



## A Review of Co-Management Interventions in the Lake Victoria Basin, Tanzania

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### Abstract

This paper presents appraisal of Co-Management Interventions (CMI) focusing on their successes and challenges associated with the environmental and social aspects carried out as part of the Lake Victoria Environmental Management Project, Phase Two (LVEMP-II) in Tanzania. A total of 23 sub-projects were appraised in accordance with the Environmental Management Act in four regions in Tanzania. The effectiveness of the appraisal process, including involvement of different parties, was assessed during the whole project cycle. Long delays in the process by the National Environment Management Council have often created a time conflict with the implementation schedule falling behind and delaying projects. Challenges relating to policy, regulatory and institutional issues for selected projects are discussed and recommendations for refining the assessment process are made.

**Keywords:** Environmental impact assessment, Planning, Reviews, Stakeholder consultation

### Introduction

The Lake Victoria Environmental Management Project, Phase Two (LVEMP II) supported Community-driven watershed management projects aimed at improving livelihoods in priority communities in the Lake Victoria basin. These included projects in the Simiyu River basin and other littoral areas in Tanzania. This initiative was a response to threats to the ecosystem resulting from population growth, which has led to an increase in unregulated human activities. These threats include the degradation of agricultural and grazing lands, deterioration of water quality from point and non-point pollution, decreased water availability, wetland and forest losses, and the inherent impacts of floods and droughts (Nile Basin Initiative, 2012). Together, they represent major threats to sustainable development in the Lake Victoria basin.

Interventions by LVEMP II were strategic in nature and the positive impacts were expected to be far-reaching within the lake basin, and in Tanzania as a whole. The aim was to reduce environmental stresses

by mitigating non-point pollution, fostering community involvement, capacity building in selected local authorities and communities, and preparing community-driven sub-projects and co-management interventions. All projects were subjected to an Environmental Impact Assessment (EIA) in accordance with the Tanzanian Environmental Management Act (EMA) of 2004, which stipulates that all projects should be assessed to determine their environmental and social impacts. The EIA process identifies baseline information, identifies and predicts current and future impacts and suggests mitigation measures.

The objective of these appraisals was to identify, predict and assess both the positive and negative environmental and social impacts of the proposed sub-projects, and to propose measures to minimize negative impacts and enhance positive impacts.

### Methods

Data and information on the physical, biological, socio-economic and environment were used to predict

the impacts of projects and to plan the monitoring of potential changes that may occur. Part IV of the EIA Regulations (Government Notice No. 349 of 2005) provides the general objectives for carrying EIAs which include:

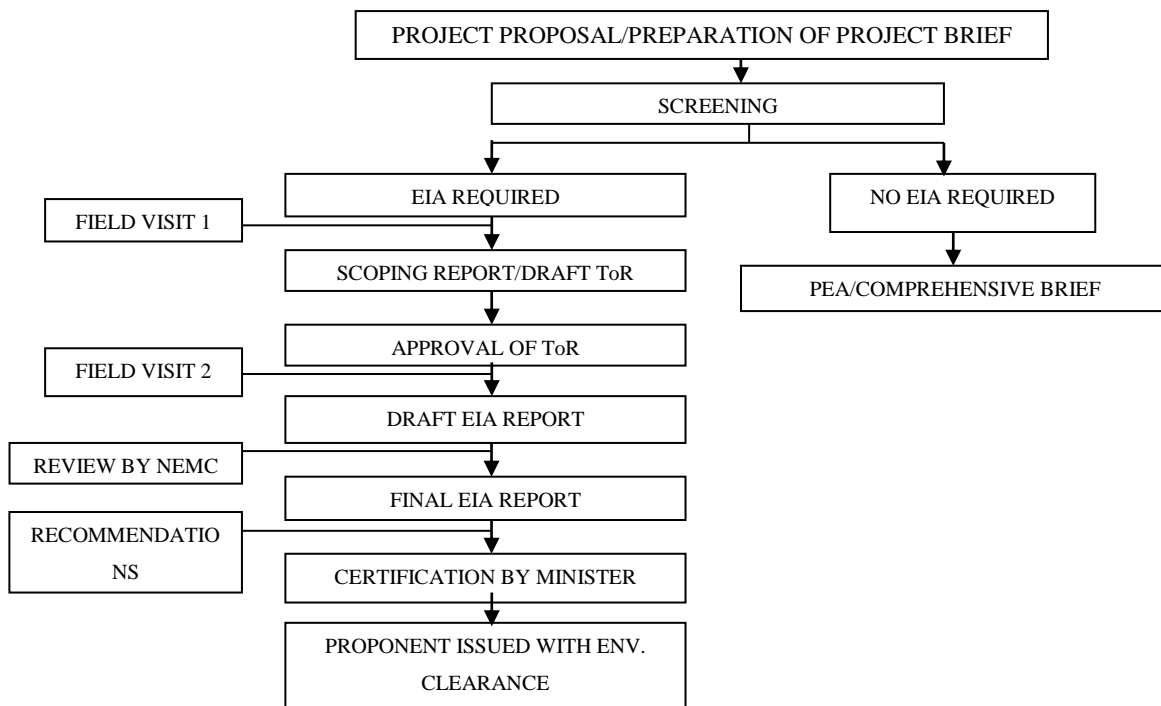
- (1) Ensuring that environmental considerations are explicitly addressed and incorporated into the development decision making process;
- (2) Anticipating and avoiding, minimizing or offsetting adverse biophysical, social and other effects of a developmental proposal;
- (3) Protecting the productivity and capacity of natural systems and the ecological processes which maintain their functions;
- (4) Promoting sustainable development and optimizing resources use and management opportunities;
- (5) Establishing and assessing impacts likely to affect the environment before project authorization; and
- (6) Proposing management procedures for the proposed mitigation of potential impacts, which

