

**The United Republic of Tanzania  
MINISTRY OF NATURAL RESOURCES AND  
TOURISM**



**Conservation and Management of the Eastern Arc  
Mountain Forests, Tanzania  
GEF-UNDP: URT/01/G32**

**NATURE RESERVES MEETING**

11-14 July 2005  
Amani  
Tanzania

## **Present**

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Elisa Pallangyo – WCST  
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Luciana Mshana – Economist  
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Bruno Mallya – Forester  
Godfrey M. Msumari – I/A  
Devis Mlowe – Forester  
Hamusi Sesiwa – Forester  
Juliano Lufyaki – Forester  
Dawn Hartley – TA  
Evarist Nashanda – SFO  
Anthony Sangeda – Forest Officer  
Eustack M. Bonifasi – TFCG  
Emmanuel Msoffe – Forester  
Herman J. Wadugu – DCFM  
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## CONTENTS

1. BACKGROUND .....	4
2. AIMS .....	4
3. PROGRAMME .....	4
4. OPERATIONAL MODALITIES .....	6
5. BUDGET AVAILABLE.....	6
6. STAFFING AND RESOURCES AVAILABLE .....	7
7. ISSUES AND RECOMMENDATIONS .....	8
8. WAY FORWARD (JULY TO SEPTEMBER) .....	9
APPENDIX 1. NATURE RESERVES UNDER TANZANIAN LAW (C. SAWE).....	10
APPENDIX 2. ISSUES RELATING TO THE DEVELOPMENT OF NATURE RESERVES IN THE ULUGURU MOUNTAINS (A. SANGEDA AND D. HARTLEY).....	12
APPENDIX 3. TFCG POSITION PAPER ON GAZETTEMET OF NEW NATURE RESERVES IN THE EASTERN ARC MOUNTAINS.....	15
APPENDIX 4. PRIORITY SITES FOR POTENTIAL NATURE RESERVES IN THE EASTERN ARC MOUNTAINS (N. BURGESS, S. MASHAURI, N. DOGGART) .....	18
APPENDIX 5. RANKING OF POTENTIAL NATURE RESERVES ACCORDING TO VARIOUS CRITERIA IN ADDITION TO BIOLOGICAL VALUE (GROUP 2).....	21
APPENDIX 6. RANKING OF POTENTIAL NATURE RESERVES ACCORDING TO VARIOUS CRITERIA IN ADDITION TO BIOLOGICAL VALUE (GROUP 2).....	22
APPENDIX 7. RANKING OF POTENTIAL NATURE RESERVES ACCORDING TO VARIOUS CRITERIA IN ADDITION TO BIOLOGICAL VALUE (GROUP 3).....	23
APPENDIX 8. STRUCTURE OF THE COMPONENTS OF THE PROTECTED AREA WORK OF CMEAMF .....	24
APPENDIX 9. STAKEHOLDERS AND BUDGET ALLOCATIONS - ULUGURU NORTH FR.....	26
APPENDIX 10. STAKEHOLDERS AND BUDGET ALLOCATIONS - WEST KILOMBERO SCARP FR.....	27
APPENDIX 11. STAKEHOLDERS AND BUDGET ALLOCATIONS - NILO FR.....	28

## 1. Background

One of the elements of the project Conservation and Management of the Eastern Arc Mountains Forests aims to increase the number of forest nature reserves in Tanzania. Various planning meetings held between CMEAMF and other staff of FBD, especially the catchment forest section, have clarified the leaders of the work as the conservator of the Amani Nature Reserve – Corodius Sawe, assisted by Luciana Mshana from Tanga Catchment Forest Office in Tanga.

In order to operationalise the work on the ground a need was identified to inform stakeholders of the intention of FBD to establish a number of other Nature Reserves within the Eastern Arc Mountains. This meeting was held in Amani in the East Usambara Mountains between the 11-14<sup>th</sup> July 2005.

## 2. Aims

The workshop had three aims:

- 1) To inform key stakeholders of the process of developing Nature reserves, the relationship between these kinds of reserves and the IUCN system of coding protected areas, and
- 2) To prioritise the 150 forest reserves as best possible using available data to identify at least 3 sites that have potential to be declared as Tanzania's next set of Nature reserves.
- 3) To identify the agencies among the conservation partners, officers and operational mechanisms to move the process of declaring at least three new Nature Reserves forward.

## 3. Programme

Presentations in the morning of the first day were made to cover the following issues:

- 1) Nature Reserves under Tanzanian law (Conservator of the Amani Nature Reserve) (Appendix 1).
- 2) Potential Nature Reserves in the Uluguru context (PA Officer – UMEMCP) (Appendix 2)
- 3) TFCG Position on the issue of Nature Reserves in the Eastern Arc (Senior TA – TFCG) (Appendix 3)
- 4) Potential priority sites within the Eastern Arc that could be upgraded to Nature Reserves (TA – CMEAMF) (Appendix 4).

In terms of vertebrate species per unit forest area, the four highest ranking biological priority blocks within the Eastern Arc are as follows:

- Uluguru Mountains
- East Usambara Mountains
- Udzungwa Mountains
- South Nguru Mountains

Within each of these blocks the various forest reserves were further prioritized to identify the most highly ranking sites that might be regarded as potential Nature Reserves. Within the East Usambara Mountains the highest ranking reserves are Nilo and Amani. Because Amani is already a Nature Reserve this site was not considered further. Within Uluguru the highest ranking reserves are Uluguru North and Uluguru South. Within South Nguru the highest ranking reserve is Nguru South FR. Within Udzungwa Mountains the highest ranking reserves are West Kilombero Scarp and the Uzungwa Scarp.

The second part of the first day aimed to look at other criteria in addition to simple biological ones to try and further prioritise the biological identified priority list of seven Forest Reserves. Three working groups comprised of experts familiar with the areas concerned ranked nine attributes (Appendixes 5-7). After ranking by the three groups, the ranks were added up and these formed the basis of the final recommendations to the meeting.

