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Public Expenditure Review of
Environment
Financial Year 2004

Final Report

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LIST OF ABBREVIATIONS/ACRONYMS

AIDS	Acquired Immunity Deficiency Syndrome
AWF	African Wildlife Foundation
BOT	Bank of Tanzania
CBOs	Community Based Organisations
CITES	Convention on International Trade in Endangered Species
DAWASA	Dar es Salaam Water Supply and Sewerage Authority
DOE	Division of Environment
EC	European Commission
EIA	Environmental Impact Assessment
EPM	Environmental Planning and Management
ERB	Economic Research Bureau
EWG	Environment Working Group
FOBD	Forest and Beekeeping Division
FY	Financial Year
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GOT	Government of Tanzania
HIV	Human Immunodeficiency Syndrome
IDA	International Development Agency
ILFEMP	Institutional and Legal Framework of Environment Management Project
JICA	Japanese International Development Agency
LAMP	Land Use Management Programme
MAFS	Ministry of Agriculture and Food Security'
MECAA	Masasi Environment, Commercial and Agriculture Association
MoF	Ministry of Finance
MOWLD	Ministry of Water and Livestock Development
MTEF	Medium-Term Expenditure Framework
NBS	National Bureau of Statistics
NCAA	Ngorongoro Conservation Area Authority
NEMC	National Environment Management Council
NEP	National Environmental Policy
NGO	Non-Governmental Organisation
PAs	Protected Areas
PED	Poverty Eradication Department
PEI	Poverty Environment Initiative
PER	Public Expenditure Review
PIC	Prior Informed Consent
PLHAs	People Leaving with HIV and AIDS
PMS	Poverty Monitoring System
POPs	Persistent Organic Pollutants

PO-RALG	President's Office for Regional Administration and Local Governments
PPA	Participatory Poverty Assessment
PPP	Polluter Pays Principle
PRBS	Poverty Reduction Budget Support
PRS	Poverty Reduction Strategy
PRSC	Poverty Reduction Support Credit
PRSP	Poverty Reduction Strategy Paper
PhD	Doctor of Philosophy
RDS	Rural Development Strategy
SCP	Sustainable Cities Programme
SDP	Sustainable Dar es Salaam Project
SEA	Strategic Environment Assessment
SIDA	Swedish International Development Assistance
SIDP	Sustainable Industrial Development Policy
TANAPA	Tanzania National Parks
TAS	Tanzania Assistance Strategy
TOR	Terms of Reference
TRA	Tanzania Revenue Authority
TSED	Tanzania Socio-Economic Database
Tsh	Tanzanian Shilling
UASU	Urban Authorities Support Unit
UNCCC	United Nations Convention on Climate Change
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCHS	United Nations Centre for Human Settlement
UNDP	United Nations Development Programme
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNSO	United Nations Scientific Organisation
URT	United Republic of Tanzania
USAID	United States Agency for International Development
USD/ US\$	United States Dollar
VPO	Vice Presidents' Office
WBES	World Bank Environment Strategy
WD	Wildlife Division
WMAs	Wildlife Management Areas
WWF	World Wildlife Foundation

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EXECUTIVE SUMMARY

INTRODUCTION

The objective of this review was to establish the levels, trends and distribution of environmental expenditure and revenue in relation to the country's environmental priorities and poverty reduction strategies. Therefore, one of the key challenges is to determine how the Government of Tanzania (GOT) is investing in the environment to meet the national development and poverty reduction objectives as set out in the Vision 2025 and the National Poverty Eradication Strategy (NPES, 1997).

The review involved deskwork and interviews with various stakeholders at national, sectoral and local government levels. During the review, the Consultant also involved the Counterpart staff from the Division of Environment in the Vice President's Office (VPO) and the National Environment Management Council (NEMC). This provided an opportunity for the client (VPO) to actively participate and gain ownership of the PER process.

The major limitation to this study has mainly been data accessibility. In particular, data on revenue and expenditure were either not available or aggregated in other categories of expenditure in the sector ministries.

MAIN FINDINGS

This Chapter outlines key findings of this study. Detailed analysis of the findings is discussed in the preceding this Chapter.

Policies, Strategies and Programmes

The findings from Section 2.5 show that, the institutional aspect of poverty-environment is strong at the central levels but weak at the local government levels. Again, findings have shown that in most sector policies there is a weak linkage between poverty and environment. However, a stronger links between poverty and environment are reflected for example in the National Human Settlement Policy (2000), National Water Policy (2002), National Environment Policy (1997), Wildlife Policy (1998) and Forestry Policy (1998). A detailed analysis of policies is given in Appendix VI of the main document.

As shown in Section 2.4 Sustainable Cities Programme (SCP) has been one of the important innovative approaches that has led into environment policy and management (EPM) process. However there has been some constraints in the implementation of EPM process. These include lack of adequate funding and dependence on external support; inadequate capacity for supporting authorities to match increasing demand for more urban centres to participate in the

EPM; inadequate financial support to for stakeholders working groups to actively participate into EPM; inadequate participation of urban communities to implement issues prioritized at urban authorities levels.

The findings on Section 7.0 have shown that the country has made some considerable effort to implement various international conventions. However, lack of financial resource has been noted to be a major constraint.

Environment Revenues and Retention

The contribution of environmental resources to the national and sectoral revenue is substantial as discussed in Section 3.1.2. For instance, in 2001/02, Fisheries and Wildlife sectors collected Tsh 6.9 and 32 billion respectively, this accounted for 0.6% and 3% of total national revenue collection. These figures could have been higher if the existing potential for revenue collection in the two sectors was fully utilised. Poor or under collection is attributed to lack of capacity in terms of human resources, fragmented and weak accounting systems and limited logistical resources.

This PER has established that presently there is inadequate sharing of natural resource revenue among stakeholders for environmental management. With an exception of the wildlife sector whereby the districts are allowed to retain 25% of the collection. Some sectors share relatively less, for example, Forestry and Beekeeping gives 5% of any amount exceeding Tsh 1.0m to the districts as shown in Section 3.1.2. However, the present Forestry and Wildlife approached to increase community based resource management through Participatory Forestry Management and wildlife Management Areas are expected to increase the sharing of revenues with local stakeholders.

Capacity Building

An assessment of the existing capacity as elaborated in Section 4.1, revealed capacity inadequacies for environmental management from central and sector levels down to the villages. Furthermore, it has identified the need for human capacity building such as additional recruitment and training at all levels. In addition, there is a need for institutional capacity building through provision of office accommodation, technological infrastructure and transport. In addition, the forthcoming draft Environment Management Act (EMA) will require further human, and financial resources for its effective implementation to protect the environment and peoples' livelihoods.

Contribution of Environmental Resources to GDP

The environmental sectors have been contributing significantly to the GDP according to the findings from Chapter 5. The average percentage (1995-2002) contributions to GDP by sectors directly dependent upon environment and natural resources were: Agriculture - Crops, 35.3, Tourism 13.0%, Agriculture – Livestock, 4.7%, forestry & Hunting (Wildlife), 3.3%, Fishing, 2.5%, Electricity (Energy), 1.6%; Mining, 1.4%; and, Water, 0.2% (Economic Survey Report 2003). However, the specific contribution of some environmental sectors particularly tourism, wildlife and forest could not be well captured due to the international format or standards that are currently applicable. In addition, the real contribution of different sectors to the national income could not be captured since the associated environmental costs have not been deducted. This PER has therefore not been able to capture the Net Domestic Product because of insufficient data.

Budget allocation and expenditure on environment

While environmental resources contribute significantly in terms of revenue collections and national income, yet the environmental sectors are financially under resourced as shown in Section 6.2. The resource gap was more pronounced in Fisheries and Wildlife sectors. In addition, what environmental resource sectors are allowed to retain back is not sufficient to maintain sustainable environmental management.

As regards to funds allocation, the findings show that actual disbursements do not match sectors requirements. For instance, in 2001/02 less allocation was noted in Wildlife (short by Tsh 40m), Forestry and Beekeeping (short by Tsh 59m) and Fisheries (short by Tsh 173m).

Assessment also revealed that allocation though inadequate; internal spending in many sectors corresponds with the magnitude of environmental problems as underlined in the National Environmental Policy. For example, fisheries spent more on protection of aquatic life while Forestry and Beekeeping sectors focused more on curbing deforestation as discussed in Section 6.4.

It was also revealed that, the allocation by government to other sectors on poverty and environment links was insufficient. For example, PORALG, Health, Education and Road sectors see environment as crosscutting issue, their MTEF have not explicitly allocated expenditure to it for FY 2003/04-2006/07. However, efforts towards integrating environmental issues into sectors' plans have started taking shape. For instance, the Ministry Works has established a Unit to manage environmental issues in the Road Sector. Therefore, adequate measures should be undertaken to ensure that their next PER/MTEF recognises environment as important area for expenditure allocation to meet poverty and environment objectives.

Implementation of Multilateral Environment Agreements (MEAs)

The findings in Chapter 7 have shown that the country has made considerable effort in implementing various multilateral environment agreements (MEAs). However, inadequate funding has been noted as a major constraint on timely implementation of these conventions.

Donor fund allocation and expenditure on environment

Most of environmental management projects, which address the key environmental problems, are donor supported. For instance, during the FY 2003/04 donor support to environmental programmes amounted to Tsh 83.5 billion. It is important to note that the support took into account the existing environmental problems, which are underlined in the National Environmental Policy.

Medium-Term Expenditure Framework (MTEF)

The MTEF presented in this PER has taken a strong account and focus on following:

- Requirements for capacity building in the lead institutions in the environmental management by staff development and provision of sufficient working tools.
- Emphasis on awareness campaigns down to district level particularly on six major environmental problems underlined in NEP.
- Environmental monitoring and enforcement.
- Meeting the obligations of international treaties and regional conventions, which have been ratified and acceded to by Tanzania.
- To further identify and manage environmental “hot spots” or special areas in Tanzania.
- Need to establish the environmental fund, which will be used for environment management activities.

RECOMMENDATIONS

This Section outlines the key areas for intervention and recommendations to address them. The key elements of these interventions and recommendation have been discussed in detail in preceding Chapters.

1. Mismatch between revenues collected and allocations to the environmental sectors. This issue is addressed in Section 6.2

To address the above, the following are recommended:

- (i) The Government should consider increasing budgetary allocation to the environmental sectors including VPO. This is necessary to allow for efficient and effective management, coordination, monitoring, and valuation of environmental resources to achieve sustainable development and poverty reduction.
- (ii) Each environmental sector should undertake independent PER study in order to capture their real expenditure requirement in their MTEF.
- (iii) Future allocations to the existing PRS priority sectors and environmental sectors should consider the roles sectors play in addressing the linkages between poverty-environment and delivery of social services.
- (iv) Establishment of Environmental Management Fund (EMF).
- (v) Introducing and enforcing environment management principles and practices including user charges or fees” and Polluter Pays Principle (PPP).

2. Under pricing of environmental products and disregard of replacement cost. This finding is discussed in Sub-section 3.1.6

To address this there is a need for:

- (i) Work out modalities to appropriately price the value of utilization of environmental resources. This can be possible by actively promoting stakeholders’ involvement and participation and improved accounting systems.
- (ii) A study to assess and compare revenues and replacement costs be undertaken.

3. Inadequate environmental revenue collections that partly result from under pricing of environmental resources. This is discussed in Chapter 3

To address this issue there is a need for:

- (i) To carry out an evaluation study to capture revenue potentials and real market value of environmental products. Wherever possible, government administered prices should be replaced by competitive market prices. In the hunting industry for example, this could be achieved by tendering hunting blocks instead of allocating them for a fixed sum. Likewise commercial harvesting of high value species such as fish and trees should be auctioned.

- (ii) Environmental Resource sectors and local government authorities should improve their capacity in revenue collection through increased monitoring, accounting and promotion of community based resource management. However, efforts to maximise revenue should not compromise environmental concerns and socio-economic aspects of the community.
- (iii) There is a need to accelerate strategic environmental assessment of the existing environmental plans and strategies to ensure that environmental concerns are taken on board during preparation and review of policies, strategies and programmes.

4. Limited access and availability of data on environmental revenue and expenditure **This finding is reflected in Chapter 1.**

To counter this problem there is a need for:

- (i) Each sector should develop its own database and M&E system to facilitate easy capturing of environmental data including revenue and contribution to GDP.
- (ii) VPO should strengthen the coordination with sectors of environmental monitoring and data collection including environment revenue and expenditure.
- (iii) VPO in collaboration with National Bureau Statistics and MOF should consider capturing environment costs and benefits into national accounts.

5. To finalise environmental PER budget guidelines for sectors and local governments

There is a need for VPO in collaboration with MOF to finalise PER/budgetary guidelines for environmental sectors and local governments in collaboration with MOF.

6. Inadequate implementation of Multilateral Environment Agreements (MEAs)

The findings as discussed in Chapter 7.1 show that the obligations and commitments of the government to implement the MEAs is hampered by financial constraints.

The proposed measures to address the above include:

- (i) To clarify/confirm the financial requirements to implement MEAs, and the obligations and existing commitments of multilateral and bilateral agencies to implement these MEAs.
- (ii) Need to seek financial support from multilateral and bilateral agencies.
- (iii) Continued awareness raising among the public, private sector NGOs and Community Based Organisations (CBOs) on multilateral conventions/agreements in order to create a sense of ownership and facilitation of the implementation process.

7. Inadequate capacity for environmental management at sectoral and local government levels. This problem is discussed in Section 4.1

To address the problem, the following are proposed:

- (i) A Needs Assessment Study to establish the actual requirements of resources for sectors and local authorities in areas related to environmental management, achievement of sustainable development and the effective implementation of the forthcoming Environmental Management Act.
- (ii) Design and implement capacity building programmes and other initiatives that would promote environmental management skills at central and local government levels.
- (iii) Provide financial support to sector ministries and local authorities to assist them establish/strengthen Environmental Management Units (EMU), recruit/designate environmental coordinators and implement operational activities.

8. Weak poverty-environment linkages

As shown in Section 2.5, despite all efforts to address environment as primary crosscutting issue in sector policies and strategies, there is further need to promote widespread understanding of how poverty-environment linkages should be applied to support environmental management.

The following measures are recommended:

- (i) The revised Poverty Reduction Strategy (PRS) should be supported by research findings based on the local conditions as it adopts the new approach to poverty-environment linkage;
- (ii) Environmental sectors should promote actions, including research, research to develop and implement sectoral strategies that incorporate poverty-environment linkages and consider environmental resources from ecological and socio-economic point of view as an important life-supporting system;

The developed PRS and sectoral strategies should take into consideration the impact of globalization as one of the major constraint in achieving poverty reduction strategy in the country.

1.0 INTRODUCTION

1.1 Background

The Public Expenditure Review (PER) is today an important aspect of planning and budgeting mechanism in Tanzania. The central focus is to match policy priorities as underlined in the Poverty Reduction Strategy Paper (PRSP). PER therefore, examines how, financial resources from local and external sources were utilised to meet PRSP targets.

In the Poverty Reduction Strategy Paper (PRSP), which Tanzania developed in 2000, the government recognized the dependence of the poor in Tanzania on environmental resources in particular from agricultural, wildlife, fisheries forest and beekeeping, tourism sectors. Examples products from these resources are timber, charcoal, honey, wild fruits, medicines and firewood. Others are agricultural crops, live animals, animal trophies and fish. Tourism and hunting are additional benefits accrued from the natural resources. The natural resource products are important sources of national revenue/income. The environment is linked to poverty at the levels of livelihood, health and vulnerability. This linkage between environment and poverty has also been recognized in the National Environment Policy (NEP).

While environmental resources are important for growth and poverty reduction, the major concern of the government has been the sustainable utilization of these resources given the rampant destruction on environmental resources. For instance, it is reported in FOBD (2002) that 91,276 hectares of forests are cleared every year and 70 percent of all diseases reported in health facilities are related to environmental sanitation (URT, 2003). It is against this situation that the government has identified six major environmental problems¹ that need urgent attention. Given this, the government has indicated its desire of finding ways of incorporating environmental indicators into its poverty monitoring system to capture the dependency and poverty environmental linkages more fully in the future iterations of the PRSP and the MTEF.

Though the government has already recognized the importance of environment as a cross cutting issue in the PRSP and developed a programme to integrate environment into PRS process, a key challenge that remains is on how the government will invest in environment to meet the national development and poverty reduction objectives as set out in the Vision 2025 and National Poverty Eradication Strategy.

To address this challenge, this Environment Sector Public Expenditure Review, which is the first to be undertaken, reviews and mainstreams environmental issues, establish the levels, trends and distribution of environment expenditure by government and assesses the level of

¹ The six environmental problems are; land degradation, lack of access to good quality water for both urban and rural inhabitants, environmental pollution, loss of wildlife habitats and biodiversity, deterioration of aquatic systems, and deforestation.

environmental expenditure required in relation to the country's environmental priorities and poverty reduction objectives.

1.2 Scope and Objectives

The main objective of this PER for Environmental Sector is to establish the levels, trends and distribution of environmental expenditure by Government; and assess the level of environmental expenditure required in relation to the country's environmental priorities and poverty eradication objectives. Terms of Reference, attached in Appendix 1, can be broadly summarized as follows.

- Review sector programmes/strategies and planning/budget guidelines to identify strengths, weaknesses/gaps in capturing environmental issues in various key sectors.
- Assess budgetary allocations and expenditures of Central and Local Government for FY 2000/01 and 2001/02.
- Review and assess the contribution of the environmental resources to national income since 1995 to date.
- Undertake in-depth analysis of the budgetary allocation and expenditure in the key sectors for FY 2000/01 and 2001/02.
- Assess the contribution of Central and Local Government revenues from environmental resources.
- Assess government expenditure on capacity building for environmental management and propose elements for capacity building.
- Assess the proportion of expenditure on environment from aid flows in relation to requirements for the implementation of multilateral and bilateral environment agreements at national level.
- Review of the recent public expenditure reports.

1.3 Study Approach

This review involved an in-depth deskwork review of various national, sector and local government policies, strategies and programmes documents that are related to environment. The consultant also conducted a field survey by interviewing and consulting various sectors, departments and local government offices. The interviews were guided by the checklist of lead questions (Appendix IX) and conducting informal interviews, the consultant visited two central government departments (VPO and NEMC), nine sector ministries (i.e. agriculture, education, health, roads, tourism, forestry, water, forestry, wildlife, and lands), PO-RALG, two rural districts and two urban districts. Additionally the consultant contacted and received official written information from Ngorongoro Conservation Area Authority (NCAA) and

Tanzania National Parks (TANAPA). Secondary information particularly from sectors PER studies, Economic Survey reports, Parliamentary Budget Speeches by different Ministries and other government reports were used.

1.4 Structure of the Report

This report is organized into eight (8) chapters including the introductory chapter. Chapter two reviews environment related policies, programmes and strategies at national, sectoral and local government levels to identify the strength and weakness in capturing environmental issues. Chapter Three provides information on revenue from environmental resources and its contribution to national income. Chapter Four looks at and assesses the needs and expenditure for capacity building for environmental management. Chapter Five is about the contribution of environmental resources to national Gross Domestic Product (GDP). Chapter Six analyses budget allocation and expenditure on environment to establish both the government commitment and gaps to environmental spending. Chapter Seven looks at the expenditure needed and commitment on part of the government on multilateral and bilateral environmental agreements. Lastly, Chapter Eight concludes and summarizes the recommendations arising from foregoing chapters and will be considered in the preparations of Environmental Sector MTEF for the years 2004/05 – 2006/07.

2.0 REVIEW OF ENVIRONMENT RELATED POLICIES, PROGRAMMES AND STRATEGIES

2.1 Introduction

The purpose of this section is to determine how environmental issues are addressed at central and sectoral policies. Poverty reduction issues are also considered in this review because of the inherent linkage between poverty and environment. The review also considers various strategies and/ or programmes that have been formulated or being implemented to address environment and poverty reduction issues at central, sectoral and local government levels. However, before starting the review process, it is important to give a brief overview of the institutional framework for Environmental Management (EM) at various levels (i.e. central, sectoral, regional, district and village levels).

2.2 An Overview of Institutional Framework for Environmental Management

The presence of institutional and legal framework is a prerequisite for effective implementation of environmental policy objectives at all levels (national, sectoral, regional, district and village levels). To achieve that goal the Government of Tanzania (GOT) commissioned a study on Institutional and Legal Framework for Environmental Management Project (ILFEMP) Phase I and Phase II, respectively. Whereas ILFEMP Phase I was mainly concerned with formulation of institutional framework, Phase II was responsible for development of legal framework.

According to the Cabinet decision, the institutional set-up for environmental management should include:

- National Environmental Advisory Committee;
- Minister of State in the Vice President's Office responsible for Environment and Union Matters;
- Division of Environment in the Vice President's Office;
- National Environmental Management Council (NEMC);
- Environment Units in Sector Ministries;
- Regional Secretariat;
- Local Government Authorities (City Councils, Municipal Councils, District Councils and Town Councils); and
- Township, Division, Ward, Village, Hamlet (Kitongoji / Mtaa).

The environmental management functions / responsibilities of each institution are summarized in Appendix V.

The institutional mandates and responsibilities for environmental management is well elaborated from central level down to local government and local community levels. For example, the current institutional framework shows the presence of Environmental Management Officers at Municipal/District/Township/Ward/Village levels. However, it seems future implementation of environmental management functions at district and village levels would require capacity building support from the central level (VPO / NEMC). One of the important roles of VPO and NEMC in this case would be to conduct Environmental Training Programmes for the Environmental Management Officers.

It is thus recommended that the VPO and NEMC should formulate and implement Environmental Training Programmes for local government and ward / village levels Environmental Management Officers. This will require some financial support from the government and probably other sources, including the donor communities.

Although at sectoral levels some potential exist for carrying out environmental management functions, there is still a need to promote capacity building. It is recommended that the sector ministries should be allocated some funds to facilitate establishment of Environmental Management Units (EMU) and recruitment of Environmental Coordinators. This will facilitate increased linkage and coordination between the central level and sectoral levels.

A good example is the road sector, whereby under the Road Sector Programme Support (RSPS) through DANIDA the Ministry of Works has established an environmental unit, headed by Environmental Coordinator. Some progress on capacity building is already evident in terms of preparation of Environmental Assessment and Management Guidelines for Road Sector Stakeholders, Sustainable Strategy for Environmental Management in the Road Sector and the Training Manual for Environment Assessment and Management.

2.3 Environment Related Policies

2.3.1 National Environment Policy (1997)

The National Environment Policy (NEP, 1997) is the main policy document addressing environmental management issues in the Tanzania. It identifies sustainable development as key issue in the national environmental management policy in the country. The policy states government's commitment to sustainable development on the short, medium and long-term development basis. It requires the Tanzania people to manage their environment and natural resources in a sustainable manner to enhance the potential for growth and opportunity for sustainable development of present and future generations.

The policy identifies six key environmental problems and considers sectoral ministries the important implementers/stakeholders to address those problems and considers the linkage between poverty and demographic dynamics as critical factors contributing to environment

degradation in the country. The six major environmental problems identified in the policy include:

- Land degradation;
- Lack of access to good quality water for both urban and rural inhabitants;
- Environmental pollution;
- Loss of wildlife habitats and biodiversity;
- Deterioration of aquatic systems; and
- Deforestation.

To address environmental issues the policy considers the following sectoral and cross-sectoral issues:

Sectoral issues:	Cross-cutting issues:
<ul style="list-style-type: none"> ▪ Agriculture; ▪ Livestock; ▪ Water and Sanitation; ▪ Health ▪ Transport; ▪ Energy; ▪ Mining; ▪ Human settlement; ▪ Industry; ▪ Tourism; ▪ Wildlife; ▪ Forestry; ▪ Fisheries 	<ul style="list-style-type: none"> ▪ Land tenure; ▪ Technology; ▪ Biodiversity; ▪ Public participation and Education; ▪ Private sector and NGOs; ▪ Women, health and Human settlement.

The policy implementation relies on the following instruments:

Environmental impacts assessment: - based on precautionary, anticipatory and preventive approaches. The intention is to maximize long-term benefits of development and while at the same time safeguarding environmental management objectives.

Legal instruments: - to ensure enforcement of environmental laws to facilitate effective environmental management and improvement of the quality of life.

Economic instruments: - to ensure that environmental resources are not undervalued and that market based approach should be used for environmental protection. This emphasizes the application of user-charge for collective goods (e.g. deposit-refund schemes) and polluter-pays-principle (PPP).

Precautionary principle: - to ensure that precautionary action is taken prior to emergence of any environmental damage or risk and enhance environmental integrity.

International cooperation: - to ensure sharing that responsibility for environmental protection are shared with other countries at regional and global levels (e.g. trans-boundary waters).

On institutional framework, the policy recognizes the importance of coordination and cooperation among various government institutions, NGOs, CBOs, and private sector. The policy statement is that: ***“institutional coordination of and cooperation between institutionally distinct bodies with overlapping mandates might be enhanced and constructively aligned.”*** Thus, the policy underscores the importance of devising strategies to ensure that policy objectives are achieved.

2.3.2 Sectoral Policies

In this sub-section, the report provides some brief analysis of the sector policies. The intention is to show how environmental concerns and poverty have been addressed as crosscutting issues. The environment related sectoral policies that have been dealt with in this report include:

- National Land Policy (1995);
- The Wildlife Policy of Tanzania (1998);
- The Mineral Policy of Tanzania (1997);
- National Forest Policy (1998);
- National Fisheries Sector Policy and Strategy Statement (1997);
- Agriculture and Livestock Policy (1997);
- National Tourism Policy (1999);
- Sustainable Industrial Development Policy (1996);
- Energy Policy of Tanzania (1992);
- National Water Policy (2002);
- Construction Industry Policy (2002);
- National Transport Policy (2003);
- National Health Policy (1990); and
- National Human Settlements Development Policy (2000).

