

## TERMS OF REFERENCE

## FOR

## THE GREATER KATAVI MAHALE GOMBE - ECOSYSTEM TECHNICAL TEAM – AUGUST 2013



Supported by:

A K Social Institute

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# AFRICA BIODIVERSITY COLLABORATIVE GROUP







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## Terms of Reference for the Greater Katavi Mahale Gombe Ecosystem Conservation Technical Team (GKMGECTT)

### 1. Introduction

### A Landscape at Risk

The primary on-going threats to the biodiversity and remaining forest habitat in the Greater Katavi, Mahale and Gombe ecosystems and adjacent regions are the direct result of a rapidly growing local population and that population's continued reliance on destructive and unsustainable land use practices. The current National deforestation rate stands at 420,000 ha which is equivalent to 1.1% per annum (Source: REDD data base, 2005).

Local people do not have adequate information about more environmentally friendly and productive agricultural practices nor access to more sustainable alternative livelihood opportunities, and only a small minority of the population is even marginally engaged in stewardship of the natural resources their communities rely upon. Although rural village residents are often fully aware of the destructive impact their practices are having, the overwhelming poverty and the rapidly increasing population in the region lead to the prioritization of "short-term" strategies focused on producing enough food to survive and general disengagement from longer-term management and conservation strategies.

Vegetation is also predicted to be increasingly stressed with increasing temperatures and decreasing precipitation due to climate change. Soil fertility will decrease and what is now marginal agricultural land may be rendered unproductive. According to a recent Oxfam report, *suffering the Science: Climate Change, People and Poverty*, climate change is expected to lead to massive changes in crop selection and significant decreases in agricultural yields across the developing world, and Tanzania is predicted to be one of the three most deeply affected countries in all of Africa. Pressures on the region's ecosystem will be increased due to changes in climate and

it is imperative that adaptation and resilience interventions be designed and implemented.

The topography of the landscape ranges from steep hillsides interspersed with densely populated valleys and hilltops in the areas around Gombe National Park to eroded canyons, cliffs and flat-topped hills around Mahale and Katavi National Parks, interspersed with vast tracts of intact forest and woodland. As part of the Eastern Afromontane Biodiversity Hotspot (identified by Conservation International), the area boasts a great diversity of wildlife, including a number of rare and endemic species.

## 2. The main threats to the ecosystems:

### 2.1 Incompatible Conversion to Agriculture

The ecosystem is characterized by steep-sided hills that is why agricultural expansion is the highest ranked threat to the landscape and the biodiversity, including humans, relying on it.

Indirect threats related to incompatible agriculture include:

- 2.1.1Majority of the villages have not yet done land-use planning at the village level. This process addresses and helps to abate this threat through the democratic Village Land-Use Management Planning (VLUMP) process.
- **2.1.2**Food crops are grown unsustainably which contribute to the exhaustion of the land. This is due to poor agricultural practices, lack of agricultural inputs, training, and high human population growth.
- **2.1.3**Lack of sustainable income generating activities this include a reliable cash crops which will boost income of the farmers.

Combination of population increase and scarcity of appropriate farmland have led many households to increasingly cultivate in the marginal land. As a result, families grow crops on steeper slopes, leading to erosion, landslides, sedimentation in rivers and a higher flood risk. Hillsides on the west side of the divide may be particularly prone to landslides; naturally smooth slopes indicate that current levels of landslides are likely unnatural (DeMeo and Purchase 2007).

The loss of topsoil through these processes degrades the seedbed and complicates restoration efforts. In addition, sedimentation may have detrimental effects on aquatic

biodiversity in the shallows of Lake Tanganyika (Cohen 1993 and McIntyre 2006). The combined effects of increased sedimentation and overfishing are expected to degrade the integrity of coastal fisheries. Also there are related concerns that if fishing activities continual to decrease due to populations decrease of fish then there is a danger that people will switch to agricultural activities, wildlife hunting thus putting more land under agriculture to meet the immediate needs.

Additionally, fire is used locally as a tool for agricultural land preparation which is often a serious threat to the ecosystem. The use of fire undermines the efforts to promote the regeneration of natural vegetation.

#### 2.2 Conversion to Settlements and Infrastructure Development

Settlements and agricultural expansion are inextricably linked; together these two threats are the major contributors to habitat loss. Indirect threats include population growth and inadequate land-use planning.

