Species of fish

Flow of River Rufiji  
Current of River Rufiji

**Wildlife Resources**

Tourist attractions  
Selous Game Reserve  
Species of animals  
Big wild animals of Rufiji: lions, elephants, buffaloes, rhinoceros, etc  
White colobus monkeys  
Domesticated wild animals  
Bush babies  
Species of birds  
Species of insects

**Forest Resources**

Mangrove forest  
Honey  
Species of plants  
Species of trees  
Traditional herbs

**Land Resources**

Crops  
Islands in the delta  
Natural vegetation  
Area and boundary of Rufiji district  
Quarries  
Mineral deposits like diamonds and oil  
Lime  
Riches of Rufiji basin  
Soil  
Ecological zones

**Natural Resource Utilisation Activities**

Charcoal burning  
Extraction of honey  
Fishing  
Conservation of soil  
Crop rotation  
Planting of trees  
Caring for the environment, animals and essential insects  
Caring for the forest  
Establishment of irrigation  
Salt extraction  
Transport and transportation  
Conservation of animals  
Hunting  
People's occupations  
Taking care of mangrove trees  
Asbestos making  
Lime production

**Activities that damage the environment**

Destruction of water sources  
Bush burning  
Charcoal burning

Salt extraction  
Lime production  
Unplanned fishing  
Dumping of industrial waste into rivers and lakes  
Unnecessary cutting of trees  
Illegal fishing using explosives/dynamite  
Destruction of natural resources like plants in the forest  
Haphazard cutting of trees  
Poaching  
Coconut diseases  
Pollution of River Rufiji

**Historical features**

The Boma at Utete  
Remnants of German war ship at Salale  
German graves

**Others**

Values of natural resources  
Relationship between poverty and the environment  
Floods  
Rain  
Research areas  
Air  
Storms  
Conflict between farmers and environmental conservation policies  
Uses of resources  
Formation of mangrove forest  
The meaning of environment  
Outcome of pollution of the environment  
Vermin  
The sun  
Volcanicity  
Monsoon winds  
Ropes made from coconut shell  
Outcome of improper cutting of trees  
Outcome of fishing using dynamite  
Drought  
Climatic/weather conditions  
Environmental laws and policies of Rufiji  
People of Rufiji  
Values of mangroves

**EDUCATIONAL MATERIALS/MEDIA/METHODS**

**Educational Materials**

Newspapers  
Real objects  
Books  
Films  
Weather station  
Magazines  
Science kit  
Video  
Maps  
Pictures  
Posters

Leaflets  
Photographs  
Songs  
Story script  
Play/drama script

#### **Educational Media**

Radio  
Newspapers  
Photography  
Songs  
Books  
Magazines  
Wise sayings

#### **Educational Methods**

Songs  
Story telling  
Video  
Seminar  
Group work  
Practical activities  
Plays/Drama  
Teleconference  
Exploration trips  
Field trips  
Livestock rearing  
Invention  
Use of experts (Resource Persons)  
Wise sayings  
Projects  
Questionnaires  
Lecture

#### **METHALI KUHUSU MAZINGIRA**

Bandubandu humaliza gogo  
Magaagaa na upwa wali mkavu  
Mwenda pwani hali uchu  
Kambale mkuje angali mbichi  
Chamfupi huliwa kichwani  
Chovyachovya humaliza buyu la asali  
Usipo ziba ufa utajenga ukuta  
Mtaka yote kwa pupa hukosa yote  
Penye miti na wajenzi  
Fuata nyuki ule asali  
Mtoto wa nyoka ni nyoka  
Ndege mjanja hunaswa kwenye tundu bovu  
Demati la kuagiza halileti samaki mkubwa  
Uzuni wa mkakasi ndani hamna kitu  
Avumae baharini papa kumbe wengine wapo  
Mtoto wa panya hakosi mkia  
Wagombanapo tembo zilimiazo nyika (nyasi)  
Aungurumapo simba mcheza nani?  
Vita vya panzi furaha ya kunguru  
Dua la kuku halimpatu mwewe  
Hasira ya mkizi tijara kwa mvuvi

Simba mwenda kimya ndiye mla nyama  
Mchagua jembe simkulima  
Kuvuja kwa pakacha nafuu kwa mchukuzi  
Nazi mbovu harabu ya mzima  
Kapungu angaruka juu hafiki mbunguni  
Mti mkavu hauchimbwi dawa  
Maji ya kifua bahari ya chungu  
Mchumia juani hulua kivulini  
Jogoo la shamba haliwiki mjini  
Usiache mbachao kwa msala upitao  
Yalio mpata pepe na ungo yata mpata  
La kutunda halina ubani  
Mdharau mwiba mguuhuota tende  
Teke la kuku hali muumizi mwanawe  
Biriani nzuri pipani hushindwa na muhogo mkavu shambani  
Dawa ya moto ni moto  
Dau la mnyonge haliendi joshi  
Mbuzi wa maskini hazai  
Chombo cha kuzama haki na usukani  
Mwenda tezi na omo hurudi ngamani  
Msitu mpya na kombawake wapya  
Kidole kimoja hakivunji chawa  
Chombo kilichopikiwa samaki hakiachi kutoa uvumba  
Vyote vingavyo usidhani ni dhahabu  
Papa huji kanga kwa mafuta yake

#### **DELTA YA MTO RUFJI**

Delta ni sehemu ya mto inayoingia baharini ikiwa imegawanyika katika vijito vidogo vidogo na kutengeneza visawa. Mara nyingi delta hupatikana katika mito iliyo mirefu sana kama mto Rufiji na kwa kuwa unakuwa umesafiri mwendo mrefu husomba tope na takataka za kila aina hivyo basi katika hatua za mwisho za kuingia baharini. Mto hupungua kasi ya usafiri hivyo tope hizi na takataka hutupwa pembeni na maji kutafuta njia nyingine za kuingia baharini na hivi ni vijito vilivyo zunguka na kutwa delta.

Katika wilaya ya Rufiji, delta inapatikana maeneo tarafa ya Mbwera na Kikale mahali ambapo mto unapoingia katika bahari ya Hindi. Mfano maeneo ya kataya Salale, Maparoni, Mbuchi na Kiongoroni. Katika kata ya Salale kuna vijiji vya Salale, Mfisini, Mchinga, Kiomboni, Simbaulanga na Saninga. Katika kata ya Mbuchi kuna vijiji vya Mbuchi, Mbwera Mashariki na Mbwera Magharibi. Katika kata ya Kiongoni kuna vijiji vya Kiongoni, Jaja, Pombwe na Ruma. Katika kata ya Maparoni kuna vijiji vya Maparoni, Kiasi, Msala, Twasalie na Kiechuru.

Mipaka ya vijiji hivi vyote ni mito. Hali ni joto na nvua zinazoletwa na pepo za kaskazi kuanzia Novemba hadi Mei. Baada ya pepo hizi kuna pepo za kusi ambazo huleta kipupwe na baridi. Mara nyingi delta zote ni tambarare na udongo wenye rutuba nyingi hivyo husababisha kuwa na misitu minene ya mikoko. Miti inayopatikana humo ni Mikoko, Mikandaa, Mipira, Msinzi, Michu, Mikomafi na Msikundazi.

Wakaazi wa delta ya Mto Rufiji ni Wanyagatwa na shughuli zao ni kilimo cha mpunga, minazi, korosho, ufugaji uvuvi na uvunaji wa miti na utengenezaji wa chumvi kwa njia ya kienyeji na uchomaji wa chokaa (mawe na konokono aina ya tondo)

Mara nyingi delta zote zina rufuba ya kutosha ya kustanisha mazao mbati na maeneo mazuri ya uvuvi. Hasara za delta ni mazalio ya mbu aina zote na usafiri huwa taabu toka kisiwe hadi kisiwa.

### SHUGHULI ZA WAKAAZI WA RUFUJI

Rufiji ni miongoni mwa wilaya sita zilipo mkoani Pwani. Ukubwa wa eneo la wilaya ya Rufiji ni kilometa za eneo. Mipaka yake kaskazini kuna wilaya ya Mkuranga na Kisarawe, kusini kuna Mkoa wa Lindi, mashariki kuna Bahari ya Hindi, magharibi ni Mkoa wa Morogoro.

Wakaazi wake ni Wadengereko, Wamatumbi, Wamakonde, Wangindo na Waporogo.

Shughuli za wakaazi hawa ni kilimo cha mpunga, mahindi, mihogo, minanzi, kunde, mikoroshu, pamba, ufuta, ndizi, mtama, michungwa, mananasi, maboga, miwa na mboga mboga.

Aidha wanafuga ng'ombe, mbuzi, kondoo, kuku, bata. Watu wanaoishi kando kando ya mito na Bahari ya Hindi ni wavuvi. Shughuli nyingi ni ususi, ufugaji vyuma, upasuaji mbao na miti aina ya mikoko.

### HISTORIA FUPI KUHUSU MAFURIKO YA MTO RUFUJI

Chanso cha mafuriko ya Mto Rufiji husababishwa na mvua nyingi zinazonyesha kutoka mto imeanzia mfano katika mkoa Iringa na Morogoro na maeneo ya wilaya ya Rufiji wenyewe pamoja na mito midogo midogo inayoingisa maji katika mto huo. Pia chanso cha mafuriko cha Rufiji kutokana na bwawa la Mtera ambapo linapofunguliwa husababisha maji mengi kwenye bonde la mto Rufiji lenye upana wa kilometa 10 – 13.

Musimu wa kutokea kwa mafuriko ya mto Rufiji ni kati ya mwishoni mwa mwezi Mechi hadi mwezi Mei.

#### Faidha za Mafuriko

Huezea na kuongeza rutba katika mashamba ya mazao

Hupatikana samaki wengi.

Hutokea kilimo cha mlao mfano kilimo cha mahindi, maboga, pamba, biazi na mpunga.

Huharakisha usafiri kwa yale maeneo ambayo maji ipo.

#### Hasara za Mafuriko

Husababisha vifo vingi kwa binadamu, wanyama na wadudu.

Husababisha uharibifu wa mazao ya chakula -----

Husababisha magonjwa ya mulipuko mfano kipindupindu.

Kweneswa kwa wanyama wabaya mfano mamba na book.

Ushababisha momonyoko wa udongo.

Ubadilisha mikondo ya maji na kuharibu barabara, madaraja na njia za mawasiliano.

Uharibu makao ya watu na wanyama.

### HISTORIA FUPI KUUSU MISITU KATIKA WILAYA YA RUFUJI

Historia ya misitu ya wilaya ya Rufiji imetokana na miti ya asili na miti isio ya asili. Mfano wa misitu ilio wilaya ya Rufiji ni kama vile maeneo ya mhoru, kichu, kumburuni, kiwangoroma, mgambo, mkwera hadi michungu na bwera (misitu ya mikoko).

#### Aina ya Miti ya Asili

Aina ya miti ya asili ni kama vile miombo, ininga, mikongo, mikadeya, mimuchu, mikomafi, mifura, mibuyu, minagu, mipangapanga, misufipori, misekeseke na midudu.

#### Aina ya Miti isio Asili

Aina ya miti isio asili ni miembe, mikaratusi, mikoroshu, miarubaini, mithambarao, mijohoro, mifenesi, mizaituni, michungwa, n.k.

#### Faidha ya Misitu

Misitu tupatia mbao, mkaa, mvua, migogo, makao ya wanyama, mizinga ya asili, kuni, dawa za asili, vivuli, matunda ya aina mbali mbali, mandhari nzuri.

Misitu hulinda vyanzo ya maji na kivutio cha watalii.

Misitu huhifadhi rutba.

Huzuia upepo na momonyoko wa udongo.

**Hasara za Misitu**

Misitu huhifadhi wanyama wa haribifu kama vile nguruwe, tumbili, nyani na gendere.

Misitu huhifadhi wanyama wakali kama vile simba, chui na nyoka.

Misitu aina ya mitauko hufanya mikao ya usimbi na mbu.

Misitu usababisha tatizo la usafiri.