In addition to the sectoral policies, the analysis also includes some of the following crosscutting sector policies:

- National Policy on HIV/AIDS (2001);
- Women and Gender Policy (2000);
- National Gender Policy (1992);
- National Micro Finance Policy (2000);

- Small & Medium Enterprises (SME) Development Policy (2001);
- Tanzania Women in Development Policy (1998);
- Cooperative Development Policy (1998);
- Rural Development Strategy (2001); and
- Community Development Policy (1996).
- National Population Policy (1992)

The assessment shows environment and poverty issues are addressed as crosscutting in the various sectoral and crosscutting policies (Appendix VI). The environmental issues are addressed in terms of:

- Need for linkage with other sectors on environmental protection and management;
- Involvement of women in environment protection activities;
- Promotion of environmentally friendly and ecologically sustainable technologies;
- Introduction and enforcement of EIA in all development projects as an important tool; and
- Application of polluter pay principle as an economic instrument to control water pollution and ensure access to clean and good quality water supply and sanitation.

On poverty issues while most policy documents address poverty reduction they also address the importance of women empowerment (gender) and involvement in development activities, including environmental protection and management activities. In addition to sectoral policies, the crosscutting policies also address poverty and environmental issues.

2.4 Strategies / Programmes

The purpose of this sub-section is to determine how environment and poverty issues are addressed in various national strategies/programmes. Some of the important strategies/programme include:

- National Environment Action Plan (NEAP, 1994);
- The National Poverty Eradication Strategy (NPES, 1998);
- Rural Development Strategy (2001);
- Tanzania Development Vision (Vision 2025);
- Tanzania Assistance Strategy (TAS, 2001);
- Agriculture Sector Development Programme (2003);
- Health Sector Reform (1999);
- Agriculture Sector Development Strategy (ASDS, 2001);
- Education Sector Reform & Development Programme (1999);
- Road Sector Development Programme (1997); and
- Local Government Reform Programme.

However, given the timeframe for this review, the consultant considered the National Environment Action Plan (NEAP, 1994), National Poverty Eradication Strategy (NPES, 1997), Agriculture Sector Development Programme (ASDP, 2003) and Rural Development Strategy (RDS, 2001).

(a) National Environment Action Plan (NEAP, 1994)

The NEAP provides analysis and guidelines for dealing with environmental management problems at sectoral level. It also addresses the six key problems outlined in the NEP (1997). It gives strategic approach for mainstreaming environmental issues into decision-making process and the need for defining sector policies and action plans.

(b) National Poverty Eradication Strategies (NPES, 1997)

The NPES provides framework for poverty eradication initiatives to reduce poverty by 50% by 2010 and eradicate it by 2025. The objective is to attain economic growth and improve income among the Tanzania people. The strategy focuses on improving:

- Education;
- Water supply;
- Health;
- Housing;
- Infrastructure; and
- Employment.

It recognises the role of other sectors in poverty eradication and the need for mainstreaming environment as one of the crosscutting issues into those sectors. The strategy addresses the need for environmental protection in mining activities to prevent health hazards associated with mining activities. It identifies the following areas as having direct bearing on poverty:

- Education;
- Health;
- Water supply (rural and urban);
- Employment;
- Environment; and
- Human settlement.

(c) Agriculture Sector Development Programme (ASDP, 2003)

The ASDP identifies the need to streamline crosscutting issues and multi-sectoral activities. The programme identifies the following as important crosscutting issues:

- Environment;
- HIV and AIDS;
- Gender;
- Forestry;

- Fisheries;
- Education;
- Health;
- Water supply; and
- Rural infrastructure (e.g. rural roads).

The ASDP (2003) underscores the importance of promoting environmental research through linkage with the VPO and NEMC. It recognizes the linkage between subsistence agriculture and poverty, hence the need for promoting agricultural productivity and farm income as well as household food security.

(d) Rural Development Strategy (RDS, 2001)

The RDS provides strategic framework to facilitate coordinated implementation of various sector policies and strategies that focus on development of rural communities. The strategy identifies the need to fight against poverty, ignorance, diseases including HIV and AIDS.

Furthermore, it addresses the problem of unemployment/underemployment, ***environmental degradation***, food insecurity as well as rural-urban migration. On environment, the RDS recognizes the need for ***improved capacity for environmental management and conservation for local authorities and local communities***. It relates environment with economic growth, vulnerability, empowerment and health aspects.

In addition, the RDS outlines strategic interventions into various sectoral issues. These include:

- Agriculture;
- Natural resource management and utilization;
- Health,
- Rural water supply;
- Housing and good shelter;
- Rural roads;
- Energy;
- Forestry;
- Tourism;
- Wildlife;
- Fisheries;
- Education; and
- HIV and AIDS.

The findings show that environment and poverty issues are being addressed in the national strategies / programmes at various degrees. For example, the NEAP identifies the need for mainstreaming environment into various sectoral strategies and plans. The ASDP recognizes environment as a crosscutting issue and the linkage between subsistence agriculture and

poverty. It underscores the need for promoting environmental research in collaboration with the national environmental agencies (VPO and NEMC).

While the NPES focuses on the need for environmental protection in mining activities only it recognizes the direct linkage between environment and poverty. It also calls for other sectors to participate in poverty reduction activities.

The RDS addresses environmental degradation as one of the major problems and the need for capacity building in environmental management at local authorities and community levels. The strategy directly addresses the need to protect the environment and fight poverty through strategic interventions to various natural resource management sectors (forestry, fisheries and tourism) and priority sectors (E.g. Education, Water and Health).

Although the mentioned strategies / programmes addresses both environment and poverty, they do not explicitly address poverty-environment linkage. This aspect will be dealt with in more detail in the following sub-sections.

(e) Sustainable Cities Programme (SCP)

This programme started to be implemented within the Dar es Salaam City through the Sustainable Dar es Salaam Project (SDP) in 1992. This was a joint effort between the United Nations Centre for Human Settlement (UNCHS-Habitat) and the United Nations Environment Programme (UNEP). Other important key players include:

- The GOT through the Prime Minister's Office and the Ministry of Lands and Human Settlement Development;
- Urban Authorities Support Unit (UASU) in Ministry of Regional Administration and Local Government (Now PO-RALG);

The main intention of SCP is to apply Environmental Planning and Management (EPM) process as a guiding tool to enable urban authorities to plan and manage urban development and growth, with emphasis on environmental sustainability through partnership with public and private sector. The EPM led into the National Programme for Sustainable Human Settlement Development in 1997, with the objective of creating sustainable development in urban centres and improving living conditions in the informal settlements. Thus, in this way it can be noted that the SCP focuses, among others, on both poverty alleviation and environmental protection in urban areas.

Although the SCP is one of the important innovative policies that has led into EPM process, there has been some constraints in the implementation of EPM process². These include:

- Lack of adequate funding and much dependence on external support;
- Inadequate capacity for supporting authorities to match increasing demand for more urban centres to participate in the EPM;
- Inadequate financial support to for stakeholders working groups to actively participate into EPM;
- Inadequate participation of urban communities to implement issues prioritized at urban authorities levels.

2.5 Poverty-Environment Linkages

It is generally agreed that one of the necessary but not sufficient condition to achieve sustainable growth is to have a sound and equitable environmental management. What is not clear is how this can be achieved policy-wise.

The National Environmental Policy (1997) in particular, has identified the need to address environment as the primary cross-cutting issue and that the satisfaction of basic needs is an important environmental concern. To address this concern, the NEP proposed the need to allocate resources to deal with poverty related environmental problems. The PRSP (2000) was not as specific as the NEP on poverty-environmental linkage. Subsequent to the PRSP a new generation of sectoral policies, strategies and legislation relating to agriculture, forestry, land, rural development and the coastal and marine environment has reinforced the need for simultaneously reducing poverty and ensuring sustainable environmental management.

The poverty-environmental linkage is also recognized institutionally through the positioning both environment and poverty in the office of the Vice President. However, at the local level, no specific provision has yet been made to promote poverty-environment linkage.

Lastly, in the course of implementing the PRSP, environment began to be integrated into the PRSP particularly through the poverty monitoring system (PMS). In each of the four working group of PMS, environment champions have been appointed. Also, potential partners for the Tanzania Socio-Economic Database (TSED) have been identified and a workshop has been conducted to formulate a comprehensive programme on the integration of environment into the PRS process. The process is now underway to integrate environment into the next phase of Poverty Reduction Strategy.

² Ruth, H. (2001). *Sustainable Cities in Tanzania*. United Nations Chronicle Online Edition Vol. XXXVIII, No. 1 (2001). Department of Public Information. UN Centre for Human Settlements (Habitat).

Despite all these efforts, more needs to be done before there is widespread understanding of how poverty-environment linkages can be applied to support sustainable development through informed policy and strategic interventions.

In the following subsections a brief assessment is made of the existence of poverty-environment linkage at, national sectoral and local government levels. The assessment focuses on the institutional and policy aspects of poverty-environment linkages.

2.5.1 Institutional Aspects

The institutional aspect of environment-poverty linkage is well established at the national level as shown by the presence of Poverty Eradication Department and Division of Environment (DOE) in the Vice President's Office (VPO). Another indicator of poverty-environment linkage is also shown by integration of environment as a crosscutting issue into the Public Expenditure Review (PER) and Medium Term Expenditure Framework (MTEF) of various sector ministries.

The proposed institutional framework for poverty monitoring³ is well elaborated and provides bottom-up linkage and fits well with the existing institutional framework for environmental management. In addition, some efforts have been made to integrate environment into the PRS process by incorporating environmental experts into the poverty monitoring working group. Other efforts include identification of potential partners for feeding data into Socio-economic Database and conducting workshop to formulate a comprehensive programme on the integration of environment into the PRS process.

This year (2004), the PRS is being reviewed to prepare a new PRSP to address the key priority sectors, including environmental issues. The intention is to mainstream environment and natural resource issues in the poverty eradication process. Also, poverty-environment linkage will be strengthened in other sectors, especially the natural resource sectors through workshops / awareness creation. This will also require capacity building for VPO-PED, VPO-DOE, NEMC, PO-RALG and National Bureau of Statistics (NBS). Capacity building may also be needed at the local government levels for poverty-environmental linkage data collection and development of *poverty-environment linkage indicators*.

2.5.2 Policy Aspects

According to the National Environment Policy (NEP, 1997) *“there is a clear cause-and-effect relationship between poverty and environmental degradation; and that “environmental degradation leads into widespread poverty; equally, poverty is a habitual cause of environmental degradation as it undermines people’s capacity to manage resources wisely”*. The NEP recognizes the need for sustainability, security and equitable use of

³ Poverty Monitoring Master Plan (URT, 2001)

resources to meet basic needs and the importance of environmental protection for the benefit of the present and the future generations. Thus, the policy strongly recognizes the linkage between poverty and environment.

The national strategic priorities for poverty reduction have been articulated by the government in various policy / strategy documents. These include:

- Vision 2025 (Mainland);
- Vision 2020 (Zanzibar);
- The National Poverty Eradication Strategy (NPES, 1997);
- The Tanzania Assistance Strategy (TAS, 2000); and
- The Poverty Reduction Strategy Paper (PRSP, 2000).

The Vision 2025, Vision 2020 and the NPES have set long term targets for poverty reduction in the PRSP. The aim is to reduce income poverty by half by 2010 (NPES) and eradicate it by 2025 (Vision 2025) in the Tanzania Mainland and by 2020 (Vision 2020) in Zanzibar.

The TAS has been formulated by the Government of Tanzania and various development partners. The intention is to have a comprehensive development agenda upon which issues related to ongoing poverty reduction activities can be regularly discussed and assessed. It focuses on the following priority areas:

- Agriculture and food security;
- Rural roads;
- Education;
- Health;
- Rural water supply;
- Environment and natural resource management;
- Employment and private sector development.

Other crosscutting issues being addressed by TAS include:

- Land;
- HIV and AIDS;
- Human and institutional capacity;
- Gender equity and community development;
- Disaster and relief management;
- Data collection and management;
- Information and communication.

The government has also undertaken sector reform programmes and decentralisation process as well as introduction of the Public Expenditure Reviews (PER) and the Medium Term Expenditure Framework as a means of achieving the long term development goals.

The PRSP focuses mainly on poverty reduction and outlines priority actions for poverty reduction in the short and medium terms. Its strategy (PRS) targets on the following six priority sectors:

- Agriculture;
- Rural roads;
- Basic education;
- Primary health;
- Rural water supply; and
- Judiciary.

It is therefore evident that whereas the TAS gives priority to environment and natural resource management issues, the PRSP does not, although it does recognize the dependence of poor people on the environment. Nevertheless, the PRSP underscores the need to develop partnership with various stakeholders, including the environment and natural resource sectors, hence indirectly addressing poverty-environment linkages.

The Rural Development Strategy (2001) recognizes the impact of rural poverty on sustainable utilization of natural resources. It focuses among other things on:

- Environment and economic opportunity;
- Environment and vulnerability;
- Environment and empowerment;
- Environment and health.

It identifies medium and long-term opportunities for developing positive aspects of poverty-environment linkages.

The poverty environment linkage is discussed in broader perspective in the following subsection.

2.5.3 New approach to poverty-environment linkage

(a) Integration of environment into PRS

The national initiative to address poverty-environment linkage has been by integrating environment into the PRS. In recent years the VPO in collaboration with UNDP have established a programme comprised of:

- Strengthening the understanding on poverty-environment linkages;
- Use of environment / livelihoods data in the PRS and local level planning;
- Capacity building at national and local levels to address poverty-environment issues.

The VPO programme, which started in November 2003, will also assist stakeholders in addressing environment during the PRS review. In advance of this, there have been a number of achievements. These include:

- Cabinet approval of the new institutional framework and the Draft of ***Environment Management Act***, which is planned for tabling in parliament this year;
- Establishment of ***Environment Working Group*** with membership from sectors, NGOs, development partners and private sector;
- Undertaking of first ***Public Expenditure Review of environment*** in Tanzania;
- Strong **development partner cooperation** with establishment of DPG sub-group on environment;
- Appointment of **environment “champions”** to working groups of poverty monitoring system;
- Appointment of **poverty-environment adviser** and **dedicated poverty-environment officer** to VPO;
- Addition of preliminary **poverty-environment indicators** to national poverty monitoring systems as part of performance monitoring for Poverty Reduction Support Credit (PRSC) and Poverty Reduction Budget Support (PRBS);
- Actions on **environmental sustainability** are part of the Performance Assessment Framework (PAF) for World Bank’s Poverty Reduction Strategy Credit (PRSC);
- Strategic Environment Assessment (SEA) and PRS and its potential in Tanzania and in poverty reduction;
- Environment and vulnerability has featured strongly in the results from the **Participatory Poverty Assessment (PPA)**;
- Strengthening of **2003/04 agricultural survey** to include livelihood and environment issues.

The mentioned national initiatives have made some important progress as shown by the number of the outlined activities. However, more support is needed from the government to achieve the intended objectives.

(b) Integration of Globalization into poverty-environment linkage

The recent observations⁴ have shown some concerns on the globalization-poverty-environment linkage, hence the need for parallel social environment and institutional reforms for sustainable and equitable improvements in the human conditions. According to the

⁴ Reed, D. and Rosa, H. Economic Reforms, Globalization, Poverty and the Environment (Undated).

authors, the existing social structure and institutional set-up promotes social inequities and conditions that generate and reproduce poverty and stimulate poverty-environment degradation relationship in the developing countries. Also, the studies have identified the relationship between globalization and degradation of natural environment. The studies identify effect of globalization on increasing:

- Energy consumption;
- Water resource depletion;
- Environmental pollution (air, water and waste pollution);
- Deforestation and biodiversity loss.

In response, those observations the paper proposes the following changes to achieve poverty reduction strategies. These include:

- Policy makers to give priority to protecting investments and assets of poor people;
- Formulate economic reform programmes that promote balanced growth strategies that combat poverty and support improved natural resource management;
- Support local and regional development initiative and promote decentralization efforts;
- Giving high priority to areas where poverty, environmental degradation and rural-urban migration are high (risk prone areas);
- Strengthening the social and political power of the economically and socially marginalized social groups;
- Providing an enabling environment for local initiatives, relocating public expenditure towards areas that support development and balanced growth; and ensure provision of basic public goods and services, equity and opportunity as well as sound management of natural resource base;

(c) Ecosystem approach to poverty-environment linkage

Ecosystem approach to poverty-environment linkage⁵ focuses on the importance of life-supporting functions of environmental systems (ecological systems) as well as that of environmental resources (commodity values). Thus both commodity and ecosystem functions need to be addressed in the context of poverty-reduction strategies, as poor people depend on these for their livelihood.

⁵ Duraiappah, A.K. (2001). Poverty and the Environment. A role for UNEP. Concept paper written for UNEP in Preparation of Guidelines on Poverty and the Environment. October 2001.

Thus, in addition to the World Bank Environmental Strategy (WBES) there has been a joint effort between UNDP and European Union (EU) that have resulted Poverty Environment Initiative (PEI). The WBES identifies the role of environment in poverty alleviation in terms of:

- Improving the quality of life;
- Quality of growth;
- Protecting the quality of the regional and global commons.

The UNDP-EU Poverty Environment Initiative (PEI) approach recognises environmental resources as a commodity for income generation, hence poverty reduction. However, it goes further by considering environmental resource as life-supporting services.

Therefore, environment should be treated as having dual purpose-of providing commodities and life supporting services. It is recommended therefore in this PER that the UNEP conceptual framework to poverty-environment linkage be adopted.

(c) Agriculture-poverty-environment linkage

The important factors that influence agriculture-poverty-environment linkages include⁶:

- Type of natural resource base and farming systems;
- Farmer awareness and assessment of environmental degradation;
- Availability of technology for sustainable and productive management by poor;
- Farmer capacity to mobilize resource for conservation management;
- Economic incentives for conservation management and investment;
- Security of tenure and access to rights to resources;
- Local institutional capacity to support positive adoptive response;
- Political inclusion or marginalization of poor farmers;
- Macro-economic sector policy support.

To address agriculture-poverty-environment linkage the paper has proposed the following strategies:

- Co-investment in the On-farm natural resource assets of the poor farmers;
- Co-invest with local community or farmers association to mobilize long-term investment such as soil conservation or improvement of irrigation and drainage infrastructure, grazing land rehabilitation, etc;

⁶ Sara J. Scherr (1999). Poverty-Environment Interaction in Agriculture: Key factors and Policy Implications. Paper prepared for the United National Development Programme and the European Commission (EC) Expert Workshop on Poverty and the Environment. Brussels, Belgium. January 20-21 1999. Revised March 1999.

- Employment of local poor people in projects (e.g. road construction projects) to improve their income and agricultural resource base;
- Development and promotion of agricultural technologies with environmental base through research innovations , promotion of intensive cultivation in less fragile areas and reduce vulnerability to degradation;
- Promotion of low-risk perennial , production in poor marginal lands;
- Compensation of poor people for conserving or managing natural resources;
- Facilitating access of the poor to agriculture related natural resources.

However, the paper identifies the following gaps in implementing the above strategies:

- Inadequate data to integrate agriculture-poverty-environment relationship over a range of agro-ecological and demographic conditions;
- Weak rural institutions attributed by lack of trained staff in local government, inflexible externally financed projects lack of credit systems that favour the poor among other factors.

The paper further recommends the need to generate non-farm employment that can reduce pressure on natural resource in fragile areas. It also recommends policy options that address poverty-environment problems related to agriculture by considering range of livelihood options for the poor and potentials for diversification.

3.0 REVENUE FROM ENVIRONMENTAL RESOURCES AND ITS CONTRIBUTION TO NATIONAL INCOME

3.1 Identification, Description and Analysis of Environmental Revenue

The environmental resource sectors examined in this chapter include Wildlife, Fisheries, Forestry, Tourism, Water and Lands. Revenues from the environmental resources are accrued at different levels; national, sectoral and at local government level. The analysis of revenues collection from environmental resources is very critical both for the government and for other stakeholders in so as to know what these resources are giving out and what is given back to them.

3.1.1 Revenue Collection at Central level

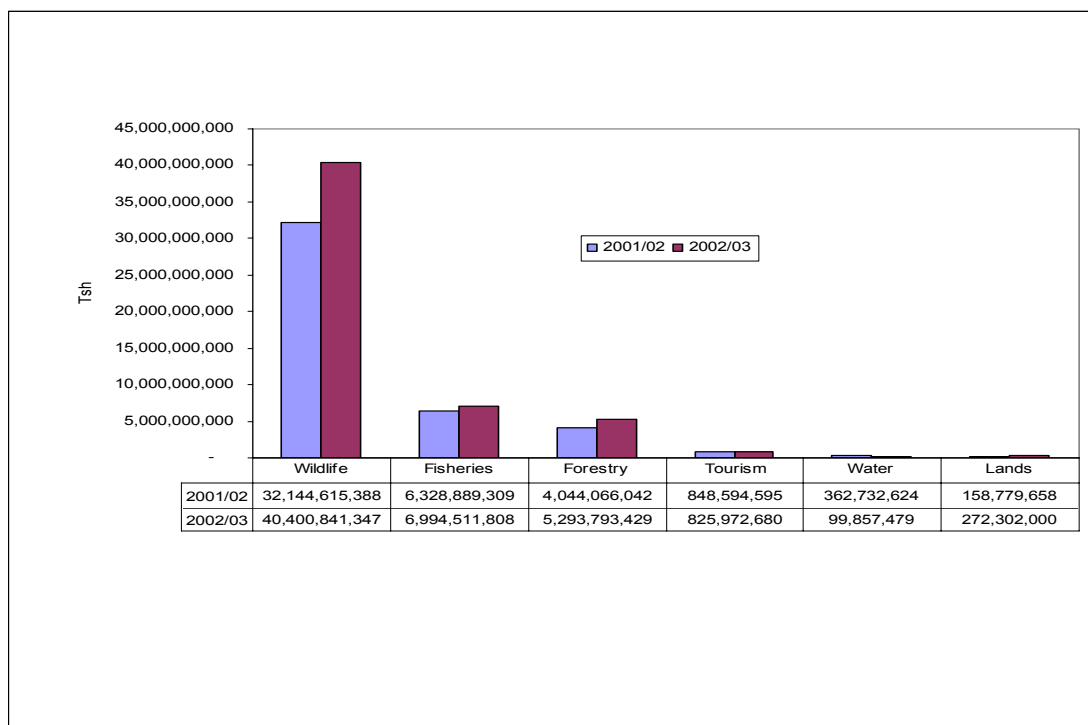
At the central level, the Vice President's Office is responsible for coordination of environmental matters in the country. VPO do not collect any revenue from the environmental resources. However, it is expected that once the new draft bill is enacted, sources of revenue may include, penalties from environmental destruction, royalties (from environmental activities), taxes and fees on natural resource products (e.g. Charcoal, timber, fishery, hunting etc.) and Polluter pay fees.

The contribution of environmental resources to the national revenue is revealed in this chapter, they are generated from different channels both explicitly and implicitly. However, it is has been difficult at national level given our system of revenue/tax collection to establish exactly that a particular revenue is accrued from a specific environmental resources, say taxing of hunting activities from wildlife resources, tax revenue from selling of charcoal from forestry resource, selling of drinking water from water resource, tax revenue from selling of tanzanite gemstone from mining and plot fees from residential settlements. To a certain degree, this can only be done at sectoral or micro level.

3.1.2 Revenue Collection at Sectoral Level

Environmental revenue collections at the sectoral level come from the environmental resources of the sector and related services that include Wildlife, Fisheries, Forestry, Tourism, Water and Lands. Revenues from environmental sources are not same as sector revenue as the latter include non-environmental sources and services.

Figure 3.1 Revenue Collection from environmental sources by Sectors



Source: MNRT Annual Implementation Reports 2002 and 2004, Sector Budget Speeches 2000/01 and 2001/2, PER/MTEF reports for Ministry of Lands and Human Settlements, 2002/03 and Ministry of Water Files (2004).

3.1.3 Fisheries Sector

The main sources of revenue in fisheries sector are royalties from fish sales, licenses from fishing vessels and export licenses. During the FY 2001/02 and 2002/03, fisheries sector realized a revenue collection of Tsh 6,328.9 million and Tsh 6,994.5 million respectively. Compared to other environmental sectors, the collection is significant and measured an increment of 10.5% between the two years. In 2001/02 and 2003/04, its actual collection exceeded the approved one by 57% and 72% respectively. This may demonstrate high efficiency but could also reflect underestimation of actual revenue potential. As manifested in Figure 3.1 and Figure 3.3, during FY 2000/2001 and FY 2001/2002, the wildlife sector was number one in generating revenues, followed by fisheries, lands, forestry and beekeeping and tourism. At local level, the districts have been left to collect revenue from smaller sources such as registration fees for small fishing vessels. However, small vessels are many therefore contributing significant amount of revenue.

About 47% of total revenue collection from the fisheries sector is retained in the sector to cover conservation activities. The rest goes to the Ministry of Natural Resources and Tourism (MNRT). In FY 2002/03 out of Tsh 7.0 billion collected, Tsh 3.3 billion was retained while Tsh 120 million of that revenue went to the districts. The districts spent money it received

from the sector for patrol operations and purchase of equipment. For example motorboats for surveillance and management of fishery resource.