Increase of unplanned settlement, agriculture and livestock keeping and the associated presence of people will disrupt forest connectivity and reduce forest cover.

Development and construction of roads in sensitive and important conservation areas should be subjected to proper guidelines such as (Environmental Social Impact Assessment - ESIA). This is to reduce the impact and protect certain stretches of the road – such as the portion to be constructed in village forest reserves – from unplanned settlements and infrastructure which could increase accessibility to forest resources.

#### 2.3 Unsustainable Extraction of Forest Products

Communities largely depend on forest products for food, medicine, shelter and energy as source household fuel. Firewood is the main source of fuel at household level but charcoal frequently used in villages as source of income as it is sold at higher value due to its high demand in urban communities.

Demand for firewood at household level is exacerbated by high population growth, unsustainable management of remaining resources, which will later limit villagers' ability to meet their needs in the near future. Also unsustainable and extensive firewood harvesting for industrial consumption for salt processing (Uvinza Salt Mine), burning brick for commercial purposes threat the entire ecosystem viability.

## 2.4 Wildlife Poaching

The world is dealing with an unprecedented spike in illegal wildlife trade, threatening to overturn decades of conservation and development gains. Part of the reason poaching rates have skyrocketed in recent years is the increasing involvement of highly organized criminal syndicates. The recent rise in wildlife product prices has been met by the increased involvement of more organized, better funded, and better armed criminal and terrorist networks, and even militias, compounding the challenges faced by those charged with protecting the wildlife. This is why poaching of elephants, chimpanzees and other wildlife by humans is ranked as one of the highest stresses facing wildlife population in the ecosystem.

# 2.5 Lack of Land-use Planning, and Inadequate Implementation of Land-use Plans

The threat is instead recognizing the extent to which conservation efforts rely upon the democratic delineation of village forest reserves and the sustainable management of the forest reserves. This is because land-use plans deals with identification, demarcating the village land according to the government specifications. This is because unplanned land use tenure is the main cause of conflict both for human and wildlife that is why it has to be planned and implemented in such a way that some areas that have potential conflict in the future can be addressed now especially animal corridor, water source areas and areas for conservation.

#### 2.6 Incompatible Human-ignited Wildfires

Fire poses a serious threat to the ecosystem. While natural fire regimes are not completely understood, the vast majority of the fires which occur are believed to be human-ignited and by far exceed natural levels in terms of both scope and severity.

While fires may be ignited for specific purposes, those fires often burn out of control and spread to unintended areas and may undermine efforts to improve the integrity of the watershed. In addition to inhibiting tree regeneration, frequent and intense fires disturb natural ecosystem processes, alter vegetation composition and cause soil erosion, among other unwanted results.

## 2.7 Invasive species

An "invasive species" is a plant or animal that is non-native (or alien) to an ecosystem, and whose introduction is likely to cause economic, human health, or environmental damage in that ecosystem. Once established, it is extremely difficult to control their

spread. Invasive species can harm both the natural resources in an ecosystem as well as threaten human use of these resources. Throughout history the spread of plants, animals, and other organisms has been governed by natural ecological processes and has accompanied trade in goods and services and the movement of humans. During the past two centuries, invasive species have significantly changed the Great Lakes ecosystem.

The reasons why they are considered a threat in this ecosystem is because they are capable of causing extinctions of native plants and animals, reducing biodiversity, competing with native organisms for limited resources, and altering habitats. This can result in huge economic impacts and fundamental disruptions of whole ecosystems.

#### 2.8 Unsustainable fishing

The lake, rivers and their environments support a wide array of subsistence and commercial activity as well as a remarkable assemblage of tropical flora and fauna, including highly diverse populations of endemic fish. The fishing pressure is an increasing threat to the sustainability of fishery resources in the ecosystem. In consequence, growing concern is expressed about the environmental status, endangered biodiversity, and possible over-fishing of these unique resources.

Interventions proposed to abate this threat is by developing sustainable fisheries are such as reviewing and updating the national components of the Fisheries Management Frame Plan, and implementing fishing license process, improve the involvement of local communities in fisheries management, and promote sustainable fisheries alternative livelihoods.

## 3. Aim of establishing Greater GMK Ecosystem Conservation Technical Team

To improve supervision, coordination, communication and implementation of activities across the Ecosystems.