**Ranking of potential Nature Reserves by three stakeholder groups (according to the data in Appendix 5-7)**

Forest Reserves	Group 1	Group 2	Group 3	Combined Scores	Overall Ranking
<b>West Kilombero Scarp FR</b>	2	1	1	4	1
<b>Nilo FR</b>	1	2	4	7	2
<b>Uluguru North FR</b>	3	3	3	9	3
<b>Uzungwa Scarp FR</b>	5	5	2	12	4
<b>Uluguru South FR</b>	4	4	5	13	5
<b>South Nguru FR</b>	6	6	6	18	6

This process defined the following three areas as being the highest value for future Nature Reserve development:

- 1) West Kilombero Scarp Forest Reserve (Udzungwa Mountains)
- 2) Nilo Forest Reserve (East Usambara)
- 3) Uluguru North Forest Reserve (Uluguru Mountains)

On the second day the meeting started by looking at the relationship between the Nature Reserves component of CMEAMF and the other parts of the protected area work of the project (Appendix 8). Elements such as the IUCN coding relate to the issue of declaring new Nature Reserves, as there are different types of Nature Reserves – some very strict that do not permit extractive use, and others that can.

## 4. Operational modalities

The meeting also talked about the operational modalities of starting up the work:

- The funding mechanisms from CMEAMF to the field level need to be clear and transparent. It was agreed during the meeting that the component leaders will receive funding the way already established by CMEAMF.
- The human resources available to undertake the work at the various sites need to be clarified. The meeting clarified this issue (see Section 6).
- The working gear (transport etc) needs to be available and the mechanism to seek this material and use it needs to be clarified. This remains an issue to be resolved.
- The work plan for operationalising the work, which needs to include the following elements:
  - i. Awareness raising (GoT in collaboration with NGOs)
  - ii. Capacity building for the key implementers (GoT)
  - iii. Reviewing set up and type of NR (GoT)
  - iv. Revisit/review the existing information to identify gaps (GoT)
  - v. Visiting the areas (GoT with NGOs?)
  - vi. Management plan preparation (GoT with NGOs?)
  - vii. Development of the legal documents (GoT)
  - viii. Funding and sustainability (all interested)

## 5. Budget Available

A review of the budget available from CMEAMF indicated that it is probably inadequate to declare three separate Nature Reserves. Further funding is being sought from various sources, but none are confirmed. A further review of the budgets and work progress across the four components of the protected area work of CMEAMF, showed that two issues have already been started and the project is committed to deliver them. The work that has been started already is:

- IUCN Coding of Forest Reserves issue (max. cost 30 million TSH)
- Gazettment of proposed reserves in Mwanga, Same and Kilolo (max cost 50 million TSH). Gazettment of the Derema proposed FR, using other funding sources. Look very critically at the issue of funding the establishment of proposed Forest Reserves in Muheza and Mpwapwa. Potentially seek funding to complete these processes from other donors.

Discussions at the meeting indicated that, given the likely cost of declaring a new Nature Reserve and the relatively modest GEF funding available, choices may have to be made between West Kilombero Scarp, Uluguru North and Nilo FR. The meeting suggested that CMEAMF should look at two Nature Reserves to start with, but that if further funding could be obtained then additional sites should be considered. Proceeding with the two new sites should also be linked to a review of the costs and benefits of Amani Nature Reserve and a set of recommendations flowing from that study on ways to streamline the process.

In addition to this, and given the likely cost, CMEAMF may also have to think carefully about the allocation of GEF resources to the World Heritage site issue. The process might be started using these funds, but might not be completed. It might be necessary to seek funding from other donors to assist with the completion of this process.

## **6. Staffing and Resources Available**

The meeting talked about the staffing that might be available to assist with any Nature Reserve process in the areas that have been identified.

### Uluguru North Forest Reserve – Morogoro

An existing WCST project (funded by DANIDA) is working in collaboration with FBD on the better conservation of the Uluguru North Forest Reserve. A number of staff are present within local agencies that might be involved with the work.

Catchment Forestry. Mialla (RCFM), Tindikali (DCFM), Lilian (Assistant DCFM), Sosthenes (FO), Mama Mwashwa (FO), Mpangala (FO), surveyor, surveyor, forest attendant, forest attendant.

District/Region. RNRA/DFO (Morogoro), DNRO (Morogoro), Forest Officer (Karani), Forest Officer (Mushi), Forest Officer (newly employed), Forest Officer (newly employed).

WCST. Forest Officer (Mazengo), Forest Officer (Moshi), Forest Officer (Mhagama), Forest Officer (Field Kinole)

CARE. Forest Officer (UMEMCP/CARE) – manager, FO (Sangeda), FO (Vyamana)

### West Kilombero Scarp Forest Reserve - Udzungwa

There are no existing projects supporting the West Kilombero Scarp Forest Reserve, although there was significant support in the past through MEMA and there is some PFM support to the area. The following staff resources are available and could potentially be involved with a Nature Reserve process in the West Kilombero Scarp. Catchment (3), District (2), Treecare (2), TANAPA (1), CD officers (1), Wetlands (1), Land officer (1), District beekeeping officer (1), District Game officer (1), TAF (3), RNRA (1), WCS (1).

### Nilo Forest Reserve – East Usambara

There are no existing projects supporting the Nilo Forest Reserve, although there was significant support in the past through EUCAMP. The following staff resources are available and might be involved with a Nilo Nature Reserve process. Amani Nature Reserve (2), Korogwe DFO (1), Muheza DFO (1), District land officer for Korogwe and Muheza (2), Community development officers for Korogwe and Muheza (2), District catchment forest manager Korogwe and Muheza (2), Tanga Regional Catchment Forest Office (1), Beekeeping officers in Korogwe and Muheza (2).