Fisheries sector plays a vital role in poverty alleviation, approximately 80,000 people have secured full time employment while significant part of the population depend on fisheries for their livelihood (ERB, 2003). For example, about 90% of the economy of Lake Victoria Zone comes from fishing industry and in particular Tsh 100 mil from its fish industries trickle down to poor community annually according to Fisheries Division.

3.1.4 Wildlife Sector

The Wildlife sector is defined in this section to include Wildlife division, Ngorongoro Conservation Area Authority (NCAA) and Tanzania National Parks (TANAPA). The main source of revenue for the Wildlife sector are fees and taxes imposed on; hunting and exports of live animals (including birds, mammals, crocodiles, reptiles, tortoise etc.), export of dead animal parts e.g. Hippo teeth, Zebra skins and mounted buffalo heads and game photographing. Figure 3.3 shows comparison among sectors in revenue collection between 1995/6 to 2002/003 in which wildlife appears to be the most performing sector and it maintained a steady increase in revenue collection. During FY 2001/02 and 2002/03, the sector collected Tsh 32 billion and Tsh 40.4 billion respectively. Notably, the collection includes figures from the Wildlife Division, that of NCAA and TANAPA. NCAA and TANAPA are self-autonomous. In particular, Wildlife Division collected Tsh 8.3 billion and Tsh 9.2 billion for FY 2001/02 and 2002/03 respectively. Revenue collection figures for NCAA and TANAPA are exclusively shown in Table 3.1. NCAA collected about Tsh 6.0 billion and Tsh 8.0 billion while TANAPA collected Tsh 17.8 and Tsh 23.2 billion during FY 2001/02 and 20002/03 respectively. Foreign tourists contributed 75% of NCAA revenue, therefore, its contribution to national income is significant. Additionally, the Wildlife sector revealed that the District Councils are collecting wildlife revenues for example residential hunting; the amount could not be substantiated by this study.

For individual National Parks, the numbers of pay visits have been used to show contribution variation in revenue as shown in Figure 3.2. Apparently, Serengeti National Park and NCAA are tourist destinations that may have contributed most to revenues from tourism. Notably, number of pay fees may not correspond directly to revenue as tourism may have stayed longer in some parks for example Kilimanjaro National Park or there is variability in gate rates and other fees that were not well covered in this review.

Of the revenue collected by NCAA, part of it is paid to the Government as taxes such as Value Added Tax (VAT), Stamp Duty and Customs Duty. In addition, it pays 30% of its net profit as corporation Tax.

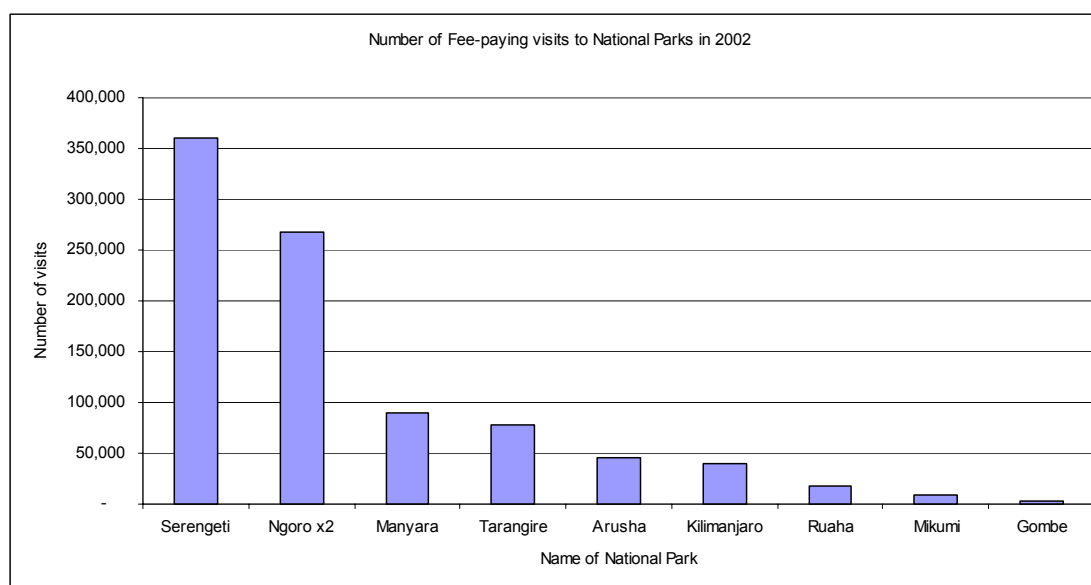
Like other sectors in MNRT, Wildlife sector has high potential sources for revenue collection. According to MNRT 2003, low performance in revenue collection is attributed to loopholes in collection system, insufficient technical personnel, poor distribution of accounting papers and discrepancies in fees and taxes.

Table 3.1 Revenue collected by NCAA and TANAPA during FY 2001/02 and 2002/03

Tourist Organisation/ Year	Revenue (Mill. Tsh)	% Rev. Change	Expenditure (Mill. Tsh)	% Exp. Change (Mill. Tsh)	Revenue-Expenditure (mill. Tsh)	Tax (Mill. Tsh)
NCAA						
2001/2002	5,986.0		5,537.0		449	135
2002/2003	8,054.0	34.5	6,152.0	5.6	1,902	571
TANAPA					0	
2001/2002	17,812.6		13,706.4		4,106	1,239.40
2002/2003	23,175.3	30.1	17,325.1	26.4	5,850	1,755.10
Grand Total	55,028		42,720.5	16	12,307	
Average		32.3		21		

Source: NCAA and TANAPA (Appendix XI)

Figure 3.2 Number of Fee-paying visits to Tanzanian National Parks and NCAA



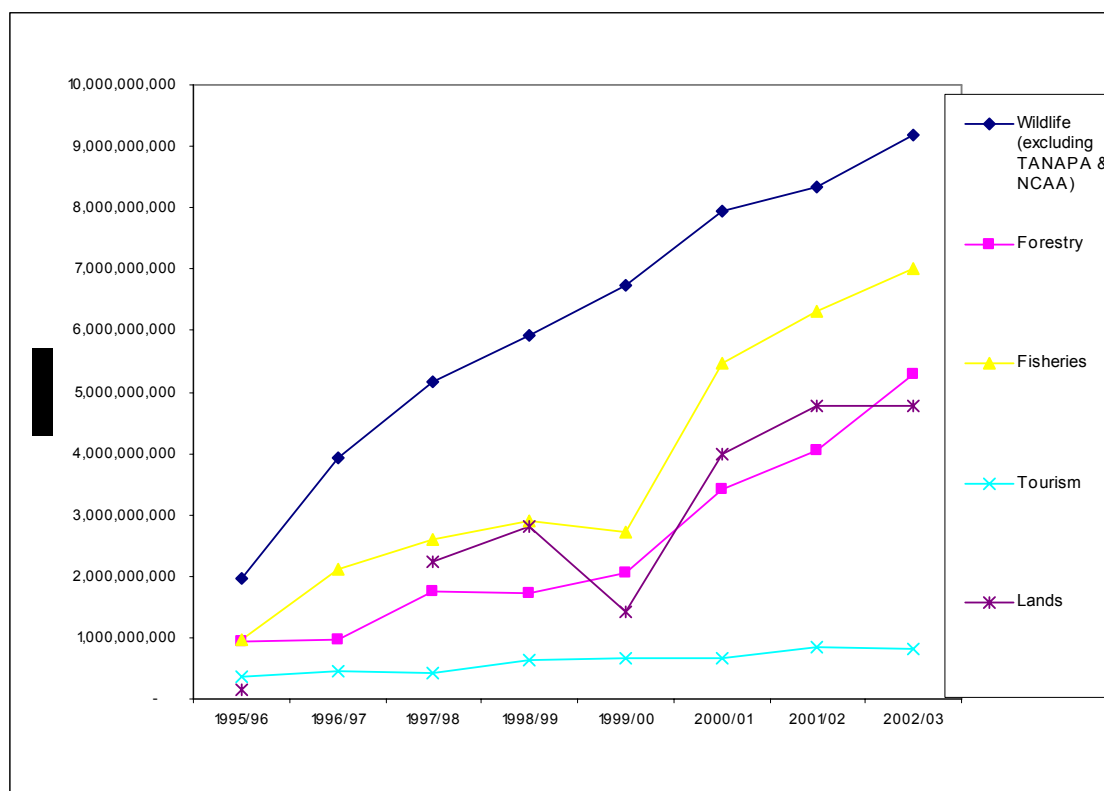
Source: Economic Survey Report 2003.

3.1.5 Tourism Sector

It is difficult to capture all revenues attributed to tourism because they are accounted in more than one sector, particularly restaurants, trade and hotels. This is the reason why they are relatively smaller compared to other sectors as shown in Figure 3.1. Tanzania National Parks (TANAPA) and Ngorongoro Conservation Area Authority (NCAA) accounts for part of the revenues generated from tourism industry especially gate collections. However, Figure 3.3

shows revenue collection trends in tourism sector ranking number four among key natural resource sectors after wildlife, Forestry and Fisheries. Main sources of tourism revenue are therefore, licensing, hotels and registration of tourist companies. Others are archaeological, antiquities and rock painting sites.

Figure 3.3 Environmental revenue collection by Natural Resource sectors between 1995/96 and 2002/2003



Source: Economic Survey Report (2003), Land Sectors Files (2004).

3.1.6 Forestry and Beekeeping Sector

The important revenue sources of Forestry sector are; timber/ logs, flooring wood, Blackwood (Mpingo) wood/ timber, bee wax, semi finished sown timber, carvings and arts, honey, tree seeds and licensing. Revenue collection for year 2001/02 and 2002/03 was Tsh. 4,044 million and Tsh. 5,294 million respectively, which is an increment by 30.9%. Figure 3.1 and Figure 3.3 shows revenue collection in the sectors for the period of 2000/02 -20002/3 and 1995/6- 2002/03 respectively. From 1999/00 to 2002/03, revenues increased steadily.

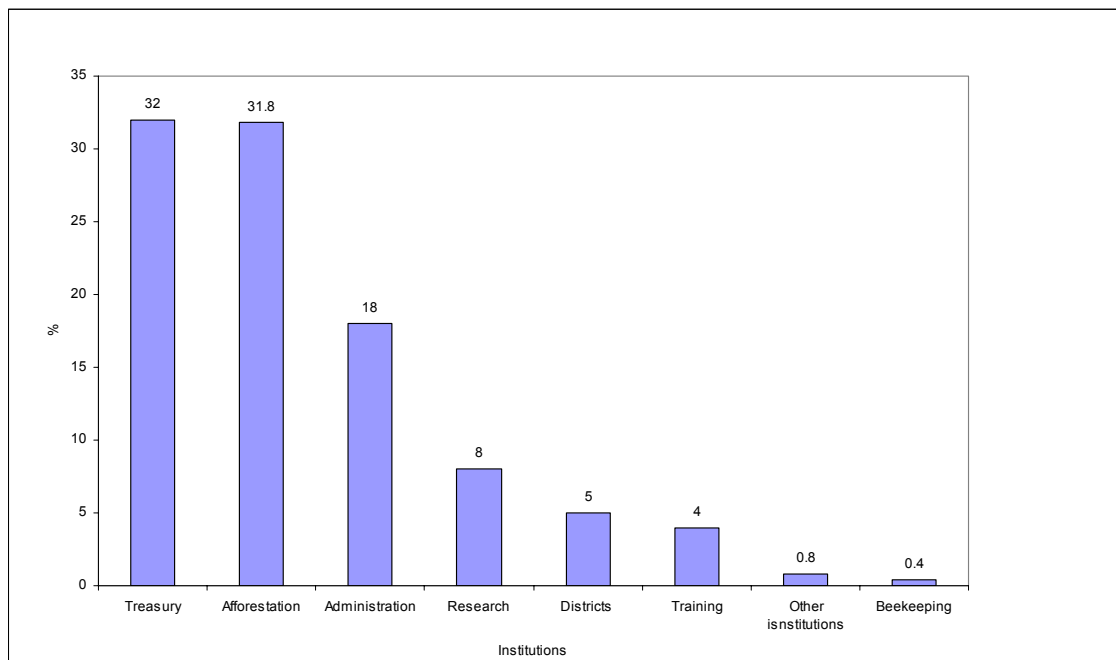
Additionally, it collected Tsh 662 million or 19.4% from charcoal production in 2000/01 while revenue collection from firewood was Tsh 89 million or 2.6% of total collection. Other important source of revenue was registration of dealers of forest products, which earned the sector Tsh 17.2 million or 2.7% (FOBD 2001). As it will be shown in the following section, it seems there is under-collection of revenue in forest sector. The revenue collected is perhaps

not adequate even to cover the replacement cost. A study to compare revenue and replacement cost is needed and recommended.

Like in other sectors, forestry sector is also allowed to retain some of what it collects. As shown in Figure 3.4, out of the total collection, 32% is taken to the treasury and the balance is retained by the sector and spent mainly on afforestation (31.8%) administration (18%) and Research (8%). The rest is allocated to districts, training, beekeeping and other environmental activities. Districts are allowed to retain 5% of sum above Tsh. 1.0 million for their own environmental expenditures. In total, the sector is allowed to retain up to 68% of the collections.

According to Figure 3.4, the forest sector is giving high priority to combating deforestation by assigning substantial funds to forest plantations, districts and training for capacity building. Assumption is that the districts will spend money received from the sector appropriately on conservation and control of deforestation. As such, the expenditure has observed provisions in the forest and environmental policies that urges sustainable management of forested lands, deforestation control, capacity building and involvement of stakeholders (districts) in resource management. Today, as mentioned elsewhere in the text, deforestation rate in Tanzania is 91,276 ha/year according to FOB (2002). The rate is substantial and alarming therefore, concerted effort including availability of funds is necessary.

Figure 3.4 Revenue Distribution (for use) in Forest and Beekeeping sector



Source: Forest and Beekeeping Division , 2004.

3.1.7 Water Sector

Generally, water sector has low environmental revenue collection compared to other sectors. Sources of revenues include; water supply (water right fees), construction of shallow wells and sewerage disposal. In 2000/01, the sector collected Tsh 1,489 million from urban centres other than Dar es Salaam. In the latter, collection is handled by City Water Authority (the figures are not available).

Additionally, important source of sector revenue is the water user fees mostly from river basins. Revenues collected by Water Resource from different water basins and Drilling Department are shown in Table 3.2. Most revenue originated from Pangani River Basin Water Office followed by Central Water Board and Rufiji Basin Water Office. User fees from the two basins are accrued from economic activities mainly irrigation and industrial supply found in their catchments areas. The central water board office has mandate to collect water right fees from potential users like TANESCO. Lake Nyasa and, Ruvu River Basins are new. During FY 2001/03, revenue from environmental sources was is Tsh 362 million or 3% of the total Water sector revenue of Tsh 14.4 billion.

Table 3.2 Revenue collected by Water Resource Department and Drilling Department in Water Sector (Tsh million)

Name of the office collecting office	2000/2001	2001/2002	2002/2003
Pangani Basin Office	78.02	63.62	51.06
Rufiji basin office	32.97	31.72	36.22
Lake Victoria basin office	NA	26.22	11.57
Lake Nyasa Basin	NA	NA	3.78
Ruvu Basin	NA	NA	58.73
The Central Water board office	83.17	78.27	0.5*
Sub-total	194.16	199.84	162.07
Water Drilling	375.24	162.88	NA
Total	569.40	362.73	162.07

* Tsh 179m outstanding water user fee was carried forward to 2003/2004

Source: PER Water Sector, 2003.

Water drilling operations, as another source of revenue in this sector, generates considerable funds in water sector but the amount of net profit realised after deducting operational cost is very low. For example, out of Tsh 1.34 billion realised in 2000/01, Tsh 162.9m or 12.2% was net profit. Water drilling has enormous benefits of providing people with good access to quality water. However, its environmental consequence especially of depleting underground water table is not clearly known.

3.1.8 Lands Sector

Most Revenue in land sector is obtained from Survey and Mapping Department. Important sources, which are specifically linked to environment and corresponding collection, are shown in Table 3.3 below.

Table 3.3 Environmental Specific Revenue sources and amount in land sector (Tsh million)

	2001/02	2002/03
Training and Registration Fees	18.4	19.3
Land Registration	101.9	80.9
Printing and Publications	18.5	27.9
Cadastral and Technical fees	19.9	144.2
	158.8	272.3

Source: Division of Lands, 2004

Sources of revenue in land sector include; training and registration fees, land Registration, printing and publications (i.e. land use maps) and cadastral fees. Also, technical fees and plots and estate taxes. Main sources of revenue sector wise are land fees mostly from urban plots and rural estates, which contribute up to 89%. Total revenue collection was Tsh 4,895.6 million and Tsh 4,764.9 million for 2001/02 and 2002/03 respectively. This shows a decreasing trend. If comparison is made to other sectors as shown in the Figure 3.1, the sector has moderate revenue collection from environmental sources as compared to Wildlife, Forestry, Fisheries and Tourism. Environmental sources contributed Tsh. 158.8m or 3% of total revenue in 2001/2. Collection performance has also been erratic between 1995/96 and 2002/03.

In the land sector, revenue collection between 2001/02 and 2002/03 showed an increase of about 10% as indicated in the table below.

Item/ Actual collection	2001/02	2002/03
Total Revenue (Tsh million)	4.91	5.41
Land Rent Receipts (Tsh million)	4.45	4.94

Source: Division of Lands, 2004

3.1.9 Agriculture

The agriculture crop sub-sector is the most revenue-generating sector in Tanzania. However, collection in the sector is erratic a situation apparently attributed to shifting of livestock sub-sector to Ministry of Water. Second, according to PER (2002) it is because of unpredictable sources. For example, the percentage of actual against estimated collection was 254% in 2000/01

and 131% in 2001/02. Reliable sources of revenue are plant health services, training institutes and research and development.

In general, the sector performance in collecting revenue is poor despite enormous potential. Sources and collection for year 2000/01 and 2001/02 are shown in Table 3.4 below.

Table 3.4 Revenue collection by Agriculture and Livestock sector as recorded at Ministerial level

	Year 2000/01		Year 2001/02	
	Approved Estimates (Tsh)	Actual Collection (Tsh)	Approved Estimates (Tsh)	Actual Collection (Tsh)
Administration and general	9,001,000	10,571,716	7,700,900	9,832,554
Agriculture training institutes	4,000		400	NA
Crop Development	2,000	494,477	600	295,969
Research and Development	1,000		400	NA
Livestock Development	1,694	11,788,934	NA	NA
TOTAL	9,009,694	22,855,128	7,702,300	10,128,523

Source: MAFS PER 2003

Noticeable is the fact that the percentage of actual collection over approved revenue collection increased by 154% and 31% for 2000/01 and 2001/02 respectively.

3.1.10 Other sectors

According to the 2002 PER for Education, there was no mention of revenue from environment. Likewise, the road sector according to PER of 2003 and 2004, have no revenue collection from environmental sources. Additionally, the PER of the Energy and Mineral sectors for FY 2004 has not shown any revenue collection from environmental related sources.

3.1.11 Comparison of sector revenue to total government revenue collection

Assessment of contribution of environmental sectors to total government Revenue of Tsh 929 billion and Tsh 1,043 billion for year 2000/01 and 2001/02 respectively according to Economic Survey Report (2003) is summarised in Table 3.5.

Table 3.5 Comparison of revenue from Environment and Natural resource sectors to total Government Revenue 2000/01 and 2001/02

Name of Sector	% of Revenue over Total Government Revenue 2000/01	% of Revenue over Total Government Revenue (2001/02)
Wildlife	0.856*	3.082
Water	1.346	1.379
Fisheries	0.587	0.607
Lands	0.430	0.458
Forestry & Beekeeping	0.367	0.388
Tourism	0.073	0.081
Agriculture	0.002	0.001

* Revenue from TANAPA and NCAA not included

Source: MNRT annual implementation reports 2002 and 2003, Agriculture PER 2002, TANAPA 2004 and NCAA 2004.

With exception of agriculture sector, which revenue could not be well captured, the percentage of total sector to total national revenue is above one digit for Water and Wildlife sectors. Fisheries, Lands, Forestry and Beekeeping and Tourism are below one digit percent.

3.1.12 Revenue Collection at Local Government level

At district level, Mpwapa district could serve as an example of local government in assessing revenue collection. During FY 2000/01 and 2001/02, it collected Tsh 60.8 million and Tsh 64.9 million respectively. On average major sources were livestock tax (72%), Fish sales tax (23.6%) and fishing licence (2.3%). The rest were charges on land ownership, tax on sale of forest products and penalties on environmental destruction.

Revenue collected from environmental sources was 39% and 44% of the total revenue in FY 2000/01 and FY 2001/02, respectively. Penalties on environmental degradation were also insignificant although there is a high rate of environmental degradation due to bush fires. Moreover, no penalties were executed during FY 2000/01 and only Tsh 833,000 (0.6% of the total revenue) were collected from penalties. It is also noted that, while there are other sources of revenues, they are not fully collected because of poor collection mechanism and low enforcement of law.

Mwanza city has been taken as representative of urban/cities in Tanzania. In particular, revenue from water supply and sanitation or sewerage disposal has been examined. Significant revenues were generated from the mentioned activities but when expenditures are deducted, the net profit is low. For example in 2000/01 and 2001/02, a total net profit of Tsh

171.5 million shillings was realized. The case of Mwanza water supply and sewerage department shows that significant amount of money is spent in the operation as social cost.

Mwanza city was chosen as an example of urban areas while Mpwapwa district represented rural districts.

3.2 Potential for Increasing and Sharing of Environmental Revenue

Though statistics are inadequate or lacking, in Tanzania some of the environmental resources appear to be not fully tapped. For instance, of all arable land only 16% is used for agriculture according to the Ministry of Agriculture. Likewise, the potential for mining is unquestionably high but not fully tapped while efficiency in collecting revenue is apparently low in some sectors for example forestry. Still many of tourist attractions like Selous Game reserves are not fully exploited because of poor infrastructure so are the ocean and lakes for fishing activities. Furthermore, most prices or rates applicable for natural resource products or services are set by authorities a situation, which indicates that they do not reflect the competitive market prices. The consultant has however suggested ways to improve and expand revenue collection base in natural resource sectors while underscoring environmental sustainability.

3.2.1 Fisheries

In fisheries sector, potential and untapped revenue sources include; fishing from exclusive economic zone, revenue from fish farming and fingerlings centres. Currently, the sector has limitations in collecting its revenues for example collection of registration fees for fishing vessels due to logistical constraints. Today, fishing can only be done up to certain water depth because of lack of proper gear and equipment. The same incapacities have impeded efforts to manage and monitor offshore fishing in terms of methods applied and the harvested quantity. Normally, offshore fishing involves big fishing vessels a situation that could result into over fishing and consequently depletion of fishing resources if not well monitored. The study could not however explore information about licensing conditions and sustainable yields therefore suggesting that this could be covered in different context or study. To raise fishery revenue collection, active involvement of collectors to the lower level should be emphasized; at the same time, powers need to be given to them to identifying other practical and non-conflicting sources of revenues.

As far as sharing of revenue is concerned, elsewhere in the text it is reported that fisheries sector is allowing the districts to access portion of sector revenues. Likewise, sister sectors in MNRT are benefiting from same revenues. This shades a picture on how environmental sectors can compliment each other in terms of revenue. This is because some sectors have important role in doing environmental interventions but have no sources of revenue. Apart from supporting sister sectors, fisheries support districts financially to undertake the

following; cost for human resources, surveillance/patrol including equipment purchase e.g. motorboats

3.2.2 Tourism/Wildlife

In Tourism sector, district councils are also having good access to money accrued from tourist hunting through Wildlife Division in MNRT, they receive 25% of the collected sum. The arrangement is however informal and therefore not supported by legislation. Between 1996/97 and 1998/99 for example, USD 2,338,490 was given to districts. This sum could be seen as strategic contribution of the sector to poverty alleviation. However, how much goes to community based conservation activities or Wildlife Management Areas (WMA) is unknown.

Options for raising revenue are still many due to many untapped tourist attraction in the country. As mentioned elsewhere, poor accessibility to the remote tourist areas and insufficient market promotion internally and abroad are some of the constraints in the industry. Tanzania Tourist Board (TTB) has been playing a key role in promoting and marketing tourism attractions and products internally and abroad. Such promotion measures need to be upheld. Present tourist attractions in Tanzania include wildlife, beaches, culture, history and ecotourism. The strengthening of public-private sector partnership is one of important tourism promotion strategy being adopted in Tanzania. Also, improving the capacity in service delivery by training.

3.2.3 Forest and Beekeeping

Sharing of revenue in Forest and Beekeeping sector has been discussed in previous sections in the text. Increased sharing of revenue could be brought about through increased efficiency in revenue collection. Data about revenue collection are not adequate. There are problems related to data collection. This is particularly so, because of involvement of multiple and uncoordinated institutions in data collection. For instance central government, cities, municipalities and districts. Therefore, there is a need to streamline revenue collection in the country to enable more collection and well capturing of the data. The sector for example collected 86.7% (Tsh 4.0 bill.) of its set target (Tsh 4.7 bill.) in 2001/02 (MNRT, 2002). A big portion of revenue collections is lost through many illegal means and apparent irregularities (MNRT, 2003). Measures to correct the malpractices could be by informal rewarding of informers and abiding to laid down governing regulations.