## WORKSHOP PARTICIPANTS

### Day 1

Name	Designation	Place
Musumeno S. Munyuke	A/E/Vielelezo	Utete
Mtolia Mwajuma	Mwalimu	Utete
Ndumbogani Selemani	DCUO	Utete
Obutte David	Mwalimu	Utete
Kipengere Yusuf	Asst. District Planner	Utete
Massoud Abdulrahman	DYDO	Utete
Ndozelo Florentina	Mwalimu	Utete
Ndasi Fortunatus	CUO	Utete
Mpukuche Hassan	Mwalimu	Utete
Eliezar John	Mwalimu	Kibiti
Kurugio Omar	TRCC	Ikwiriri
Matiga Eric	DETO	Utete
Mwapinga Patricia	SLOA	Utete

### Day 2

Name	Designation	Place
Maulidi S. Maruka	MEK	Mtunda
Lazaro C. Martin	MEK	Mkongo
George Mttengwa	MEK	Umwe
Ahmad Kapimilila	WEO	Ngorongo
Singe G. Away	Mwalimu	Jaja
Nadhir H. Katabalilwe	Mwalimu	Jaja
Magdalena Monahera	MEK	Ikwiriri
Abdallah Mtou	MEK	Mchukwi
Juma Ngutukwe	WEO	Mahege
Shwari Mwichande	MEK	Mbuchi
John Elimu	Mwal – Mkuu	Mtanza
John L. Naggar	MEK	Mwaseni
Ngangia B. A	WEO	Salale
Ramadhani J. Madara	WEO	Mchukwi
Saidi Mkaupa	Mwal – Mkuu	Twasalie
Ramadhani M. Mtulia	WEO	Chumbi
Athumani H. Bani	WEO	Umwe
Hatibu A. Kinanau	WEO	Mbuchi
M. S. Ngwalima	Ag. DED	Utete
G. Sezulu	DEO	Utete
W. Korobe	K/TSC	Utete
A. Masoud	DYDO	Utete
Shabani Ngaranda	MEK	Mbunju
Zubeda NI'aruka	WEO	Mtunda
Salehe Saidi	MEK	Ruaruke
Fahamu Ali Mtambo	Mwalimu	Msona
Amina Suzan Idd	Mwalimu	Mtanza
Nyanchama Mwita Amosi	Mwalimu	Mbunju
Rose C. Mgalama	Mwalimu	Mbunju
Rashid H. Sobu	WEO	Ruaruke
Halfani A. Njenge	WEO	Mbwara
Kainu H. Mkwanywe	WEO	Mkongo
Hemedi S. Mpulo	WEO	Ikwiriri
Hamidu M. Kilangai	WEO	Ngomba

Hemed A. Mbondera	MEK	Kiongoroni
Said S. Masowela	Mwal – Mkuu	Mbunju
Al-Lakhir Kurugio	MEK	Mbwera
Mwishehe Mwerekwa	WEO	Nyamisati
Salum Dalla	MEK	Mahege
Shaweji Banuti	MEK	Maparoni
Bakari Ngogote	WEO	Kibiti
Saidi Mbaruku	Mwalimu	Twasalie
Utensu Mbembeni	WEO	Mwaseni
Matthews M. Marwa	MEK	K/Mgomba
Pili A. Msati	MEK	Kibiti
Mwipi R. U	WEO	Kiongoroni
Hemedi Omari Mkima	WEO	Bungu
Selemani Ndumbogani	DCUO	Utete
Davod J. Obutte	Mwalimu	Utete
Mwajuma Mtolia	Mwalimu	Utete
Florentina Ndozelo	Mwalimu	Utete
Hassan Mpukuche	Mwalimu	Utete
Msumeno S. Munyuke	A/E/Vielelezo	Utete
Njechele Mketo	MEK	Salale
Patricia Mwapinga	SLOA	Utete
Eric Matiga	DETO	Utete
Omar Kurugio	TRCC	Ikwiriri
John P. M. Eliezar	Mwalimu	Kibiti
Shabani Mwezimpya	MEK	Utete
Ali M. Momboka	WEO	Utete
Venange Makaranga	Mwal – Mkuu	Jaja
Amos Mabula	MEK	Chumbi
Omari Mkuwili	Mwal – Mkuu	Ratundu
Maulid Mwinyiasja	MEK	Ngorongo
Salum A. Lupinda	Mwal – Mkuu	Msona

**Appendix 10: Notes on Piloting Washirika  
(Mbambe Hamlet, Mbunju Village, 2-3 November 2000)**

Team: Keith Budden, Charity Kamau, Olivier Hamerlynck, A Massoud, Pili Mwambeso, Seliman Ndumbogani, V Mwanuke, and Ezekiel Chirwa

**Introduction**

The learning link from the community to the district via the village environment committee and MUMARU.

Each hamlet should identify a msharika for approximately every 10 adults. These washirika should be from the various geographical, occupational, gender and age groups found within that hamlet.

The process for the selection of these trusted friends and neighbours is critical for the success of the programme. Selection should be based on the various interest groups identified by the hamlet residents (in the pilot case study – old men, young men and women).

Their role is to develop and promote dialogue by questioning, listening and seeking solutions and thus facilitating learning at a community level. They will work as volunteers and spend a few hours a week talking with and listening to their 10 close neighbours and friends on natural resource/environmental issues. They will internalise and remember the key issues, concerns, questions and solutions. A weekly meeting will take place of all the washirika in the hamlet to discuss their dialogue of the previous week. The key issues should be summarised and recorded.

The washirika will select from their midst two representatives (one male, one female) to link with the village environment committee. They will co-ordinate the weekly meetings, record the summary information, ensure that all members of the hamlet have access to a msharika and request groups to replace any msharika who are no longer active.

They should also attend the village environment committee meetings and inform them of big issues and possible solutions at the grass roots level. They could also provide information on the impact of the village environment action plan. The representatives via the village environment committee should submit a monthly report on the nature of the washirika dialogue. This report should be forwarded to the village government for onward transmission within the government structure a copy should be sent directly to MUMARU.

The programme should consist of volunteers both washirika and their representatives – no allowances should be paid for attending meetings or training courses. MUMARU should only provide lunch to those attending training sessions.

## Process

### 1. Semi-structured interviews

To enable external facilitators to gain an understanding of the hamlet and its current sources of information/learning. Understand what are the important social groups in the hamlet.

In pairs ask questions to key informants on:

What is your name, age and how long have you lived here?

What do you understand by environment and natural resources?

What is your occupation and how did you learn it?

Where do you get information?

With whom do you discuss the news and where?

Record answers as what people actually said if unclear ask why.

Meet with other facilitators and discuss findings – what are the main sources of information, from whom do people learn from, where do they meet, what are the main social groups.

### 2. Trust Mapping Exercise

To understand how people in the hamlet relate to each other in terms of trusted “neighbours” and what are their social groupings.

Request community meet to map their hamlet.

Decide on which social groupings should meet separately (recommend that at least men and women meet separately)

Explain purpose of exercise

Ask when person to start by drawing on the ground the most important landmarks in the hamlet and to mark their house, where the work, where they get information, where they meet and discuss.

Ask why and with whom, what do you learn etc whilst they are drawing – seek to establish dialogue.

Allow others to correct or add to the map.

Pass the stick to the next group member to add their house, place of work etc.

When the map is finished request someone copy the map and keep the copy with a trusted person from the hamlet.

Facilitators should analyse the information and list what are the main sources of information, where do they discuss, what are the social groups.

### 3. Peer Group Meetings

To agree number of washirika required to enable all group members to be able to meet with their washirika (suggested that not more than 10 people per mshirika) and to agree criteria for selection of washirika.

Arrange to meet with various groups

Inform that the meeting will last for approx. 2 hours

Explain purpose of meeting

Explain the work of the volunteer washirika

Ask the group how many members they have in the hamlet – cross check with mapping and semi-structured interview notes.

Ask how many people one mshirika would be a trusted friend and neighbour to.

Calculate how many washirika will be required – seek consensus for this.

Ask the group what personal qualities a washirika must have

Ask if there are any geographical or occupational criteria (in the pilot hamlet two old men must come from Mashambani and two from Gongoni)

**Request that the group meet again on another day to select their washirika – do not select at this meeting**

Inform the group when you will return to provide an introduction to all the washirika for the hamlet

**4. Peer groups select washirika in the absence of MUMARU and district**

**5. Explanation of role and responsibilities of washirika and training**

- Training in what is environment and natural resources
- questioning and listening exercises
- Role play on work of washirika
- Transect walk asking them to point out natural resource issues and how they have changed over time

**6. Review of first weeks dialogue – selection of representatives**

**Results**

**Semi-structured interviews: Mbambe Hamlet, Mbunju village**

**Interviewer: CK, PM & M**

Name of the interviewees: Asia sultan (has lived in the village for over 25 years), Salum Seif Mukumba ( has lived in the village for over 32 years), Said Yusuf Ndumbege and Maua Seif Ipumbu (has been in the village since 1975).

All of them are farmers. They grow rice, maize and some fruits. Asia also grows some vegetables and peas. They all learnt this from their parents; they said they follow the footsteps of their parents. Women also do weave carpet and baskets for their use but they sell to others who are interested. They collect palm leaves from the forest, which is a bit far. Maua says “ This days the palm leaves are rare because many people are collecting it and you know they don’t grow anywhere. That’s the way God made it and there is nothing one can do”

Most of the youth are the ones who are involved in fishing because it is too involving. The elderly men only fish just for food.

For Asia “ I learnt how to grow vegetables and fruits from my father who was a very good farmer. But for now the drought has prolonged, that’s why my garden doesn’t have many types of vegetables”.

They have also learnt some techniques from MUMARU, like vegetable farming, bee keeping, cashewnut processing but some of them have not put it into practice because of the drought, the river has dried and they are waiting to learn from the group that has already started growing the

vegetables. For Saluum “ I forced myself into the women group that is growing the vegetables, because I wanted to learn, we have planted and we have started harvesting some”. Some people who were trained on bee keeping have already put their hives in the forest. They promised to train others but it hasn’t been done.

Other sources of information are through meetings, at the shopping centre for the men and through their “Balozi” who is selected by the people and disseminates information about CCM. He is responsible for 10 households and he ensures that each household has received the information. They also get information from posters, from neighbours and friends, and from technical experts from the district.

“Mazingira is what was there before which we are supposed to leave and take on new ways of development, it is way we used to live but now we are changing for the better”. The source of water is river Mbunju, and the most common diseases are diarrhoea and vomiting. Mostly they take the victims to the hospital by making a traditional stretcher then taking him/her by foot because of lack of transport. Most people don’t boil water but when they take a patient to the hospital, they are normally advised to be boiling water for drinking.

Fish has reduced due to over fishing and the drought. Before the fishermen were fewer and they would close the lake for sometime until the fish grows, but now because it is almost the only source of food it is difficult to close it.

#### **Interviewer KB and EB Chirwa**

Lada Selemani – elder (60+)

Lived in village for many years – born in Lindi

Int: what is your occupation and how did you learn it?

Weaving mats, ropes and farming – learnt from Father and has not taught anyone to weave – “the children don’t like to weave anymore”. Learnt farming as a child in Lindi. Have cashew nut trees grew more because of MUMARU – gets sulphur from the government as part of loan to increase crop.

How do you get news?

From radio, newspapers, neighbours, friend 2km away, MUMARU and from Rose via groups.

What is MUMARU?

Has son who is training to be Game scout. Need to have more training course for the old – MUMARU only trains the young.

Jina Shambani S-Nyumba – elder (60+) educated

#### **Interviewer (S) Olivier H (with A Massoud, Ndumbogani,)**

Mahout Mohamed Michele, born 1942

Farmer (“kalmia”, paddy “mpunga” and maize) and fisherman (important activity up to 1973, after that only secondary), is also the keeper of the Makasala tea-room but did not mention this himself.

He learned both activities primarily from his parents, he also learned somewhat from Mumaru and through experts (the people mentioning Mumaru might think there is some kind of evaluation going on or are just trying to be polite, they did not really mention anything in particular they might have learned from the project).

Most of the teaching of agriculture was hands on in the field (which seeds to use, spacing them correctly, selecting the right areas to farm, how to take care of the crops) but there was also some in the house, especially on which seeds to select for getting good yields of paddy.

For fishing they were using locally made nets which caught only a few kinds of fish, then in 1955 the modern gears arrived. These catch so many different types but the catches have gone down.

According to him this is especially due to the increase of the number of fishermen, it used to be a specialised activity and few had the expertise, now all can fish. The information on fishing he got from his parents was not particularly reliable, fishing is mostly guesswork

According to him “Mazingira” (the environment) means doing things right, i.e. conserving trees, taking care of the lakes (e.g. by having periods when the fishing is closed), etc.

The canoes are made of hardwood but so many of these trees (Msuyu, Mdumbati, Mninga, Mkongo, Mgama, Mvule) have been cut down that the distance to find them has increased enormously. The canoes last for 13 to 14 years and they are made by specialised artisans who have learned this from their parents but have also made some improvements through contacts with neighbours and friends.

For him the values of the environment are first of all the fish, if we fish less we will catch more. There are also local herbs that are used for some ailments. He is not aware of changes in their abundance as so many diseases can now be treated with modern medicaments.

Selif Saloun Gouleki, born 1938, maize and paddy farmer.

He is a much less vocal person than the previous one, so he tends to add only a few words from time to time and only when asked to by A.Massoud.

Has learned from his parents, Mumaru and other agricultural experts before that. He also sells some poles from the forest and fishes.

Mazingira means taking care of the things around you, it means to conserve.

Values: in early pregnancy sometimes the baby is outside of the womb. There is a local herb which can cure this.

This interview was done on a bench outside the tea-room (Makasala). Some people joined the interview later but did not have many comments. Their main question was what the use of all this interviews would be, what they would get out of it. Masoud gave a long speech on the benefits of environmental management. They agreed with having their picture taken.

Asia Mohamedi Mkapa, born 1960, she farms (paddy, maize, cashew, banana “ndizi”, papaya, cowpeas, pumpkins, etc.). She also weaves but only for her own use, not to sell.

She was interviewed on the porch of her house, at first there were two other ladies listening in but they left stating that they had complete confidence in Mama Mkopa. She is indeed a clever and well educated woman who speaks very openly.