will form part of the overall Environmental and Social Management Plan (ESMP) for the project operations, and

- (7) Exchanging information, notification and consultations between stakeholders.

This assignment was undertaken between November 2013 and November 2015 using a multi-disciplinary team of social and environmental professionals to carry out the required resource assessment, generation of baseline data, determination of potential impacts and recommendation for mitigation measures. An interactive approach was established between the project planning team and the environmental assessment team following procedures set out in the Environment Impact Assessment and Audit Regulations (Figure 1).

The appraisal involved a combination of stakeholder meetings, desktop study, and field investigations, a review of literature and documents and field studies at the project site to gather data on the project.



**Figure 1:** The EIA process adopted in Tanzania according to government regulations.

## Results and Discussion

A total of 23 approved CMIs in the Mara, Mwanza, Kagera and Simiyu regions were appraised. As a result of the environmental and social screening by the National Environment Management Council (NEMC) only two of the 23 projects had to undergo full EIA;

13 required comprehensive briefs and 8 required only preliminary environmental assessments (Table 1). Most (91%) of these sub-projects were found to be “environmentally and socially safe”. Those projects that required Comprehensive Briefs and Preliminary Environmental Assessments (PEA) were issued with a

set of basic instructions for proceeding with the project. The two projects that required a full EIA were given a detailed and stringent set of instructions, which form a basis for proceeding with the project. For each case, a monitoring plan is included in these sets of instructions.

**Table 1:** Sub-projects and locations of the projects supported by LVEMP II in Tanzania.

<b>Batch 1</b>	Rehabilitation of Kitaji pond, Musoma Municipality, Mara Region*** Mirongo River conservation, Nyamagana District, Mwanza City* Protection of Simiyu river banks, Maswa District, Simiyu Region** Conservation and Protection of Simiyu River boundaries, Meatu District, Simiyu Region** Protection of Simiyu and Duma river banks, Bariadi District, Simiyu Region** Protection of Simiyu river banks, Kwimba District, Mwanza Region** Restoration of Icheja forest, Kwimba District, Mwanza Region** Rehabilitation of Sola Charco dam, Maswa District, Simiyu Region* Promotion of improved cooking stoves, Maswa District, Simiyu Region** Protection of Simiyu and Duma river banks, Magu District, Mwanza Region**
<b>Batch 2</b>	Establishment of proposed Environmental Pedagogical Centre, Bariadi Town, Simiyu Region** Ngeme micro-catchment environmental conservation and sustainable land management, Itilima District, Simiyu Region** Conservation of Ilemela-Kirumba natural waterways, Ilemela Municipality, Mwanza Region* Environmental conservation of Magogo, Mwame, Nhende and Nyashidala micro-catchments, Misungwi District, Mwanza Region* Reforestation of Itira forest and conservation of Muriti micro-catchment, Ukerewe District, Mwanza Region** Control of water hyacinth in Lake Victoria Basin, Tanzania** Rehabilitation of Igogo market drainage system, Nyamagana District, Mwanza** Control of water pollution, solid waste and siltation, Kanoni River, Bukoba Municipality, Kagera Region* Conservation of Smith Sound Bay, Lake Victoria, Ihelele, Misungwi Districts, Mwanza Region** Environmental protection and conservation, Kagera River, Kyaka Ward, Missenyi District, Kagera Region* Implementation of fish hatchery project at FETA Campus, Mkolani Ward, Mwanza City
<b>Batch 3</b>	Construction of Kakukuru market and fish landing site, Murutilima village, Ukerewe District, Mwanza Region* Community-based conservation, Nyegezi Bay, Butimba and Mkolani Wards, Nyamagana District, Mwanza Region***

**Key:** \*\*\* = full assessment, \*\* = comprehensive brief, \* = preliminary assessment only.

### Recorded Successes

#### *Participatory Approach to Project Conception and Design*

The assessed sub-projects demonstrated a wide participation by the local communities during the

conception and design stages, as well as by local authorities in collaboration with their partners at development stages. Majority of these sub-projects were aimed at conserving the environment of the Lake Victoria basin and the fact that almost all of them

obtained environmental clearance at Project Brief or Preliminary Environmental Assessment level indicates that the project goals have been sufficiently met. The environmentally-centred philosophy has successfully been incorporated into project design, further evidence that capacity building has enabled the local authorities and communities to include this philosophy into project development.