In 1999, the sector introduced new licensing system to dealers of forest products and intensified law enforcement. As the result, a revenue of Tsh 4.8 billion was generated between 2001 and 2002 and Tsh. 5.5 billions in 2002/03 respectively.

The PER (2002) of the agriculture sector outlines a number of problems related to revenue collection in the sector. They range from poor technology, poor infrastructure, imperfect market infrastructure and restrictive crop regulatory policies. Others are inadequate access to finance, limited processing capacity and poor quality of export crops. These important factors need to be alleviated in order to simultaneously improve sector revenues and performance. However, the sector has taken initiatives to identify credible source of revenue under plant health services in recent years.

3.3 Implications from Environmental Interventions

The present insufficient pricing/charging of environmental resources to the level that reflect their economic costs of consumption contributed to unsustainable utilisation of environmental resources. Revenue collection through taxation, fees or penalties is one crucial measure to ensure sustainable environmental management and conservation. This is done at two levels, one is that, if the intervention is efficient and reflects the economic cost of the resources utilization will discourage over consumption and so conserve the environment. Secondly is that, through ploughing back the revenue collected, such money can help in environmental management and conservation.

In forest sector, of the total revenue collected during FY 2000/01, Tsh 662 million or 19.4% came from charcoal production while Tsh 88.5 million or 2.6% came from firewood. In view of high consumption rate of charcoal amid low prices of charcoal per bag especially in urban centres, we can conclude that the price of charcoal by far do not reflect its economic costs which encouraged over consumption of wood based energy. According to Forest Division, it is estimated that above 95% of population use wood based energy (charcoal/ firewood) particularly for domestic uses. Forests in particular, contribute 92% of the rural energy demand especially wood fuel (MNRT, 1999). The Forest Division contend that, 30,000 bags of charcoal are utilised weekly or 1,560,000 bags per year in Dar es Salaam City. The price of charcoal bag in Dar es Salaam is Tsh 4,000 - 6,000. This gives a minimum total sale of charcoal of Tsh 6.24 billion for Dar es Salaam alone, by far over and above the annual collection of Tsh 662 million. If the amount is taxed say by 20% according to TRA rates, it will generate estimated Tsh 1.2 billion. This signals that the price/cost of charcoal is undervalued.

In view of above arguments, it is obvious that the Tsh 662 million revenue collected countrywide may be just a fraction of the potential and that more could be collected from charcoal if and only if there is effective intervention through the pricing of the charcoal to reflect its economic consumption. Vividly, Dar es Salaam city is flooded with charcoal supply amid low prices a phenomenon attributed to poor supply regulation and consequently overexploitation at source. According to FOBDD (2001), about Tsh 3.4 billion of revenue collected in 2000/01 was about 8.5% of the potential collection. Therefore, more effort is required in order to explore the available potential to the level, which is sustainable.

A study done by Forest Division revealed that, on average households engaged in charcoal production especially in the coastal forests and miombo woodlands can earn up to 630 USD annually. Under normal situation, the amount could have been fairly taxed accordingly to generate funds that would consequently be ploughed back to maintain the environment. However, direct or classical approach to taxation issue may have negative socio-economic implication. In particular, majority of people involved are from the rural poor who earn less than 1.0US\$ per day. Therefore, a comprehensive study on the matter is necessary beforehand. At local and central level, the Joint Forest Management (JFM) that is currently implemented under FOBDF is important in ensuring the resource is socio-economically beneficial. Joint resource management need to be emulated by other environmental sectors for sustainability reasons. The involvement of various stakeholders in reducing resource depletion is also important. For example, Road sector provides conducive condition for natural resource harvesting (charcoal, logging) while Energy and Mineral sector can provide alternative source of energy such as solar, coal and electricity and consequently reduce deforestation.

Unlike before, new fees have been imposed in the forest sector for registration of timber licensees, which has been acknowledged as important source of revenue in the sector from mid 1990. The same could apply to other sectors. The measure is seen as trimming the number of dealers in forest sector therefore easing the task of revenue collection and monitoring environmental management. Thus, the situation calls for concerted measures to trim the number of dealers in other key environmental sectors to enable efficient taxation and monitoring of resource exploitation/utilisation.

Currently, most revenue collection in many sectors is realised from traditional sources for instance royalties and fees from sale of logs, timber, charcoal in forest and fish fillets and prawns in fisheries. Studies should be undertaken to identify non-traditional source of revenues in all key environmental resources. For example, exploitation and promotion of lesser-known marine resources such as underwater tourism and export of ornamental indigenous fish species. Furthermore, generation of revenues from sales/ consumption of non-timber forest products such as medicinal herbs, mushrooms and cultural and eco-tourism should be adequately explored. Such measures will also expand the base for revenue collection in environmental sectors. However, the move should be done under environmentally friendly manner. Notably, the quest to increase revenue should not override conservation concerns.

Today, few sectors have tried to apportion substantial part of their revenues to districts. Inevitably, districts form important basis for revenue collection. Their active involvement and participation in the exercise is important in increasing revenues while at the same time underscoring environmental sustainability. The districts and grass-root levels (CBOs, NGOs, and Villages) should in return see the importance of their participation through provision of reasonable revenue retention. In this context, allowing districts and other lower stakeholders'

access to portion of revenues is interpreted as environmental intervention measure. It is most unlikely that central government sectors will be able to manage and supervise things like charcoal production in extensive areas without wide involvement and motivation of local communities.

Many environmental sectors in Tanzania have not sufficiently adopted auction or tendering as means of maximising revenue from sale of valuable and highly marketable natural resource products such as prawn fish, timber logs, Blackwood and hunting blocks. The FOBOD has made strides by selling Teak logs through auctioning. In hunting industry, fixed prices are used in the allocation of hunting blocks instead of competitive market prices, which could be achieved by tendering. Therefore, it is high time the responsible sectors adopt this method to maximise revenue, part of which can go back to the same environment. Such measures could also be interpreted as environmental operation because at the end the amount of money generated will be ploughed back to environment for its rehabilitation or maintenance.

Additionally, for the matter of balancing environmental resource utilization and environmental degradation including pollution hazards “Economic Instruments for Environmental Management” should be adopted in Tanzania. These include market creation, safeguard of property rights, Information and introduction of government subsidies. According to Mkenda and Ngaga (2003), introduction of property rights will create incentive mechanism to ensure communities protect the natural resource against overexploitation and depletion.

4.0 CAPACITY BUILDING FOR ENVIRONMENTAL MANAGEMENT

4.1 The Current Situation

4.1.1 Vice President's Office – Department of Environment

This is a department in the Vice President's office and is headed by a Director of Environment. The director is assisted by three assistant directors who are heading sections. The sections are Environmental Pollution and Control, Policy Planning and Research and Environmental Impact Assessment. Currently the Department of Environment has 32 professional staff and about 10 supporting staff. Table 4.1 summarizes results of a quick survey on the state of capacity building in each section. All sections do not seem to get enough allocation for capacity building.

Table 4.1 Capacity Summary Chart for VPO

Question	Sectional Answers / Responses		
	Environmental Impact Assessment	Environmental Pollution and control	Environmental Policy planning and research
Are you harnessing new technologies/methodologies in your department?	To a large extent	To some extent	To a large extent
Has your budgetary allocation been increasing / decreasing in real terms in supporting capacity building	Inadequate allocation	Inadequate allocation	Inadequate allocation
Do you have the human capacity to provide effective and efficient services in terms of number and skill types	To some extent	To some extent	To some extent
Is the workforce in your department well trained	Well trained	Well trained	Well trained
Do you have appropriate equipment and resources?	Yes but inadequate	Yes but inadequate	Yes but inadequate
Is there an imbalance in your ability to supply the services and the demand for them?	No	No	No
Is there an imbalance in the allocation of your resources between services and between types of expenditure, e.g. on salaries and operating costs?	Yes	Yes	Yes

4.1.1 National Environment Management Council

Assessing the manpower capacity of the Council can definitely not be done without referring to the proposed Environmental Management Act of 2004. The Act is currently being debated and if passed by the parliament it will have profound impact on the operation of the council as new and fresh responsibilities have been added. In summary NEMC will be charged with

the responsibility of undertaking enforcement, compliance, review and monitoring of environmental impact assessment and in that regard shall facilitate public participation in all matters relating to the environment assigned to the council, under the act or any other written law. It is worth mentioning that NEMC will derive its schedule of duties from both the proposed act (Section 17 to 19) and also from the strategic plans being prepared as part of the wider Performance Management Project being carried out by the government.

Over the years staffing trend for NEMC are shown in Table 4.2 below.

Table 4.2 Trends of Technical and Supporting Staff at NEMC

Year	Technical Staff	Supporting staff
1986	4	5
1989	6	13
1992	8	25
1995	8	24
1998	47	48
2001	47	48
2003	50	44
2004	56	44

Source: NEMC Personnel & Administration Department, 2004

The existing staffing relationship between technical and supporting is suggesting a gap to be filled by recruiting more professional staff at NEMC in order to conform to the establishment. However, this initiative will have to wait the enactment of the proposed bill as explained in the above paragraph in order to arrive at the correct level of staffing. Break down of the existing professional staff is presented in the Table 4.3 below:

Table 4.3 Staff by education level at NEMC

Qualification	Holders	On Studies
PhD	3	4
Masters	32	8
Graduates	3	-

Source: NEMC Personnel Administration Department, 2004

Table 4.4 below summarizes results of a quick survey on the state of capacity building in each department at the National Environment Management Council and it can be concluded that in most departments there is an imbalance between the available capacity and the demand for the services from those departments. On a more positive note most departments seems to have well trained staff but there is gross understaffing in the opinion of most departmental heads. Most departmental heads seems to suggest that they do not have adequate equipment and this is a critical area that needs to be given due attention when preparing the MTEF for 2004/5.

Table 4.4 Capacity Summary Chart for NEMC

Question	Departmental Answers / Responses			
	Environmental Impact Assessment	Information, Communication and Outreach	Environmental Planning and Research	Environmental compliance and enforcement
Are you harnessing new technologies/methodologies in your department?	To some extent	To a large extent	To some extent	To some extent
Has your budgetary allocation been increasing / decreasing in real terms in supporting capacity building	Decreasing	Inadequate allocation	Decreasing	Decreasing
Do you have the human capacity to provide effective and efficient services in terms of number and skill types	Not at all	To some extent	To some extent	Not at all
Is the workforce in your department well trained	Fairly trained but understaffed	Well trained but understaffed	Fairly trained	Well trained but understaffed
Do you have appropriate equipment and resources?	No	Yes but inadequate	No	No
Is there an imbalance in your ability to supply the services and the demand for them?	Yes	Yes	Yes	Yes
Is there an imbalance in the allocation of your resources between services and between types of expenditure, e.g. on salaries and operating costs?	Yes	Yes	Yes	Yes

4.1.3 Other Sectors

A review of other sectors has revealed inadequate capacity to monitor and sustain environment. Most of the sectors are looking at NEMC and VPO as the focal points for environmental assistance and advice. Our survey has indicated an absence of a clear strategy by most of the sectors to come up with a capacity building strategy. The coming of the new Environmental Law where each ministry will be required to have an environmental coordinating unit will definitely put a challenge to most sectors to build capacity. Capacity at the sectoral, regional and district level is important because it is at those levels that environmental practices are taking place.

Sectors reviewed were Agriculture and Food security, Mining, Water, Health, Local governments, Education and the Ministry of Natural Resources and Tourism. We did not obtain information on the Local Government Authorities but we recommend that this institution be covered extensively in the next Public Expenditure Review. It was notably observed that in all of these sectors there are no established environmental management units

and capacity need to be built in all of these sectors to coordinate broad range of issues with the central level environmental organisations (NEMC and VPO).

4.2 Assessment of Expenditure on Capacity Building

NEMC has been having a mixture of initiatives in building the capacity of the organisation at both the individual and organisational level. There is currently a number of staff studying abroad at Masters and PhD level and are being sponsored by foreign agencies and their costs could not be captured in the mainstream accounting system of NEMC.

Table 4.5 Expenditure trend on Capacity Building for NEMC (in Tsh)

Financier	2000/1	2001/2	2002/3
Government	315,000	6,105,370	4,348,000
Donors		8,486,620	

Source: NEMC Finance Department, 2004

Table 4.5 above shows an increase of expenditure on capacity building in year 2001/2 to Tsh 6.1 million. In the same financial year, donors contributed Tsh 8.4 million. For the three financial years the government spent Tsh 9.4 million whereas Tsh 8.4 came from donors. Although donors contributed for only one financial year there was no significant difference with the government contribution for the three years. This has an implication that expenditure on capacity by the government is still low hence the need for more contribution from the government.

According to the expenditure analysis for the VPO as shown in Table 4.6 below, significant amount of expenditure took place in year 2002/3 for short term courses that were mainly donor financed. This was a significant increase from the previous year and as it can be noted from the table, save for the long term training expenditure that remained constant, the amount spent on short term training by non-donor funding dropped by 57% in year 2002/3. Data for the 2000/01 could not be obtained.

Table 4.6 Expenditure on Capacity Building at the VPO

Training Element	2001/2		2002/3	
	Tsh	US\$	Tsh	US\$
Long Term Training	7,800,000		7,800,000	
Short Term Training	3,166,000	11,922	1,361,000	24,741
Education Seminars & Conferences	1,800,000			

Source: VPO, 2004

4.3 Identification of Capacity Building Requirements

In section 2 of this report we identified the existing institutional and legal framework for the environmental management in Tanzania and the framework is spanning from the central level to the village level. At each level of the framework, institutions have been charged with responsibilities for environmental management. Appendix VII is a table that identifies areas for each institution where capacity needs to be built given the level of tasks and responsibilities.

4.4 Institutional Capacity

A survey of other requirements in terms of institutional capacity has revealed inadequacy in the following areas and of which the financial implication of the requirements will need to be worked out separately:

- **Office Space:** Given the establishment of NEMC at 120 people and also VPO, the current office space is not enough. There is an urgent need to provide for an office block for NEMC and if possible the two should share the same building in order to ease the coordination element between the two organisations.
- **Office Furniture:** Given the requirement to have a new building and the number of staff in the full establishment, it may be necessary to invest in new office furniture and fixtures.
- **Technology:** Given the nature of communication and data processing in the world, there is a need for the two organisation to improve in this area as our survey has indicated inadequacy in the following areas:
 - *Client Server Architecture* that will facilitate both inter and intra email communication as there will be a need to have a Server(s) that will handle e-mail facilities and also storage of important environmental application software and working files. Currently both organisations do not have a Server(s) to do Client Serve Architecture.
 - *Client PC's or Laptops;* given the establishment and if all the professional staff would be recruited according to the establishment, there will be a need to increase the number of PC's and Laptops for staff to participate in the Client Server Architecture.
 - *Local Area Network* that will provide the environment for the implementation of the Client Server Architecture. This would mean installation and cabling costs plus other accessories for mounting the racks and cables.

- *System and Application software:* The Servers and Client computers (i.e. desktops and laptops) would need to be installed with these software and also environmental specific application software.
- **Motor Vehicles:** We also identified inadequacy in the area of mobility. There is a need to increase capacity in this area in terms of motor vehicles for routine use and also if the duties of monitoring and inspection are to be carried out effectively, it would entail a lot of mobility hence motor vehicles are an important facility.

4.5 Capacity Building Programme

The suggested program has been derived using managerial judgment by senior managers of both VPO and NEMC . The programme has taken into consideration all pertinent key issues in environmental circles ranging from implementation of international agreements, the upcoming new legislation on environment, labour turnover and the rate at which environment is becoming an issue of public concern in Tanzania including the six environmental issues of priority and also the strategic plans of both organisations. In summary capacity building is required in the following cluster areas:

- ***Environmental impact assessment skills:*** based on precautionary, anticipatory and preventive approaches.
- ***Environmental Legal Skills:*** to ensure enforcement of environmental laws to facilitate effective environmental management and improvement in the quality of life at all levels from the coordinating organisations i.e. NEMC and VPO to ward or village level.
- ***Valuation of Environmental resources:*** the purpose is to have experts who can ensure that environmental resources are not undervalued and that market-based approach are used for environmental protection.
- ***International negotiation skills:*** to ensure that our officers are capable of negotiating at an international level with commensurate skills and experience.
- ***Publicity campaigns:*** To equip environmental officers with the ability to raise environmental awareness among the rural and urban people.
- ***Monitoring and Inspection at the regional and district level:*** To set up and strengthen the institutional capacity-especially the field offices for monitoring and enforcing environmental regulations.
- ***Environmental audits:*** To equip environmental officers at the regional and district levels with the capability to evaluate the performance of existing mines and other extraction sites and identifies areas for improvement.
- ***Environmental Economics: The purpose is to enhance*** capacity for integrating environment into District Authorities/Municipal Councils development plans.

Development of the existing staff is also an important element in the capacity building programme and our quick survey of staff at both organisations has revealed gaps in areas of training as shown below:

- Long term courses in core environmental competencies
 - PhD specializations e.g. wetlands, ozone layer depreciation, biodiversity etc.
 - Medium term courses at the level of Masters Degree
- Frequent Short term courses in
 - Policy Analysis
 - Negotiation skills
 - General Management skills
 - Time Management
 - Stress Management
 - Change Management
 - Project Management
 - Exposure to Environmental Information Management
 - How to make use of the international convention clearing house
 - Research skills in Environmental and Poverty Monitoring
- On job training

A detailed study needs to be carried out to establish the actual mapping of individual requirements to the areas mentioned above and hence arrive at the actual staff development programme.

In summary, the implementation and rolling out of the capacity building program will to a large extent depend on the availability of funds and logically the following is a suggested set of activities or events:

Institutional Capacity

1. Office block to accommodate staff of both organisations
2. Office furniture for the new office block
3. Technology infrastructure
4. Motor vehicles

Human Capacity Building

1. Additional staffing (new recruits)
2. Environmental Management Development Training as outlined in Appendix VII
 - a. National level (VPO and NEMC)
 - b. Regional level
 - c. District level
 - d. Village and Ward level

5.0 CONTRIBUTION OF ENVIRONMENTAL RESOURCES TO GDP

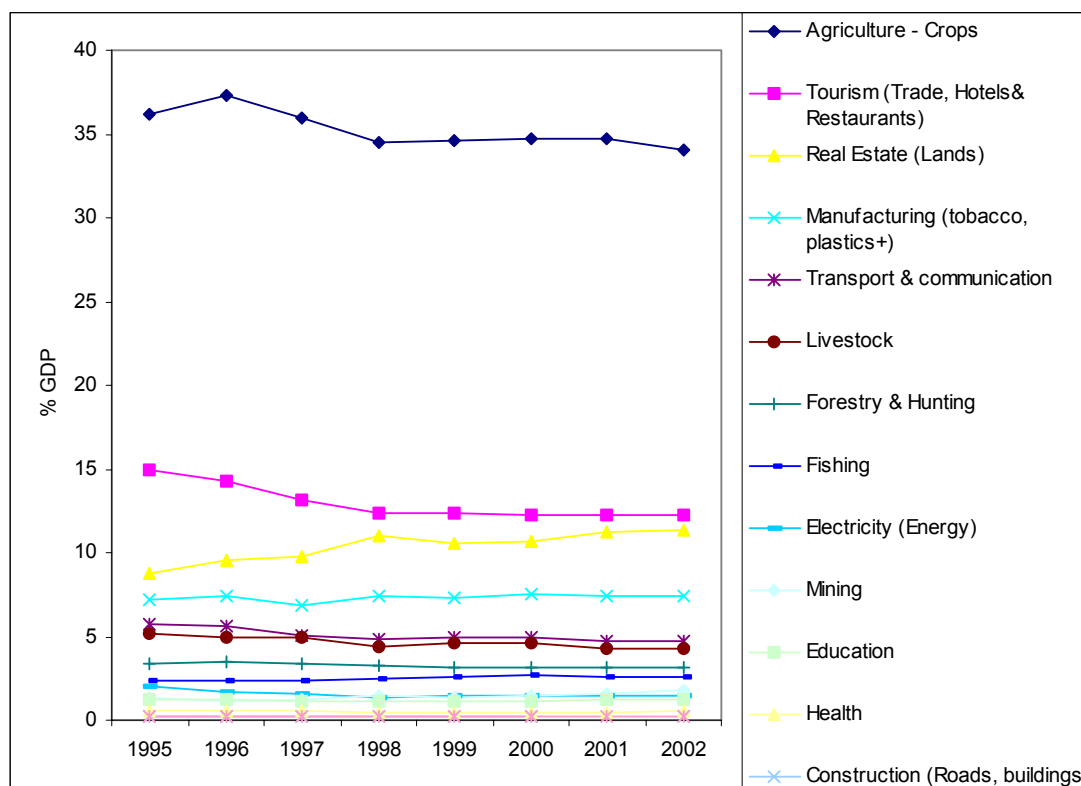
The contribution of environmental resources to the National income just as it was with the case of revenue is significant as revealed in section 3.1.2. There are both monetary and non-monetary contributions. Figure 5.1 and Table 5.1 shows contribution of various sectors to national economy in terms of Gross Domestic Product (GDP) percentage. As such, the sectors include agriculture (crops), livestock, fishing, tourism, forestry, water, mining, wildlife, forestry/hunting and water. Others related to environment and poverty alleviation include Education, Construction (Roads), Transport, Health, Mining and livestock.

Agriculture- crop sub sector (whose base is land resource) is a leading sector, contributing around 35.3% to the national income. It is followed by tourism sector (whose base is wildlife resources); its contribution is captured in trade, hotels and restaurants. According to the Economic Survey Report of 2003, tourism combined with trade, restaurants and hotels contributed 16.5% of the GDP. According to Tourism Division, it accounts for about 25% of the total export earnings in Tanzania (Pamba, 2004). BOT asserted that it grew by 6.7% in year 2002 with combined contribution of 16.5 % to GDP. Its significant growth in 2002 was attributed to the increase in number of tourists from 501,669 in 2000 to 525,122 in 2001. In 2001, earning from tourism was US\$ 725mil (MNRT, 2002). Therefore, tourism has significant and growing potential in terms of GDP contribution.

The following sectors in GDP contribution after tourism are Lands (10.4%), Manufacturing or Industries (7.3%), Transport (5.1%) and Livestock (4.7%).

The contribution of Forestry and Beekeeping is combined with that of Hunting and contributes around 3.3% while fishing 2.5%. MNRT (1999) reported that forest sector contributed 2.3% of the GDP. Mining and water contributes 1.4% and 0.2 % respectively according to Economic Survey report of 2003 (Table 13). The fact that the contribution of the environmental resources to national income is markedly huge as supported above, there are therefore all the reasons to ensure enough resources are ploughed back to these sectors. Most importantly, each sector should be accorded due respect according to its contribution to GDP when allocating budgets.

Figure 5.1 Contribution to National Income (GDP %) by sectors



Source: Economic Survey, 2003.

Table 5.1 Average percentage contributions to GDP by sectors 1995-2002

	1995	1996	1997	1998	1999	2000	2001	2002	Average (1995-02)
Agriculture – Crops	36.2	37.3	36	34.5	34.6	34.7	34.7	34.1	35.3
Tourism (Trade, Hotels & Restaurants)	14.9	14.3	13.1	12.4	12.4	12.3	12.2	12.2	13.0
Real Estate (Lands)	8.8	9.5	9.8	11	10.6	10.7	11.2	11.4	10.4
Manufacturing (tobacco, plastics+)	7.2	7.4	6.9	7.4	7.3	7.5	7.4	7.4	7.3
Transport & communication	5.7	5.6	5.1	4.8	4.9	4.9	4.7	4.7	5.1
Agriculture – Livestock	5.2	4.9	5	4.4	4.6	4.6	4.3	4.3	4.7
Forestry & Hunting (Wildlife)	3.4	3.5	3.4	3.3	3.1	3.1	3.1	3.1	3.3
Fishing	2.4	2.4	2.4	2.5	2.6	2.7	2.6	2.6	2.5
Electricity (Energy)	2	1.7	1.6	1.4	1.5	1.5	1.5	1.5	1.6
Mining	1.3	1.1	1.2	1.5	1.4	1.5	1.6	1.8	1.4
Education	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Health	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6
Construction (Roads, buildings +)	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2
Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Source: Economic Survey Report 2003

The specific contribution of some environmental sectors to GDP in particular tourism, wildlife and forest could not be captured because of the international format/standards used today . This problem is also confirmed by officials from President's Office Planning and Privatisation.

The National Gross Domestic Product (GDP) shown in Table 5.1 are not net of environment costs. In other words the GDP figures could have been lower if the negative impact on environment was netted out. For example, use of water for irrigation purposes may destroy biodiversity or wetland ecosystem down stream. Similarly livestock grazing and crop production may trigger soil erosion in the absence of appropriate erosion control measures. However, the review has not been able to capture the Net Domestic Product because of insufficient data. Such situation calls for a detailed study on sectors net contribution to GDP.

In generating revenue from natural resources, consideration of whether the resource is renewable or not is important. Forests, fisheries, wildlife, tourism and agriculture resources are renewable unlike diamonds, gold and Tanzanite mining. For the renewable resources, portion of revenue accrued from the resource should be set aside for their renewal. On the other hand, mining and manufacturing industry (plastics production) has associated hazardous effect on human life and environment hence part of its revenue should be used for mitigation activities. Equally, for economic reasons sustainable exploitation plan is prerequisite before hand to ensure economic sustainability.