She learned farming from her mother. Her mother would give her a hoe and then in the field she would show her how to use it. She learned how to select seeds through trial and error, by practising planting.

Weaving was also taught by her mother but she improved through experience.

She completed primary education and found this useful: she can send and receive messages. She has also learned from books (Mumaru library).

She went on a horticulture training course at Morogoro. She has mobilised a lot of other women upon her return but many have given up because it is too dry (but some also do not water at the right time which affects the plants negatively). The soil is a problem. They especially lack fertiliser or manure, as they have only few chicken, composting is too slow. She is herself preparing her land and now waits for the rains to sow.

For her Mazingira is the place, the people and what is in the place: the animals and plants (she cites a long list of species), the trees and the forests. Environment is even the little plants around her house.

Values of the environment are fish but catches have declined, the crops are doing OK, but so many trees have been cut to make new farms that they have to go very far to collect wood. Mumaru has advocated the demarcation of different land uses, some land for farming, and other land as forest reserve. If this could be done properly it would be good. There is a big problem with wild animals, especially wild pigs and also the monkeys (“Kima”) and baboons (“Nyani”) who destroy the harvest. This has been somewhat improved by block farming. Before people used to have individual plots isolated in the forest.

She would like to know what the purpose of the interview is, what are they going to gain, what is the use of all these questions.

Amassoud explains again.

Zeinabou Ali Kingwande, born 1950, gentle quiet type

Rukya Abdalla Soulé, born 1950, eyes a bit mischievous

Tapou Djuma Ipombo, born 1955, gentle joyful

Mwosa Saidi Kouna, born 1952, very thin and quiet

All four have just returned from their fields, they grow paddy, maize, pumpkins, etc. They have all learned from their parents and from the agriculture extension workers. They have also been exposed to the Mumaru horticulture thing but they have not joined. They want to see the results first. They also weave mats and local sleeping bags “fumba” for their own use. Also They learned this from their parents and are teaching it slowly to their children.

For Zeinabou the environment is cleaning the house and planting various crops around the house. Rukya and Tapou do not know what it is but would like to learn. Mwosa knows the word but not its meaning.

None of them have actively participated in any Mumaru activity, they have only seen people go for training but it are always the educated ones that are selected. They have not been informed afterwards what it was all about (this is in contradiction to what they said earlier on the horticulture).

The values of the environment (after Amassoud explained them what it is) are roofing material (“Milala”, *Hyphaene compressa?*). This is also used for weaving. There are now so many farms around the village that the palm trees are now so far away from the village. Firewood is easy as the forest is near. Poles are also plenty. The fish are a problem but that is the men’s job, also the processing but they have heard that in the delta some women fish. They would like to learn about growing palm trees. They are a gift of God, they did not know they need seeds just as maize and paddy.

They have never heard of the improved oven’s which use less wood than the three stone fires they use now. But if it can save them time collecting wood it would be a good thing, they would be very interested to learn.

### **Trust Mapping Exercise: Mbambe Hamlet**

#### **(Keith's Notes)**

##### **Men**

Young and old 33 people in attendance.

Showed houses, farms, meeting places, tea rooms, mosque, friends houses, cemetery, football pitch (young men) all participated and took turns to add to the map.

Men seem to gain information from where they work and most importantly from where they meet. Old men meet in Makasala tea room and young men under the cashew nut tree. Young men want a football team.

They knew which people are reliable and listen to them at the meeting places.

People did not mention there geographic neighbours – even if they were friends would meet and discuss at the shamba or meeting places not at home.

Did not mention fishing at all (when discussed clear that all see themselves as fishermen but as the issue is hot did not want to tell) MUMARU is trying to get the village to have a closed season for fishing.

One man spoke on behalf of his neighbour who was not present. He stated that he had six close friends at the farm and a few near his house.

Old men mentioned 10 cell system or Balozi? System for passing information down from party to the masses.

At the end of the mapping exercise men’s group asked questions to the awareness team.

They insisted that for the management of the lakes they need the assent of the other villages that have fishing rights there. The closure of the fishery was only known to few of them, they were not aware that this was their own decision and not something “imposed” by Mumaru. They were afraid

the village scouts sent for training would be like a police force. They did not understand that they were there to help them implement their own decisions.

One man (he is of intermediate age, seems to have a strong personality and wears a T-shirt with “four o’clock club”) said they would even pay to learn things. I asked what they wanted to learn. He said they want to be trained in farming, in carpentry (as they have a lot of trees) and in fishing (as they have a lot of lakes).

Oliver replied that this was a bit contradictory as everyone was complaining that there were not enough trees so carpentry might need some organisation of land use first. That the state of the forests is so bad that it will take a lot of time for them to regenerate. With regard to fishing he said the same thing applied, they were fishing rather too efficiently, the mesh size used is very small and they have themselves called for protective measures. The needs they express would be taken up at the district level with the concerned departments.

### **Women mapping exercise**

There was a group of 25 women with varied ages of between approximately 15- 50years.

The exercise was started by explanation of the purpose and how mapping is carried out.

They first started by discussing how they should do it and what they should start with. The stick was given to a middle aged lady who commands quite some respect and definitely has some status in the community. They agreed to start with the main road which goes to Kibiti. She was then told to mark the mosque as the starting point, the house of Sheik and her home. Then handed the stick to another lady whose home follows the sheiks house. Thereafter each person was given the stick to draw or indicate her home.

The bridge, the shops, shambas and the lake were indicated later and other feeder roads.

Then the discussion of who each person learns from, trusts, discusses issues with or as they called them “friends”. The friends which on the map were indicated by dotted lines leading to their homes were relatively nearby but not necessarily next door neighbours. Other common learning point was the mosque, the sheik and a traditional birth attendant, who they claimed has helped most of them deliver.

After the drawing an open discussion revealed that most of the things that they learn from each other are about :--

Farming, weaving, collecting firewood, hairdressing, vegetable farming etc.

There is a women group which was formed for vegetable farming, it had 30 members but some have pulled out claiming that the work is hard and involving. Currently there are 15 members and are divided into 5 smaller groups. They have their leader and work and responsibilities are shared among the group. Most of the other are waiting to see how the farming will go on before they decide to start.

There are approximately 150 women in the hamlet. They have a leader who leads them in their affairs.

They all participated quite actively and it was clear that everything was centred around the houses. They started with the road and first added the houses north of the road. They would draw the individual papaya trees close to the houses. The fact that the house had a palm-leaf or a corrugated metal roof was important. The size of the house was also important. Each woman would take turns with the stick and add her own house. Some added several houses south of the road while discussions were going on amongst the others. The map (“ramani”) went down to the bridge and slightly across it to the fields. They took the mapmaking seriously: they avoided stepping on it and chased away the children that might damage it.

Oliver could not stay until the end as one of the old men came down to fetch me. According to Keith he said I had spent too much time with the women’s group and should now attend the men’s

discussions. I find this a positive sign, it means they want to convey something.

The feedback Charity gave from the women's trust-mapping was:

They have a women's group for the horticulture which initially had 35 members. It is now down to 15 as the work is hard and there is not enough time to water. Another women's group had existed before but the money has disappeared. They organise themselves in a group to obtain the land but the plots are individual. Three women went to Morogoro and mobilised the others afterwards. Asia Mohamed Mkopa was especially active in this.

Important to them are also the mosque ("misikiti"), the madrasa, and the house of the Koran teacher. They consult him on spiritual matters. The Traditional Birth Attendant (TBA) is also an important figure.

They would like to learn how to do more business.

### **(Charity's Notes)**

#### **A Trust Mapping Exercise with the Women**

There was a group of 25 women with varied ages of between approximately 15- 50years.

The exercise was started by explanation of the purpose and how mapping is carried out.

They first started by discussing how they should do it and what they should start with. The stick was given to a middle-aged lady who commands quite some respect and definitely has some status in the community. They agreed to start with the main road that goes to Kibiti. She was then told to mark the mosque as the starting point, the house of Sheik and her home. Then handed the stick to another lady whose home is next to the sheiks house. Thereafter each person was given the stick to draw or indicate her home. To the women, the size and the type of the house was of importance. Each took pride in drawing her home.

The bridge, the shops, shambas and the lake were indicated later and other feeder roads.

Then the discussion of whom each person learns from, trusts, discusses issues with or as they called them "friends" started. The friends who on the map were indicated by dotted lines leading to their homes were relatively nearby but not necessarily next-door neighbours. Other common learning point was the mosque, the sheik and a traditional birth attendant, who they claimed has helped most of them deliver; were key persons in the community.

After the drawing an open discussion revealed that most of the things that they learn from each other are about: --

Farming, weaving, collecting firewood, hairdressing, vegetable farming etc.

There is a women group that was formed for vegetable farming, it had 30 members but some have pulled out claiming that the work is hard and involving. Currently there are 15 members and are divided into 5 smaller groups. They have their leader; work and responsibilities are shared among the group. Most of the others are waiting to see how the farming will go on before they decide to start.

There are approximately 150 women in the hamlet. They have a leader who leads them in their affairs.

### **(Olivier's Notes)**

#### **Trust Mapmaking Exercise**

I was observer at the women's mapmaking exercise but of course could not make much of what they were saying. They all participated quite actively and it was clear that everything was centred around the houses. They started with the road and first added the houses north of the road. They would draw the individual papaya trees close to the houses. The fact that the house had a palm-leaf or a corrugated metal roof was important. The size of the house was also important. Each woman would take turns with the stick and add her own house. Some added several houses south of the road while discussions were going on amongst the others. The map ("ramani") went down to the bridge and slightly across it to the fields. They took the mapmaking seriously: they avoided stepping on it and chased away the children that might damage it.

I could not stay until the end as one of the old men came down to fetch me. According to Keith he

said I had spent too much time with the women's group and should now attend the men's discussions. I find this a positive sign, it means they want to convey me something.

I arrived at the men's group when they were asking their questions to the awareness team. They insisted that for the management of the lakes they need the assent of the other villages that have fishing rights there. The closure of the fishery was only known to few of them, they were not aware that this was their own decision and not something "imposed" by Mumaru. They were afraid the village scouts sent for training would be like a police force. They did not understand that they were there to help them implement their own decisions.

One man (he is of intermediate age, seems to have a strong personality and wears a T-shirt with "four o'clock club") said they would even pay to learn things. I asked what they wanted to learn. He said they want to be trained in farming, in carpentry (as they have a lot of trees) and in fishing (as they have a lot of lakes).

I replied that this was a bit contradictory as everyone was complaining that there were not enough trees so carpentry might need some organisation of land use first. That the state of the forests is so bad that it will take a lot of time for them to regenerate. With regard to fishing I said the same thing applied, they were fishing rather too efficiently, the mesh size used is very small and they have themselves called for protective measures. Still all the needs they express would be taken up at the district level with the concerned departments.

**Meeting with the SIFA** (young men's group) on the qualities required for the volunteer information "trusted neighbour" scheme.

Some twenty young men (the definition of a young man according to Amassoud is anyone of less than 35 years old) gathered in one of the tea-room/restaurants. Some old men looking in were forcefully redirected to the WAZEE (mature men) group gathering under the central village tree. Most of the Sifa were below 25, one is clearly older (the outspoken one in the general men's meeting of yesterday, four o'clock club). They are clearly very concerned with their looks, have "hip" t-shirts.

Amassoud re-explained the job description and them what qualities they would value in such a person.

The qualities they were looking for were (these are probably best rendered in Swahili, Chirwa noted them):

- Trustworthiness
- It should not be someone who tells lies
- He should be quick of understanding
- He should be energetic

They had quite a discussion amongst themselves concerning the number. The majority wanted ten, a minority proposed a smaller number as "the place is so small".

They have many problems. They especially need something that draws them together.

For example they would like to have a soccer club. They have tried to register with the district for fourth division but were turned down as they had no equipment. This was caused by the drought. They had no harvest, and therefore no money so they could not afford to buy the gear.

They were also unhappy about the way the village scouts were selected. They thought Mumaru was recruiting people from outside to police them while they lack employment. Amassoud cleared up this question.

They would like to do more agriculture but they lack inputs (seeds, fertiliser, etc.), they would also want training and guidance. Amassoud explained that some of these things (he also mentioned pesticide spraying systems!) were available at district level but that they have never asked for anything. There is a revolving fund in the district where they can purchase these things (also bullets to kill the bushpigs) or reimburse them after the harvest. They were not aware of these things.

They would like to develop money generating activities otherwise they will have to move away from

the village.

They asked again about what they could do. I replied that from what I had seen behind the school in the morning the use of resources was very wasteful. That I was very sad to see that, it was as if you are looking at someone eating rice who puts only half of it in its mouth and the rest is just dropping to the ground. The slope on the edge of lake Uba at the pumping station has been clear-felled but the stump height, even of big trees was over 1 meter. There was an enormous amount of wood left to rot away in the forest. Also as the soils on this slope are very sandy they will wash down and cover the vegetation at the edge of the lake that is so vital as fish spawning grounds. I also explained the difference between farming on the floodplain that is naturally fertilised by every flood in contrast to agriculture in the forest as the fertility of the forest soil is only maintained by the forest itself. If it is cleared it very quickly loses its fertility and takes a long time to regenerate. I explained that 50 years ago in Mauritania there were forests but that now there is only desert. When the forests are cut the rains fail and so do the floods that fertilise the land (Amassoud reinforced this by mentioning places in northern Tanzania that have turned into desert).