## 7. Issues and Recommendations

- 1) The conservator of the Amani Nature Reserve should lead the coordination of the Nature Reserves process in the three different areas, working in collaboration with others at the local site level to deliver the products required.
- 2) A letter needs to be written to the Director of Forestry and Beekeeping suggesting the names of the three proposed Nature Reserves (FOCM to facilitate).
- 3) The IUCN coding process within CMEAMF needs to carefully consider the level that it places on the Tanzanian Nature Reserves. If the coding is as an IUCN 'Strict Nature Reserve – 1a or 1b' then no local community use can be permitted. But, if the Tanzanian Nature Reserve is coded as an IUCN IV protected area, then the participation of local people in planning and management can be allowed.
- 4) The Forest Reserve biodiversity data needs to be reviewed and standardized to ensure that the decisions made are based on fully defensible datasets (CMEAMF to follow-up). This is particularly important for the prioritization of Forest Reserves within the three found priority blocks identified (East Usambara, Uluguru, South Nguru, Udzungwa).
- 5) A review of the Amani Nature Reserve experience should be undertaken as suggested by TFCG, so that the costs and benefits of the reserve are clearly known.
- 6) The advantages of the Nature Forest Reserve category (self accounting and self autonomy) need to be promoted more broadly so that the benefits over the normal central government managed 'national' Forest Reserve are better appreciated by stakeholders.
- 7) Relevant NGOs should be contacted officially by government to determine whether they would be able to assist with the process of Nature Reserve establishment in any of the key sites that have been identified.
- 8) Awareness needs to be created in the area where the Nature Reserve is proposed. Awareness creation will be different for those stakeholders that can be involved with the process, as opposed to those who simply need to be informed.
- 9) Additional funding should be sought from potential donors to ensure that the Nature Reserve process is completed in all three of the proposed sites and not left hanging due to insufficient financing.
- 10) FBD and TANAPA should meet to discuss the issue of a potential Nature Reserve within the West Kilombero Scarp Forest Reserve, which should also take recognition of the role of the communities in the existing PFM agreements.
- 11) Amani Nature Reserve staff should be involved in the process of declaring Nature Reserves
- 12) Developing a single board for all Nature Reserves, rather than one for every site, would be a way to reduce costs.
- 13) Copies of the Amani Nature Reserve regulation should be made available to the other people involved with the development of new Nature Reserves.

- 14) CMEAMF should participate with FBD FOPIS project to create an overall regulation for Nature Reserves to support the implementation of the Forest Act 2002, and in the planned revision of the 2002 Forest Act. Both documents should support and guide the development of future Nature Reserves.

## **8. Way Forward (July to September)**

The following were identified as priorities:

- 1) CMEAMF to finalise the Nature Reserves workshop report and send around the workshop participants.
- 2) Head of Catchment to write to Director of FBD to inform him of the intention to proceed with proposed Nature Reserves at the following sites, and seek positive reply. The letter will name the following sites:
  - a. West Kilombero Scarp
  - b. Nilo
  - c. Uluguru North
- 3) Undertake a tentative assessment of the relevant IUCN PA codes for Amani and all other proposed Nature Reserves. Include site visit to West Kilombero Scarp before end of August.
- 4) Identify the set up of the three proposed Nature Reserves.
- 5) When letter of support from Director of FBD is obtained, distribute the letter of intention from FBD to relevant stakeholders in the Regions and Districts (government and NGOs).
- 6) Inform relevant agencies of the decision to declare these three new Nature Reserves; including TANAPA, CEPF, WCST, TFCG, WWF, CARE, WCS, GCF of Conservation International.
- 7) Seek collaboration with supporting agencies, including the private sector.
- 8) Hold awareness creation meetings around each proposed Nature Reserve. Awareness-creation is important at the Regional and District level authorities, as that will determine if there are challenges to the process at that high level. Awareness raising to be done through:
  - a. Regional meetings
  - b. District meetings
  - c. Ward and Village meetings

Awareness raising will be postponed in Morogoro and Iringa until October and will proceed earlier in Tanga.

Responsibility of implementation lies with the component leader, but the overall overseer is the Project Coordinator – CMEAMF.

# Appendix 1. Nature Reserves Under Tanzanian Law (C. Sawe)

## NATURE RESERVES UNDER TANZANIAN LAWS

## WHAT IS NATURE RESERVE

- Area designated to maintain natural processes and habitats in an undisturbed site for scientific study, environmental monitoring education.

## OBJECTIVES OF NR

- To foster conservation of nature, ecological processes, biodiversity conservation, gene conservation, for present and future generation.
- To support research and training of the natural processes, biological and historical.
- It is the way of implementing International conventions ratified by Tanzanian Gov.

## Where to establish Nature Reserve

- Any where, provided the area meets the criteria.

## CRITERIA FOR NOMINATION

- Richness in biodiversity
- Availability of endemic species (Flora and fauna)
- Availability of rare or threatened species
- In situ conservation (minimum disturbance)

## ADVANTAGE OF DECLARING AREA NR

- The area receives high conservation attention
- A basis to argue for conservation funding.
- To have better management mechanism with better legal backing (Regulations).
- Better for developing alternative uses (Ecotourism)
- Possible to develop cost/benefit sharing mechanism

## DISADVANTAGES

- Some times FBD do not see the difference of Nature Reserves and other forests.
- Lack of resources to develop alternatives.
- Strictness might affect local communities
- Requires some kind of procedure to establish

## POSITION OF NATURE RESERVES INTERNATIONALLY

- Strict Nature Reserve is the highest conservation category of protected area. (IUCN)
- National Parks ranks the second in conservation category.

### **POSITION OF NATURE RESERVE IN TANZANIA**

- Protected areas in Tanzania are coded according to the sector set up rather than international classification system of protected area
- Nature Reserves are only considered under Forestry and Beekeeping Division.
- According to Forest Act 2002 the Nature Forest Reserves are recognized and rank the highest Conservation status.

### **ARE THE NATURE RESERVES RECOGNISED IN TANZANIAN LAWS**

- Supported by Forest Policy
- Supported by Forest Act

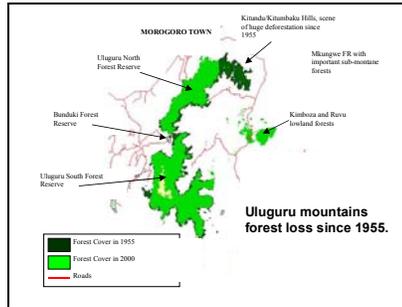
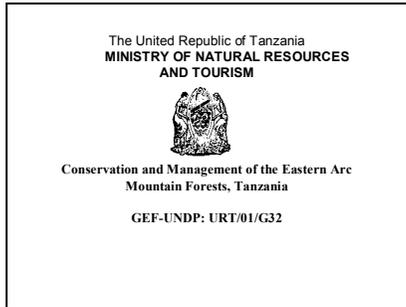
### **PROCEDURES REQUIRED FOR ESTABLISHING NATURE RESERVE**

- Normal participatory procedure of establishing forest reserves
- A letter of intention to DFoB
- Awareness creation (meetings)
- Developing legal document (rules) for supporting nature reserves
- Developing acceptable management plan
- Funding and sustainability

### **AREAS THAT FIT TO BE NATURE RESERVES IN EASTERN ARC**

- Candidate list of potential Nature Reserves in the Eastern Arc will be presented!!!

