



NATIONAL ENVIRONMENT MANAGEMENT COUNCIL

IMPLEMENTATION OF THE MILLENNIUM ECOSYSTEM ASSESSMENTS (MA) IN TANZANIA

September 2008

1.0 BACKGROUND

The MA which was called for by the United Nations was the world largest assessment of the health of earth's ecosystems ever happened (2001 - 2005). It was authorized by governments through international Conventions: the Convention on Biological Diversity (CBD), the Convention to Combat Desertification (CCD), the Ramsar Convention on Wetlands and the Convention on Migratory Species. The MA uses an Integrated Ecosystems Assessment (IEA) approach that puts human beings at the center while the ecosystems support life and/or development activities. Destruction of the ecosystems means suffocating the basic needs for mankind survival, therefore endangering human well being. The MA reports are important as they are useful in the decision and policy making process at all levels (local, national, sub regional, regional and global levels).

2.0 THE MA IMPLEMENTATION IN TANZANIA

Tanzania is one of the East African countries implementing an IEA on a pilot basis under UNEP support through the UNDP Poverty-Environment (PE) Programme. Others are Uganda and Rwanda. This pilot study in Tanzania was agreed to be carried out in the Livingstone Mountain ranges in Mbinga district located in the south western part of the country.

Implementation of the MA in Tanzania started in 2005 by conducting an awareness raising and capacity building workshop in Tanga, followed by a Task Force on criteria development for ecosystems prioritization (2006) and later the pilot study in the Livingstone Mt. ranges in 2007.

2.1 The 1st Awareness Raising Workshop

The National Environment Management Council (NEMC) led the process by organizing the 1st workshop on IEA in Tanga (June - July 2005) with the following objectives:

- Raising awareness on the IEA approach based on the MA framework and the Southern African Millennium Ecosystem Assessment (SAfMA) experience;

- Sharing experiences on the challenges and opportunities in Ecosystems Management in Tanzania; and
- Capacity building on IEA.

This workshop shared experiences in managing various ecosystems by having presentations from dry lands, mountains, trans-boundary ecosystems, marine and mangrove ecosystems. In addition, a two days field excursion to the Eastern Usambara Mt ecosystems, which is also partly a Biosphere Reserve, was organized for participants to get a practical experience on the utilization of ecosystem services. This included water, firewood, agricultural land and butterfly farming. Participants also experienced forests and woodlots owned by private sector; the East Usambara Tea Company (EUTCo) not only that they own tea plantations but also they plant trees within the ecosystem to supply energy for tea curing.

2.2 Criteria for Prioritizing Ecosystems for Assessment

In most cases, resources are scarce as compared to activities someone would like to undertake, hence, a need for prioritization. As part of the recommendations from the awareness raising workshop in Tanga, a Task Force was formulated to discuss further and agree on the criteria to be used when prioritizing ecosystems for assessment. The criteria include:

- **Level of environmental risks:** erosion, landslide, vegetation loss, degrading land use activities and degree of exposure to human influences, fragility and resilience.
- **Services provided by the ecosystems:** Provisioning - food, energy, water; Regulating - climate, floods, droughts; Supporting - nutrient recycling, soil fertility, primary productivity; and Cultural.
- **Economic importance:** Resources contributing to the national economy: water, minerals, timber and non timber forest products, fish, wildlife, tourist attractions, soils.
- **Levels of community dependency:** day to day needs of local communities for livelihoods - food, water, energy, spiritual/cultural, medicinal, shelter.
- **Biodiversity value:** endemism; rarity; richness and trends; keystone and indicator species; threatened/extinction.
- **Linkage to other ecosystems:** such as wildlife corridors and routes, aquatic systems and wetlands.
- **Current management status/Levels of management:** Open access, private lands, community lands, forest and game reserves, national parks, biosphere and nature reserves, conservation areas, world heritage and Ramsar sites.
- **Size and age of the ecosystems:** geological age, diversity of habitats and ecosystems.
- **Current state of knowledge:** what is known about the ecosystem; and
- **Location of the ecosystem:** Within or extending beyond the country.