### **Washirika Group Meetings: Mbambe Hamlet**

#### **Meeting young men's group**

on the qualities required for the volunteer informant "trusted neighbour" scheme.

Some twenty young men (the definition of a young man according to Amassoud is anyone of less than 35 years old) gathered in one of the tea-room/restaurants. Some old men looking in were forcefully redirected to the WAZEE (mature men) group gathering under the central village tree. Most of the Sifa were below 25, one is clearly older (the outspoken one in the general men's meeting of yesterday, four o'clock club). They are clearly very concerned with their looks, have "hip" t-shirts.

Amassoud re-explained the job description and asked them what qualities they would value in such a person.

The qualities they were looking for were (these are probably best rendered in Swahili, Chirwa noted them):

- Trustworthiness
- It should not be someone who tells lies
- He should be quick of understanding
- He should be energetic

They had quite a discussion amongst themselves concerning the number. The majority wanted ten, a minority proposed a smaller number as "the place is so small".

They have many problems. They especially need something that draws them together.

For example they would like to have a soccer club. They have tried to register with the district for fourth division but were turned down as they had no equipment. This was caused by the drought. They had no harvest, and therefore no money so they could not afford to buy the gear.

They were also unhappy about the way the village scouts were selected. They thought Mumaru was recruiting people from outside to police them while they lack employment. Amassoud cleared up this question.

They would like to do more agriculture but they lack inputs (seeds, fertiliser, etc.), they would also want training and guidance. Amassoud explained that some of these things (he also mentioned pesticide spraying systems!) were available at district level but that they have never asked for anything. There is a revolving fund in the district where they can purchase these things (also bullets to kill the bushpigs) or reimburse them after the harvest. They were not aware of these things.

They would like to develop money generating activities otherwise they will have to move away from the village.

They asked again about what they could do. Oliver replied that from what he had seen behind the

school in the morning the use of resources was very wasteful. He was very sad to see that, it was as if you are looking at someone eating rice who puts only half of it in its mouth and the rest is just dropping to the ground. The slope on the edge of lake Uba at the pumping station has been clear-felled but the stump height, even of big trees was over 1 meter. There was an enormous amount of wood left to rot away in the forest. Also as the soils on this slope are very sandy they will wash down and cover the vegetation at the edge of the lake that is so vital as fish spawning grounds. He also explained the difference between farming on the floodplain that is naturally fertilised by every flood in contrast to agriculture in the forest as the fertility of the forest soil is only maintained by the forest itself. If it is cleared it very quickly loses its fertility and takes a long time to regenerate. He explained that 50 years ago in Mauritania there were forests but that now there is only desert. When the forests are cut the rains fail and so do the floods that fertilise the land (Amassoud reinforced this by mentioning places in northern Tanzania that have turned into desert).

### **Old men's group Wade**

Approximately 20 old men meet under the cashew nut tree (don't know why the old men decided to meet at the youth meeting point and the youth in one of the restaurants).

Discussed the proposed role of trusted neighbour – men suggested that it was similar to the 10 cell balozi system – thought they could select the same people. Informed the group that all the 10 cell leaders were members of the Wazee group. Mbambe hamlet has 7 10 cell leaders (i.e. has approx. 70 families)

Suggested that they should have 10 “neighbours” however after discussion agreed that as they were only about 30 old men that 10 would be too much – agreed that 4 would be a better number.

Discussed the criteria for selection agreed upon the following:

- One who attends meetings
- Truthful
- Not lazy
- Progressive
- Able to work
- Able to read and write

The old men also wanted that of the four old men neighbours two should come from the Mashambani area of the hamlet and two from Gongoni.

Questioned the last point but meeting stressed that they thought this was important.

### **Women's group**

Agenda

1. Feedback of the analysis of the first day activities.
2. Building consensus by comparing notes with the participants.
3. Describing the “neighbours system” and introducing the idea of having a link persons between the community and the external agencies.
4. Introducing the roles of such a person as :- Asking questions and encouraging discussions, identifying local solutions for the problems by discussing, sharing information that come from the external agencies and giving feedback and asking questions to the agencies.

The women started by discussing what has been happening previously:--

- That leaders sometimes don't involve everyone in the meetings.
- Meetings are normally very rare hence very little is learnt through meetings.
- Those who attend do not always disseminate information to those who don't attend hence information is for the few who attend.
- Some women don't just want to attend the meeting, they prefer doing their work other than

going for meetings.

- The illiterate are normally ignored because its only those who can read or write who go for training like for MUMARU, so even when one wants to teach them what they learnt, they say that the information is for those who can read or write.

After an input that, that's why maybe a system which can encourage more dialogue and learning is important and the information is for all to learn, The question was posed that:- What do we do or which way do you recommend that can facilitate more learning and talking to each other about different issues?

Suggestions

- More women representatives to be selected who can assist the leader they have to make sure all women are reached.
- Have representative of those who live in the shambas as they are normally left out.
- There should be a representative of the younger ladies as their issues are sometimes different from the elderly.
- There are some more homesteads at Mvuleni and though they belong to that hamlet are normally left out.

Therefore agreed that they should have:-

- 1 3 representatives from those who live at the shambas.
- 2 2 from the shopping centre area.
- 3 2 for the younger ladies.
- 4 1 who leads the group of vegetable farming.
- 5 1 who is the women leader.
- 6 1 from Mvuleni.

They were of the opinion that such representatives should have qualities like:-

- One who can follow-up
- Has experience or expertise in the activity of the interest group she is representing.
- Is truthful
- Can communicate with others well
- Can accommodate others and has no temper
- One that people can listen to
- One who likes sharing information with others and likes others to benefit from the information.

### **WASHIRIKA WORKSHOP Held on 7.11.00 at Mbunju Primary School**

Process

1. Pair work—For introductions and livening the participants by telling their partners of one good thing that happened to them last year.
2. Buzz groups- To discuss what they understand by the terms, Environment; and Natural resources.
3. Group work to discuss the four major natural resources in Mbunju, their benefits, changes overtime and why.
4. Feedback using open discussion.
5. Facilitator explanation of the roles of 'Mshirika' (the representative of the 'Washirika').
6. Whispers exercise- to demonstrate that information transmitted loses much of its content when passed through 'channels'.
7. But Why and other helpers exercise – To demonstrate how to analyse issues more deeply.
8. Open discussion on categories of 'washirika', the representatives to name their washirika—to avoid duplication and ensure all community members are catered for. (2 hours' discussion -naming everyone in the village, publicly so that everyone can see who is meeting whom, whether this is realistic (genuine colleagues/numbers).
9. Role-play of good and bad mshirika —To summarise the main good and bad elements of

representation of 'washirika'.

10. Field visit—For learning together and demonstrating the importance of going in person to observe and talk about things of local importance.

Group work Feedback

Roles of Mshirika

1. Listening neighbours or washirika of up to 10-15 different washirika.
2. Asking questions about natural resources, how and why things are changing, associated problems and discussing or seeking solutions to those problems.
3. Talking to their washirika at least once a week. Remember the big issues and questions that need to seek solutions for.
4. Meeting as group of the representatives' at least after two weeks to discuss issues emerging from their washirika and possible solutions.
5. Being the link between the community members and the village environmental committee by acting as channels of information to and from the community.
6. Select two representatives, one man, one woman who will present the major issues, questions and solutions to the environmental committee and MUMARU.

**List of names of Washirika**

**Young Men**

**Fishermen**

Area- Gongoni

1. Moshi Nindi - Rep
2. Rajab Athumani
3. Moshi Ngulumba
4. Mohammed Mbitu
5. Salum Rashid
6. Shamte Salum
7. Shaaban Ngulumba
8. Musa Uwesu

**Fishermen**

1. Mohammed Chekeni- Rep
2. Juma Mpanga
3. Moshi Ngosa
4. Said Mbetu
5. Ramadhan Kwenge
6. Bakari Kasimu
7. Mshauri Musa

**Fishermen**

Area – Bondeni

1. Mbegu Abdalla - Rep
2. Jafar Mkele
3. Hatibu Ndumbege
4. Binihili Mg'aga
5. Peter Chigambe
6. Jamali Abdalla Nguruma
7. Ujamaa Mtu nyungu

**Fishermen**

Area -- near the shops

1. Omari Adhumani - Rep
2. Shabani Omari
3. Hamisi Mlawi
4. Juma Hamisi
5. Miraji Matibwa
6. Bakari Sultan
7. Mohammed Mkopa

**Farmers**

Area – from near the shops

1. Hamadi Said - Rep
2. Chande Ndumanduma
3. Ramadhan Kitambulio
4. Jamali Kitambulio
5. Jamali Musa Mbwana
6. Sefu Mkomboyage
7. Kasimu Said Ndumbege
8. Salehe Said Ndumbege
9. Ausi Said Ndumbege
10. Lazima Hamisi Makasala

**Farmers**

Area—Shambas

1. Athumani Mtukacha - Rep
2. Mrisho Kiganja
3. Ramadhan Kabuti
4. Abdalla Katika
5. Rajabu Mkele
6. Salehe Langa
7. Kadiri Ramadhanani Nyumba
8. Shukuru Athumani Ukwama
9. Ramadhanani saluum Kikumbo

**Farmers**

Area – valley

1. Ali Salum Kikumbo - Rep
2. Juma Seif
3. Moshi Kilyengu
4. Iddi Mbetu
5. Seif Sijali Mitama
6. Ali Machenje
7. Seif Hassan Mitama
8. Sadiki Ramadhan Nyumba
9. Moshi Ngwambe

**Farmers**

- 1 Iddi Saluum - Rep
2. Said Kikwama
3. Ramadhan Mwera
4. Bakari Bonde
5. Nakapi Lada
6. Selemani Lada
7. Ramadhan Lada
8. Seif Lipite
9. Haji Ngwami

**OLDMEN**

<b>Area-- Gongoni</b>	<b>Area--- Bondeni</b>	<b>.Area- Gongoni</b>
1. Nyuki Mohamed Nketo - Rep	1. Chekeni Mohamed- Rep	1. Salumu Seifu Volunteer
2. Uwesu Nindi	2. Janja Ramadhani	2. Ramadhani Nyumba
3. Saidi Mailo	3. Ali Ndumanduma	3. Shaabani Nyumba
4. Omari O. Ndanga	4. Saidi Ndumanduma	4. Rashidi Mang'ula
5. Rada Selemani	5. Hakika Ismail	5. Maliki Mkumba
6. Kassimu Kikumbo	6. Musa Kiwele	6. Athumani Ukwama
7. Maisaisa Mbonde	7. Bike Ndundu	8. Salumu Ndanga
8. Maulidi Nindi	8. Hamisi Matimbwa	7. Salumu Omari Kikumbo
9. Mohamedi Makasala	9. Mohamedi Mpanga	9. Lipite Seifu
10. Saidi Magina	10. Makoka Saidi	10. Saidi Mlanzi
11. Omari Salumu Nguluma	11. Saidi Ngubege	11. Sultani Makasala
12. Seifu Salumu Jongu	12. Chande Mbachikwa	
13. Hamisi Ngombe		<b>Area-Bondeni</b>
14. Bakari Kitambulio	<b>Area-- Bondeni</b>	1. Mbwana Musa Volunteer
15. Shamte Mtunyungu	1. Ali Ngubege Volunteer	2. Omari Abdulrahamani Mkangama
	2. Abdahamani Mkangama	3. Abeid Magina
	3. Seifu Liobike	4. Ramadhani Magina
	4. Abdalah Mwera	5. Abdala Kwale
	5. Hamisi Mkele	6. Shoti Mkumba
	6. Abdalah Mzuzuri	7. Sijali Mitama
	7. Hassani Mitama	8. Kuka Seifu
	8. Salumu Hasani Mbutumwa	9. Shaabani Mkele
	9. Hamisi Mohamedi Makasala	10. Athumani Likasike

**YOUNG LADIES**

<b>Area:-Gongoni</b>	
1. Mwanahamisi Sultani - Volunteer	8. Tukae Chekeni
2. Chuki Rashidi	9. Ajuaye Athumani
3. Shani Hassani	10. Furaha Rashidi
4. Hadija Hamisi	11. Zainani Bakari
5. Wema Hamisi	12. Hadija Mbalandebo
6. Sinahila Langa	13. Fatuma Salumu
7. Hawa Mbeto	14. Hadija Ng'obwa
	15. Fatuma Saidi Njechele

**WOMEN**

**Vegetable farming Group**

- 1.Asia Mkopa - Rep
- 2.Maua Seifu
- 3.Asha Omari
- 4.Tuzani Machela
- 5.Tabia Musa
- 6.Doto Nindi
- 7.Maasha Juma
- 8.Hadija Ali
- 9.Hadija Seifu
- 10.Siasa Matimbwa
- 11.Asha Ngondae
- 12.Tano Ndambwe
- 13.Tumu Bakari
- 14.Zabibu Ali
- 15.Mwazani Rashidi
- 16.Mwajuma Salumu
- 17.Moshi Saidi