On the other hand, biodiversity and pollution may lead to depletion of ozone layer and international waters “Global commons” are issues beyond national borders. According to Johnson (2000), the global commons are being depleted at an alarming rate. Therefore any exploitation of natural resources to the extent of negatively affecting them would breach international laws and conflicting global conventions.

Monetary contribution to national income by sectors is shown in Table 5.2 below. Agriculture is a leading sub sector in terms of monetary contribution to GDP followed by tourism (trade, hotels and restaurants) and construction (roads). Others in descending order are livestock, fisheries, mining, electricity (energy), forestry and hunting, education, health and water.

Table 5.2 Monetary contribution (%) to GDP by sectors 1995-2002 at current prices

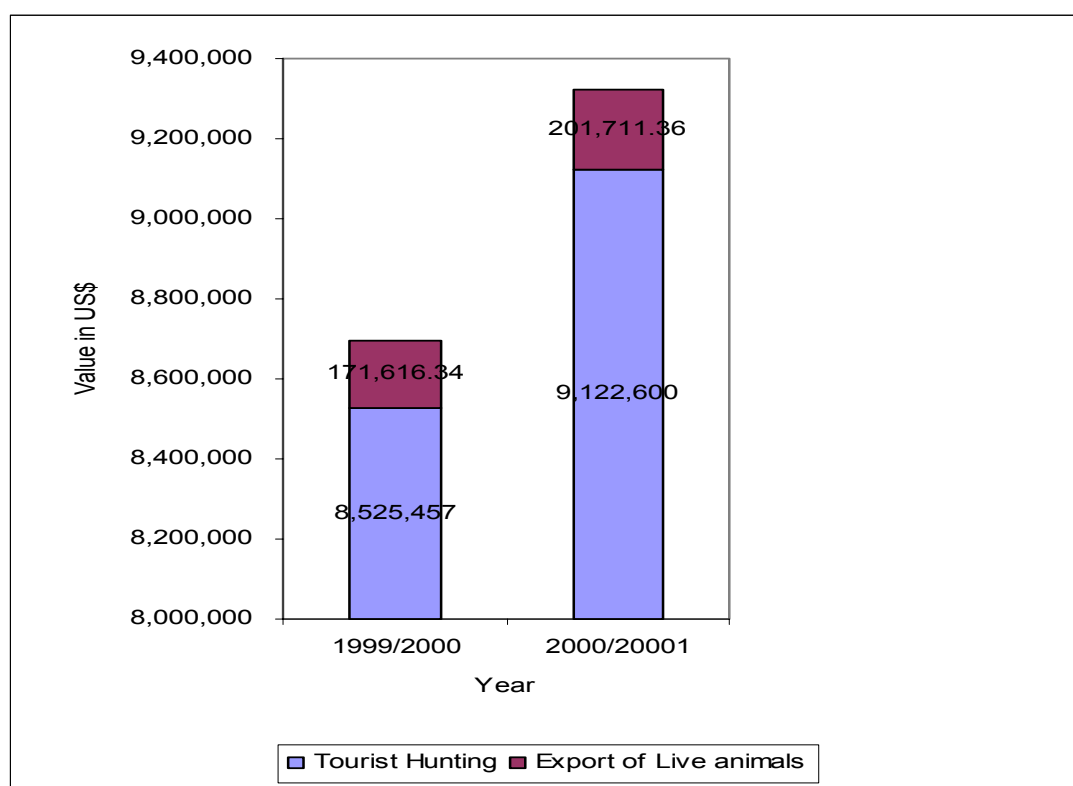
Sector	1995	1996	1997	1998	1999	2000	2001	2002	% Average Contribution 1995-2002
Water	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Health	0.9	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8
Education	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.6
Forestry and Hunting	1.8	1.9	1.5	1.7	1.8	1.7	1.8	1.8	1.7
Mining and Quarrying	1.7	1.6	1.8	2	2	2.1	2.2	2.5	1.9
Electricity (Energy)	2.7	2.4	2.2	2	2.1	2.1	2.1	2.1	2.2
Fishing	2.9	3	3.1	3.2	3.3	3.4	3.2	3.3	3.2
Livestock	4.9	4.6	4.8	4.2	4.4	4.3	4.1	4	4.5
Construction (Roads)	4.1	4.1	5	5.8	5.9	5.9	6.2	6.3	5.3
Tourism (including Trade, Hotels and Restaurants)	20.7	20.1	18.7	17.5	17.4	17.2	17.1	16.9	18.4
Agriculture- crops	27.4	28.4	26.8	25.5	25.7	25.9	26.4	26.1	26.6
National Total (Monetary GDP)	2015299	2451060	3003382	3631041	4259884	4776002	5414644	6,149,694	

Source: Economic Survey Report 2003

The amount of foreign money generated by tourist hunting and export of live animals in 1999/00 and 2000/01 is indicated in Figure 5.2. The former increased by 7% and the latter by 17.53 % during the period.

Total earnings from tourists for year 2000 and 2001 were US\$ 739 mil and US\$ 725 mil respectively (URT, 2003). The sector realised 182% increase between 1995 (259.4m US\$) and 2003 (731.0m US\$) or estimated average growth of 20% (Pamba, 2004). Most earnings were from tourist arrivals and investments. Today it employs about 157,200 workers therefore contributing significantly to poverty reduction strategy and above all to the national economy. More local companies are involved as private sector in the tourist business today according to BOT (2002).

Figure 5.2 Earnings (US\$) Tourist Hunting and Export of Live Animals



Source: National Economic Survey 2003

In Forestry and Beekeeping sector most foreign earnings in came from sale of Blackwood / carvings (US\$ 528,700) and beeswax (1,800,000\$) in 2002/03.

In the Wildlife sector, TANAPA paid Tsh 1.2 billion and Tsh 1.7 billion as tax to the government in 2001/02 and 2002/03 respectively. TANAPA does not pay Value Added Tax (VAT) to the government, instead the money is spent on infrastructure development especially road network inside the parks to attract more tourists. As for NCAA, 30% of the

net profit is paid to the state as taxes such as Value Added Tax (VAT) stamp Duty, Customs Duty and Corporation Tax.

The Mining sector earned the country US\$ 311.9mill and US\$ 471mil in 2001 and 2002 respectively. Most earnings were from export of minerals and gemstones according to URT 2003. The potential of the resources is huge and investment capital has been growing fast according to BOT (2002). Major mineral resources include gold, diamonds, gemstones, cement raw materials, coal and tanzanite. Gold mining provides 90% of the investments followed by tanzanite. Gold output jumped from 4,767 Kg (2001) to 15,000Kg (2002). About 4,000 workers were employed in the sector in 2002. However, mineral resources are non-renewable therefore cannot be indefinitely sustained.

6.0 ANALYSIS OF BUDGET ALLOCATION AND EXPENDITURE ON ENVIRONMENT

This Chapter analysis the expenditure allocation on environmental and natural resources sectors by the government. Further, it analyses the expenditure within sectors and their justifications. Additionally, expenditure on HIV and AIDS has also been examined in this PER. The analysis is based on information or data from reliable sources including individual sectors, Ministry of Finance and reports of Public Expenditure Review. As this was the first PER study, the expenditure allocation for the target sectors, namely Vice President's Office-Division of Environment, NEMC, Wildlife, Fisheries, Tourism and Forestry were not influenced by PER studies. This is contrary to sectors of Agriculture, Lands, Education, Health, Roads and HIV and AIDS that have received PER.

6.1 Definition of Environmental Expenditure

According to the World Bank Environment Strategy Paper (Lundethors & Swanson, 2003)⁷ Public Environmental Expenditure is defined as expenditure by public institutions for purposeful activities aimed directly at the prevention, reduction, and elimination of pollution or any other degradation of the environment resulting from human activities, as well as natural resource management activities not aimed at resource exploitation or production. While our definition of Environmental Expenditure is in agreement with the World Bank definition, any expenditure that addresses any one or more of the six key environmental problems as identified in the NEP shall be considered to be Environmental Expenditure. The detailed checklist of Environmental Expenditure by sectors is shown in Appendix IV. In addition, the matrix shown in Table 6.1 Checklist of environmental expenditure against key problems by sectors/Institutions

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	

⁷ Public Environmental Expenditure Reviews (PEERS). Experience and Emerging Practices. A Country Environmental Analysis Publication No. 7. IBRD/THE WORLD BANK.

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
VPO and NEMC	Biodiversity conservation, Environmental supervision and coordination, Environmental Policy, Environmental Impact Assessment, Cleaner Production, International conventions and treaties.	√	√	√	√	√	√	
PO-RALG	Land management, Afforestation Awareness campaigns, Beekeeping Forest/agriculture extension, Fish farming, Pollution control. Sewerage/ effluent/ waste disposal, Management of livestock routes	√	√	√	√	√	√	- Establishment of gender desk. - HIV and AIDS campaigns
Agriculture	Soil conservation, Land use Proper land use/ extension service, Water resource conservation River basin management activities	√		√	√	√	√	- Food security & nutrition - Women participation - Productivity and farm income

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Water	Water quality/ pollution control, Water supply, Strategic planning River Basin Management		√		√			Urban and rural water supply, Sewerage treatment and drainage

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Fisheries	Management and control of aquatic resources, Disposal of hazardous waste, Creation of Marine Reserves/ Parks, Awareness raising. Fish farming, Research, Consultative forums Policy and legislation issues, Fish quality.			√		√		<ul style="list-style-type: none"> - Community participation. - Aquaculture development - Gender and fisheries development - Empowerment of women in fishing industry
Lands	Land use data, Survey and Mapping, Settlements planning, Aerial photography, Training, Awareness raising , Preparation of Land Use Plans, Protection of environmentally sensitive areas, Land Management	√		√			√	<ul style="list-style-type: none"> -Incorporation of gender issues in land management
Education	Environmental education	√		√		√	√	<ul style="list-style-type: none"> - Primary school enrolment and informal education

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Health	Treatment of hazardous hospital wastes			√				Primary Health care, Child immunization campaign.
Roads	Establishment of environmental unit, Environmental training	√		√	√	√	√	- Rural roads construction - Promotion Labour based technology
Mining	Pollution control			√				- Artisanal mining and small scale mining - Women and children issues
Energy	Alternative source of wood fuel						√	-rural electrification
Wildlife	Wildlife management. Policy issues, law enforcement, Awareness raising, Habitats and biodiversity protection. Capacity building, Research, Survey and gazettment, Institutional Strengthening. Buffer zones management				√		√	- Community participation and involvement in Wildlife conservation

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Forestry and Beekeeping	Policies issues, Forests Conservation and Management, Afforestation, Law enforcement, Capacity building, Awareness raising, Information Management, Mapping, Research,	√			√		√	Joint/Community Forest Management
Tourism	Protection of Antiques, Tourism promotion, Capacity building, Management of Archives, International co- operations, Review of policy and legislation, Information dissemination	√			√		√	Cultural tourism. Women Participation Sharing of revenues from tourism with communities
HIV and AIDS								Awareness campaigns Treatment

indicates how the six key problems areas are addressed by each sector. In addition it shows how various sectors addresses poverty reduction effort. Draft guidelines for mainstreaming environmental issues in the planning and budgeting process at various levels are shown in Appendix III. However, it is more of a structure and therefore a detailed study is required in future either as a separate task or as part of next PER.

Table 6.1 Checklist of environmental expenditure against key problems by sectors/Institutions

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
VPO and NEMC	Biodiversity conservation, Environmental supervision and coordination, Environmental Policy, Environmental Impact Assessment, Cleaner Production, International conventions and treaties.	√	√	√	√	√	√	√
PO-RALG	Land management, Afforestation Awareness campaigns, Beekeeping Forest/agriculture extension, Fish farming, Pollution control. Sewerage/ effluent/ waste disposal, Management of livestock routes	√	√	√	√	√	√	- Establishment of gender desk. - HIV and AIDS campaigns
Agriculture	Soil conservation, Land use Proper land use/ extension service, Water resource conservation River basin management activities	√		√	√	√	√	- Food security & nutrition - Women participation - Productivity and farm income
Water	Water quality/ pollution control, Water supply, Strategic planning River Basin Management		√		√			Urban and rural water supply, Sewerage treatment and drainage

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Fisheries	Management and control of aquatic resources, Disposal of hazardous waste, Creation of Marine Reserves/ Parks, Awareness raising. Fish farming, Research, Consultative forums Policy and legislation issues, Fish quality.			√		√		- Community participation. - Aquaculture development - Gender and fisheries development - Empowerment of women in fishing industry
Lands	Land use data, Survey and Mapping, Settlements planning, Aerial photography, Training, Awareness raising , Preparation of Land Use Plans, Protection of environmentally sensitive areas, Land Management	√		√			√	-Incorporation of gender issues in land management
Education	Environmental education	√		√		√	√	- Primary school enrolment and informal education
Health	Treatment of hazardous hospital wastes			√				Primary Health care, Child immunization campaign.
Roads	Establishment of environmental unit, Environmental training	√		√	√	√	√	- Rural roads construction - Promotion Labour based technology

Sector/ Institutions	Areas of Environmental expenditure	SIX KEY PROBLEM AREAS						Poverty reduction
		Land degradation	Lack of access to good quality water	Environmental Pollution	Loss of wildlife habitat and biodiversity	Deterioration of Aquatic Ecosystem	Deforestation	
Mining	Pollution control			√				- Artisanal mining and small scale mining - Women and children issues
Energy	Alternative source of wood fuel						√	-rural electrification
Wildlife	Wildlife management. Policy issues, law enforcement, Awareness raising, Habitats and biodiversity protection. Capacity building, Research, Survey and gazettement, Institutional Strengthening. Buffer zones management				√		√	- Community participation and involvement in Wildlife conservation
Forestry and Beekeeping	Policies issues, Forests Conservation and Management, Afforestation, Law enforcement, Capacity building, Awareness raising, Information Management, Mapping, Research,	√			√		√	Joint/Community Forest Management
Tourism	Protection of Antiques, Tourism promotion, Capacity building, Management of Archives, International co-operations, Review of policy and legislation, Information dissemination	√			√		√	Cultural tourism. Women Participation Sharing of revenues from tourism with communities
HIV and AIDS								Awareness campaigns Treatment

6.2 Government Allocation and Expenditure on Environment

Since environment is a crosscutting issue, expenditure on it is made and found in different sectors as well as at national and sub national levels.

6.2.1 Allocation and Expenditure at Central Level

While in FY 2000/01, as shown in Table 6.2, the amount allocated to VPO was Tsh 4.6 million, what was actually spent was Tsh 3.7 million. This means that 20% of what was allocated was not spent. However, that was not the case for the FY 2001/02 as the whole of amount allocated (Tsh 6 million) was spent. What should be noted here is that, the amount allocated by the government and spent by VPO (though increasing) is only enough to meet recurrent costs for running the office, which include Personal Emoluments, Other Charges and Rental expenses. Most of environmental projects under VPO are therefore donor funded/supported.

Regarding NEMC, with an exception of projects which are directly sponsored by donors and which directly deal with environmental management, money, which is allocated to NEMC by the government, is not enough and is only used for running the office i.e. personal emoluments, other charges and renting of the office. If there were no donor fund, there would have been not a single environmental project implemented by/under NEMC. As shown in Table 6.2, while NEMC for the FY 2000/01 requested Tsh 1.1 billions, only Tsh 256.7 million was allocated or 23.3% of what was asked. The same was the case for the FY 2001/02 where NEMC asked for Tsh 1.5 billion but only Tsh 527.8 million was allocated equivalent to 35.2% of what was asked.

Table 6.2 Budget Allocation and Expenditure at Central Level (in Tsh million)

Institution	2000/01			2001/02		
	Budget Estimates	Approved Estimates	Actual Expenditure	Budget Estimates	Approved Estimates	Actual Expenditure
VPO		461.2	367.1	Na	602.7	602.4
NEMC	1,100.0	256.7	256.7	1,500.0	527.8	527.8

Source: VPO (2004)

6.2.2 Allocation and Expenditure at Sector Level

As it has been gathered from the review of different sector's programmes/strategies and planning/budget, guidelines in chapter two, different sectors define environmental expenditure differently.

As shown in Table 6.3 , there is no marked difference for the sectors of Wildlife (division), Forest and Beekeeping and Fisheries as far as budget allocation and expenditure on environment is concerned.

Table 6.3 Budget Allocation and Expenditure at Sectoral/Institutional level

Sectors/Institutions	FY 2000/01		FY 2001/02	
	Approved Estimates (Tsh '000'000)	Actual Expenditure (Tsh '000'000)	Approved Estimates (Tsh '000'000)	Actual Expenditure (Tsh '000'000)
Wildlife (Division)	2,886	2,952	3,152	3,192
TANAPA & NCAA	NA	NA	NA	30,780
Forestry & Beekeeping	3,963	3,181	4,360	4,301
Fisheries	2,994	2,199	3,015	2,842
Tourism	292	490	312	304
Water	18,300	18,300	32,000	32,500
Lands	Na	Na	5,282	4,572
Health	173,000	173,000	165,000	165,000
Roads	39,249	57,193	108,857	179,6
Agriculture	53,352	55,158	58,792	52,792
Education	217,210	254,900	227,409	344,900

Source: Various Ministry Budget Estimates and Votes Books, PER Education (2004), MNRT Annual Implementation reports 2002 and 2003.

The allocation to sectors like wildlife, forestry and beekeeping and fisheries are regarded wholly (100%) as being environmental, to other sectors like water, land and agriculture, only part of it is allocated for environmental management. For instance out of Tsh 18.3 bill and Tsh 32.5 billion allocated to Water sector for FY 2000/01 and 2001/02, Tsh 2.4bil (13%) and Tsh 449.7 million (1.4%) respectively were allocated and spent on environmental issues. The ministry has obligation of ensuring community access to water, pollution control and abating problems of degradation of aquatic habitats. On the other hand, the land sector spent about Tsh 1.5bil or 33% of its Tsh 4.5bil allocation budget for 2001/02 for environmental activities. In agriculture sector, about Tsh 10.5 bill (19%) and Tsh 6.2 bill (12%) of total expenditure of Tsh 55.2 bill and Tsh 52.7bil for FY 2000/01 and 2001/02 (MAFS, 2003). Therefore, environmental spending by different sectors has been in line with existence respects of the magnitude of environmental problems in the sectors as outlined in the National Environmental Policy.

As reported elsewhere in the document Fisheries sector spent one third of its budget on the monitoring of fishing activities and protection of aquatic habitat while two thirds was spent on awareness creation, extension service, quality control, training and research. Therefore, its expenditure focuses on solving priority or key environmental problems of the sectors.

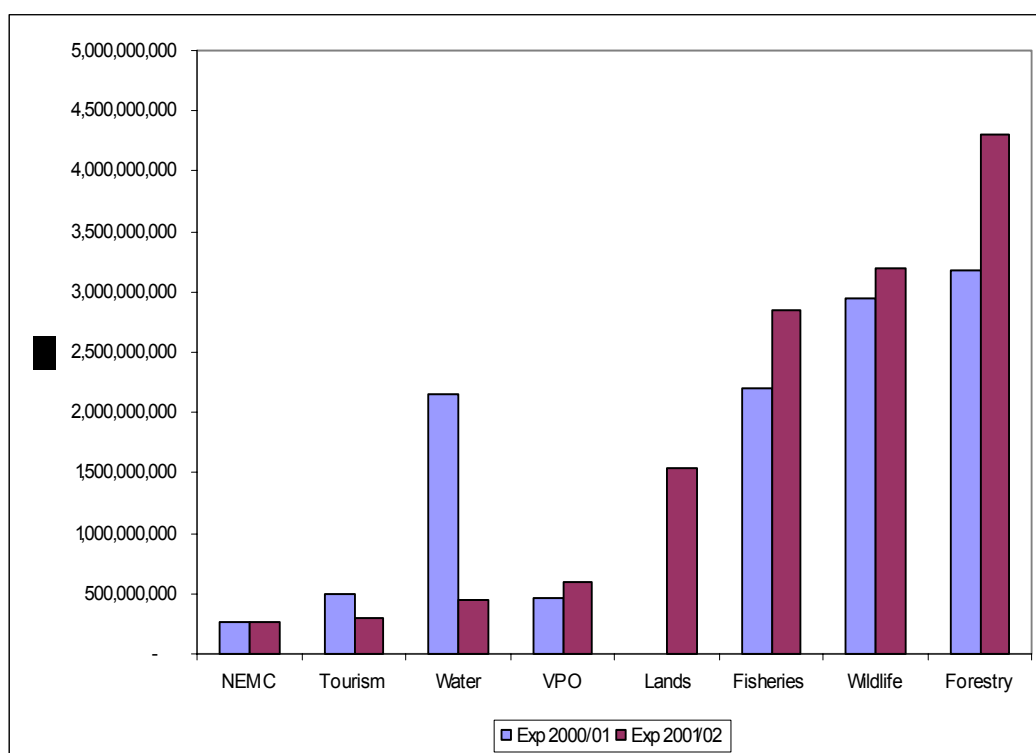
Equally, forest sector spends a high amount of its revenue (31.8%) on afforestation activity because deforestation is a priority problem in the sector.

The government expenditure allocation between FY 2000/01 and 2001/2 increased significantly in most sectors such as Wildlife, Forestry and Beekeeping and Water and Agriculture as shown in Table 6.3 . However, there was decline in expenditure allocation in Fisheries, Tourism, Health and Agriculture a situation, which could have relatively reduced spending on environmental activities. Besides Education and Health sectors, agricultural sector, which addresses land degradation, pollution (use of pesticides and agrochemicals) problems seemed to have recorded the highest expenditure compared to other environmental and natural resource sectors of Wildlife, Forestry and beekeeping, Tourism, Water and Land in 2000/01 and 2001/02. Such situation, which is encouraging though singling out of specific spending on environment, is difficult.

The approved budget for VPO (NEMC) and Lands were Tsh 0.9 billion and Tsh 2.3 billion less than sector estimates respectively hence demonstrating huge under funding. Most sectors asserted that, provision of budget ceiling has been the most applicable factor in expenditure allocation by the government. Therefore, in order to have true reflection of real sector expenditure requirement, it is important that each sector prepares one and presents it well in advance to the MOF. Lack of sector draft/ sector expenditure estimates has consequently made it difficult to propose appropriate levels of expenditure on environment. Importantly, the level of environmental expenditure in each sector can only be determined by their specific PER and their associated Medium-Term Expenditure Framework (MTEF).

Allocation of environmental expenditure amongst sectors has been compared as shown in Figure 6.1 Agriculture, Wildlife (division) Forestry and Fisheries, were the top budget consumers in 2000/01 and 2001/02 followed by Lands and Water. There is justification for the spending in regard to environmental problems they are dealing with. That is habitat and biodiversity loss, loss of aquatic systems, biodiversity and land degradation. Access to quality water and pollution issues is issues under Water sector. NEMC received the lowest allocation while VPO was among the least four sectors.

Figure 6.1 Allocation of environmental expenditure to Institutions, Environmental and Natural Resource sectors in 2000/01 and 2001/02

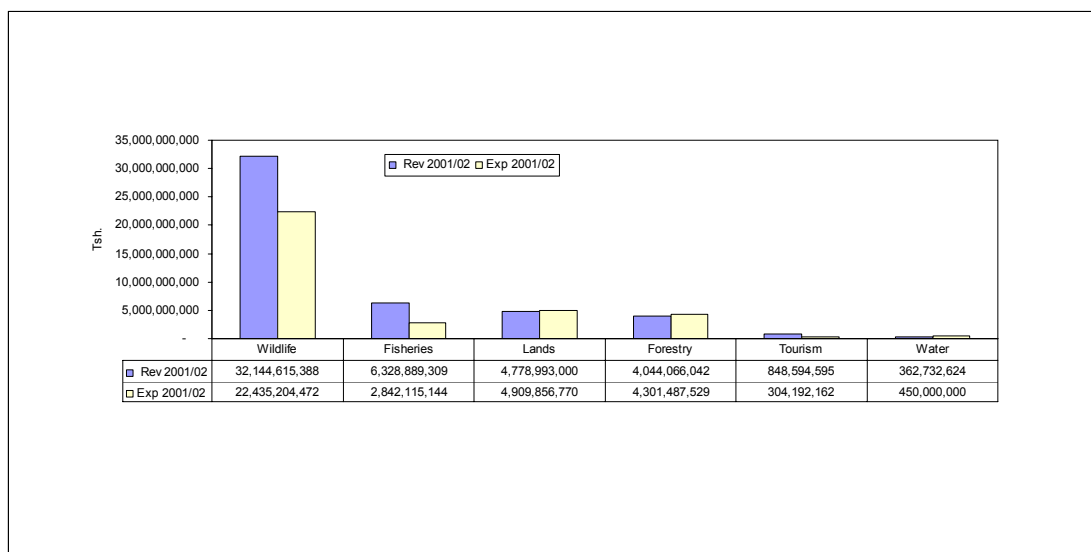


Source: MNRT Annual Implementation Report 2001/02 & 2002/03. Lands, VPO, and Water Data 2004 including their PER for 2003 and 2004

NB: Environmental expenditure not explicit in Health and Roads sectors PER.

Furthermore, environmental allocation and expenditure for all related sectors and even at the central level (VPO and NEMC) has been rising though at low magnitude. Most of the allocations from the government to these sectors are based on a ceiling determined by the Ministry of Finance, which is not the real requirement of the environmental sectors. The ceilings set are apparent in most cases lower than the request and estimates presented by the sector specific. It is thus very inadequate for environmental management and conservation.