## Appendix 2. Issues Relating to the development of Nature Reserves in the Uluguru Mountains (A. Sangeda and D. Hartley)



### Why does Forest Loss and Forest Degradation Matter in Uluguru?

- Globally: Area is important for Biodiversity Conservation (Species Endemism and Ecosystem)
- Nationally: Ulugurus are important for water catchment purposes – source of Ruwu River, which supplies water to downstream users including Dar es Salaam
- Locally: vulnerability of communities – Ulugurus provide forest resources, and complex linkages to land management and water flows for forest-adjacent communities

### National Forest Policy

- Policy supports:
- Improved forest management in collaboration with communities; and
  - Recognition of the importance of biodiversity conservation – including raising the profile of existing forest reserves by upgrading to Nature Reserve where appropriate.
  - Involving communities in biodiversity conservation through Joint Management Agreements
  - Increased involvement of communities living in buffer zones in catchment forest protection; watershed management and soil conservation.

### Policy Statement 3: Central & Local Government Forest Reserves

- To Enable participation of all stakeholders in forest management and conservation, Joint Management Agreements, with appropriate user rights and benefits, will be established. The agreement will be between the Central Government, specialized executive agencies, private sector or Local Government, as appropriate in each case, and organized local communities or other organizations of people living adjacent to the forest.

### Policy Statement 15: Natural Protection Forests

- New Forest Reserves for Biodiversity Conservation will be established in areas of high biodiversity value. Forest Reserves with protection objectives of national strategic importance may be declared as Nature Reserves.

### Policy Statement 16 – Natural Protection Forests

- Biodiversity Conservation and management will be included in the management plans for all protection forests. Involvement of local communities and other stakeholders in conservation and management will be encouraged through Joint Management Agreements.

### Policy Statement 20: Watershed Management and Soil Conservation

- Watershed Management and Soil Conservation will be included in the management plans for all protection and production forests. Involvement of local communities and other stakeholders in watershed management and soil conservation will be encouraged through Joint Management Agreements.

### Why are we in this meeting?

- CMEAMF and FBD are now considering upgrading Uluguru Forest Reserves to Nature Reserve status and they are applying to World Heritage to ask for the Eastern Arc to be nominated as a World Heritage site.
- What are the implications of World Heritage Status?
- What are the likely gains for Conservation and Forestry by defining and/or changing PA status of Ulugurus? and
- What are the implications in terms of the participation of and benefits for local communities?

### World Heritage Status

- Areas must have PA Status recognised by IUCN;
- Application needs to demonstrate how the site is managed and protected by national legislation; and
- Sites can be recognised for both Cultural and Natural heritage values (Cultural Landscapes).

### Nature Reserves: Tanzania

**Policy:** NR is a forest reserve legally declared for nature conservation of genetic resource and for scientific studies;

**Act:** A national forest reserve may be....an area of land covered by forest reserved or used principally to protect nature and scenic areas of national or international significance and to maintain and enhance biodiversity and genetic resources in an undisturbed, dynamic and evolutionary state, to be known as nature forest reserve.

**Like other types of FR in Tanzania, IUCN does not recognise Nature Forest Reserve at present – need to define clearly and acquire recognition**

### Nature Reserves (IUCN): 1a Strict NR: protected area managed mainly for science

Area of land possessing some outstanding or representative ecosystems, geological or physiological features and/ or species, available primarily for scientific research and/or environmental monitoring.

**Tanzania definition most closely aspires to meet this category**

### Nature Reserves (IUCN): 1b Wilderness Area: protected area managed mainly for wilderness protection

- Large area of unmodified or slightly modified land, retaining its natural character and influence without permanent or significant habitation, which is protected and managed so as to preserve its natural condition

### Habitat/ Species Management Area: IV Protected Area managed mainly for conservation through management intervention

- Area of land subject to active intervention for management purposes so as to ensure the maintenance of habitats and/ or meet the requirements of specific species.

Tanzania FR most closely relate to this category (equivalent to GRs in Wildlife Sector).

### Assigning National PAs to IUCN Categories

- Assigning IUCN category should not be undertaken lightly – there are six categories available. Once national category is defined in terms of IUCN category – commitment by GoT to follow the management objectives.
- Selection involves thorough appraisal of the **Management Objectives** of the category and application of **Guidance for Selection**.

### Why are we raising questions about this process in relation to Uluguru?

- Firstly, we agree that Ulugurus require better conservation and management – but how do we achieve this within the context of the IUCN PA categories?
- Secondly, we are concerned to maintain maximum community involvement and to respect the local communities rights to benefits – especially if they are to be asked to contribute to the management.

### What have we learned so far that should influence this discussion?

- Greater presence of CFP and investment in the area improves management effectiveness and conservation. This is without changing the existing PA status (IUCN Equivalent Category IV).

Forest Reserve	Size (Ha)	Approx. Investment (\$/Ha)	WWF/WB Management Score
Uluguru N (NORAD 1988-98; USBP 1992-98; WCST/DOF 1999-2007)	8,356	14	Score: 56%  Better Condition (Frontier, 2005)
Uluguru S (04) NORAD 88-97; WCST/DOF 2000-02)	17,293	0.7	Score: 35% Higher disturbance, some encroachment (Frontier, 2005)
Uluguru S (05) (GEF 2004-09)	17,293	9	Score: 46% Improved score – through presence and investment

### International and National Factors

- *Waluguru* have been present in the area for more than 200 years. (Represent threat and opportunity for conservation)
- Are they an Indigenous / Local Community – debatable but increased international focus from NGOs over rights of forest-adjacent communities to forest resources (World Parks Congress, 2003).
- Focus in Mkukuta over poverty reduction linked to accessing the natural resource base.

Community exclusion is unlikely to be a feasible option for Uluguru

- Communities want access to resources (subsistence) – area has been functioning as a *de facto* open access because of lack of forestry staff and financial resources.
- When is collaborative forest management worth it for communities? **When Benefits > Costs**
- Present evidence JFM may not be worth it in high biodiversity areas (responsibilities without rights and limited returns) – need to examine balance between these factors;

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### Benefits perceived by Waluguru (Questionnaire Survey: June 2005)

- | Pinde (West) [Wealthy]  | Nyingwa (East) [Poor]   |
|---|---|
| <ul style="list-style-type: none"><li>• 13 specific direct-use values identified.</li><li>• 7 Non-consumptive values recognised. [including climate, catchment and soil conservation]</li></ul> | <ul style="list-style-type: none"><li>• 15 specific direct-use values identified</li><li>• 5 Non-consumptive values recognised [including climate, water flow, and soil conservation]</li></ul> |

### Issues for Discussion

- Is upgrading to NR status required to improve biodiversity conservation of Uluguru?
- If NR status is about improving the financial arrangements and sustainability of key areas (good pragmatic argument) – what does this mean in terms of assigning an IUCN category.
- What will NR status mean in Tanzania for communities? And how do we marry the different Tanzanian Policy statements.