**Area:- Shamba**

- 1.Tabia Athumani - Volunteer
- 2.Tulia Malawa
- 3.Fundi Msiko
- 4.Tatu Msiko
- 5.Asia Omari
- 6.Maua Bahari
- 7.Zainabu Mohamedi
- 8.Nyandembo
- 9.Aibuni Kibonge
- 10.Binti Liula
- 11.Nyaminge
- 12.Mwajabu Chande

**Area:- Bondeni**

- 1.Sijali Ali Mng'aga - Volunteer
- 2.Tatu Ali Mng'aga
- 3.Zulubia Mwera
- 4.Pili Mkumba
- 5.Vumilia Korogelo
- 6.Desturi Korogelo
- 7.Rukia Likonga
- 8.Kidawa Saidi
- 9.Vumilia Seifu
- 10.Mwanjia Abdalah
- 11.Acheni Ali

**Area:-Shamba**

- 1.Mwajuma Musa Sungwe – Volunteer
- 2.Maua Bakari
- 3.Tatu Ngwele
- 4.Tatu Mtolia
- 5.Sifa Salumu
- 6.Tatu Mohamedi
- 7.Amina Saidi
- 8.Habiba Ali
- 9.Zali Mohamedi
- 10.Aziza Abdalah
- 11.Hawa Mohamed
- 12.Halima Seifu
- 14.Kisadi Salumu
- 15.Zabibu Lai
- 16.Zaituni Imba
- 17.Nyandumanduma

**Area:- Mvuleni-Tangini**

- 1.Hawa Bumbo - Volunteer
- 2.Maua Mwera
- 3.Iba Kiambwe
- 4.Asha Mtolia
- 5.Salima Nyumba
- 6.Tumu Ali Matimbwa
- 7.Nyangemba
- 8.Salima Nketo
- 9.Nyalwambo Magina
- 10.Nyakimbukwa Mkumba
11. Sikudhani Kassimu
- 12.Maudhi Salum
- 13.Jutia Chekeni

**Area:- Bondeni**

- 1.Maua Seifu Ipumbu
- 2.Nyasule
- 3.Zainabu Ali Kingwande
- 4.Tatu Ngombe
- 5.Nyasobo Ali
- 6.Hidaya Rwambo
- 7.Rehema Bomba

**Area:- Gongoni**

- 1.Hadija Seifu - Volunteer
- 2.Moza Bakari
- 3.Ndugu Kassimu
- 4.Moza Ngajima
- 5.Mariamamu Mbwembwele
- 6.Nyamikoroti
- 7.Zali Omari
- 8.Habiba Seifu
- 9.Zakia Kassimu

**Area:- Gongoni**

- 1.Sofia Ukwama - Volunteer
- 2.Hadija Utunge
- 3.Zainabu Mbotoni
- 4.Zarau Malamwa
- 5.Kidawa Malamwa
- 6.Tatizo Malamwa
- 7.Semeni Ungando
- 8.Tishi Makasala
- 9.Tatu Makasala
- 10.Hatupatani Ndomae
- 11.Acheni Nyumba
- 12.Nyasule Utunge

**Buzz Groups**

To discuss what they understand by the term ‘Mazingira’ (Environment), and; natural resources.

- a) Environment
- b) Natural resources

<b>GROUPS</b>	<b>ANSWERS</b>
1.	a) Forest control. b) Things like elephant, buffalo, etc.
2.	a) Forest, Animals like elephant, buffalo, lion, monkey and bees. b) As above.
3.	a) An area and other things on which a human being and other animals do live. b) Animals, trees, lakes, and birds.
4.	a) An area of forest and its components. b) Lakes, crocodile hyena, water, trees (mipingo, mkongo), monkeys
5.	a) Management of areas on which people do live. b) Lakes (Uba, Ruwe, Nyatupa, Mchangini, and Embankumba), Animals (Antelope, Buffalo, Hippo)
6.	a) It’s an area plus all things that are found on it. b) Forest, Animals, Lakes.
7.	a) Forest conservation. b) Fish, Elephant Hippo, Baboon, Monkey, Crocodile etc.
8.	a) Is the protection of resources found in the village b) Trees, Lakes, Wild animals (elephant, buffalo).

**Benefits of Natural Resources and Changes Overtime**

Lakes:

- Water for home consumption
- Rainfall
- House building.
- Firewood
- Honey
- Timber (for chairs, door, beds, school desks, windows, curvings etc)
- Natural medicine.
- ‘Ukindu’ for making baskets and mats

**Changes overtime.**

Deforestation due to burning of bushes, improper cutting of trees, commercial logging and lack of communal management of the forests.

Animals

**Benefits:-**

- Income generation through selling of meat , elephant tusks, hides .
- Tours.
- Manure from animal faeces

**Changes overtime:**

Animals are fewer compared to the previous years due poaching, weak security, less game scouts. But the vermin’s are on the increase; Previously animals like wild pigs were being controlled with the help of the Government but nowadays that exercise is not carried out.

### Land

- Benefits
- Food crops growing.
- House building.
- Burial.
- Tree growing.
- For living.

Changes overtime:

Poor/less yields- 2 to 5 bags per hectare as compared to 10bags/ha in the past

Years due to reduced soil fertility (cause of cultivating on the same land without fallowing, rotating or using of fertilisers to re-fertilise the soils), vermin , use of hand tools and less rainfall.

### **EXERCISES**

Whispers game—To demonstrate how information can change when passed through a channel.

Participants were divided into two groups of 13 members each. One group to be the listeners while the other was to pass on a message to each other, one by one.

Message statement to the first recipient:

“Jana nilienda kuvua samaki. Nilipata samaki kidogo sana. Pia niliona mamba akila bata maji wawili” (‘meaning yesterday I went fishing, I got very small fish and I also saw a crocodile eating a duck’.)

This information was passed to 13 people who were separated from the other group(listeners). The last statement that was given to the last recipient was; “Nilienda Uba nikaona bata maji”, meaning (‘yesterday I went to L Uba and I saw a duck’).

A more simpler statement was given to the second group( previous listeners)

“Jana nilienda Utete kumuona Ndasi” meaning (‘ yesterday I went to Utete to see Ndasi’).

This information was also passed to 13 peoples of the second group. The last statement by the last person was as follows “Jana nilienda Utete nikamwona Ndasi” (‘ yesterday I went to Utete and saw Ndasi’).

Lessons

- Information changes when passed through channels.
- It is important to be a keen listener in order to remember the big issues.

It is also important to get the information from the source, and for washirika it is crucial to disseminate the right information because they are considered important channels of information.

### **Field visit to L. Uba**

At the end of the workshop some of the participants and facilitators had a visit to lake Uba just near Mbunju primary school for learning purposes especially through observations, questions and discussions.

#### **Observation 1:- Incomplete house with many poles.**

Qn:- Who does this house belong to?

Ans: To the school.

Qn: where did they get these poles from?

Ans: From this surrounding forest.trees.

#### **Observation 2:- Only one big tree in the forest.**

Qn:-Why is it that it is only that big tree remaining there?

Ans:- The tree is useless, it is soft can't be used for timber and you cant even make charcoal out of it.

#### **Observation 3:-Burnt forest area.**

Qn:-What happened here and what was the cause of the fire?

Ans:-The source is from the hunters who use fire to clear the area for easier catching of the animal.

#### **Observation 4:-An open land (area to the open without trees).**

Qn:-What happened here?

Ans:- This was a simsim farm last year.

Qn:-Where do they sell it?

Ans.To businessmen from outside the village.

Qn:-Who give authority to own land in this village?

Ans:-Village government.

**Observation 5:-Cleared plot/land with young seedlings of coconut and cashew nuts downward near the lake.**

Qn:- Why was the place cleared? .

Ans:-The area has been cleared for a cashewnut plantation.

Qn:-Who is the owner of this plot?

Ans:- That Mzee who owns the shop near the school .

Qn:-Why are trees cut at this height? (about 1m).

Ans:- Its easier one doesn't have to bend too low.

Qn:- What do most people use the trees for?

Ans:- Just for normal use of timber, firewood and making canoes. But, we never used to see them as the natural resources until MUMARU enlightened us.

**Observation 6:-An old broken building near the lake shore.**

Qn:-What was the building for?

Ans:- It was for water pumping machine.

Qn:-In which year was the building established.

Ans:- 1974.

Qn:- What happened to the building?

Ans:-The machine was stolen therefore no one cared about the building.

Qn:-Who stole the machine?

Ans:-Bandits who came with a gun.

**Observation 7:-A camp near the lake Uba.**

Qn:-What is that camp for?

Qn:- It's a fishermen's camp.

**Observation 8:- Some poles in the lake.**

Qn:-What are those poles for?

Ans:-They are used by fishermen to indicate the position of their fishing nets in the lake.

**Observation 9:- Some trees near the lake shore.**

Qn:- What are the changes that have taken place overtime?.

Ans: In the past, trees like mkongo, mvule,mninga,mnangu were many around the lake shore. These trees had formed a canopy that prevented evaporation of water from the lake and the waters were cooler which is good for the fish. But later on many trees around the lake were cut down. This has caused water to go down.

**Observation 10:-Children swimming in the lake.**

Qn:- Why are children swimming in the lake and you said it has crocodiles.

Response:-The children are always with God, therefore crocodiles can't harm them.

**Observation 11:-Round mounds/things on a certain tree near the lake Uba.**

Qn:- What are those materials on the trees.

Ans:- The oozing gums.

Qn:- The CTA (Mr.Olivier) was very much interested to know why land is cultivated downward to the lake.

Response:- This query had no clear answer from the villagers.

**Observation 12:-A tree near the lake with fruits.**

Qn:- Are the fruits eaten by human being?

Ans:- The fruits are for birds and monkeys.

Observation 13:-A gully formation towards the lake.

Query:- What has caused these.

Response:- This was a path to the lake, but the running water goes down to the lake forming a gully.

## Evaluation of Washirika Programme

Introduction:-

On 16<sup>th</sup> November 2000, a team of six personnel from the district visited Mbambe hamlet to evaluate the Washirika programme. Members from the district were:-

- 1.Mr. Olivier- CTA-REMP Project.
- 2.M/s Rose- TACD-REMP Project.
- 3.Mr. Paul- Consultant (Awareness program).
- 4.M/s Charity- “
- 5.Mr.Ndasi- District staff (Education department).
- 6.Mr.Kilimba-District staff (Agriculture department).

The Washirika were divided into two groups; first group were the Washirika and the second group, the volunteers (representatives of washirika - see below)

### Washirika

Meeting facilitated by Charity Kamau.

Questions discussed:-

1. Which volunteer visited you and why?
2. What did you discuss?
3. What did you feel about being visited?
4. What will happen to that information?

**Mshirika:- Jamali Abdalla Jongo.**

**Visited by:- Mbegu**

**Issues discussed:-**

Mr. Mbegu introduced the issue of environment to Mr. Jamali as his “Mshirika”. Then they discussed about agriculture in general, beekeeping, forest, and lakes. In their discussion, they exchanged views on the benefits of forests, lakes, land; problems facing these resources e.g. poor crop yields, deforestation and low fish catch. They saw the reasons for those problems as, unmanaged forests, overfishing due to limited alternatives, over cultivation etc. For the possible solutions they thought that the lakes should be managed properly by both the Government and themselves; youth to be encouraged to look for alternatives and the forests to be policed to curb the misuse of forest products.

**Washirika:-Hamis A. Ngombe, Mzee Mohamed Machela,Omari Danga, Omari SalumuJongo, Seif Salumu Jongo,Rada Selemani, Kassimu Omari Kikumbo.**

**Visited by:- Mzee Nyuki**

**Issues discussed:-**

Mr. Nyuki introduced to his washirika issues of environmental management in their village by first asking them the meaning of environment and the natural resources. They said, environment is every thing within their area, while the natural resources are things like forest, lake, land and animals. Then they discussed about the benefits of different natural resources found in their environment e.g. fish and water for home consumption; timber, charcoal, firewood, and house building materials from the forests. Changes discussed included the shortage of big fish due to the poor fishing methods like, use of the under size nets which has led to loss of the small fish including the eggs; and overfishing due to limited food alternatives. As a solution they suggested that L Uba should be closed for sometime to allow the fish to grow and strict measures against destructive fishing methods. In the case of forest, they discussed on how to conserve and manage it by establishing a system of guarding the natural resources using their own efforts.

They discussed on the issue of agriculture where they said that in order to get high yields from their field crops especially paddy, the use of water pumping machine for irrigation especially in the dry season, might be the solution for that problem.

**Mshirika:-Salum A. Kikumbo**

**Visited by :- Sulum S. Mkumba**

**Issues discussed:-**

They discussed about the meaning of environment, natural resources and their benefits. The meaning of environment according to them is anything surrounding their place eg forest. The natural resources are forest, lake, land and animals. Among the benefits from the natural resources are house building materials from forests, water for home consumption, and irrigation; fish, from the lakes.