Figure 6.2 Environmental Expenditure Compared to Revenue Collection from Environmental sources



Source: MNRT Annual Implementation reports (2002 & 2003), PER (2003) Ministry of Water and Livestock Development; PER (2003) Ministry of Lands and Settlements Development

As shown in Figure 6.2 what actually the government is ploughing back compared to what it is collecting from these sources is not equal. The gap between revenue and expenditure was more pronounced in Wildlife and Fisheries sectors. Therefore there is need to bridge up such gaps for sustainability reasons.

The key holding factor in expenditure allocation is the available total government revenue. On the other hand, allocation inside sectors for different activities is the mandate of the sectors. Of late, the MOF through its Budget Guideline Committee has now started allocating funds according to recommendations made in PER and MTEF reports though allocation does not precisely match with approved estimates. The approach is going to be adopted in future. Below is a table, which shows percentage of allocation by MoF over estimates made in sector PER for FY 2003/04.

Table 6.4 Percentage of allocation by MoF over estimates made in sector PER for FY 2003/04

Name of Sector	% of allocation to estimated Budget
Education	82.2
Health	73.1
Water	68.9
Judiciary	60
Agriculture	92.2
Roads	96
HIV and AIDS	76

Source: Budget Books Ministry of Finance, 2004.

The important thing is that, the above sectors are recognized as core sectors and are enlisted as priority under the Poverty Reduction Strategies (PRS) hence they are given 81% of the government budget (apparently excluding defence). Other sectors that are not priority in PRS shares 19% of the remaining budget. Arguably, apparently agriculture sector is assign highest priority apparently with assumption that it accommodates and can solve land degradation and associated hazards such as destruction of habitats and biodiversity.

According to the PER of Health Sectors 2003, the sector expenditures do not conspicuously reflect spending on environmental issues. Education and awareness raising about hazards of poor sanitation should have been part of the sector responsibilities. It is probably that mostly municipalities, cities and urban Authorities deal with them.

Expenditure in NCAA and TANAPA, which are supposed to be part of Wildlife sectors, is shown in Table 6.5 for FY 2001/02 and 2002/03. Most expenditure was on personal emolument (PE) and development activities in particular the improvement of services and infrastructure in the area. Additionally, NCAA gave Tsh 747mil and Tsh 714mil in 2001/0222 and 2002/03 respectively to the surrounding Maasai community for Development programmes to support environmental education and construction of schools, scholarships, cattle dips, dispensaries bridges and roads. Additionally, Tsh 80mil was given to Ngorongoro district Council in 2003.

Likewise, TANAPA apportioned Tsh 501.4mil and 671.9mil for support of community activities around the parks in 2001/02 and 2002/03 respectively. Both NCAA and TANAPA beside their contribution to national revenues, contributed significantly to poverty alleviation by assisting programmes in local areas that have positive impact on sustaining the wildlife resources and tourism. Information on the impact of supported programmes could not be available. Real impact on the environment was not assessed under this study and therefore could be covered in the next PER.

Table 6.5 Expenditure and support to Community Development Programme by NCAA 2000/02-2001/03

Tourist Organisation/ Year	Expenditure (Tsh mil.)	Expenditure on Community Development Programmes (Tsh mil.)	% of Expenditure on Community Development Programme to Revenue
NCAA			
2001/2002	5,537.0	747.0	12
2002/2003	6,152.0	714.0	9
TANAPA			
2001/2002	13,706.4	501.4	3
2002/2003	17,325.1	671.9	3
Grand Total	42,720.5	2634.3	
Average			7

Data Source: TANAPA (Appendix XI); NCAA (Appendix XII)

6.2.3 Allocation and Expenditure at Local Government Level

According to PER report of PO-RALG dated 2004, crosscutting issues particularly environment and gender are not adequately addressed in PO-RALG, regions and councils in terms of sufficient budget allocation. Environment in particular is not adequately addressed in PO-RALG, regions and councils, especially in terms expenditure allocation. Consequently, there was no budget for good governance for year 2003/04. Also, it will miss funds in 2004/5 and 2005/5.

Table 6.6 PO-RALG Budget Expenditure (Tsh Million)

	2001/02	2002/03
Recurrent Budget		
Personal Emoluments	307	360
Other Charges	1,651	2,597
Local Government Roads Fund	16,755	19,302
Kibaha Education Centre	1,805	2,037
Total	20,518	24,296
Development Budget		
Local	258	270
Foreign	65,819	63,764
Total	66,078	64,034

Source: PO-RALG (MTEF, 2001/02).

At the local government level, PO-RALG is not involved directly on environmental management. Its expenditure to environment is mainly through local government coordination, which is a component in each department as shown Table 6.6 . It is thus difficult at the PO-RALG level to capture the activities and spending that directly addresses environment. It is against this background that we sampled few districts i.e. Mpwapwa, which is a rural, and Mwanza City council, which is urban to try to get the feeling of environmental expenditure at district level.

Environmental expenditure at the district level includes, tree planting, afforestation, beekeeping, forest/agriculture extension, fish farming, urban sewerage (effluent disposal). In Mpwapwa district for example, expenditure on environment was on lands including mapping, wildlife, fisheries and forestry. While what was requested FY 2000/01 was Tsh 6.6 million, allocation was Tsh 5 million and it was even worse for the FY 2001/02 where out of Tsh 9.4 million asked for environment, only Tsh 1.6 million was allocated. This is because, as it was the case for sector allocation, money allocated to local government is determined by the central government a prior. The above district representation is considered not adequate as true representative of Tanzania districts and therefore next PER should consider geographical representation.

In urban districts like Mwanza city council, environmental issues are taken care of under the environmental and urban planning department. Expenditure on the environmental FY 2000/01 was Tsh 15.9million. It covered land surveys and allocation of plots (Tsh 4.1mil.), preparation of drawings (Tsh 0.4mil.) and land developments (Tsh 11.4m).

6.3 Donor Fund Allocation and Expenditure on Environment

As of today, environmental management programmes have been receiving financial support from different donor communities as shown in Appendix VIII. Donor agencies supporting environment conservation according to MOF include IDA, Ireland, Japan, IFAD, NORAD, SIDA, UNDP, USAID, FAO, UNEP, Switzerland and Germany/GTZ/ KfW, GEF; others are European Union, DANIDA, FINNIDA and France.

For the FY 2003/04, environmental programmes received Tsh 83.5 billion from donors as shown in Table 6.7 . Out of which, Natural Resources and Tourism received the highest amount (46.7%) while PO-RALG received the lowest amount (2.9%). Seemed, big portion of funds were allocated to environmental sectors under Natural Resource and Tourism departments followed by Water (21.4%), agriculture- crop (18.8%), VPO (5.8%). The detailed information about names of donors funding each sector is indicated in Appendix VIII.

Table 6.7 Allocation of Donor funds for environmental programmes to Environmental related sectors FY 2003/04

Sector	FY 2003/2004 (Tsh 000,000)	% of the Total
PO-RALG	2,389	2.9
Agriculture - Livestock	4,017	4.8
Vice President's Office (Division of Environment)	4,542	5.5
Agriculture – crop	15,671	18.8
Water	17,897	21.4
Natural Resources & Tourism	38,961	46.7
Total	83,480	100

Source: Ministry of Finance (2004) and VPO (2004).

In respect to huge environmental responsibility placed on VPO and NEMC, The Division of Environment should have received more donor support.

The distribution of donor funds for FY 2003/04 observed the magnitude of environmental problems in sectors as inline with NEP and PRS policies and priorities. Sectors of Agriculture, Water and Natural Resources and Tourism, which relatively received large share of donor funds, have huge responsibility to counter environmental problems of land degradation, pollution, loss of habitat and biodiversity. Access to quality water and deforestation.

PO-RALG, which is mainly responsible for the rural poor received 2.9% of the donor funds for environmental management. According to PO-RALG PER of 2004, its development fund is 99% donor supported. As for PO-RALG, World Bank and IFAD are said to fund 56% of the local commitments. Other donors are DANIDA, NORAD, USAID, UNDP, EU and Japan/JICA, which represent 90% of the agriculture donor funding as supported in (BOT, 2002).

6.4 Allocation and Expenditure on Priority Environmental Problems

To some extent, the environmental expenditure addresses the six key environmental problems identified in the NEP.

The allocation and expenditure has been geared to solve major problems in each environmental sector particularly deforestation, habitat loss and access to water through afforestation and management of forested catchments. Though the basis for budget allocation does not consider the severity of environmental problems such as the extent of deforestation and habitat and biodiversity loss, substantial funds have ended solving existing critical environmental problems.

Environmental expenditure on fisheries (which was Tsh 2.9 billion FY 200/01 and Tsh 3 billion FY 2001/02) for instances addresses the deterioration of aquatic system and partly environmental pollution. Environmental expenditure in this sector includes surveillance and control of marine and aquatic ecosystems to check adherence to fishing regulation, check disposal of hazardous waste for example spilling from oil tankers and check illegal fishing, (i.e. use of dynamites was major offence until 1997).

Others are creation of marine reserves or marine national parks, management of aquatic ecosystems and tourist attractions, awareness creation activities, community fish farming or aquaculture, fisheries research and training, organisation and implementation of sector consultative forums and review of fisheries policy and legislation. Fisheries sector has firm guidelines for budget allocation whereby surveillance/patrol activity receives 33% of total budget. Approximately 67% is allocated to awareness creation, extension services or publicity, quality control, training and research.

In Forestry and Beekeeping sector, environmental expenditure include; forest administration, operationalisation of forest and beekeeping policies, conservation and management of natural forests, implementation of afforestation measures, management of forest plantations, capacity building by training of district staff, forest extension and provision of technical advise, involvement and participation of community in the management of natural forests, mapping and management of forest and beekeeping reserves, research and support to NGOs, associations and Community Based Organisations on participatory forest management.

The major areas of environmental expenditure in Lands sector includes generation of environmental data for example maps on land use, survey and mapping, urban planning including sewerage and service supply, aerial photography, training, settlements planning and new lands laws, awareness preparation for land use plans and surveying.

Allocation and expenditure both to wildlife and tourism sectors address loss of wildlife habitats and biodiversity. Areas for environmental management here include; administration and management, review of wildlife conservation acts/regulations, awareness raising, habitats and biodiversity protection (include wetlands management), participation and implementation of international treaties/ accords/ conventions e.g. Ramsar Conventions on wetlands management, capacity building on wildlife management, training and research, development of wildlife management strategies, support and involvement of local communities in wildlife management, vermin control, wildlife protection by patrol/ law enforcement (i.e. curb encroachments in game reserves), management of archives, promotion and strengthening of regional and international cooperation to improve natural resource conservation.

In the Wildlife sector, 12% and 9% of the total NCAA revenue collected in 2001/02 and 2002/03 respectively were ploughed back to the surrounding community areas for development programmes as shown in Table 6.5 . Likewise, TANAPA spent 3% of its revenue for the same purpose. The provisions were destined for local capacity building, poverty alleviation and to support conservation works. Also included are community participation and involvement in conservation of wildlife habitats, deforestation control and land degradation inside and around the conservation areas.

The Wildlife Policy foresees the establishment of community owned Wildlife Management Areas (WMAs) in rural areas which are inhabited with wildlife. Significant revenues from tourist hunting or tourism would accrue to these communities and reduce poverty. As implementation is slow, the programme is still at a pilot stage despite positive response received from many communities. According to the GTZ supported Wildlife Programme, most important would be that the Treasury allows WMAs to retain the revenue from hunting on their land which is presently collected by MNRT .

In addressing poor access to quality water, government allocation and expenditure to water sector has been to the following areas; surveillance of water quality, monitoring of water turbidity (sediment load) and levels of pollution, water supply for domestic and industrial use, ensure water supply for Hydro electrical power.

Among the five environmental sectors, forestry and beekeeping has the highest ratio of expenditure against revenue compared to Fisheries (44.9%), Wildlife (38.2%), Tourism (35.8 %) and Lands (31.4%). The figures in Figure 6.2 are based on year 2001/02 data.

Allocation of expenditure in Land sector as shown in the Table 6.8 below put priority on management information system (35.70%), land development services (25.89%), and survey and mapping (38.472%). The sector partly harbours land degradation problem, which is the result of poor land use and lack of proper information about desirable management.

Table 6.8 Allocation of Development Budget in Land sector for 2003/04

Division	Approved Budgets 2003/04	
	TSH (in millions)	% of Total
Management Information Systems	214.2	35.70
Land Development Services	155.0	25.89
Survey & Mapping	230.8	38.47
Total	600.0	100%

Source: PER (2002) Ministry of Lands and Human Settlements Development

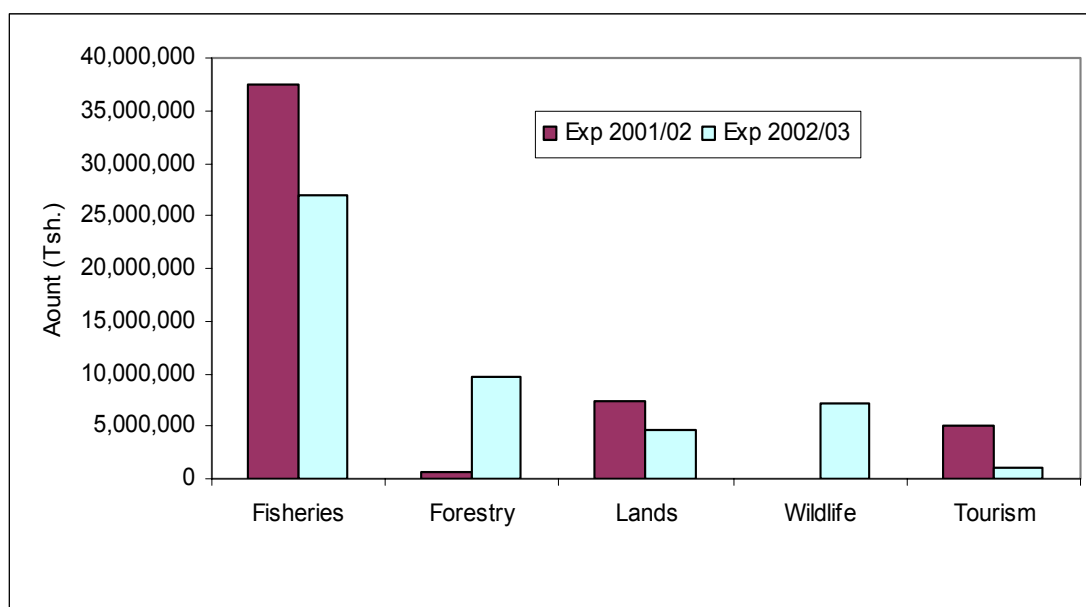
6.5 Expenditure on HIV and AIDS

In environmental sectors HIV and AIDS disease is negatively affecting the manpower and consequently productivity and efficiency. In addition, it counters poverty eradication effort by destroying labour force of the nation. As mentioned elsewhere, HIV and AIDS is a crosscutting issue, therefore allocation of budgets by sectors for its intervention is important. This is well supported by the Tanzania HIV and AIDS policy that urges for its mainstreaming in sector activities and expenditures in order to counter it. .

According to URT (2002), approximately Tsh 3.3 million people were infected with the pandemic in 2001. In education sectors for instance, the infections in teachers have now reached decapitation level. It is estimated that 14,460 teachers would have died by 2010 and the number may be escalated to 27,000 by 2020 according to PER (2002) of Education. To counter the effect, Tsh 0.99 billion and Tsh 1.39 billion was allocated for HIV and AIDS measures in 2001/02 and 2002/03 respectively. The amount is considerably higher than that allocated to environmental sectors. The same could be true with other sectors at varying proportions and consequently affect the national productivity and income.

The amount of budget spent by natural resource sectors in recent years is shown in Figure 6.3. It is encouraging to note that some sectors are now regularly providing budget to it. Some sectors received unplanned budget for example Lands (Tsh 7.0) in 2001/02.

Figure 6.3 Budget allocation to HIV and AIDS by natural resource sectors FY 2001/02 and 2002/03



Source: Data from Fisheries , Forestry and Beekeeping, Lands and Tourism Sectors, 2004.

The allocation of expenditure on HIV and AIDS in recent years has been erratic in natural resource sectors. For example, there was no allocation in Wildlife sector in 2000/01. However, a dramatic increase in actual expenditures over estimates was recorded in Wildlife (Tsh 10m) and Forestry and Beekeeping sectors (Tsh 4.7m) during FY. 2002/03. Such situation calls for regular allocation of HIV and AIDS expenditure in the sectors.

The 2002 PER of Education reported that spending in Education sector has been within the context of PRSP which put emphasis among other important things, capacity building at grass roots level, environment and HIV and AIDS.

According to the Health sector, HIV and AIDS is linked to poverty and it is well reflected in the expenditures. About Tsh 1.2 billion was spent on HIV and AIDS in FY 2003 mainly on preventive and curative measures. The MTEF for education sector has earmarked around Tsh 2.0 billion annually between 2003/4 -2006/07. In PO-RALG, a total of Tsh 23 billion is allocated for the disease for FY 2003/04- 20005/06.

It was observed under this expenditure review that funds for HIV/AIDS, Corruption and Gender are lumped together and therefore unspecified. In most sectors, they are mainly used for awareness raising, education, research and health services. In the MNRT, which harbours FOBD, Wildlife, Fisheries and Tourism sectors, at least 1% of its total budget is set aside for HIV/AIDS programs. However, In Water Sector, budget for HIV/AIDS intervention is not explicit. In view of this situation, it is important that specific expenditure for HIV/AIDS intervention should be set aside annually by each sector.

6.6 Analysis of Resources Gaps on Environment

The discussion on the foregoing sections has revealed that government resources allocation and expenditure on environment at national, sectoral and sub-national level has not been according to real requirements of the sectors. What the government has been allocating for environmental expenditure was only to meet office-running costs and sometimes even that was inadequate.

For instance, as shown in Table 6.9 , what the government allocated to NEMC has been far below what was requested. The same is true for VPO or sector specific. Had it not been for donor support, VPO and NEMC would not have been able to implement any of environmental management projects, like Tanzania Coastal Management Project, Lower Kihansi Environment Management, Lake Victoria Environment Management, Legal Framework for Environment Management, to mention a few. However, given data and information constraints it is still difficult to establish whether the expenditure on these projects has been comprehensive enough to address the six environmental problems national wide. VPO and NEMC under the new institutional framework just like environmental sector specific have a number of activities in their strategic plans that they failed to execute due to under funding.

Table 6.9 Budget Allocated and Spent on Environment by NEMC: 1998 – 2003 (in Tsh million)

Year	Amount requested	Amount Allocated	Amount Spent
1997/98	800	143	143
1998/99	1,100	155.7	155.7
1999/00	1,100	189.6	189.6
2000/01	1,100	256.7	256.7
2001/02	1,500	527.8	527.8
2002/03	1,600	658.5	658.5

Source: NEMC Financial Report (2004).

On average 97% of the approved recurrent expenditure estimates for Wildlife, Forestry and Beekeeping and Fisheries were released to the sectors by MOF in 2001/02. On the other hand, an average of 96.8 % of the amount release in same sectors was actually spent. Generally, this signifies slight reliability on funds promised by MOF and small inefficiency in budget expenditure. As for development funds, about 83% of the approved donor funds were released (MNRT 2002) therefore creating resource gap.

Resource gaps between approved budget and actual expenditure was observed in some sectors. In 2001/02, the government released less funds than approved and consequently less expenditure in Forestry and Beekeeping (-Tsh 59m), Tourism (-Tsh 8m), Lands (-Tsh 710m) and Fisheries (-Tsh 173m). In contrast, more money was released and spent than approved for

Water (Tsh 500m) and Wildlife (Tsh 40m). The situation signifies that actual expenditure is not always in conformity with approved estimates.

6.7 MTEF Budgets and Interventions for Bridging Resource Gaps

In the light of the established resource gaps for financing environmental expenditure, this PER has prepared the Medium Term Expenditure Framework (MTEF) which shows the needed resources to finance environment for three years, that is FY 2004/05 to 2006/07. As shown in the Table 6.10, for the period of three years from now onwards VPO is projected to require a total of Tsh 3 billion while NEMC is projected to require a total of Tsh 12 billion for filling the recurrent expenditure gap. The main objectives of activities under VPO and NEMC are;

- To effectively support and coordinate environmental management efforts; and
- To collect, disseminate information and promote compliance to environment management.

Table 6.10 Projected Recurrent Requirements for Environmental Expenditure FY 2004/05 –2006/07 (Tsh Million)

Years/Sectors	2004/05	2005/06	2006/07	Total : 2004 – 2007
VPO	1,378	1,055	585	3,028
NEMC	4,195	3,540	4,308	12,018

Source: VPO/NEMC MTEF (2004).

On the other hand, the projections for development expenditure is shown in Table 6.11.

Table 6.11 Development Projections for Environmental Expenditure FY 2004/05- 2006/07 (Tsh Million)

Years/Sectors	2004/05	2005/06	2006/07	Total: 2004 – 2007
VPO	5,757.12			
NEMC	3,012.9	2,018.5	772.0	5,813.4

Source: VPO PER/MTEF, 2004.

The PER for VPO has taken a strong account and focus on tasks or issues stated below.

- It has identified requirements for capacity building in the lead institutions in the environmental management by staff development and provision of sufficient working tools.
- Secondly, emphasis on awareness campaigns down to district level particularly on six major environmental problems underlined in NEP.
- Evaluation and monitoring of environmental programmes
- Environmental monitoring

- Meet the obligations of international treaties and regional conventions, which have been ratified or acceded to.
- Further identify and manage environmental “hot spots” or special areas in Tanzania.
- Need to establish the environmental fund, which will be used for environment management activities.

While, PO-RALG, Health, Education and Road sectors accept environment as crosscutting issue, their MTEF have not explicitly allocated expenditure to it for FY 2003/04-2006/07 as shown in the PER for Education (2004), PER Health (2003) and PER PO-RALG (2004). Therefore, adequate measures should be undertaken to ensure that their next PER/MTEF recognises environment as important area for expenditure allocation.

In order to meet the objectives of VPO and NEMC it is important that activities mentioned in their strategic plans be supported financially in the Medium Term Framework. The targets as elaborated below are meant to promote sustainable use of environmental resources and consequently improve the life standard of the community.

Capacity building:

- Participation of staff in special trainings of project planning management and negotiation skills.
- Recruit enough professional staff knowledgeable on Environmental by June 2007.
- Establish Environmental Committee/Units in other sectors and to the districts level by 2006.
- Develop and acquire technical working instruments (guidelines, regulations, checklist etc. by June 2007.
- Availability of enough office space and other working tools by 2007.

Awareness raising at District level on six major environmental problems underlined in NEP:

- Management of Environmental Information System established by June 2007.
- The state of environmental report prepared, published and disseminated by June 2005.
- Annual Environmental Award programme developed by 2005.
- The National Environmental Economic Instruments are reviewed and distributed to the public by March 2006.
- Environmental Economic Instruments adopted by sectors by 2007.
- Outreach programme through media communication are developed by 2007.
- Environmental Education (EE) is incorporated in the formal education curricular by 2008.
- Awareness seminars on Environmental management to Members of Parliament are conducted annually.

Obligations on International treaties that have been ratified by Tanzania:

- The target is to have national positions on international and regional treaties, which are relevant to Tanzania, and to make follow-up on their implementation. For the country to retain its membership fees must be paid and conventions attended.
- To establish environmental Management Fund by 2005.

Identify and manage environmental “HOT SPOTS” or special areas in Tanzania

- Identify, assess and prioritise the areas by 2006.
- Review the management plans and establish new functional harmonised ones for special areas by 2007.

Evaluation and monitoring of environmental programs and other emerging issues with impacts on the environment.

As mentioned earlier, there are number of environmental programs, other development projects and emerging (ad-hoc) issues, which need the attention of the government interventions. The targets for this medium term expenditure framework are;

- To inspect at least 20 development projects per year.
- To undertake at least 5 environmental audits per year.
- To review at least 10 environmental management plans per year.
- To attend environmental problems caused by hazardous waste disposal.

7.0 EXPENDITURE ON MULTILATERAL ENVIRONMENTAL AGREEMENTS

7.1 Introduction

The multilateral environmental agreements are one of the important instruments used by various political institutions concerned with global environmental changes. Thus, implementation of those agreements reflects an appreciation / understanding of environmental issues and intentions of various states, regional organizations in addressing environmental issues.

The number and range of international agreements on environmental practices have been growing significantly since 1921 and by 1972 more than 50% of them have been entered into force⁸. The most important environmental conventions / agreements related to global environmental changes include: the Montreal Protocol on Substance that deplete Ozone Layer (1987); the Framework Convention on Climate Change (1992); and Convention on Biological Diversity (1992), as well as other agreements entered under the United Conference on Environment and Development (UNCED) in 1992.

In the following sub-sections the Consultant reviews some of the conventions / agreements that have been and/or being implemented through various programmes / projects.

7.2 Programmes / Projects Implemented

The fact that Government of Tanzania is committed to international cooperation on environmental protection is shown by various international environmental conventions / treaties / agreements to which the country is a party (Appendix IX(B)). However, the implementation of these international agreements requires financial input with support from multilateral and bilateral agencies. Some few projects related to international conventions that have been or being implemented in the country under financial support from various multilateral and bilateral donor agencies are shown in Appendix IX(A).