### Some Possible Options

- Leave Uluguru as Forest Reserve (should be accepted as IUCN Category IV)
- Upgrade entire Uluguru to NR (IUCN Category I) – but how do we ensure we are not excluding communities?
- Upgrade portion of Uluguru (e.g. 70% leaving buffer area (FR) for community access under JMAs)
- Define Tanzania NR as an IUCN category that provides the necessary flexibility for community participation (Category IV, V, VI), but which is not Strict NR (Category 1)?

## **Appendix 3. TFCG position paper on gazettment of new Nature Reserves in the Eastern Arc Mountains**

Prepared by: Nike Doggart, Senior Technical Advisor, TFCG

Date: 8<sup>th</sup> July 2005

This paper outlines TFCG's recommendations regarding a way forward for the establishment of new nature reserve in the Eastern Arc Mountains.

### **1) Is Nature Forest Reserve status relevant in the Eastern Arc?**

The Forest Act states that a national forest reserve may be:

*'an area of land covered by forest, reserved or used principally to protect nature and scenic areas of national and international significance and to maintain and enhance biodiversity and genetic resources in an undisturbed, dynamic and evolutionary state known as a nature forest reserve.'*

To the extent that all Eastern Arc forests are of national and international significance, the designation of nature reserve status may be appropriate for any Eastern Arc forest.

In the CMEAMF project document, it includes the gazettment of additional nature reserves. As a first step towards this, it would be advisable for CMEAMF to look carefully at the rationale for doing this and to plan carefully the way in which it is done based on the lessons learned from the Amani Nature Reserve and the local conditions of the proposed nature reserves.

### **2) How do we decide whether additional forests should be gazetted as nature forest reserves?**

Given that all Eastern Arc forests could be gazetted as nature reserves based on the legal definition, the resources available are limited and so there is a need to prioritise which forests should be gazetted. It is our understanding that CMEAMF is prioritising forests to be gazetted as nature reserve on the basis of their biological value and that initial indications point to Nilo Forest Reserve in the East Usambaras, South Nguru Forest Reserve in the Ngurus and Uluguru North and South. While biological criteria should certainly be a primary consideration, it may also be valuable to include other criteria based on an understanding of the conditions necessary for ensuring the success of a nature reserve.

Based on the current list, TFCG has a particular interest in Nilo and South Nguru as we have field based projects working with both forests.

In terms of guiding the decision making process as to whether or not to re-gazette a protection forest reserve as a nature reserve we would consider two inter-connected questions:

*1) How will changing the status of a protection forest reserve to a nature forest reserve affect local and national stakeholders?*

*2) How will changing the status of a protection forest reserve to a nature forest reserve improve the sustainable management of the ecological services (including biodiversity values) that it provides?*

To be able to answer these questions, there is a need to understand clearly the lessons learned from the Amani Nature Reserve experience as well as assessing the local conditions of the forests under consideration.

In particular, there is a need to look at:

*What have been the costs and benefits to local and national stakeholders in setting up Amani Nature Reserve?*

**Costs** might include:

- additional expense of establishing and running a nature reserve relative to a forest reserve for both Central Government and the local communities;
- reduced access to forest resources for communities;

**Benefits** might include:

- Additional revenue to local and national stakeholders from tourism and other investment attracted to the area by the nature reserve;
- Improved management of the forest resource including its water catchment, climate, biodiversity conservation services;
- Improved awareness about the forest;
- Additional investment from Central Government, Development partners and the private sector;
- Greater recognition and therefore payment for the value of the ecological services provided by the particular forest;

*What local conditions have helped / hindered Amani Nature Reserve? And how do the local conditions of Nilo, Nguru South and the Ulugurus compare?*

Things to take into account might include:

- Existing infrastructure e.g. the IUCN buildings that are now the Nature Reserve head quarters, how important was it for the success of Amani that this infrastructure was already in place? Are there similar facilities available elsewhere;
- Accessibility;
- Current management regime e.g. what are the implications of shifting a forest such as Uluguru North where JFM has already started to being a nature reserve. In the case of Nguru South, the weak management of this reserve and the widespread clearance of the forest understorey for cardamom cultivation need to be taken into consideration when assessing the costs and benefits in this area, as the cost of maintaining the status quo includes potentially losing significant areas of this forest and the ecological services that it provides;
- Potential for private sector involvement

- Availability of alternative forest resources for local communities who are currently dependent on the resources to which access would be restricted as a nature reserve.

### **Conclusion**

The legal status of nature forest reserve is the most appropriate for most Eastern Arc forests given their national and international biological values and genetic resources.

CMEAMF should build on the lessons learned from Amani Nature Reserve in terms of maximising the benefits of new nature reserves and minimising the costs. This should be considered both in terms of the process of establishing and managing the new nature reserves. In taking the decision to gazette a nature reserve it should be clear that the benefits for local people and the benefits for biodiversity conservation will be greater as a nature reserve than by maintaining the status quo. In looking at the status quo we need to base it on the reality of the current situation rather than how things 'ought to be'.

The local conditions of each forest should be considered when taking the decision to gazette as a nature reserve and in planning the process of the gazette.

In those areas where TFCG has active projects, we would be happy to work with CMEAMF to assess the appropriateness of gazetting forests as nature reserves and in planning for their gazette and operationalisation in the event that this is concluded to be the best way forward.