Changes overtime of agriculture were seen as the declining harvest from the field crops especially maize and paddy year after year as compared to the past years. Their suggestion was to have water-pumping machine for irrigation.

**Mshirika:- Saleh A. Likali**

**Visited by:- Mtukacha**

**Issues discussed:-**

The benefits of forest:- house building materials, charcoal making and for firewood. They also discussed about how to control/conservate forest and lakes as part of their responsibilities. They suggested solutions on how to conserve forests and lakes included; zoning and guarding the reserved areas for their benefits.

**Washirika:-Zabibu Ali Mikoroti, Tumu Bakari Jongo, Asha Omari, Asha Salumu**

**Visited by:- Asia Mkopa**

**Issues discussed:-**

According to them the volunteer visited them to discuss with them about environment, and also to share with them what they had learnt during the training workshop for the volunteers.

They discussed about land, forest, lakes and their benefits such as rainfall, timber, agriculture, honey and fish for home consumption.

She also asked them some questions like what they understand by the word environment; and the present situation in terms of environment. They said, environment is the place where they live and everything that is found in it. Based on the environment, they said, the present situation of their environment is becoming worse day after day with droughts less animals, low fish catch, less firewood and reduced soil fertility. Therefore concurrently they realized the need for them to take action.

They also discussed on how to provide information between one another concerning their environment and they agreed that they can pass on messages to one another especially through the washirika programme.

**Washirika:-Asha Mohamed, Haibuni Likoko, Fatuma Mtigino, Mariamu Said Ndembo, Zainabu Said and Jutia Chekeni.**

**Visited by:- Maua Seif**

**Issues discussed:-**

Their discussion was based on their environment, agriculture, forests, and lakes conservation. In their discussion, they raised an issue of vermin control as one of the major problems affecting their field crops. They had no suggestion on how to control them.

On the issue of protecting forests and lakes, they found it difficult without having strong weapons to protect themselves as the users were seen as too strong. Lastly they agreed to have a group work for different activities eg agricultural activities, after getting solutions to their problems like diversifying the types of crops grown.

**Washirika:- Zainabu A. Mbotoni, Zarau Moshi, Hadija Athumani, Semeni Salumu, Nunu Omari**

**Visited by:- Sofia Ukwama**

**Issues discussed:-**

They discussed on the meaning of environment, the importance of forest and land to their life. They said environment is everything in their surroundings. Lastly they agreed to have a good cooperation

in environment management for their future benefits.

**Mshirika:- Zakia Kassimu**

**Visited by:- Hadija Seif**

**Issues discussed:-**

They discussed about the meaning of environment and the benefits from the natural resources the same as the other discussed in the above groups.

**Washirika:- Hadija Ngulangwa, Furaha Mang'ula,**

**Visited by :- Ajuaye Ngubege**

**Issues discussed:-**

They discussed on the meaning of the environment, the importance of having forest and lakes. They said income generation is one of the benefit from the forest products.

**Washirika:- 8 persons**

**Visited by:- Mr. Mwera**

**Issues discussed:-**

The benefits from the natural resources, also they discussed on the changes overtime of their natural resources, and the problem of agricultural development in their village. They concluded their discussion by agreeing that, small issues on their environment management should be handled by themselves, while the bigger ones should be channelled to the district for further solution.

## ANALYSIS

- The report from the visited washirika showed that most of the volunteers had made the effort to share and learn with them issues on environment.
- There was an indication that the volunteers had learnt a lot from the discussions during the training workshop.
- Looking at the issues discussed it shows that if the right messages are fed into the system the washirika could be a very effective way of creating awareness.
- Some of the groups of washirika had gone ahead to discuss solutions to some of the problems which is a good indicator of learning together.
- For the information generated there was no clear flow or way of giving the feed back. In essence the big issues are supposed to be discussed by the environmental committee and then back again to the washirika and those issues that would require external information the committee would seek it and give a feed back to the volunteers.
- Hence this indicates that the Environmental committee has to be well mobilised on the ground and well trained on environmental issues; information on issues within the community to enable them discuss the issues and give feedback to the volunteers and washirika effectively.
- The feed back especially that from the outside agencies has to be prompt if the dialogue is to be effective.
- Messages for awareness especially on environment and natural resources ought to be fed in to the washirika programme in order to pass on information especially on issues affecting the communities to allow learning. This would gradually trigger action which is the best indicator of a decision made out of being aware of a given situation.

## Meeting with the Volunteers, Wednesday 15<sup>th</sup> November 2000

(Group interview with the volunteer listeners led by Paul Vare, Translator: Fortunatus Ndasi)

Discussion point 1: How was the exercise, any problems?

No problems reported. The men said they were happy to do it, keen to help. The women said they felt the same way.

Discussion point 2: What is the role of the volunteer?

The men replied first: To know about the environment, the meaning of it, its values and problems which relate to environment. They learn this through discussion. Their role is to discuss this with

their fellow people so that they all come to know more.

The women said it was to know the value of the land and the forests and the things around. They get this from their friends when they talk to them

Discussion Point 3: How did people react to them coming around to discuss these things?

Men: Their friends are ready to tell them and agreed that it was their concern also. They talk to their friends on a one-to-one basis.

Women: Their friends are ready. They gather them in groups to discuss the environment with them.

Discussion Point 4: Were any problems encountered?

Men: Some people failed to understand the term environment. Others agreed, people did not understand things about the environment.

Women: One woman said that people tend to add words that they have not said before (reflecting the whispers game played at the introductory workshop?)

Discussion Point 5: Can people suggest any improvements to the scheme?

Men: It's generally good but we had better continue to educate those who face problems.

Those who have been missed should still be contacted.

Women: Most women are ready for this.

Discussion Point 6: Who should this information be passed on to next?

It was agreed that this should now go to the Environment Committee. PV explained that they were the principal source of information for the Environment Committee - this was important in helping them make decisions.

Remarks to the group:

The fact that people mentioned discussion and learning through discussion indicates a good grasp of the principles behind the washirika programme. On the issue of 'people not understanding', we went on to discuss how this should be seen as a challenge for the whole community. Their job is to report the perceptions of people - these will only change as people engage more in the arguments surrounding natural resource use - they will learn as and when they have to. The village environmental plan should provide an opportunity for such learning provided that people maintain dialogue with their friends throughout the process.

#### **Pilot Environment Committee Meeting**

Following discussions with volunteers and washirika (above) it was hoped to stage an Environment Committee meeting. Unfortunately, only two Committee members were available and they claimed that they had not met before. The meeting therefore became a discussion between the volunteers and the consultant (who was identified with MUMARU). This provided an opportunity for more feedback on local problems but it was not the planned meeting.

**Appendix 11: Presentation to Wrap-up Meeting with District Staff**

(18/11/00)

**Tasks Completed by the Awareness Programme Design Consultancy Team:**

NB The consultancy team was accompanied by District staff in the execution of all of these tasks with an increasing emphasis on District staff carrying out tasks themselves as the work progressed.

- Interviews with District staff
- Semi-structured interviews in Mtanza-Msona
- Semi-structured interviews in Twasalie
- Established drama group in Twasalie
- Poster workshop in Twasalie
- Interviews with NGO and Government officials in Dar-es-Salaam
- Draft report submitted
- PLA workshop for District staff
- Semi-structured interviews and 'trust mapping' in Mbambe Hamlet (Mbunju-Mvuleni)
- Selection and training of 'washirika' in Mbambe
- Drama workshop for pilot villages and Utete drama group
- Training of District Education Department staff on teachers' workshops
- Educational materials production workshop with teachers, Ward Education Officers, and Ward Executive Secretaries
- Abridged natural resource policies for district-wide distribution
- Leaflets to accompany licence/permits for fisheries, forestry and wildlife
- Workshop on roles within proposed awareness programme for local leaders at ward level
- Screen-printing workshop
- Meetings in Mbambe to evaluate the washirika programme
- Wrap-up meetings with REMP and District staff to present and discuss recommendations
- Production of report and guidelines document

**Immediate tasks to be completed by District staff:**

- Provide technical follow-up for Mbambe Hamlet in line Washirika feedback
- Mobilise the Mbunju Environment Committee and develop washirika programme in order for the committee to receive and process the washirika feedback from Mbambe
- Finalise the abridged policy leaflets and produce in bulk
- Finalise children's booklets and send to institute of Education for Checking
- Follow-up drama groups in the pilot villages (utilise washirika feedback in Mbunju)

**Recommendations**

**Develop 'Washirika' Programmes**

- Hamlet by hamlet, in pilot villages
- Extend programme to neighbouring hamlets where environmental issues overlap
- Identify facilitators to maintain relationship with villages over time
- Allow for flexibility in provision of technical advice in response to Washirika feedback
- Use Washirika as means to mobilise village environment committees

- Train environmental committees in performing their roles
- Involve religious leaders when setting up programme (inform and gain support where possible)

#### **Develop Participatory Drama**

- Based on local appraisal of natural resource issues by drama groups
- Follow-up groups in 4 pilot villages
- Extend to all villages in project area through three-day workshops

#### **Develop Poster Workshop Programme**

- Train group in district (external assistance required)
- Run two-day workshops in pilot villages- hamlet by hamlet
- Extend to neighbouring hamlets to shadow growth of Washirika programme

#### **4a) Investigate Complimentary Basic Education Initiatives**

##### **4b) Run Teacher's Workshops**

- Teachers develop materials for their own use
- Materials checked by Institute of Education
- Workshop includes experiential learning component (transect walks, overnight in forest, talks/walks with enthusiastic experts)
- Follow up EE book

#### **Publish and Distribute Policy Leaflets**

- Finalise text
- Arrange for bulk production
- Produce edition in Arabic script for Delta
- Distribute to all villages in project area
- Investigate collaboration with WWF/ MMP

#### **Build Relationships with Mass Media**

- Visit journalists in Dar-es-Salaam (external assistance required)
- Invite journalists to Rufiji District
- Maintain vigilance for news-worthy stories
- Maintain relationship with JET

#### **Organise Celebrations for World Environment Day, Wetlands Day and National Tree Planting Day**

- Mobilise press, drama groups, schools etc. (major event- may require external assistance)

#### **Publish and Distribute Leaflets to Accompany Permits**

- Finalise text
- Include facsimile of relevant permit
- Produce Arabic script version for Delta

- Distribute at check-points in all villages and to permit applicants

**Distribute District Brochure**

- Check text and images
- Arrange for Kiswahili translation
- Distribute to District staff, village leaders, national institutions, journalists, visitors, donors, colleagues, etc.

**Upgrade Participatory Skills Among Technical Staff**

- Organise training sessions to accompany development of Washirika programme

**Monitor and Evaluate Awareness/ Education Programme**

- Conduct semi-structured interviews (before and after)
- Re-run PRA exercises- keep detailed reports
- Maintain records of media coverage plus production and distribution of materials
- Report on progress and feedback from all meetings/ interviews/ conversations in the field

**Develop Programmatic Relationship with External Technical Assisting Body (NGO or other)**

- Including collaboration/ networking with MMP/ WWF/ NEMC

## Appendix 12: AWARENESS PROGRAMME: Guidelines for Implementation

### Contents

- 1 Introduction
- 2 Washirika Programme
  - 2.1 Why is it important?
  - 2.2 Who could be involved?
  - 2.3 How is it done?
    - 2.3.1 The Process
    - 2.3.2 Operating in the Field
    - 2.3.2 Monitoring the Programme
  - 2.4 When should it take place?
- 3 Village-based Media
  - 3.1 Why is it important?
  - 3.2 Who could be involved?
  - 3.3 How is it done?
    - 3.3.1 The Drama
    - 3.3.2 Poster Workshops
  - 3.4 When should it take place?
- 4 Other Mass Media
  - 4.1 Why is it important?
  - 4.2 Who could be involved?
  - 4.3 How is it done?
    - 4.3.1 Permit leaflets
    - 4.3.2 Abridged policies
    - 4.3.3 EMT Brochure
    - 4.3.4 Press Liaison
    - 4.3.5 Celebrations/events
    - 4.3.6 Occasional newsletter
  - 4.4 When should it take place?
- 5 Formal Sector Programme
  - 5.1 Why is it important?
  - 5.2 Who could be involved?
  - 5.3 How is it done?
  - 5.4 When should it take place?
- 6 Focused Learning Exercises
  - 6.1 Why is it important?
  - 6.2 Who could be involved?
  - 6.3 How is it done?
    - 6.3.1 Training in participatory theory and practice
    - 6.3.2 Training in ecology
    - 6.3.3 Monitoring and evaluation
  - 6.4 When should it take place?
- 7 Programmatic Technical Assistance
  - 7.1 Why is it important?
  - 7.2 Who could be involved?
  - 7.3 How is it done?
  - 7.4 When should it take place?

## 1 Introduction

This document is a supplement (and Appendix IV) to the Living Earth Foundation's Final Report on an awareness programme design consultancy carried out on behalf of the Rufiji Environmental Management Programme.

The role of this supplementary document is to provide *guidelines* on the implementation of the recommendations given in Chapter Four of the Awareness Programme Design Final Report - this is *not* a document to be followed to the letter.