## 4. Structure and composition of the Greater GMK Ecosystem Conservation Technical Team

The technical team will comprise two levels, firstly the 4 District Technical Teams from their respective councils (Kigoma DC, Uvinza, Mpanda and Nsimbo), the second level will be inter district Technical Teams. Members of the Technical teams will be as follows:

# 4.1 Composition of District council technical teams (one for each 4 district) to include:

1	District Land and Natural Resources Officer				
2					
2	District Livestock and Fisheries Officer				
3	District Planning Officer				
4	District/Council Legal Officer				
5	District Community Development Officer				
6	District Water Engineer				
7	District Land Officer				
8	District Forest Officer				
9	District Agriculture, Irrigation and Cooperative Officer				
10	District Game Officer				
11	District Environmental Management Officer				
12	District Fisheries Officer				
13	District Medical Officer				

# 4.2 Composition of the Greater GMK Ecosystem Technical Conservation Team

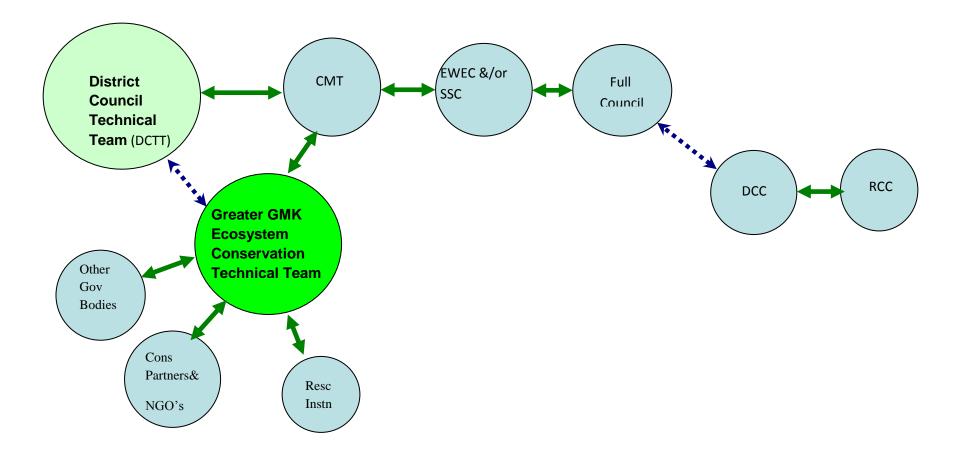
This will include respective heads of department from the four district councils and chief park wardens from the National Parks that are found in Kigoma and Katavi regions as well as the Regional Natural Resource Advisors from Katavi and Kigoma.

1	District Land and Natural Resources Officer
2	District Livestock and fisheries Officer
3	District Planning Officer
4	District/Council Legal Officer
5	District Community Development Officer
6	District Water Engineer
7	District Agriculture, Irrigation and Cooperative Officer

8	District Health and Sanitation Officer
9.	Chief Park Warden for Gombe, Mahale and Katavi
10.	Regional Natural Resources Advisor for Katavi and Kigoma

Other development partners (International and local NGO's), research institutions (TAWIRI, TAFIRI and TAFORI), Tanzania Forest services (TFS) and Wildlife Department will be invited in this gathering.

## 4.3 Structure



The chairperson of the Greater GMK Ecosystem Conservation Technical Team will be elected from the team. The position will be rotating after two years between the respective Regions.

The Secretary of the Greater GMK Ecosystem Conservation Technical Team will be elected from the team. The position will be rotating after two years between the respective Regions.

### 4.4 Explanation of the Structure

٠		CMT	_
	Council Management Team		
•		EWEC	
	Economic, Works and Environment Committee		
•		SSC	
	Social Services Committee		
•		DCC	-
	District Consultative Committee		
•		RCC	-
	Pagianal Canquitativa Committae		

**Regional Consultative Committee** 

Conservation partners - Main Conservation NGO working in the area e.g. FZS, TNC, JGI, WCS and others

Research Institutions – This research institution local and internationals e.g. TAWIRI, TAFORI, TAFIRI and others

Other government bodies – This are main government bodies with stake in the area e.g. Wildlife Department, TFS, FBD and others

Other local NGO's – This are other local NGO's with interest in the area working at various levels

All the above partners are allowed to attend the District Council Conservation Technical meetings as per specific invitations. The decision of who to be invited remains with the District Council Conservation Technical.