# Appendix 4. Priority sites for potential Nature Reserves in the Eastern Arc Mountains (N. Burgess, S. Mashauri, N. Doggart)

PRIORITY AREAS IN THE EASTERN ARC MOUNTAINS OF TANZANIA

By  
Neil Burgess (CMEAMF), Shedrack Mashauri (EAMCEF) and Nike Doggart (TFCG)

Presentation Outline

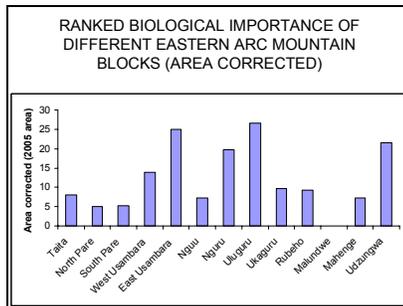
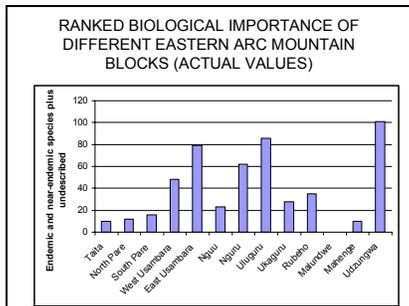
- Overall Importance of Different Eastern Arc Blocks
- Ranking of most important Eastern Arc Blocks
- Identification of most important reserves within the priority blocks



Ranking the E. Arc forests as potential Nature Reserves

The Key factor that was considered in determining priority sites as Nature Reserves were:

- Number of vertebrate species that are wholly confined to a single Eastern Arc block (strict endemic to that block)
- Number of vertebrate species that are wholly confined to the Eastern Arc Mountains (endemic)
- Number of vertebrate species that are largely confined to the Eastern Arc mountains (near-endemic)



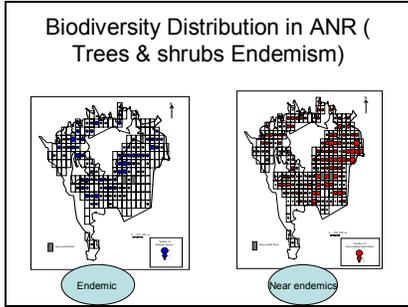
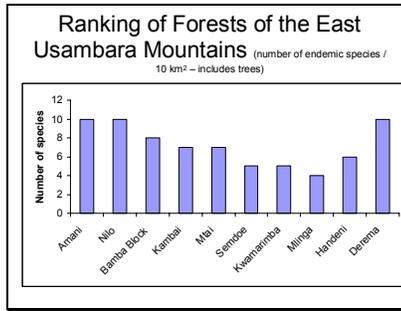
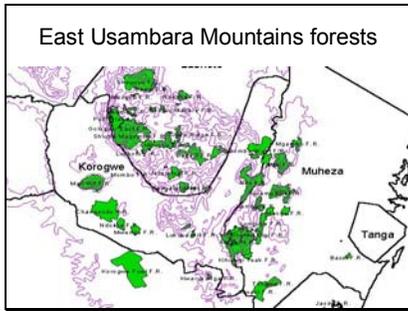
Priority Eastern Arc Mountain blocks

- Udzungwa
- Uluguru
- East Usambara
- Nguru

WITHIN BLOCK PRIORITISATION

E. Usambara Mountains Forests

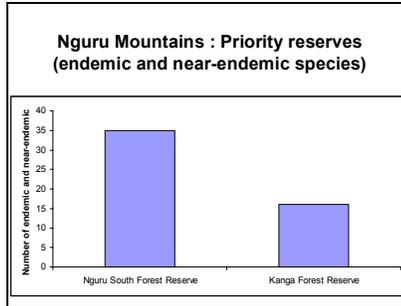
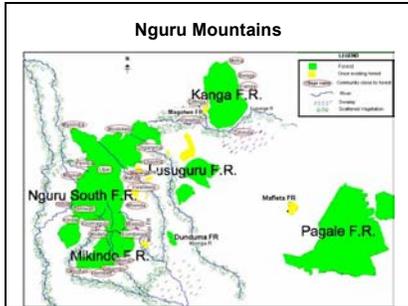
- Two Districts: Korogwe and Muheza
- Korogwe: Shares two sites of East Usambara forests (Nilo and ANR)**



### Nguru Mountains

**One Region is involved (Morogoro)**

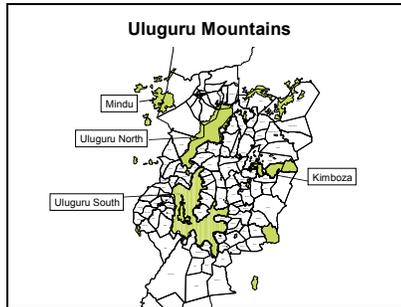
**One District: Mvomero**



### Uluguru Mountains

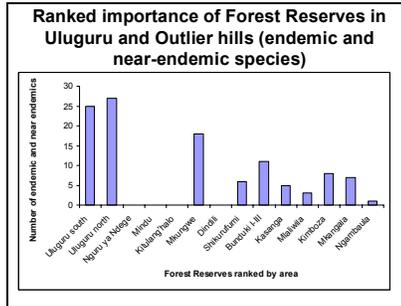
**One Region is involved (Morogoro)**

**Two Districts: Morogoro and Mvomero**



### Forest Reserves

Uluguru south	17,292.7
Uluguru north	8,356.7
Nguru ya Ndege	2,407.7
Mindu	2,285.0
Kitulang'hale	2,238.0
Mkungwe	1,966.8
Dindili	1,006.9
Shikurufumi	260.0
Bunduki I-III	111.0
Kasanga	70.0
Mililwila	12.8
Mkangala	7.0
Bunduki IV	6.1
Bunduki VI	3.7
Ngambaule	2.8
Bunduki VI	2.6
Tongeni river	

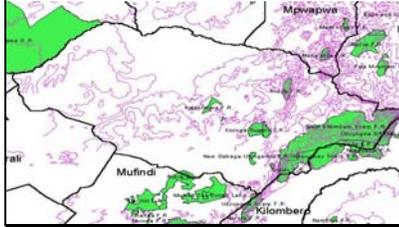


## Udzungwa Mountains

Two Regions are Involved (Iringa and Morogoro)

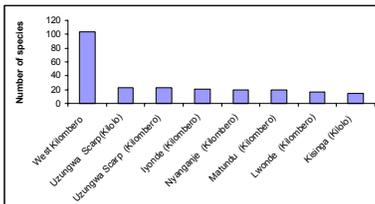
Three Districts: Kilolo and Mufindi-Iringa  
Kilombero District- Morogoro

## Forest Reserves of the Udzungwa Mountains



## Priority Forest Reserves in the Udzungwa Mountains

(endemic and near-endemic and threatened – including trees)



Priority Eastern Arc Forest Reserves that could be upgraded to 'Nature Reserves' within the 4 highest priority blocks