The Final Report recommends a strategic approach to education with activities grouped into six programme areas:

- Washirika Programme
- Village-based Media
- Other Mass Media
- Formal Sector Programme
- Focused Learning Exercises
- Programmatic Technical Assistance

The subsequent sections correspond to these programme areas. Sections are further sub-divided into specific activities. These are described under the following headings:

### **Why is it important?**

This section provides a brief rationale for the activity.

### **Who could be involved?**

Notes on the key learners and any Government personnel involved.

### **How is it done?**

Advice on how to go about implementing the activity.

### **When should it take place?**

Suggestions on timing where appropriate - see also *Workplan* (Table II) in the Final Report.

## 2 Washirika Programme

### 2.1 Why is it important?

The attitudes of local people will have a direct bearing on the District's success in managing the environment through collaboration rather than confrontation. The idea of a large cadre of people working so intensively is based on the recognition that people will learn from those whom they already know and trust.

### 2.2 Who could be involved?

A typical field worker will be a person with integrity and will be respected within their own community - beyond this there is little need for any other qualification other than a genuine willingness to take part in the programme. Personal qualities are important here rather than levels of literacy.

The training will be carried out initially by two district and/or ward level staff. Staff of the Natural resources Department and Education Department will be involved initially, while ward level staff members who have the aptitude to be good facilitators should be identified as soon as possible.

The key learners will be District officials, REMP staff, district and ward level facilitators, village environment committees and local communities (chiefly adults).

### 2.3 How is it done?

The learning link from the community to the district via the village environment committee and MUMARU.

Each hamlet should identify an mshirika for approximately every 10 adults. These washirika should be from the various geographical, occupational, gender and age groups found within that hamlet.

The process for the selection of these trusted friends and neighbours is critical for the success of the programme. Selection should be based on the various interest groups identified by the hamlet residents (in the pilot case study – old men, young men and women).

Their role is to develop and promote dialogue by questioning, listening and seeking solutions and thus facilitating learning at a community level. They will work as volunteers and spend a few hours a week talking with and listening to their 10 close neighbours and friends on natural resource/environmental issues. They will internalise and remember the key issues, concerns, questions and solutions. A weekly meeting will take place of all the washirika in the hamlet to discuss their dialogue of the previous week. The key issues should be summarised and recorded.

The washirika will select from their midst two representatives (one male, one female) to link with the village environment committee. They will co-ordinate the weekly meetings, record the summary information, ensure that all members of the hamlet have access to a mshirika and request groups to replace any mshirika who are no longer active.

They should also attend the village environment committee meetings and inform them of big issues and possible solutions at the grass roots level. They could also provide information on the impact of the village environment action plan. The representatives via the village environment committee should submit a monthly report on the nature of the washirika dialogue. This report should be forwarded to the village government for onward transmission within the government structure a copy should be sent directly to MUMARU.

The programme should consist of volunteers both washirika and their representatives – no allowances should be paid for attending meetings or training courses. MUMARU should only provide lunch to those attending training sessions.

### *2.3.1 The Process*

#### **a) Semi-structured interviews**

To enable external facilitators to gain an understanding of the hamlet and its current sources of information/learning. Understand what are the important social groups in the hamlet.

In pairs ask questions to key informants on:

What is your name, age and how long have you lived here?

What do you understand by environment and natural resources?

What is your occupation and how did you learn it?

Where do you get information?

With whom do you discuss the news and where?

Record answers as what people actually said if unclear ask why.

Meet with other facilitators and discuss findings – what are the main sources of information, from whom do people learn from, where do they meet, what are the main social groups.

#### **b) Trust Mapping Exercise**

To understand how people in the hamlet relate to each other in terms of trusted “neighbours” and what are their social groupings.

Request community meet to map their hamlet.

Decide on which social groupings should meet separately (recommend that at least men and women meet separately)

Explain purpose of exercise

Ask when person to start by drawing on the ground the most important landmarks in the hamlet and to mark their house, where the work, where they get information, where they meet and discuss.

Ask why and with whom, what do you learn etc whilst they are drawing – seek to establish dialogue.

Allow others to correct or add to the map.

Pass the stick to the next group member to add their house, place of work etc.

When the map is finished request someone copy the map and keep the copy with a trusted person from the hamlet.

Facilitators should analyse the information and list what are the main sources of information, where do they discuss, what are the social groups.

#### **c) Peer Group Meetings**

To agree number of washirika required in order to enable all group members to be able to meet with their washirika (suggested that not more than 10 people per mshirika) and to agree criteria for selection of washirika.

Arrange to meet with various groups

Inform that the meeting will last for approx. 2 hours

Explain purpose of meeting

Explain the work of the volunteer washirika

Ask the group how many members they have in the hamlet – cross check with mapping and semi-structured interview notes.

Ask how many people one mshirika would be a trusted friend and neighbour to.

Calculate how many washirika will be required – seek consensus for this.

Ask the group what personal qualities a washirika must have.

Ask if there are any geographical or occupational criteria (in the pilot hamlet two old men must come from Mashambani and two from Gongoni)

Request that the group meet again on another day to select their washirika – do not select at this meeting

Inform the group when you will return to provide an introduction to all the washirika for the hamlet

#### **d) Peer groups select washirika in the absence of MUMARU and district**

##### **e) Explanation of role and responsibilities of washirika and training**

- Training in what is environment and natural resources
- Questioning and listening exercises
- Role play on work of washirika
- Transect walk asking them to point out natural resource issues and how they have changed over time

**f) Review of first weeks dialogue – selection of representatives**

*2.3.2 Operating in the Field*

Listeners will walk from household to household arranging a time to meet or holding discussions on the spot. They will collect data on resource use issues, development priorities and attitudes to the environmental planning process; specific tasks may include monitoring the effects of other aspects of the awareness/education programme. As literacy is not a determining factor in the selection of Listeners, any 'data' will need to be reduced to a series of marks on a page - something which should be discussed and designed among the Listeners themselves in collaboration with the facilitator.

It is intended that by engaging people in conversation, a number of questions will be raised concerning natural resource issues. As far as possible, any information transfer *from* the Listeners *to* local people should be done *in answer to people's questions*. In this way the Listeners will assist in building knowledge (a personal possession) rather than disseminating information (a commodity). The Environment Committee will have to pass on verbal reports to the District EMT.

*2.3.3 Monitoring the Programme*

Listeners should report on any difficulties experienced, this information will be used to refine subsequent programmes. The facilitator will keep track of timetables and join Listeners on occasions to see how they are getting on.

Listeners would be encouraged greatly if a team spirit were built up through a regular programme of feedback/training/discussion meetings; bringing back the goods - a sort of harvest festival. To this end, Listeners should meet at the facilitator (apart from the Environment Committee) at the end of each programme.

*2.4 When should it take place?*

The programme has already started in Mbambe Hamlet (Mbunju-Mvuleni) and should be extended to the other pilot villages as soon as possible. Thereafter the programme should extend to other neighbouring communities.

### **3 Village-based Media**

#### **3.1 Why is it important?**

These activities provide strategic awareness support to the programmes of the EMT/REMP. It is important to engage local leaders in the project area and this activity is a more typical conservation education programme. It will involve large gatherings of people at village centres; as such it has a high value as a public relations exercise. Having said this, if the follow-up activity of local poster making is carried out then the event will have value as a meaningful programme of learning.

Rather than simply show a film at a meeting and hold a discussion with an unmanageable number of people, the vehicle for this awareness raising activity will be a two to three-day 'roadshow'. The aim will be to determine a locale specific message in the form of a poster, which can be screen-printed by the participants on site. While the poster may serve as a reminder of the community's intent to conserve the forest, the *process* of discussing, designing and producing a poster (with at least one for every participant) will serve as an important step in achieving local ownership of the education programme.

#### **3.2 Who could be involved?**

The drama and poster workshops will require the input of the Education Department, with the District Sports and Games Officer taking a lead in these particular activities. The poster workshops will require the assistance of an experienced screen printer to initiate the programme as they will be required to train a group of facilitators at district and ward level in screen-printing techniques.

Key learners include village environment committees, local communities (including all children), district and ward level facilitators and local leaders.

### **3.3 How is it done?**

#### *3.3.1 The Drama*

Participatory drama based on natural resources issues should be implemented in all pilot villages by running participatory drama development and training in stagecraft workshops over 3 days in each village.

#### **Day One Process**

1. Introductions: Using pair work - for each pair to introduce themselves to each other, whether they have any idea or experience in drama and thereafter introduce their partners to all the participants.
2. Fruit salad game or similar to liven the participants and form groups.
3. Facilitator lecture: What is drama, its principles and stage craft:  
This is the relationship between the design of a drama and the drama itself therefore the stage should be set accordingly.
  - i) Good arrangement of the materials to be used.
  - ii) Actors must face the audience while dramatising
  - iii) Costumes and clothing should be relevant to the theme of the drama and the role of the actor.
  - iv) Message should be loud and clear.
  - v) Contents, series and steps in every scene must lead the audience to the theme.
  - vi) Each action should be at a time without confusion.
  - vii) Fictitious names should be used.
  - viii) There should be discipline on the stage.
4. Participatory learning through PLA techniques e.g. timeline to analyse issues/events that have happened overtime. One listener and recorder selected. The facilitators encourage discussions by asking questions like why? What was it like? Why do you think it happened or is happening? Are there any positive or negative changes overtime?
5. Establishing a storyline for drama using a mapping exercise of natural resources of each village (groups from each village)
6. Role-plays using sketches (playlets) each village using the established storyline develop a sketch and present it.

#### **Day Two Process**

1. Small 'buzz' groups (3 persons per group) to discuss what they understand by the term Environment; and natural resources.
2. Feedback from groups outlining the meaning and the list of natural resources; facilitator input.
3. Open discussion on what they use natural resources for and or how they benefit the communities.
4. Discussion on changes overtime, associated problems, how it was before and now and if any changes, why?
5. Prioritising the major environmental issue in the village which could be used to develop a storyline for drama.
6. Group work to develop a storyline and present/perform.
7. Developing a drama using the acted scenes. Rehearse; and discuss the 3 main stages of the drama (beginning, middle and end).

The drama should be rehearsed over the following week. After this the facilitator should return to check on issues of stagecraft before the drama is performed all around the village.

### 3.3.2 Poster Workshops

**Materials required:** a portable flip chart, marker pens, A3 or A2 sheets of paper (or sheets of newsprint), pencils, examples of environmental and other posters, a portable screen-printer, squeegee, screen blocker, coloured inks and cleaner.

**Suggested Format:**

#### Day One Process

1. Introductions:
  - i. to each other;
  - ii. to the EMT and its objectives - begin with the participants' own perceptions of these;
  - iii. to the general purpose of the workshop.
2. Discuss the situation faced by local people in relation to natural resource management. The discussion may focus on the following points:
  - i. rank the values of a specific resource as perceived by the participants;
  - ii. identify the major threats to this resource in that particular location;
  - iii. decide, if possible, who is responsible;
  - iv. work out what can be done by 'those who are responsible' and by the participants;
  - v. decide on the role of education with regard to this issue;
  - vi. what general message would the group wish to promote/disseminate?
3. Demonstrate/display and discuss examples of posters.
4. Elicit suggestions from the group on what 'their' poster might be like; i.e. everyone sketches out a design and elects the best one (or the best combination of image and slogan). Participants copy the 'winning' posters and take them home for pre-testing among friends and family that evening.

#### Day Two Process (either the next day or a pre-arranged day the following week)

1. Introduce the artist. Re-cap on previous meeting and receive feedback on the pre-testing exercise. Consider necessary modifications.
2. Artist demonstrates the screen-printing process involving participants from the start.
3. Carry out production - the artist does not produce any artwork but *oversees and assists* the production process.
4. Agree on programme of monitoring the effectiveness of the production: e.g. level of interest shown, number of favourable/unfavourable comments, initiation of similar activity, increased interest in project interventions, other positive or negative actions.

NB. Remind the group that this is not an isolated activity but only one part of a long-term programme to achieve 'wise use' of natural resources.

### 3.4 When should it take place?

Both the drama and poster workshops should shadow the expansion of the washirika programme.

## 4 Other Mass Media

### 4.1 Why is it important?

People in positions of authority and with a disproportionate influence on public opinion will be reached through (or influenced by) media coverage rather than community or schools-based programmes that may be seen as useful education 'for others'. The media will also raise awareness of project objectives and activities among people who are not reached by more focused components of the education programme. The leaflets being produced on resource use and policies will provide a

lasting record of work carried out under the awareness programme as well supplying valuable information in their own right.

#### **4.2 Who could be involved?**

Relevant departmental staff members have been involved at District Headquarters. Materials for press releases should be channelled through Mr Masoud while work with journalists based in Dar-es-Salaam should be carried out by Bartholomew Tarimo of NEMC.

The key learners will be decision-makers, village environment committees, general public, specific resource users and district staff involved in development and distribution of materials.

#### **4.3 How is it done?**

##### *4.3.1 Permit leaflets*

Relevant district staff should be involved in finalising the text of these leaflets which are designed to accompany fishing, timber and hunting permits. Each leaflet should include a facsimile of the relevant permit so that even illiterate people can recognise a genuine permit from a fake.