## 4.5Frequency of scheduled meetings

Technical teams in each District will meet quarterly, before the full council meeting and Greater GMK Ecosystem Conservation technical team twice a year (July and January).

## 4.6Costs

Technical team meetings costs (e.g. Travel, Stationary and Per diems) will be covered by partners / donors support for two years starting from 2014/2015. Councils will facilitate meeting venues as part of the contribution and commitment for now. It is expected that the respective councils will start to plan and include the budget for these meetings with their own funds so that the sustainability of this activity can be guaranteed and this should start from 2015/2016.

## 4.7The roles of the chairperson of the Greater GMK Ecosystem Conservation Technical Team

**4.7.1** To chair and facilitate all Greater GMK Ecosystem Conservation Technical Team meetings

- **4.7.2** To oversee the implementation of decisions and suggestions from Greater GMK Ecosystem Conservation Technical Team
- **4.7.3** To strengthen relationship and communicate with all stakeholders and conservation partners in order to achieve the planned activities

## 4.8The roles of the Secretary of Greater GMK Ecosystem Conservation Technical Team

**4.8.1** To prepare invitation for all the Greater GMK Ecosystem Conservation Technical Team members

- 4.8.2 To receive and prepare meeting agenda's
- **4.8.3** To prepare minutes for the meetings
- **4.8.4** To prepare and distribute all the meeting information and document to relevant stakeholders
- **4.8.5** To collect, compile and disseminate information on challenges that are facing the implementation of the activities from the district technical teams

**4.8.6** To keep records and information of the Greater GMK Ecosystem Conservation Technical Team

#### 4.9 Roles of Council Technical Teams

- **4.9.1** To review, assess, prioritize and coordinate Greater GMK Ecosystem and other ecosystems priority conservation areas and to document the current condition of their respective areas
  - **4.9.1.1** To conduct technical meetings in order to review and prioritise Greater GMK Ecosystem and other ecosystems priority conservation areas.
  - **4.9.1.2** To coordinate natural resources inventory (survey) in order to assess status and prioritise conservation areas.
  - **4.9.1.3** Document, interpret and disseminate all research findings related to Greater GMK Ecosystem and natural resources to a wider public.
- **4.9.2** To provide data and information that will guide the development and implementation of general management plan (GMP) for the Greater GMK Ecosystem and other ecosystems. This is to provide the platform for identification and recommendation of suitable land uses for the district based on needs, threats, opportunities, National Policies, Regulations and Laws.
  - **4.9.2.1** To share with neighbouring districts and conservation partners new and existing information regarding challenges and opportunities in the Greater GMK Ecosystem and other ecosystems.
- **4.9.3** To identify, prioritize and publicize priority research areas for local and international researchers in order to increase understanding of the natural resources and their importance in the area.
  - **4.9.3.1** To collaborate with neighbouring districts in undertaking transboundary conservations challenges and initiatives.
  - **4.9.3.2** To ensure coordination and integration of activities among conservation partners

- **4.9.4** To identify current and potential areas of land use and tenure conflicts within the Greater GMK Ecosystem and recommend appropriate mitigation measures through:-
  - **4.9.4.1** Reviewing the GMP and the existing Conservation Action Plans (CAPs)
  - **4.9.4.2** Identification of land tenure conflicts and recommend measures for conflicts mitigations and resolutions.
- 4.9.5 To raise awareness and understanding on the importance of the Greater GMK Ecosystem to all stakeholders from village to regional levels specifically by:-
  - 4.9.5.1 Promoting the use of campaigns and social media
  - **4.9.5.2** Educating and involving the local communities and other key stakeholders in the conservation of natural resources within the Greater GMK Ecosystem
  - **4.9.5.3** Developing natural Resource communication strategy
- **4.9.6** Implementing the recommendations from district councils and seek needed support from other relevant authorities so that implementation is done smoothly.
  - **4.9.6.1** To receive, discuss and/or implement on the recommendations from district, regional, and other main government advisory bodies
  - **4.9.6.2** To identify issues and recommend solutions relating to environmental conservation and reporting to CMT
  - **4.9.6.3** To make follow up to all the recommended activities for Greater GMK Ecosystem Conservation Technical Team
- **4.9.7** To enhance partnership with local, national and international conservation stakeholders in advancing District Conservation goals and objectives