- **East Usambara** – *Amani, Nilo, Derema*
- **Nguru** - *Nguru South*
- **Uluguru** – *Uluguru South, Uluguru North*
- **Udzungwa** – *West Kilombero Scarp, Uzungwa Scarp*

## Appendix 5. Ranking of Potential Nature Reserves according to various criteria in addition to biological value (Group 2)

Potential Forest Reserves	BioD	Vulnerability	Water Values	Landscape	Disturbance	Financing	Institutional Framework	Infrastruc	IGAs (Forest-based)	Acceptance and bottlenecks	Total
Udzungwa Scarp	3	2	3	2	2	1	3	1	2	2	21
Nilo (EU)	3	3	3	3	3	2	3	3	2	3	28
Uluguru North	3	2	3	3	2	2	3	2	2	2	24
Uluguru South	3	1	3	3	1	3	3	2	2	2	23
West Kilombero	3	3	3	3	3	3	3	3	3	2	29
South Nguru	3	1	2	2	2	2	2	2	2	2	20

1<sup>st</sup> West Kilombero Scarp \*

2<sup>nd</sup> Nilo Forest\*

3<sup>rd</sup> Uluguru North FR \*

4<sup>th</sup> Uluguru South FR/ Udzungwa Scarp

6<sup>h</sup> South Nguru

### Group members:

Sesiwa Hamisi – ANR; Anthony Sangeda – CARE; Dr. Neil Burgess – UNDP; Devis B. Mlowe – Mpwapwa; L.E. Mshana – Tanga catchment; Godfrey M. Msumari - ANR

## Appendix 6. Ranking of Potential Nature Reserves according to various criteria in addition to biological value (Group 2)

Potential Forest Reserves	BioD	Vulnerability	Water Values	Landscape	Disturbance	Financing	Institutional Framework	Infrastructure	IGAs (Forest-based)	Acceptance and bottlenecks	Total
Udzungwa Scarp	2	1	2	3	2	3	2	1	1	3	20
Nilo (EU)	3*	2	2	3	2	3	3	3	3	3	27
Uluguru North	3*	1	2	3	3	3	3	2	2	2	23
Uluguru South	3	1	3	2	2	3	2	1	1	1	20
West Kilombero	3*	1	3	3	2	3	3	3	3	3	28
South Nguru	2	1	3	2	1	3	2	1	1	1	17

1<sup>st</sup> West Kilombero Scarp \*

2<sup>nd</sup> Nilo Forest\*

3<sup>rd</sup> Uluguru North FR \*

4<sup>th</sup> Uluguru South FR/ Udzungwa Scarp

6<sup>h</sup> South Nguru

\* Because all areas are high biodiversity we did not use 1 (poor) but instead gave the highest an asterisk for “outstanding”

## Appendix 7. Ranking of Potential Nature Reserves according to various criteria in addition to biological value (Group 3)

Potential Forest Reserves	BioD	Vulnerability	Water Values	Landscape	Disturbance	Financing	Institutional Framework	Infrastruc	IGAs (Forest-based)	Acceptance and bottlenecks	Total
Udzungwa Scarp	3	2	3	3	3	2	3	2	3	2	26
Nilo (EU)	3	1	2	2	3	3	3	1	2	2	22
Uluguru North	3	2	3	2	2	3	3	3	2	2	25
Uluguru South	3	2	3	2	1	2	2	2	2	2	21
West Kilombero	3	3	3	3	3	3	3	3	3	2	29
South Nguru	3	1	2	1	1	2	2	2	2	2	18