It is recommended that bulk production of these leaflets take place in Dar-es-Salaam (Agenda, an NGO, is probably the most cost-effective organisation for this – liase with Mr Tarimo of NEMC). Limited numbers of Arabic script versions should be piloted in the Delta – these will require careful monitoring to check that the additional effort is justified.

Although originally intended for permit applicants, it is recommend that these leaflets be distributed at vehicle check-points and to all villages in the District.

##### *4.3.2 Abridged policies*

The text of the abridged policies should be finalised by relevant staff. The co-ordinating officer should then arrange for bulk production in Dar-es-Salaam (liase with Tarimo). Again, Arabic script editions should be produced for distribution in the Delta. Distribute policies to all villages in the project area. Investigate collaboration with WWF/MMP as their Rufiji-based operations may benefit from these materials and they may therefore assist with production costs.

##### *4.3.3 EMT Brochure*

This is a colourful (possibly glossy) leaflet which explains in plain English (and a Kiswahili version), the need for careful environmental management in Rufiji District. It should stress the role of the EMT as facilitator of the process and give credit to REMP and its sponsors. The suggested format is a slim leaflet (A4 folded twice) printed in full colour.

The text should be circulated among EMT members for comment. A Kiswahili translation should be arranged after a final English text has been accepted. Images should be sourced from existing REMP collections. Advantages in quality, cost and time would be achieved by printing the brochure in the UK; Living Earth has offered to follow this job to completion under the terms of the existing contract.

The brochure should be distributed to District staff, village leaders, national institutions, journalists, visitors, donors, colleagues and any other interested parties.

#### 4.3.4 *Press Liaison*

This is simply a matter of keeping up a steady flow of press releases from the field - at least an average of one a week. Important issues (occurring once every few months) should be followed up by telephone calls to specific journalists and news desks - taking good quality photographs to illustrate stories will also increase the chances of press coverage.

General rules in writing press releases should be observed i.e.:

- i. answer the key questions in the first lines - Who? What? Where? When? Why? How?;
- ii. type copy using double spacing;
- iii. provide editor's notes at the end to indicate photo opportunities, sources of additional information and contact names.

The proposed visit by journalists will provide the EMT with an opportunity to forge positive relationships with concerned individuals working in the mass media. Two suggestions are given for inclusion in the programme:

- i. prepare a small number of story suggestions/press releases in readiness for the journalists' arrival. These may serve to focus attention during the visit and may even provide off-the-peg coverage for those who wish to return with an instant story;
- ii. provide a forum for the journalists to inform EMT/REMP staff of their own requirements, e.g. 'what makes a good story' and 'how to present it to the journalist'.

#### 4.3.5 *Celebrations/events*

The recommendation here is to work closely with Bartholomew Tarimo of NEMC who has experience of organising such occasions.

#### 4.3.6 *Occasional newsletter*

An A4 newsletter (A3 folded once) is suggested as a means to update staff, local leaders and others on the successes and challenges of the programme three times a year. This could be compiled by the co-ordinating staff (Masoud and Chande).

### 4.4 **When should it take place?**

Leaflets should be produced as soon as possible. Press releases should be issued throughout the year - at the very least on a fortnightly basis. Events should be pegged to specific days e.g. World Environment Day.

## 5 **Formal Sector Programme**

### 5.1 **Why is it important?**

Schools in Rufiji District have a severe shortage of teaching materials with very little relevant information on environmental themes at the primary level.

The usual response to this situation is to provide schools with centrally developed materials that are always gratefully received. However, poorly trained teachers find it difficult to exploit the possibilities of materials which have been handed down to them; to overcome this difficulty it is proposed that materials are developed *with* teachers during two-day or three-day workshops.

In this way materials will be developed which:

- i. are clearly understood by the teachers who will use them;
- ii. meet the needs of pupils, teachers and the curriculum;
- iii. reinforce the District's education programme on natural resource management.

### 5.2 **Who could be involved?**

Education Department staff should organise these workshops while teacher's materials should be checked for content by the Institute of Education (Stephen Mwinuka has been identified as the best person for performing this task). The key learners will be local schoolteachers, schoolchildren, and district and ward level education staff.

### 5.3 How is it done?

The key to success lies in the skill of the facilitator(s) in building the confidence of the teachers so that they arrive at decisions themselves and do not allow the departmental 'experts' to simply design the materials for them during the workshop.

Three workshops are recommended per year - two for primary level and one for secondary. Up to fifteen teachers should be invited. The secondary level workshop may have considerably fewer teachers than this.

**Materials required:** a portable flip chart, marker pens, A3 or A2 sheets of paper (or sheets of newsprint), pencils, examples of existing EE materials.

**Suggested format:**

#### Day One

##### 1. Introductions:

- i. to each other;
- ii. to the general purpose of the workshop:

We cannot consider materials in isolation - they not only depend on imaginative teaching but they can also demand such teaching if we design schemes of work in which the material is a springboard for work beyond the classroom. This workshop is about environmental education - that is education:

**about** the environment - accurate information;

**in** the environment - classwork or project work beyond the classroom;

**for** the environment - promoting a positive attitude towards and respect for the ecological principles that support our lives.

##### 2. Discuss opportunities for EE in the curriculum at this level

- i. What does the curriculum demand?
- ii. What examples do participants have of any internal or external examination questions that relate to environmental issues? i.e. what do teachers need to teach?
- iii. Is this sufficient for the pupils' personal development in this village? i.e. what do pupils need to know?

##### 3. Explore the relevance of the local protected area to the curriculum

Lunch

##### 4. Approaches to incorporating EE into teaching: these can be divided into teaching styles (participants suggest one or two ideas) and classroom materials (participants suggest one or two ideas).

##### 5. Examples of teaching EE: e.g. getting out of the classroom during lessons, experiential learning, out-of-school project work, bringing in found objects, relating lessons to real life.

##### 6. Develop these ideas with teachers' input. Design specific lessons around these (there will be a chance to practice this on day three of the workshop).

#### Day Two

##### 1. Re-cap on previous day's events/discussions.

##### 2. Consider EE materials - what do we need? Brainstorm options (this should build on the previous day's discussion on EE in the curriculum).

##### 3. What are some important questions to consider? (A similar list might emerge through another brainstorming session):

- i. Which part of the syllabus is this?
- ii. What message is the material promoting?

- iii. What should the pupils actually do during this lesson?
  - iv. What illustrations or diagrams are required - will they be understood by pupils at this level?
  - v. Is there a need for further background information?
  - vi. What would be the most effective format (wallchart/ worksheet, textbook)?
  - vii. How can we test our materials?
4. Group work (in threes or fours): select a topic and design a teaching package (lesson plan) which will be supported by printed material - then design the material.

Lunch

5. Continue with material design. Early finishers can have a second attempt.
6. Presentation and positive criticism of lesson plans and materials
7. Discussion - given the limited time available, what material would the teachers like to have prepared by the end of the workshop? Decide before the end of the day.

**Day Three**

1. Re-cap on previous day's work.
2. In groups: draft the material, which was discussed at the end of the previous day.
3. Present the various outcomes and decide upon the best composite solution. This will be taken away by the departmental staff for checking at the Institute of education in Dar-es-Salaam.
4. Remember that discussion on teaching approaches in Day One? Design a forty-five minute lesson to take place outside/around the school. In groups: decide on a running order with different groups taking over different parts of the lesson and others acting as observers.

Lunch

5. The real thing: implement the outdoor lesson with a class of pupils as planned before lunch.
6. Discuss the lesson - is this something we can now attempt in our own schools? If not - what are the barriers to this?
7. Summing up - Re-cap on introductory talk about EE and the integrated use of materials.

NB This activity would be incomplete without a thorough programme of teacher follow-up to check on progress and difficulties and to motivate teachers who suffer from professional isolation in rural areas.

*Experiential Learning Programmes*

The recommendation here is to contact IUCN Mount Elgon Project who should be able to put REMP in touch with David Kissa and Stephen Nasasa who ran the Elgon Forest Exploration Centre (see separate document on the Exploration Centre).

**5.4 When should it take place?**

Prepare and identify the next schools and staff in January 2001. Run the programme three times each year (see Workplan in Final Report).

## 6 Focused Learning Exercises

### 6.1 Why is it important?

The approach adopted by District and ward level staff in developing the washirika programme will have a profound effect on the success of the overall awareness programme.

### 6.2 Who could be involved?

A skilled external trainer will be required to design a specific programme to suit the needs of different staff members. Key Learners: District and ward level facilitators.

### 6.3 How is it done?

#### 6.3.1 Training in participatory theory and practice

This should accompany the development of washirika programmes as this provides an excellent opportunity for on-the-job learning. The following reference is recommended:

Pretty J, Gujit I, Scoones I and Thompson J 1995. *A Trainer's Guide for Participatory Learning and Action*. IIED. London

The following aims and objectives may be used to suggest headings for this training programme:

#### Aims:

- To provide a critical view of the work that is carried out at community level
- To provide an historical background to participation in community projects
- To illustrate ways in which environmental education has been carried out at community level
- To develop participants' skills as a listener

#### Objectives

By the end of this course participants will be able to:

- Explain the relationship between RRA, PRA and PLA
- Differentiate between different levels of participation
- Describe and carry out a process of stakeholder analysis
- Organise a workshop event which listens more than it teaches
- Carry out a semi-structured interview
- Carry out some basic qualitative data analysis
- Describe the importance of genuine participation in environmental education projects

#### 6.3.2 Training in ecology

This should take the form of an experiential learning programme. A useful reference here would be *Sunship Earth* by Steve van Matre published in 1972 by the American Camping Association.

This approach to ecology stresses the use of the senses in exploring the environment; van Matre summarises the story of life with the mnemonic: - EC-DC-IC-A

- E - energy flow
- C - cycles
- D - diversity
- C - community
- I - inter-relationships
- C - change
- A - adaptation

He also stresses the need for the teaching approach to shift from the teacher/tutor role to that of fellow explorer. Solitude is also seen as an often overlooked but extremely powerful element in developing empathy for one's environment.

#### 6.3.3 Monitoring and evaluation

The semi-structured interviews carried out under Input One and Input Two of this consultancy should serve as baseline data for the awareness programme. Such interviews (and focus group discussions) should be carried out before and after any component of the awareness programme is implemented.

Similarly, detailed reports should be kept of all PRA exercises and these should be compared with the outputs of PRA re-runs carried out after a year of project implementation. The difference in felt needs, ambitions and perceptions will indicate the extent to which people's thinking has changed over time. Semi-structured interviews provide qualitative data which can identify the extent to which the project has facilitated this change compared to other internal and external influences.

Reports on progress and feedback from all meetings, interviews, conversations in the field, etc. should be kept as this all adds to the evidence of change taking place.

Quantifiable data (particularly valued by donors) can be used to indicate the provision of education rather than its effectiveness. Records of numbers and distribution of leaflets, participants on training courses, numbers of washirika, maintaining records of media coverage etc. will all help to illustrate the nature of work done and will reflect the immediate impact of donor support for this aspect of the project.

#### **6.4 When should it take place?**

Training should begin as soon as the next washirika programme is initiated – we suggest January 2001.

## 7 Programmatic Technical Assistance

### 7.1 Why is it important?

Benefits to Rufiji district

- The development of a partnership with an NGO will ensure consistency and enable support to be provided when required and at short notice.
- Funding will be based on actual costs plus administrative support rather than a day rate and as such would provide better value for money for REMP and the District.
- The development of a partnership with a civil society organisation will provide a framework to enable local government to develop partnerships with other NGOs in various sectors, thus promoting “good governance”.

Benefits to Tanzania

Development of long term local capacity to provide integrated environmental learning support to conservation and development stakeholders in Tanzania, thus ensuring that the learning and resources are kept locally and not repatriated.

### 7.2 Who could be involved?

In the first instance this may include collaboration and networking with MMP, WWF and NEMC. The regular involvement of Bartholomew Tarimo of NEMC will assist REMP in implementing this programme in the short to medium term. It may be possible in the longer term to involve Living Earth (Uganda and/or an established Tanzanian branch) to supply technical support in this way. Key Learners are district and ward level facilitators.

### 7.3 How is it done?

Develop two-three year proposal with suitable NGO in region (possibly Living Earth Uganda). To provide management support and capacity building training to enable the district to manage and integrate the environmental learning programme in all aspects of their work. This proposal should stipulate the amount and level of support required to deliver the programme in Rufiji and also to enable this experience to be documented and shared nationally and regionally.

IUCN Tanzania could assist in developing the capacity of this partner NGO in terms of logistical support and by providing opportunities for them to share the Rufiji experience with other IUCN projects and the wider conservation and development community.

Indicative costs per annum:	US \$
Learning facilitator employment costs	10,000
Training and recruitment	5,000
Admin support	5,000
Computer, printer etc	5,000
Stationery	5,000
Office rent	5,000
Transport	3,000
Communication	2,000
Management support	10,000
<b>Total</b>	<b>\$ 50,000</b>

### 7.4 When should it take place?

Efforts to secure this technical support should begin as soon as possible in the New Year (2001).