The findings show Tanzania has made a considerable effort to implement a number of the international conventions / agreements. For example, Appendix IX (B) shows that 11 conventions have already been implemented and about 27 projects / programme / studies have been carried out in various parts of the country. However, the government's commitment or obligation to implement the conventions is hampered by financial constraints. For example, in the Convention for the Protection, Management and Development of Marine and Coastal Environment of the Eastern African Region and Related Protocols, the budgetary requirement for the Convention's Trust Fund is between 250, 050 -312,058. The country's annual contribution ranges between US \$ 36,000-45,000. However, Tanzania's unpaid

⁸ CIA – WORLD FACT BOOK . www.cia.gov

contribution up to year 2000 was estimated to be US \$ 498,612. This shows that some more efforts are needed to ensure that the country meets its obligations. One way of doing this is to create awareness on the importance of these conventions and mobilize funds collection from various stakeholders, especially the Private Sector.

There has been a significant support from various multilateral and bilateral donor agencies to implement a number of programmes / projects in the country to address those conventions / agreements as shown in Appendix IX(A).

Some significant efforts have been made by the country to implement multilateral agreements. This is shown by the fact that the country has been able to implement 6 conventions with 26 projects as shown in Appendix IX(A). However, effective implementation of various conventions is constrained by inadequate local financial resources. For example, out of 30 conventions listed in Appendix IX(B), the country has today being able to implement 6 of them.

It is thus recommended that the VPO and NEMC should facilitate and mobilize private sector and other stakeholders to contribute financially. Establishing a special Environmental Management Fund (EMF) could be a good idea to implement this. Another approach is to introduce “user charge fees” and enforce the “Polluter Pays Principle” (PPP) and penalties from environmental destruction, which will also contribute into the EMF.

8.0 FINDINGS AND RECOMMENDATIONS

8.1 Findings

This Chapter outlines key findings of this study. Detailed analysis of the findings is discussed in the preceding this Chapter.

8.1.1 Policies, Strategies and Programmes

The findings from Section 2.5 show that, the institutional aspect of poverty-environment is strong at the central levels but weak at the local government levels. Again, findings have shown that in most sector policies there is a weak linkage between poverty and environment. However, a stronger links between poverty and environment are reflected for example in the National Human Settlement Policy (2000), National Water Policy (2002), National Environment Policy (1997), Wildlife Policy (1998) and Forestry Policy (1998). A detailed analysis of policies is given in Appendix VI of the main document.

As shown in Section 2.4 Sustainable Cities Programme (SCP) has been one of the important innovative approaches that has led into environment policy and management (EPM) process. However there has been some constraints in the implementation of EPM process. These include lack of adequate funding and dependence on external support; inadequate capacity for supporting authorities to match increasing demand for more urban centres to participate in the EPM; inadequate financial support to for stakeholders working groups to actively participate into EPM; inadequate participation of urban communities to implement issues prioritized at urban authorities levels.

The findings on Section 7.0 have shown that the country has made some considerable effort to implement various international conventions. However, lack of financial resource has been noted to be a major constraint.

8.1.2 Environment Revenues and Retention

The contribution of environmental resources to the national and sectoral revenue is substantial as discussed in Section 3.1.2. For instance, in 2001/02, Fisheries and Wildlife sectors collected Tsh 6.9 and 32 billion respectively, this accounted for 0.6% and 3% of total national revenue collection. These figures could have been higher if the existing potential for revenue collection in the two sectors was fully utilised. Poor or under collection is attributed to lack of capacity in terms of human resources, fragmented and weak accounting systems and limited logistical resources.

This PER has established that presently there is inadequate sharing of natural resource revenue among stakeholders for environmental management. With an exception of the wildlife sector whereby the districts are allowed to retain 25% of the collection. Some sectors share relatively less, for example, Forestry and Beekeeping gives 5% of any amount exceeding Tsh 1.0m to the districts as shown in Section 3.1.2. However, the present Forestry and Wildlife approached to increase community based resource management through Participatory Forestry Management and wildlife Management Areas are expected to increase the sharing of revenues with local stakeholders.

8.1.3 Capacity Building

An assessment of the existing capacity as elaborated in Section 4.1, revealed capacity inadequacies for environmental management from central and sector levels down to the villages. Furthermore, it has identified the need for human capacity building such as additional recruitment and training at all levels. In addition, there is a need for institutional capacity building through provision of office accommodation, technological infrastructure and transport. In addition, the forthcoming draft Environment Management Act (EMA) will require further human, and financial resources for its effective implementation to protect the environment and peoples' livelihoods.

8.1.4 Contribution of Environmental Resources to GDP

The environmental sectors have been contributing significantly to the GDP according to the findings from Chapter 5. The average percentage (1995-2002) contributions to GDP by sectors directly dependent upon environment and natural resources were: Agriculture - Crops, 35.3, Tourism 13.0%, Agriculture – Livestock, 4.7%, forestry & Hunting (Wildlife), 3.3%, Fishing, 2.5%, Electricity (Energy), 1.6%; Mining, 1.4%; and, Water, 0.2% (Economic Survey Report 2003). However, the specific contribution of some environmental sectors particularly tourism, wildlife and forest could not be well captured due to the international format or standards that are currently applicable. In addition, the real contribution of different sectors to the national income could not be captured since the associated environmental costs have not been deducted. This PER has therefore not been able to capture the Net Domestic Product because of insufficient data.

8.1.5 Budget allocation and expenditure on environment

While environmental resources contribute significantly in terms of revenue collections and national income, yet the environmental sectors are financially under resourced as shown in Section 6.2. The resource gap was more pronounced in Fisheries and Wildlife sectors. In addition, what environmental resource sectors are allowed to retain back is not sufficient to maintain sustainable environmental management.

As regards to funds allocation, the findings show that actual disbursements do not match sectors requirements. For instance, in 2001/02 less allocation was noted in Wildlife (short by Tsh 40m), Forestry and Beekeeping (short by Tsh 59m) and Fisheries (short by Tsh 173m).

Assessment also revealed that allocation though inadequate; internal spending in many sectors corresponds with the magnitude of environmental problems as underlined in the National Environmental Policy. For example, fisheries spent more on protection of aquatic life while Forestry and Beekeeping sectors focused more on curbing deforestation as discussed in Section 6.4.

It was also revealed that, the allocation by government to other sectors on poverty and environment links was insufficient. For example, PORALG, Health, Education and Road sectors see environment as crosscutting issue, their MTEF have not explicitly allocated expenditure to it for FY 2003/04-2006/07. However, efforts towards integrating environmental issues into sectors' plans have started taking shape. For instance, the Ministry Works has established a Unit to manage environmental issues in the Road Sector. Therefore, adequate measures should be undertaken to ensure that their next PER/MTEF recognises environment as important area for expenditure allocation to meet poverty and environment objectives.

8.1.6 Implementation of Multilateral Environment Agreements (MEAs)

The findings in Chapter 7 have shown that the country has made considerable effort in implementing various multilateral environment agreements (MEAs). However, inadequate funding has been noted as a major constraint on timely implementation of these conventions.

8.1.7 Donor fund allocation and expenditure on environment

Most of environmental management projects, which address the key environmental problems, are donor supported. For instance, during the FY 2003/04 donor support to environmental programmes amounted to Tsh 83.5 billion. It is important to note that the support took into account the existing environmental problems, which are underlined in the National Environmental Policy.

8.1.8 Medium-Term Expenditure Framework (MTEF)

The MTEF presented in this PER has taken a strong account and focus on following:

- Requirements for capacity building in the lead institutions in the environmental management by staff development and provision of sufficient working tools.
- Emphasis on awareness campaigns down to district level particularly on six major environmental problems underlined in NEP.

- Environmental monitoring and enforcement.
- Meeting the obligations of international treaties and regional conventions, which have been ratified and acceded to by Tanzania.
- To further identify and manage environmental “hot spots” or special areas in Tanzania.
- Need to establish the environmental fund, which will be used for environment management activities.

8.2 Recommendations

This Section outlines the key areas for intervention and recommendations to address them. The key elements of these interventions and recommendation have been discussed in detail in preceding Chapters.

1. Mismatch between revenues collected and allocations to the environmental sectors. This issue is addressed in Section 6.2

To address the above, the following are recommended:

- (i) The Government should consider increasing budgetary allocation to the environmental sectors including VPO. This is necessary to allow for efficient and effective management, coordination, monitoring, and valuation of environmental resources to achieve sustainable development and poverty reduction.
- (ii) Each environmental sector should undertake independent PER study in order to capture their real expenditure requirement in their MTEF.
- (iii) Future allocations to the existing PRS priority sectors and environmental sectors should consider the roles sectors play in addressing the linkages between poverty- environment and delivery of social services.
- (iv) Establishment of Environmental Management Fund (EMF).
- (v) Introducing and enforcing environment management principles and practices including user charges or fees” and Polluter Pays Principle (PPP).

2. Under pricing of environmental products and disregard of replacement cost. This finding is discussed in Sub-section 3.1.6

To address this there is a need for:

- (i) Work out modalities to appropriately price the value of utilization of environmental resources. This can be possible by actively promoting stakeholders' involvement and participation and improved accounting systems.
- (ii) A study to assess and compare revenues and replacement costs be undertaken.

3. Inadequate environmental revenue collection and under pricing of environmental resources leading to low revenue collections. This is discussed in Chapter 3

To address this issue there is a need for:

- (i) To carry out an evaluation study to capture revenue potentials and real market value of environmental products. Wherever possible, government administered prices should be replaced by competitive market prices. In the hunting industry for example, this could be achieved by tendering hunting blocks instead of allocating them for a fixed sum. Likewise commercial harvesting of high value species such as fish and trees should be auctioned.
- (ii) Environmental Resource sectors and local government authorities should improve their capacity in revenue collection through increased monitoring, accounting and promotion of community based resource management. However, efforts to maximise revenue should not compromise environmental concerns and socio-economic aspects of the community.
- (iii) There is a need to accelerate strategic environmental assessment of the existing environmental plans and strategies to ensure that environmental concerns are taken on board during preparation and review of policies, strategies and programmes.

**4. Limited access and availability of data on environmental revenue and expenditure
This finding is reflected in Chapter 1**

To counter this problem there is a need for:

- (i) Each sector should develop its own database and M&E system to facilitate easy capturing of environmental data including revenue and contribution to GDP.

- (ii) VPO should strengthen the coordination with sectors of environmental monitoring and data collection including environment revenue and expenditure.
- (iii) VPO in collaboration with National Bureau Statistics and MOF should consider capturing environment costs and benefits into national accounts.

5. To finalise environmental PER budget guidelines for sectors and local governments

There is a need for VPO in collaboration with MOF to finalise PER/budgetary guidelines for environmental sectors and local governments in collaboration with MOF.

6. Inadequate implementation of Multilateral Environment Agreements (MEAs)

The findings as discussed in Chapter 7.1 show that the obligations and commitments of the government to implement the MEAs is hampered by financial constraints.

The proposed measures to address the above include:

- (i) To clarify/confirm the financial requirements to implement MEAs, and the obligations and existing commitments of multilateral and bilateral agencies to implement these MEAs.
- (ii) Need to seek financial support from multilateral and bilateral agencies.
- (iii) Continued awareness raising among the public, private sector NGOs and Community Based Organisations (CBOs) on multilateral conventions/agreements in order to create a sense of ownership and facilitation of the implementation process.

7. Inadequate capacity for environmental management at sectoral and local government levels. This problem is discussed in Section 4.1

To address the problem, the following are proposed:

- (i) A Needs Assessment Study to establish the actual requirements of resources for sectors and local authorities in areas related to environmental management, achievement of sustainable development and the effective implementation of the forthcoming Environmental Management Act.
- (ii) Design and implement capacity building programmes and other initiatives that would promote environmental management skills at central and local government levels.

- (iii) Provide financial support to sector ministries and local authorities to assist them establish/strengthen Environmental Management Units (EMU), recruit/designate environmental coordinators and implement operational activities.

8. Weak poverty-environment linkages

As shown in Section 2.5, despite all efforts to address environment as primary crosscutting issue in sector policies and strategies, there is further need to promote widespread understanding of how poverty-environment linkages should be applied to support environmental management.

The following measures are recommended:

- (i) The revised Poverty Reduction Strategy (PRS) should be supported by research findings based on the local conditions as it adopts the new approach to poverty-environment linkage;
- (ii) Environmental sectors should promote actions, including research, research to develop and implement sectoral strategies that incorporate poverty-environment linkages and consider environmental resources from ecological and socio-economic point of view as an important life-supporting system;
- (iii) The developed PRS and sectoral strategies should take into consideration the impact of globalization as one of the major constraint in achieving poverty reduction strategy in the country.

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APPENDICES

APPENDIX I: TERMS OF REFERENCE OF STUDY

VICE PRESIDENT'S OFFICE

TERMS OF REFERENCES FOR PUBLIC EXPENDITURE REVIEW OF ENVIRONMENT FOR FY 2003/2004

1.0 INTRODUCTION

Tanzania's natural resources and environment are the main source of peoples' livelihoods and are the backbone of the country's main productive sectors: agriculture, tourism and mining. Recent research by the 2002/3 Participatory Poverty Assessment has again shown that most people in the country *directly* depend on a robust, healthy environment to support their income-generating activities and provide them with building and cooking materials, food and medicine. The environment is thus critically linked to poverty at the levels of livelihood, health and vulnerability. This linkage between environment and poverty has been recognized both in the National Environment Policy and Poverty Reduction Strategy Paper (PRSP). The Government has recognized the importance of environment as a cross-cutting issue in the PRSP, and has developed a programme with UNDP to integrate environment into the PRS process. A key challenge to this is how the Government is investing in the environment to meet the national development and poverty reduction objectives as set out in the National Poverty Eradication Strategy and Vision 2025.

To address this issue, Terms of Reference for the first public expenditure review of the environment have been prepared for mainstreaming environmental issues in public expenditure reviews.

2.0 OBJECTIVES OF THE STUDY

The public expenditure review of the environment⁹ aims at answering the following two objectives:

1. To establish the levels, trends and distribution of environmental expenditure by Government.
2. To assess the level of environmental expenditure required in relation to the country's environmental priorities and poverty reduction objectives.

⁹ The term "environment" is used in this study to cover all aspects - including rural and urban environmental issues, and the use of the country's natural resources.

3.0 SPECIFIC TASKS

1. Conduct a quick-scan review of the sector programmes/strategies and planning/budget guidelines in order to identify strengths, weaknesses/gaps in capturing environmental issues in the respective sectors. In light of this, develop a checklist and guidelines for mainstreaming environmental issues in the planning and budgeting processes at all levels.
2. For FY 2000/01 and 2001/02 assess the budgetary allocations and expenditure of Central and Local Government on the six key environmental problems identified in the National Environmental Policy¹⁰ in order to determine the amount expended on the environment.
3. In addressing (1) and (2) above, the focus should be placed on the PRSP priority sectors namely; Agriculture; Water; Health; Education and Roads. In addition, the study should include Vice President's Office and NEMC as well as the following sectors: Mining; Energy; Lands; Fisheries; Wildlife; Forestry; Industry; Tourism and Transport.
4. Review and assess from 1995 to the present the contribution of the environmental resources to national income.
5. For FY 2000/01 and 2001/02 undertake in-depth analysis of the budgetary allocation and expenditure in the sectors cited in (3) above. The analysis should answer the following questions:
 - a) Does the share of the expenditure on environment and natural resources match its priority as a public policy issue?
 - b) Does the allocation of the budgetary resources within the environment and natural resources sector match any objective measure of the scale and distribution of the problems and opportunities within the sector?
6. For FY 2000/02 and 2002/03 undertake analyses to:
 - a) Assess the contribution of Central and Local Government revenue from environmental resources (e.g. mining, fisheries, forestry, wildlife, tourism, etc.);
 - b) Assess the implication on Central and Local Government revenue arising from foregone environmental interventions; and,
 - c) Assess the implication of Central and Local Government revenue arising from undertaking environmental interventions.
7. Assess government expenditure on, and requirements for capacity building for environmental management and propose elements for capacity building programme for continuous integration of environment into PER.
8. Assess the proportion of expenditure on environment from aid flows in relation to requirements for the implementation of multilateral and bilateral environment agreements at national level.

¹⁰ National Environment Policy identified the following key problems: land degradation, lack of accessible, good quality water; environmental pollution; loss of wildlife habitats and biodiversity; deterioration of aquatic systems; and, deforestation.

9. In light of the above analyses, propose elements for a study on economic valuation of environmental resources, which is realistic, practical and appropriate to the Tanzanian context, and which makes use of data which either is currently being collected through, or which can be collected relatively easily through changes to, national monitoring processes.

4.0 STUDY APPROACH AND METHODOLOGY

The study will involve fieldwork, deskwork and interviews with key stakeholders to collect information and data from selected local government authorities (rural and urban) and respective sector Ministries. This will include the use of previous public expenditure reviews in other sectors and other existing sectoral and local government data. To oversee the environment sector PER study and to review other sectoral PERs an Environment Working Group (EWG) has been established. This is chaired by the Director of Environment and comprises of Assistant Directors from Division of Environment, Directors/Assistant Directors from the Poverty Eradication Division, the Director General and Directors of National Environment Management Council, Directors/Assistant Directors from key sectors including: Agriculture, Water, Energy, Forestry, Wildlife, Fisheries, Mining, Local Government and Health, civil society and the private sector and representatives from DAC. The consultants will report to the Director of Environment and are expected to work closely with the EWG. A core government team is to be established to work with consultants to conduct the study in order to strengthen capacity building and transfer knowledge on the conduct of an environment PER.

5.0 EXPECTED OUTPUT

The consultant shall prepare and submit the following reports in English Language and processed in Word and Excel programs.

5.1 Inception Report (20 hard copies plus ONE diskette)

This report shall briefly describe the planning the consultant has established for the project, staffing, programme of the execution of the work and initial findings as deemed necessary. The report shall be submitted not later than two weeks after signing of the contract. The client will provide comments within one week.

5.2 Interim Report (20 hard copies plus ONE diskette)

The interim PER 04 report for the Environment sector shall be submitted by 10th November 2003. The client's comments will be available within **one week** of the receipt of the interim report. The interim report shall cover among other things a summary of progress to date and an outline of final report together with a summary of initial conclusions answering objectives of the study, policy implications and recommendations of the PER 04.

A checklist of guidelines for mainstreaming environmental issues in the planning and budgeting processes at all levels as well as monitoring and evaluation criteria. The checklist will be submitted as part of the interim report.

Details of structure of final report are provided in Annex 1 A.

- 5.3 A draft report by 1st December 2003 for review by ESWG and PER macro working group. This report should summarize the analysis, conclusions and recommendations answering the objectives of the study. Policy recommendations must be clearly presented and be practical and realistic in terms of changes in environment expenditure within MTEF. An indicative structure for the report is given in Annex I B. The client will submit comments on the draft report within a week of the consultant's submission.

- 5.4 Final Report (20 copies plus TWO diskettes)

The final report shall be submitted within a week after receiving the client's comments on the draft report (both in soft disc and hard copies). This report shall incorporate all revisions deemed necessary arising from comments received from the client, following discussions and agreement between the client and the consultant. The consultant must append all comments agreed and those disagreed with the client. The checklist of all those activities mentioned in these TOR should also be appended for indication that the consultant has complied, i.e.:

- a) A concise PER report for the environment sector. (Maximum 50 pages excluding appendices)
- b) An accessible summary on the principal conclusions, policy implications and recommendations of the PER 04 for wider distribution to the public (maximum 5 pages).
- c) A draft Medium Term Expenditure Framework (MTEF), 2004/05 – 2006/07 for the VPO and NEMC including an input into the frameworks for the other key sectors reflected in the 3.3 above.
- d) Detailed tables showing budget, actual and committed expenditure, revenue and notes on how various estimates were arrived at.

6.0 KEY STAFF OF THE CONSULTANT

The consultant will have expertise in economic planning, budgeting, environment and natural resources management, environmental economics and human resources management. He will further be familiar with environmental and related institutional reforms. The Team Leader should be an Environmental or Natural Resources expert or an Economic Planner with a minimum of 10 years experience and preferably have participated in the PER processes. For facilitation of this exercise the experts are envisaged to form three teams for collection of data on the VPO (DoE and NEMC) which are based in Dar es Salaam; Districts and urban authorities based in Dodoma and one for the key sectors in Dar es Salaam.

7.0 THE VPO'S INVOLVEMENT.

The Vice Presidents' Office and NEMC shall attach five (5) professional staff to work with the Consultant in all aspects of the study; and expenses for their participation shall be built within the project costs.

8.0 TIME FRAME

Management Arrangements and Time Schedule for Consultancy Services and Reporting.

The consultant will sign the contract agreement with the Permanent Secretary of Ministry of Finance (MoF) and the overall coordinator of the PER process will be the Chair of the EWG 04.

The study will be carried out from October 2003 to December 2003.

A total input of maximum 6 person-months to carry out the study is envisaged. The final report is to be submitted within 2½ months after signing of the contract for the study. The time schedule shall be as follows:-

a) Effective date of contract	06/10/2003
b) Inception Report	20/10/2003
c) Interim Report	10/11/2003
d) Draft Report	01/12/2003
e) Final Report	15/12/2003

ANNEX I STRUCTURE OF REPORTS

Indicative structures for the interim and final reports are given below. The consultants are expected to adapt this structure based on the outputs of the study, but any structure they develop should contain the basic elements as given below.

A. Interim Report

1. Summary of progress to date.
2. Draft Guidelines for mainstreaming environmental issues in the planning and budgeting processes
 - a. Introduction to guidelines
 - b. Overview of environment and poverty issues
 - c. Definition of environmental expenditure
 - d. Overview of present levels of environmental expenditure by sector on one hand, and by district and urban authorities on the other.
 - e. Priority areas for expenditure on environment by sector and by district and urban authorities.
 - f. Guidelines on areas that sectors need to consider for environment mainstreaming in preparing PER and national budgets.
 - g. Proposed monitoring and evaluation criteria for environmental expenditure.

3. A draft Medium Term Expenditure Framework (MTEF) 2004/05 – 2006/07 for the environment sector and detailed tables showing budget, actual and committed expenditure, revenue and notes on how various estimates were arrived at.
4. Revised outline of final report.

B. Final report

1. Executive summary (maximum of 5 pages)
2. Introduction
 - a. Purpose and objectives
 - b. Rationale for study
 - c. Methodology including sources of information
 - d. Issues: constraints and opportunities.
 - e. Outline of report
3. Environment and poverty policies and priorities
 - a. Brief review of national environmental and related policies and poverty eradication objectives
 - b. Overview of sector programmes and strategies addressing environmental issues.
 - c. Analysis of priority areas for environment sector to address poverty reduction objectives and targets.
4. Environmental expenditure:
 - a. Definition of environmental expenditure
 - b. Analysis of environmental expenditure by sector and district and urban authorities.
 - c. Analysis of expenditure against the 6 key priority environmental problems and poverty reduction objectives
 - d. Proposals on levels of expenditure to address priority environmental problems and poverty reduction objectives.
 - e. Scenarios of future MTEF budgets and interventions for bridging resource gaps (See Annex V).
5. Environmental revenue:
 - a. Identification and description of environmental revenue; including that from natural resources – mining, industries, energy, health, water, fisheries, forestry, and wildlife; and, from environmental levies and taxation.
 - b. Analysis of the levels environmental revenue by sector and local government.
 - c. Options for increased and sharing of environmental revenue.
 - d. Outline of future work required on environment revenue and potential of “environmental” taxes.
6. National income and growth:
 - a. Contribution of environmental resources to national income.
 - b. Assessment of dependence of growth and poverty reduction targets on sustainable use of environmental resources.
 - c. Analysis of further work to undertake on economic valuation of environmental resources, and national accounting.

7. Capacity building for environmental management:
 - a. Outline of capacity building needs for environmental management for central environment agencies, sectors and district and urban authorities.
 - b. Assessment of expenditure needed to meet capacity building needs
 - c. Outline of capacity building programme. (Provided as Annex).
8. Expenditure on the implementation of multilateral and bilateral environmental agreements.
 - a. Summary of multilateral and bilateral environment agreements
 - b. Analysis of commitments required to implement agreements
 - c. Analysis of present aid flows provided for implementation
 - d. Outline proposal on way forward to meet financial commitments for full implementation of agreements (full proposal given in Annex).
9. Conclusions and Recommendations
 - a. Summary of major findings
 - b. General conclusions from the study
 - c. Outline of budget guidelines on environmental expenditure (full guidelines given in Annex)
 - d. Recommendations
10. References
11. Annexes
 - I. Terms of reference of study
 - II. Persons and institutions consulted
 - III. Guidelines for mainstreaming environmental issues in the planning and budgeting processes at all levels.
 - IV. (a) Expenditure, revenue and budget MTEF tables for FY 2004/05 – 2006/07.
(b) Environmental budgets inputs into other sectors' MTEFs, for years 2004/05 – 2006/07.
 - V. Outline of Capacity Building Programme.
 - VI. Proposal on Financial Commitments necessary for meeting obligation to Environment Agreements.