- **4.9.8** To identify resource-gap needs for advancing conservation in the respective councils through proper channels.
- 4.9.9 To establish District Conservation Fund and conduct fund raising for conservation activities and advocate for part of revenue accrued from NR to be retained to support natural resources conservation activities
- **4.9.10** To establish and maintain district NR data base including relevant resource maps. This includes:-
  - **4.9.10.1** Compilation and analysis of data, maps, recommendations and submit appropriate reports and channel them to a normal decision making process
  - **4.9.10.2** Sharing of relevant data with the Greater GMK Ecosystem Conservation Technical Team and all stakeholders as necessary
  - **4.9.10.3** To procure and install data storage equipment in each council in collaboration with conservation partners
- **4.9.11** Enhance District monitoring and evaluation capacity
  - 4.9.11.1 Develop and implement District natural resource Monitoring Plan
    - **4.9.11.2** Build on Monitoring and Evaluation of Natural resource conservation initiatives present and existing in the respective councils
- **4.9.12** Develop strategic work plan and budget of the activities of the district technical team

#### 4.10 Roles of Greater GMK Ecosystem Conservation Technical Team

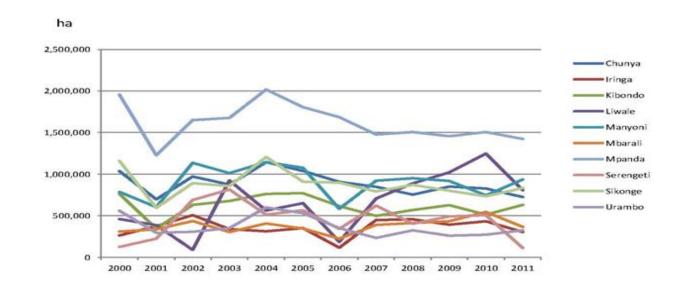
- **4.10.1** To review reports, work plans and recommendations from the council technical Teams and to provide relevant comments, suggestion and support
- **4.10.2** To advice, oversee and process the implementation of land use changes so that legal and proper process is followed.
- **4.10.3** To share and advice new and existing information, challenges and opportunities in the Greater GMK Ecosystem, including technology and infrastructure development plans and planned commercial ventures
- **4.10.4** To coordinate and integrate the activities among stakeholders.
- **4.10.5** To raise awareness about the importance of the Greater GMK Ecosystem at local, national and international level.

## Annex

## Table 1: Threats with an Overall Rating of "High"

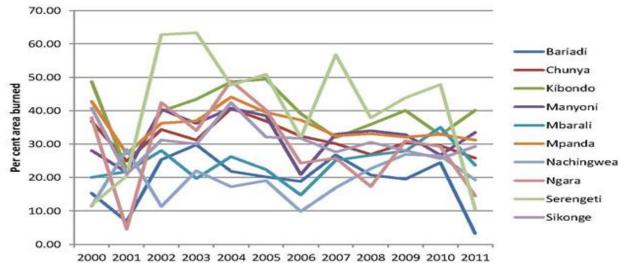
Threats Across Targets		Chimps	Elephants	Miombo Woodland Mosaic	River- ine Eco- systems	Wetlands	Lake Fish	Overall Threat Rating
Project-specific threats		1	2	3	4	5	6	
1	Conversion of forests/riverine/wetland into agricultural land	Very High	High	High	Medium	Medium		High
2	Poaching (including with snares)	High	Very High		High			High
3	Global climate change			High	High	High	High	High
4	Incompatible wildfire	High	High	Medium	Medium			High
5	Settlement establishment and expansion, and human population increase (including along the periphery of the core conservation area)	Medium	High	High	Medium			High
6	Selective logging for timer and poles			High	High		Low	High
	Threat Status for Targets and Project	High	Very High	High	High	High	High	Very High

## Information about fire burning in Tanzania



Eleven Years of MODIS Burned Area: GIS Analysis for Tanzania





# Figure 11: Per cent area burned in the ten districts with the highest proportion of district area burned

ZEBRIS GIS and Consulting

20/11/2012

## Proposed areas for protection