#### *Involvement of Stakeholders during Appraisal Process*

A wide spectrum of stakeholders was involved in the appraisal process. This ensured the quality, comprehensiveness and effectiveness of the process, whereby stakeholder's views are adequately captured and incorporated in the decision-making process. This was accomplished through comprehensive consultations with central and local government authorities, ward and village governments, non-governmental organizations, relevant offices (e.g. Lake Victoria Basin Offices, Ministry of Water and Irrigation), as well as the general public. Among other things, awareness about the proposed projects was promoted and their acceptance gauged. Increased awareness fostered the possibility of resolving potential misunderstandings, creating better understanding of pertinent issues and how they would be mitigated from the initial to final stages. For instance, the EIA of Kitaji Pond in Musoma Municipality consulted more than 80 stakeholders in different groups while more than 30 stakeholders were consulted during appraisal of the project for the conservation of Nyegezi Bay in Butimba and Mkolani Wards, Nyamagana District. All projects received certification for environmental clearance and were allowed to proceed.

### **Challenges**

#### *Lack of Detailed Designs*

The lack of detailed drawings showing the project design, was a major challenge in some of the projects, such as the Bariadi Pedagogical Center and Kakukuru Market. This information is an important component of the EIA and PEA reports. When such information is missing, the EIA process is delayed, consequently resulting into considerable delays in completing the assignment and subsequent issuance of certification of clearance.

#### *Delays in the NEMC Review Process*

NEMC reviews are carried out in accordance with the EIA and Audit Regulations, which stipulate timeframes for completing the review and communicating its outcome to consultant(s) and project proponents. In general, the review process tended to take longer than the prescribed timeframes, resulting in substantial delays in the whole process, which should normally take around 12-16 weeks, but for most of the projects discussed here the process took at least 16 weeks, often extending to more than 6 months. This has been connected with human resource capacity issues at NEMC.

Typically, a particular EIA project would be assigned an official within NEMC (a reviewer). Because of staff shortages NEMC, reviewers are also tasked to review several EIA projects at the same time. Consequently, each reviewer has to read and give appropriate feedback for several projects at their registration and scoping stages. More often than not, this process exceeds the prescribed number of days specified in the EIA and Audit Regulations, much to the frustration of consultants and their clients.

Further delays are in the form of field verification visits were incurred technical review teams after full EIA report were submitted by consultants. It often takes a long time to assemble a team to accompany the NEMC review team on field verification visits, since members of this team come from various government offices, depending on the nature of the project. All these factors contribute to undesired delays, and those experienced by LVEMP projects were no exception.

#### *Misinterpretation of screening decisions*

Project briefs are screened by the reviewer within NEMC, in accordance with the regulations. Typically, decisions are based on expert judgements, for which knowledgeable and experienced personnel are needed to foster sound screening decisions. Sometimes there were contradicting screening decisions about whether or not a project qualifies for a full EIA or perhaps a PEA or Comprehensive Brief. One example is the proposed implementation of the fish hatchery project at FETA Campus, Mkolani Ward, Mwanza City, where the screening recommended a full EIA, only to learn later stage that an EIA was not required. This happened for several projects among the 23 appraised, which suggests that some NEMC officials involved in the review process are not sufficiently knowledgeable or experienced to make major decisions on screening.

The lack of certainty on screening decisions could have serious financial repercussions related to the magnitude of the proposed task, as well as on the time needed to conclude the appraisal process.

The LVEMP II initiative can be commended for its contribution towards environmental sustainability in the Simiyu catchment although challenges still need to be addressed. Firstly, adequate project descriptions (including detailed engineering drawings) must be available prior to the appraisal exercise, since this is crucial information that provides the basis for gauging the magnitude of the EIA needed, as well as aiding in impact prediction, and forms a chapter in the EIA report. Secondly, in order to minimize delays in the NEMC's review process, there should be closer liaison between NEMC and project proponents, which could include visits to NEMC premises for assistance. The refinement of screening decisions is very important for a speedy review process. Internal capacity-building of human resources in NEMC is crucial. For instance, quicker management of the EIA process may require NEMC to decentralize their activities to the Zonal

Offices so that they can also review reports and lessen the work load at headquarters.

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