2.3.0 The Pilot IEA of the Livingstone Mt. Ranges in Mbinga

2.3.1 Introduction

It was agreed that this pilot study be carried out in the Livingstone Mt. ranges in Mbinga district located in the south western part of Tanzania. The exercise started by conducting an inception workshop in Morogoro in February 2007. The workshop drew participants from the academia: The Institute of Resource Assessment (IRA), Economic Research Bureau and Geography Department of the University of Dar Es salaam, Sokoine University of Agriculture; also government officials from Ministry of Agriculture and Food Security, Ministry of Natural Resources and Tourism, Vice President's Office - Division of Environment as well as Poverty Eradication Division. Furthermore, local government officials from the area - Mbinga district were invited. In this workshop, it was advised and agreed that in order to get a good analysis of issues the assessment be done in both wet and dry seasons.

2.3.2 The assessment

Six villages were selected as sample sites for the exercise. These include Mkuka, Ukata, Kilindi, Buruma, Lundo and Chimate. The assessment team conducted the wet season field assessments in June 2007 after a reconnaissance survey which was conducted in April, followed by a dry season field visit in November 2007 to collect field based data. Two villages were selected to represent each of the three agro-ecological zones in the area. These are: Buruma and Mkuka in the highlands; Kilindi and Ukata in the middle (the rolling slopes); and Chimate and Lundo in the lowlands along the coast of Lake Nyasa. In the village questionnaire, focused group discussions, transect walks and photographing were the tools used for information gathering. While the questionnaire was administered at individual household level, focused group discussions were conducted with village leaders, women and men groups. The information gathered was both socio-economics and ecological.

2.3.3 Key Issues to guide the assessment

Prior to the field survey, the team developed and agreed on the key issues of observation to guide the whole exercise, both at data collection and report writing stages. The agreed key issues are: description of the ecosystem, ecosystems services, status and trends, drivers of change, management initiatives in place and recommendations for future actions.

2.3.4 Data Analysis and Report Writing

Data entry and analysis from the questionnaires, and later report writing was done by the team at national level in Dar es Salaam. The full report was submitted to NEMC by the consultants for internal review and later to UNEP through UNDP.

2.3.5 Key Findings

It was found that major ecosystems in the Livingstone Mountains are forests, agro and aquatic, while ecosystems services as stated by the communities are

water, food, fuel wood, building materials, pastures, medicine/medicinal plants, cultural services and microclimate regulation. Among these services, water, food, fuel wood, building materials, medicine and cultural values were prioritized as the most important services the community highly depends on; hence, they need to be addressed in environmental conservation for sustainable socio-economic development.

2.4 Other assessments

The above mentioned initiatives were directly supported by UNEP through UNDP Poverty-Environment programme. However, the MA framework has been partly used in other assessments in Tanzania since 2006. These include: The status of Man and Biosphere Reserves which was partly supported by UNESCO, Rapid Assessment of Mountain Ecosystems as well as Inventory of Mountains in Tanzania which is an exercise just at the beginning stage.

2.5 Next steps

Pending availability of financial resources, Tanzania intends to implement and popularize the MA as follows:

- ❖ Share the pilot study report of the Livingstone Mt. ranges with stakeholders at all levels. This includes:
 - Conducting stakeholders' workshops at local level; i.e. in Mbinga district; as well as in other regions and districts in Tanzania for awareness raising as well as capacity building.
 - Conducting a stakeholders workshop at national level in Dar Es Salaam.
- ❖ Prepare policy briefs for policy and decision makers
- ❖ Produce popular (simplified) versions for common people
- ❖ Publish the Livingstone Mt ranges report for wider sharing and accessibility
- ❖ Carry out other IEAs in different areas/locations and/or ecosystems
- ❖ Sect 58 of EMA (2004), only to site as an example, requires the Council (NEMC) in consultation with local government authorities to identify hilly or mountain areas which are at risk from environmental degradation. The Council intends to apply the MA framework to implement this section and other areas of assessments like rivers and river banks, as well as lakes and lakeshores.
- ❖ **National Assessment:** The current assessment was done at local level on a pilot basis. Tanzania wishes to apply the MA at national level to collect and harmonize basic data that will be useful in decision and/or policy making.

2.6 Assistance Needed

In fulfilling these ambitious ideas, Tanzania will need resources both human and financial, as well as equipments. Hence, it appeals for assistance and collaboration with the international community/institutions including UNEP. In so doing, the Council will be able to greatly contribute to the implementation

of EMA, the National Environmental Policy, the MKUKUTA, the Tanzania Development Vision 2025 and ultimately the Millennium Development Goals (MDGs) especially MDG 1 and 7. NEMC is still interested and ready to lead and/or coordinate the exercise.