1<sup>st</sup> West Kilombero Scarp FR

2<sup>nd</sup> Uzungwa scarp FR

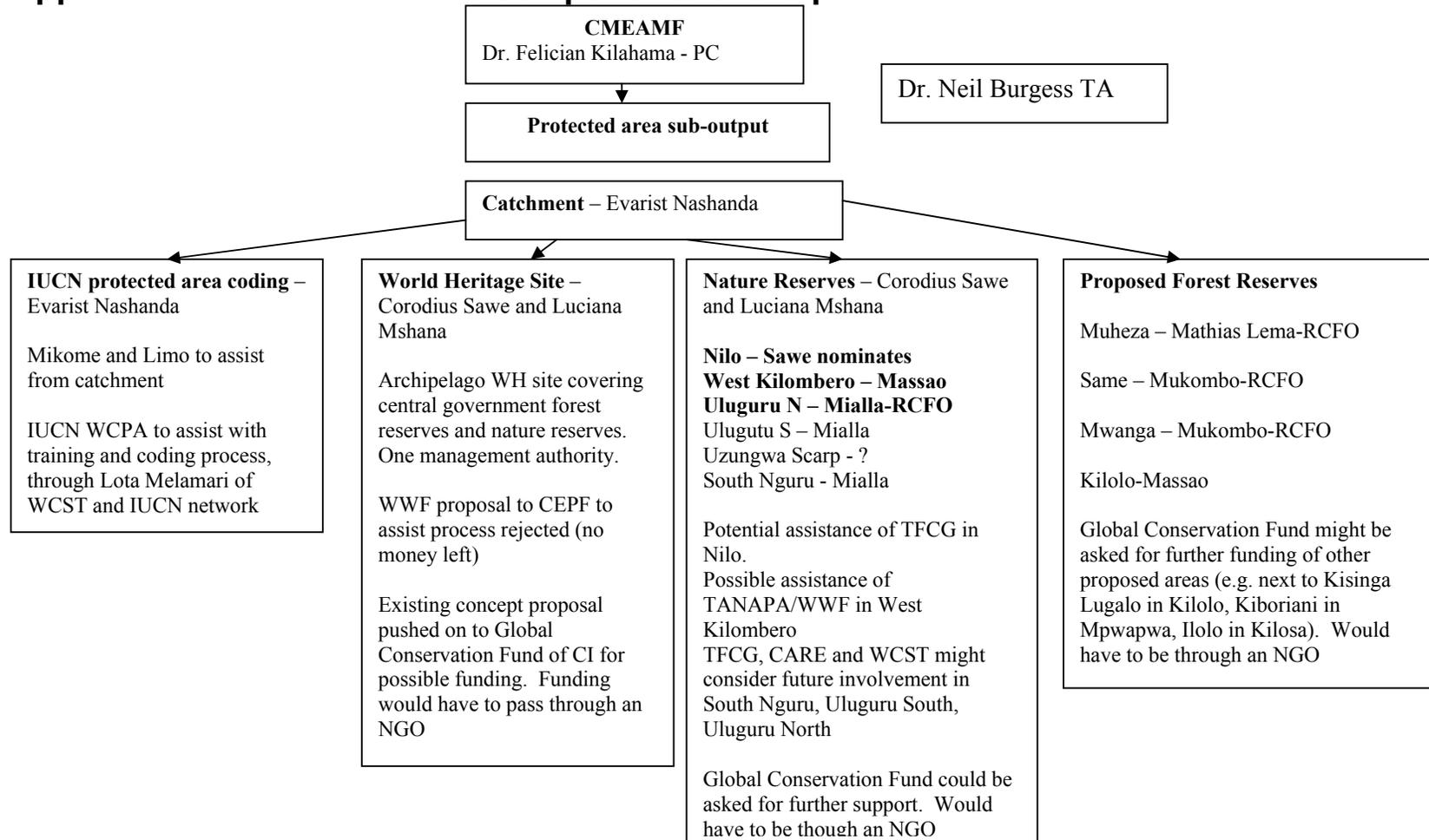
3<sup>rd</sup> Uluguru North FR

4<sup>th</sup> Nilo FR

5<sup>th</sup> Uluguru South FR

6<sup>h</sup> South Nguru

## Appendix 8. Structure of the components of the protected area work of CMEAMF





## Appendix 9. Stakeholders and budget allocations – Uluguru North FR

Activity	Inputs	Exp. Outputs	Timeframe	Budget	Comments
<b>NR technical meeting/ NGOs and SUA</b>	1 day meeting – 25 people	(i) Understand outcome of Amani Workshop (ii) Connecting policy, act and NFP	September 05	1,000,000 Tsh	Apprise people in sector about NRs and Amani meeting – what a NR will mean to them – get feedback
<b>District Councils Group/ Ward Councilors/ Community Institutions</b>	2 days meeting (include travel) – 25 people	(i) Understand NR concept	November 05/ February 06	2,000,000 Tsh	No legal use of Uluguru North – so officially no one loosing access but in practice it will restrict access.  ? Should consider this meeting after the meeting with the politicians to mitigate against problems
<b>Politicians</b>	Morning Briefing with lunch - 21	(i) NRs in international context etc.	January 06	500,000 Tsh/ 1,500,000 Tsh	Letter to RC to be guest of honour– higher level political support. Oasis/ Morogoro Hotel – ? MPs on the run – coca cola Assistant Director to lead the briefing process

**TOTAL** min. 2,500,000 TSH  
max. 4,500,000 TSH

**Stakeholder Groups:** Viewed as first phase to kick-start process

### Sector Actors (Technical)

CFP (FBD) - land manager for GoT  
Lead NGO for Uluguru North WCST  
NR/Forestry Staff inside Local Government

### District Councils/ Region

Municipality, Morogoro, Mvomero, Regional and District Planning Officers – important, CD Officers, Ward Councilors

### Community Institutions

Institutions – Local institutions Kingalu  
Community representatives (Government) Ward Councilors

NGOs and non-sector professionals with projects/programmes in area  
UMADEP, SUA

Politicians –CCM – MPs and the RC – October. DCs, DEDs, RC, MPs, council chair, Kingalu, 5 Ward Councilors and 2 Professors

## Appendix 10. Stakeholders and budget allocations – West Kilombero Scarp FR

### Identification of Stakeholders

Regional Level: RC, RAS, RNRA (No RCFO in Iringa)

District Level: DC, 1 Hon. Member of Parliament, DAS, DED, District Legal Officer, District Council Chairman, 2 Ward Councilors, 2 Divisional Secretaries, 2 WEOs, 2 x 7 Chairmen and VEOs, DLNRO, DNRO, Technical Staff (Multidisciplinary): DCFO, DFO, DGO, DfsO, DBO, DCDO, DALDO, DWE, DPLO, TANAPA staff (2 people)

### Three months budget

S/N	Activity	Expected output	Input	Budget
1	To identify the potential NR sites (by the end of August)	NR sites identified	Transport Per diems	100,000 200,000
				300,000
2	To conduct the stakeholders identification meeting (by nd of August)	Stakeholders identified	Hall Transport Per diems Stationery Fares	900,000
				900,000
3	To conduct meetings at Regional level (by the end of August)	1 Regional meeting conducted	Per diems Transport Stationery Hall	900,000 300,000 15,000 20,000
				1,235,000
4	To conduct meetings at District Level (September)	1 District meeting conducted	Stationery Transport Fares Per diems Hall Tea-bites	50,000 200,000 200,000 1,000,000 40,000 100,000
				1,590,000
5	Preparation of the various meetings (2 weeks before meeting)		Fuel Per diems	50,000 50,000
				100,000
6	To conduct meetings with village Councils and VECs at 7 villages (October)	7 meetings conducted	Transport Per diems Tea-bites Stationery	400,000 1,400,000 700,000 10,000
				2,510,000
7	Report writing	Several reports copied to various institutions		50,000
				50,000
				<b>5,450,000</b>

## Appendix 11. Stakeholders and budget allocations – Nilo FR

S/N	Activity	Detail	Costs	Output	Date
1	Stakeholders identified	Manpower (4) Stationery	240,000	Revised list of stakeholders	By 31 <sup>st</sup> July 2005
2	To identify set up and type of Nature Reserve	Hiring vehicle (50,000 x 4) Allowances (25,000 x 4 days x 4 people)	200,000 400,000	Identified type of Nature Reserve	6 <sup>th</sup> August 2005
3	Awareness raising (politicians/decision makers)	Allowance x 3 days Transport	60,000 80,000	Awareness raised with politicians and decision makers	15 <sup>th</sup> August 2005
4	Workshop	Allowances 25x30,00 Refreshments 100,000 Stationery Transport Conference	750,000 100,000 10,000 150,000 60,000	Awareness raised	30 <sup>th</sup> August 2005
5	Meetings with village government	Allowance 8 days x 4 persons x 10,000 Transport 8 x 30lts Refreshment	320,000 240,000 400,000	Awareness raised	20 <sup>th</sup> Sept 2005
6	Meetings with villagers (village assembly)	Allowance 4 x 4 x 25000 15,000 x 4 Transport	200,000 240,000	Awareness raised	30 <sup>th</sup> Sept 2005
		<b>TOTAL</b>	<b>3,440,000</b>		