APPENDIX II: PERSONS AND INSTITUTIONS CONSULTED

Dr. Mkumbo	Acting, Chief Conservator, Ngorongoro Conservation Area Authority
Dr. Magnus Ngoile	Director General, National Environment Management Council (NEMC)
Dr. S. Mwinjaka	Agricultural Officer, VPO
Eng. Kolobelo	Acting City Director, Mwanza City
Eng. Maganga	Environmental Engineer, Mwanza Urban Water Supply & Sanitation (MWAUWASA)
Eng. Z. Mihayo	Executive Director MWAUWASA
Mr. Andulege	Senior Wildlife Officer, Wildlife Division, MNRT
Mr. G. Bigurube	Director, General, Tanzania National Parks (TANAPA)
Mr. Tarimo	Planning Officer, Wildlife Division, Ministry Of Natural Resources and Tourism (MNRT)
Mr. A.G . Magoma	District Natural Resources Officer, Mufindi
Mr. Achayo	Senior Planning officer/ Economist, Ministry of Agriculture and Food Security
Mr. B.S. Kessy	Planning Department, Forest and Beekeeping Division (FOBD)
Mr. Baraka M. Mngulwi	Senior Planning Officer, Division of Fisheries, Fisheries
Mr. Charles Wangwe	Chief Accountant, National Environment Management Council
Mr. Cletus Shengena	Economist, Vice President's Office
Mr. E.E. Mbonde	Director of Planning and Policy, Commissioner President's Office Regional Administration & Local Government PO-RALG)
Mr. Emil Kayega	Principal Environmental Officer, Vice President's Office
Mr. Eric K. Mugurusi	Director of Environment, Vice President's Office
Mr. F. M. Mkeya	Senior Officer, FOBD, MNRT
Mr. F.E . Mbonde	Commissioner, President's Office Regional Administration & Local Government (PO-RALG)
Mr. G. Manambo	District Executive Director (DED), Mpwapwa District Council
Mr. G. Masi	Accounts assistant, Mpwapwa District
Mr. Gerald Maganga	PER section n, Ministry of Water and Livestock Development (MWLD)
Mr. Ibrahim Musa	Statistician, Director Division of Tourism, MNRT
Mr. Idris Mzimhiri	Chief Administrative officer, National Environment Management Council
Mr. Julius Enock	Environmental Engineer, Vice President's Office
Mr. Kaduma	Senior Officer, Planning Department, Livestock Division, MWLD
Mr. Kakunda	Planning Dept., Ministry of Water and Livestock Development
Mr. Kaunara Sigfrid	Ag. Municipality Director, Iringa
Mr. Kimasa	Senior Planning Officer, Planning Division, MNRT
Mr. Kwelukilwa	Ag. Director of Fisheries
Mr. Leonard Lyimo	Principal Forest Officer, FOBD, MNRT
Mr. Magesa	District Planning Officer (DPLO), Mpwapwa
Mr. Magoma	Planning Officer, MNRT
Mr. Magomba	Ministry of Health
Mr. Martin Mwanukuzi	Ministry of Education
Mr. Mashurano	Senior Forest Officer, FOBD
Mr. Mawere	Officer, Natural Resource Office, Iringa Municipality
Mr. Mbagu	Senior Planning Officer, Planning and Privatisation Division, The President's Office
Mr. Mgonja	Senior Planning Officer, Division of Wildlife

Mr. Mlongo	Acting City Economic planning officer (CEPO), Mwanza City
Mr. Pastory	Accountant, Permanent Secretary Office, MNRT
Mr. R.S. Muyungi	Assistant Director – Environmental Impact Assessment, Vice President’s Office (VPO)
Mr. R. Yonazi	Assistant Director, Division of Environment, Vice President’s Office
Mr. R.R. Mapunda	Acting Director of Fisheries Division
Mr. Ruzika Muheto	Director of Environmental Planning and Research, NEMC
Mr. S.D. Kabula	Acting DED, Mufindi
Mr. Salehe Pamba	Director, Division of Tourism, MNRT
Mr. Taratibu	Economist, Planning, Lands
Mr. Abdalla Shah	Poverty-Environment Officer, Poverty Eradication Division (PED), VPO
Mr. Abdallah Mwanauta	Wildlife Division, MNRT
Mr. Achayo	Senior Planning officer, Ministry of Agriculture and Food security
Mr. Angelo Haule	Senior Officer, Budget Department, Ministry of Finance
Mr. B.T Baya	Director of Environmental Compliance and Enforcement, NEMC.
Mr. David Howlett	Poverty Environmental Adviser, Poverty Eradication Department (PED), VPO
Mr. J. Qamara	Senior Agricultural Officer, VPO
Mr. Jean-Noël Duff	Environmental Unit, Road Sector
Mr. Mhauka	Engineer, Ministry of Works
Mr. S.R. Nkondokaya	Fisheries Officer, VPO
Mr. Sekibaha	Environmental Coordinator Environmental Coordinating Unit, PO-RALG
Mrs. Assey M.S.	Environmental Unit, Road Sector
Mrs. Kivaria	Ministry of Education
Mrs. Anna Maembe	Director of Environmental Information, Communication and Outreach, NEMC
Mrs. Esther Kerario	Director of Environmental Impact Assessment, NEMC
Mrs. Lyapa	Chief Accountant, Ministry of Agriculture and Food Security
Mrs. Mkamba	Senior Officer, FOBD
Ms. A. Madete	Assistant Director - Pollution Prevention and Control, VPO
Ms. Indu Hewawasam	World Bank, Dar es Salaam
Ms. Fainahappy Kimambo	Environmental Officer, Vice President’s Office
Ms. Juliet Michael	Planning Officer, Mpwapwa
Ms. Minzi	Bank of Tanzania
Ms. Mzava	Gender Desk Officer, PO-RALG
Prof. S. Iddi	Director, Forest and Beekeeping Division, MNRT
Mr. Y. I. Msawanga	Administrative Officer, VPO

APPENDIX III: DRAFT GUIDELINES FOR MAINSTREAMING ENVIRONMENTAL ISSUES IN THE PLANNING AND BUDGETING PROCESSES AT ALL LEVELS

Introduction

This section provides draft guidelines for mainstreaming environmental issues in the planning and budgeting process at all levels. Essentially they are concerned with mainstreaming environmental issues in various sectors. They have strongly recognizes the importance of poverty-environment linkage because of the poor peoples' dependence on natural resources for their socio-economic well being. Additionally, poor people get affected by the impact caused by environmental degradation because their livelihoods depends on natural resources. Thus, there is a cause and effect interrelationship between poverty and environmental resources such as water, wildlife, forests, land and fishery.

The poor people are also vulnerable to external factors such as changes in climate, which usually may lead into extreme draught, floods, earthquake and other man-made calamities like civil war, and unequal economic relationships through globalization process.

However, lack of knowledge and financial resources is a constraint to the sustainable management of natural resource by the poor, leading into over-exploitation (mining) of the natural resources. Therefore the life of the poor is always characterized by short-term exploitation of environmental resources rather than long-term sustainable use, hence perpetuating poverty and environmental degradation and vice versa.

Environmental degradation can also be caused by various sectoral development activities, which in turn leads into destruction of natural resources, hence undermining the livelihoods of the poor people. Development activities may also lead into destruction of poor people's housing, agricultural lands and completed displacement of the poor from their lands. For example, a road development project if not properly planned may result into degradation of water sources through sedimentation / siltation (e.g. rivers, lakes) and deforestation. It can also cause loss of wetland ecosystem (e.g. mangrove swamps) which is the natural habitat for numerous invertebrates, and micro-organisms on which fish are dependent. Thus, destruction of such a wetland ecosystem may indirectly lead into loss of fish catch and income to the poor people.

Therefore, while it is important that poverty-environment linkage should be given a concern in various sectors, it is crucial that public sectors should mainstream environmental concern into their budget planning. It is therefore recommended that various public sectors should establish how their development activities affect environmental resources and services on which the poor people depend.

This sub-section outlines some guidelines for mainstreaming environmental issues in the planning and budgeting process at all levels. However, the guidelines only provides checklist of issues without giving detailed budgeting processes. This aspect shall be considered when conducting the next PER.

DRAFT CHECKLIST OF ISSUES FOR MAINSTREAMING ENVIRONMENTAL ISSUES IN PLANNING AND BUDGETING PROCESS

	ENVIRONMENTAL ISSUES	EFFECT ON POOR PEOPLE	PROPOSED ACTION
1.	Land Impact: <ul style="list-style-type: none"> – land acquisition – displacement – loss of agricultural/ grazing land – other indirect impacts – landscape degradation – soil pollution 	Loss of access, availability and quality of land	Devise mitigation measures to minimize impacts: <ul style="list-style-type: none"> - Resettlement plan - Compensation plan Adapt / incorporate land management plan in your sector
2.	Forest resource Impact: <ul style="list-style-type: none"> – Loss of forest / vegetation cover – Increased over-exploitation due to increased access to forest land. – Loss of vegetation due to creation of access road through forests – Deforestation due to bush fires 	Loss Of Fuel Wood, Charcoal, Non-Timber Products, Soil Erosion On Bare Lands	Promote use of energy efficient stoves or alternative sources of energy (e.g. photovoltaic systems, solar, wind, etc) Incorporate better forest management practice. Promote agro-forestry or afforestation campaigns.
3.	Water resource Impact: <ul style="list-style-type: none"> – loss of access to water sources – degradation of water quality (pollution) – increased cost of water – increased run-off hence floods – alteration of water flows / drainage pattern – loss of fish catch – Biodiversity/habitat loss due to water deviation 	Loss of access to good quality water and loss of income due to declined fish catch Increased water borne diseases due to water pollution Damage to agricultural lands and houses by floods	Develop mitigation measures to minimize impacts Include water management component into your sector plans
4.	Wetlands Impact: <ul style="list-style-type: none"> – destruction of wetland areas – wetland pollution – damage to recharge zone of wetland areas – loss of biodiversity 	Loss of cultivable wetland areas Loss of fish catch and other wetland natural resource	Develop mitigation measures to minimize impacts Incorporate better wetland management practice in collaboration with local communities
5.	Wildlife <ul style="list-style-type: none"> – increased access to wildlife hunting areas – destruction of wildlife habitats – killing of wildlife due to roads passing through game reserves / national parks, etc. 	Loss of food (game meat) and income Fragmentation of wildlife habitats leading into migration into human settlement, hence damage to crops and loss of life	Develop mitigation measures to minimize impacts Incorporate better wildlife management practice in collaboration with local communities
6.	Air quality Impact: <ul style="list-style-type: none"> – dust emission and exhaust fumes 	Health hazards (e.g. respiratory diseases, lung cancer, TB and stillbirths in pregnant women) Loss of ability to work and generate income	Develop mitigation measures to minimize air pollution Promote the use of cleaner technologies, especially in urban areas

Notably, further work is required to complete the above draft guidelines.

APPENDIX IV: CHECKLIST OF ENVIRONMENTAL EXPENDITURE

Presented in the table below are checklist of environmental expenditure for various sectors.

Sector	Areas of Environmental expenditure
VPO and NEMC	Biodiversity conservation, Environmental supervision and coordination, Environmental Policy, Environmental Impact Assessment, Cleaner Production, International conventions and treaties.
PO-RALG	Land management, Afforestation Awareness campaigns, Beekeeping Forest/agriculture extension, Fish farming, Pollution control. Sewerage/ effluent/ waste disposal, Management of livestock routes
Agriculture	Soil conservation, Land use Proper land use/ extension service, Water resource conservation River basin management activities
Wildlife	Involvement of stakeholders, /participation. Wildlife management. Policy issues, law enforcement, Awareness raising, Habitats and biodiversity protection. Capacity building, Research, Infrastructure maintenance, Survey and gazetment, Institutional Strengthening. Buffer zones management
Forest and Beekeeping	Policies issues, Forests Conservation and Management, Afforestation, Law enforcement, Strategic analysis and planning, Capacity building, Awareness/Extension and technical services, Information Management, Mapping, Research,
Water	Water quality/ pollution control, Water supply ,Strategic planning River Basin Management
Fisheries	Management and control of aquatic resources, Disposal of hazardous waste, Creation of Marine Reserves/ Parks, Awareness raising. Fish farming, Research, Consultative forums Policy and legislation issues, Fish quality.
Lands	Land use data, Survey and Mapping, Settlements planning, Aerial photography, Training, Awareness raising , Preparation of Land Use Plans, Protection of environmentally sensitive areas, Land Management
Tourism	Protection of Antiques, Tourism promotion, Capacity building, Management of Archives, International co-operations, Review of policy and legislation, Information dissemination, Investments improvement
Education	Environmental education
Health	Treatment of hazardous hospital wastes Sanitary water Indoor pollution/contamination Water borne diseases
Roads	Establishment of environmental unit, Environmental training
Mining	Pollution control
Energy	Alternative source of wood fuel
HIV and AIDS	Awareness raising Treatment

APPENDIX V: THE ENVIRONMENTAL MANAGEMENT FUNCTIONS OF EACH INSTITUTION

	INSTITUTIONS	FUNCTIONS / RESPONSIBILITIES
1.	National Advisory Committee	<ul style="list-style-type: none"> a) To advise the Minister for Environment on any matter with regards to environment; b) Examine and recommend any matter referred to it by the Minister or Sector Ministry; c) Review and advise the Minister on any environmental plans, EIA of major projects and activities; d) Review the achievement by Council of objectives, goals and targets set by the council and advise the Minister accordingly; e) Review and advise the Minister on any environmental standards, guidelines and regulations; f) Receive and deliberate reports from sector ministries on the protection and management of the environment;
2.	Directorate of Environment (DOE)	<ul style="list-style-type: none"> a) Coordinate various environmental management activities undertaken by other agencies and promote integration of environmental considerations into development policies, plans, programmes, strategies, projects; b) Undertake strategic environmental risk assessment with a view to ensuring the proper management and rational utilization of environmental resources on a sustainable basis for the improvement of the quality of human life in Tanzania; c) Advise the Government on legislative and other measures for the management of the environment or the implementation of the relevant international agreements in the field of environment; d) Advise the Government on international environmental agreements to which Tanzania should be a member or withdraw its membership; e) Monitor and assess activities being carried out by relevant sector Ministries and agencies in order to ensure that the environment is not degraded by such activities, environmental management objectives are adhered to and adequate early warning on impending environmental emergency is given; f) Prepare and issue a report on the state of the environment in Tanzania and, in this regard may, direct any agency to prepare and submit to it a report on the state of the environment under the administration of that agency; g) Coordinate issues relating to articulation and implementation of the National Environment Policy and issues relating to environmental management aspects of other policies
3.	National Environment Management Council (NEMC)	<ul style="list-style-type: none"> a) Collaborate with Sector Ministries in all matters concerning environment such as: b) Environmental audits; inventory of natural resources and their utilization and conservation; c) Establish and review in consultation with other agencies, land use guidelines; d) Examine land use patterns with view to determine their impact on the quality and quantity of natural resource; e) Carry out surveys to assist proper management and conservation of the environment;

INSTITUTIONS		FUNCTIONS / RESPONSIBILITIES
		<ul style="list-style-type: none"> f) Undertake and coordinate research, investigation and surveys in the field of environment and disseminate information / findings; g) Review and recommend for approval of environmental impact statements; h) Identify projects and programmes or type of projects and programmes, plans and policies that need environmental audit and monitoring; i) Enforce and ensure compliance to the national environmental quality standards; j) Initiate and develop procedures and safeguards for the prevention of accidents that may cause environmental degradation and propose remedial measures; k) Undertake in cooperation with relevant sector ministries programmes intended to enhance environmental education and public awareness; l) Publish and disseminate manuals, codes or guidelines relating to environmental management and prevention or abatement of environmental degradation; m) Render advice and technical support, where possible, to entities engaged in natural resources management and environmental protection so as to enable them carry out their functions;
4.	Sector Ministries	<ul style="list-style-type: none"> a) Advise on and in collaboration with other ministries / bodies implement the policies of the Government on the protection and management of the environment; b) To coordinate the activities related to the environment within the ministry; c) To ensure that environmental concerns are integrated into the ministry or departmental development planning and project implementation in a way that protects the environment; d) To collaborate with other institutions or agencies, evaluate existing and proposed policies and legislation and recommend measures to ensure that those policies and legislation take adequate account of effects on the environment; e) To prepare and coordinate the implementation of the environmental action plans at the national and local levels as required by the legislation; f) To promote public awareness of environmental issues through educational programmes and the dissemination of information; g) To refer to the Council (NEMC) any matter related to the enforcement; h) To undertake strategic environmental assessment of sectoral legislation, regulation, policy, plans, strategies and programmes; i) To ensure that sectoral standards are environmentally sound and oversee the preparation and implementation of environmental impacts assessment (EIA) for investments in the sector; j) To ensure compliance to various regulations, guidelines and procedures issued by the Minister and; k) In conjunction with the Minister responsible for local government, to provide environmental advice and technical support to district level staff working in the sector

	INSTITUTIONS	FUNCTIONS / RESPONSIBILITIES
5.	Regional Secretariat	a) Coordination of all advises on environmental management in their respective regions and liaises with the Director of Environment (VPO) and the Director –General (NEMC) on the implementation and enforcement of the Environmental Management Act.
6.	Local Government Authorities (Environmental Management Committees)	a) Ensure enforcement of Environmental Management Act in respective areas of jurisdiction; b) Promote environmental awareness in their areas on the protection of the environment and conservation of natural resource; c) Collection and management of information on the environment and utilization of natural resources; d) Monitor the preparation of, review and approval of environmental impact assessments (EIAs) for local investments; e) Review by-laws on environmental management and on sector specific activities related to environment; f) Liaise with the Office of the Director of Environment (VPO) and NEMC on the implementation of environmental policy objectives, including the implementation of the Environmental Management Act;
7.	Township, Division, Ward, Village, Hamlet (Kitongoji / Mtaa) ¹¹ :	a) Proper management of the environment; b) Carry all directives given to them by the Minister in relation to the promotion and enhancement of sustainable management of the environment; c) Perform any other function or discharging any other duty relating to ancillary or incidental to proper management of the environment as are provided for under the Local Government (District) Authorities Act, 1982.

¹¹ Standing Committees of Economic Affairs, Works and Environment of Township established under Sub-section (1) of Section 96 of the Local Government (District Authorities) Act, 1982; and Section 107 of the Local Government (District Authorities) Act, 1982 and Ward Development Committees established under sub-section (1) of Section 31 of the Local Government (District Authorities) Act, 1982.

APPENDIX VI: CENTRAL, SECTORAL AND CROSSCUTTING POLICIES

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
1.	LANDS	National Land Policy (1995);	<p>To facilitate socio-economic development and environmental protection.</p> <p>To promote and ensure secure land tenure system;</p> <p>To encourage optimal use of land</p>	<p>Identifies the need for protecting environmentally sensitive areas, hence in line with national environmental policy objectives.</p> <p>It incorporates gender issues in land management as a means to address poverty eradication strategy.</p> <p>Involvement of various stakeholders in land management provides an opportunity to effectively address environmental issues</p>
	LANDS	National Human Development Policy (2000)	<p>To create employment and eradicate poverty;</p> <p>To protect the environment and natural ecosystems from pollution, degradation and destruction;</p> <p>To promote capacity building in shelter delivery, human settlement development and environmental management;</p>	<p>Recognizes the importance of social services such as water, roads, energy, schools, health services, drainage, sewerage systems, solid waste management for environmental protection;</p> <p>Identifies lack of environmental awareness among the local communities as a constraint in environmental protection, hence the need to involve local authorities in conducting environmental awareness campaigns;</p> <p>Identifies urban agriculture¹² as one of the important factor in environmental degradation, hence the need for appropriate mitigation measures;</p> <p>Identifies women as the most affected group by environmental degradation and lack of social services, hence the need to involve them in land use planning and decision making</p>

¹² Urban agriculture includes cultivation of crops, horticulture, floriculture, dairy farming, pigs keeping, poultry and aquaculture.

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
4.	MINING	The Mineral Policy of Tanzania (1997)	To ensure sustainable economic and social development and minimize or eliminate social and environmental impacts due to mining activities.	<p>Recognizes the importance of protecting the environment. Women and children issues are addressed.</p> <p>Gives emphasis on promoting artisanal and small-scale mining.</p> <p>Its mission / vision focuses on rural communities.</p> <p>It recognizes the need for achieving environmental and social sustainability;</p>
5.	BEEKEEPING	National Beekeeping Policy (1998)	To enhance sustainable contribution of beekeeping sector for socio-economic development and environmental conservation.	<p>Identifies the need for use of environmentally sound technologies in beekeeping activities.</p> <p>Recognizes the importance of participation into environmental agenda at international level.</p> <p>It recognizes the poverty-environment linkage indirectly through the NEP (1997).</p>
5.	FORESTRY	National Forest Policy (1998);	To enhance the contribution of the forest sector to sustainable development and conservation of and management of natural resources for the benefit of present and future generations.	<p>Identifies the need for adjusting royalties and other fees to reflect their economic value.</p> <p>Recognizes the importance of environment and natural resource protection</p> <p>Emphasizes community forestry and participation of NGOs, Private, etc;</p> <p>Emphasizes application of EIA in development projects.</p>
6.	WILDLIFE	The Wildlife Policy of Tanzania (1998)	<p>Wildlife protection through establishment of Protected Areas (PA) networks and Wildlife Management Areas (WMAs) in collaboration with surrounding communities;</p> <p>To foster international cooperation through involvement of donors and other conservation agencies and participation in international treaties and conventions</p>	<p>Conforms with Development Vision 2025 on environmental sustainability;</p> <p>Recognizes the need for poverty alleviation.</p> <p>Community and other stakeholder participation in wildlife conservation.</p> <p>Recognizes the importance of interaction / cooperation with other sectors especially tourism, agriculture, water, minerals and environment.</p>

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
7.	AGRICULTURE	Agriculture and Livestock Policy (1997);	<p>Basic food security and improve standards of nutrition and improve standards of living in rural areas;</p> <p>To promote integrated and sustainable use and management of natural resources;</p> <p>Promote access of women and youths to land, credit, education and information.</p>	<p>Recognizes the dependence of agriculture on environmental resources, hence the need for environmental protection.</p> <p>Identifies the important role played by women in agriculture, hence the need for gender sensitisation.</p> <p>Identifies the need for developing mechanism for linking agriculture sector with other sectors in protecting and enhancing the environment.</p>
8..	TOURISM	National Tourism Policy (1999)	<p>To promote ecologically friendly and environmentally sustainable tourism;</p> <p>To preserve and better manage the country's rich cultural and natural heritage.</p>	<p>Recognizes the importance of environmental protection and biodiversity conservation.</p> <p>Identifies the important role played by various stakeholders, including women.</p>
9.	FISHERIES	National Fisheries Sector Policy and Strategy Statement- (1997)	<p>To protection of fisheries resource and environment;</p> <ul style="list-style-type: none"> - Aquaculture development; - Communal participation; - Fisheries information management; - Gender and fisheries sector development; - Inter-sectoral collaboration; - Integration of fisheries into coastal area management. 	<p>Recognizes the need for poverty alleviation and environmental protection.</p> <p>Recognizes the need to empower women in fishing industry, hence poverty reduction</p>
10.	INDUSTRY	Sustainable Industrial Development Policy- SIDP (1999-2020), 1996	<p>To promote human development and creation of employment;</p> <p>To promote economic transformation for sustainable economic growth</p> <p>To increase sector's contribution to equitable development and environmental sustainability</p>	<p>Recognizes the need for promoting environmentally friendly and ecologically sustainable industrial development as one of the important policy strategy</p>

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
11.	INDUSTRY	Construction Industry Policy (2002)	<p>Promote environmentally friendly practices, technologies and products;</p> <p>Promote the capacity and competitiveness of local construction enterprises;</p> <p>Improve the capacity and performance of the public and private sector</p>	<p>Outlines policy strategies for environmental protection through research programmes to support application of environmentally friendly technologies, products and practices;</p> <p>Outlines the need to promote education and training programmes on environmental sustainability of construction practise and human safety.</p> <p>It underscores the need to establish procedures for Environmental Impact Assessment of all projects and enforce their application</p> <p>Poverty alleviation issues are addressed through emphasis on human settlement development and performance improvement of informal construction sector.</p>
12.	ENERGY	The Energy Policy of Tanzania (1992)	To provide an input into the development process of the country through establishment of an efficient energy production, procurement, transmission, transportation, distribution and end-users system.	<p>Identifies the interdependence between man and environment.</p> <p>Recognizes the need for environmental impact assessment at different stage of energy conversion process.</p> <p>Identifies the linkage between energy production, transmission, transportation and utilization and health & safety of energy worker and end-user.</p>
13.	HEALTH	National Health Policy (1990)	<p>Reduce infant and maternal morbidity and mortality and increase life expectancy;</p> <p>Ensure availability and accessibility of health services in urban and rural areas;</p> <p>a) Community sensitization on common preventable health problems and to create awareness through family health promotion on the responsibility of able-bodied individuals</p>	<p>Poverty alleviation issues are taken into consideration in the sector.</p> <p>It addresses health issues at all levels through decentralization.</p> <p>Cooperation with other sectors such as water, agriculture, education, and community development is emphasized.</p> <p>a) It addresses environmental issues by emphasizing on the importance of access to clean and good quality water supply and sanitation.</p>
14.	WATER	National Water Policy (2002)	<p>To improve health and alleviate poverty of rural people through improved access to adequate and safe water (Rural Water Supply)</p> <p>To achieve sustainable, effective and efficient development and management of urban water supply and sewerage services.</p>	<p>Recognizes the need for environmental impact assessment at design and planning stage of Rural Water Supply and Sanitation (RWSS) and for Urban Water Supply and Sewerage (UWSS) projects.</p> <p>It recognizes the importance of water to other sectors such as agriculture, livestock, industry, mining, energy, etc.; hence the need for cross-sectoral coordination.</p>

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
15.	TRANSPORT	National Transport Policy (2003)	<p>To improve rural transport infrastructure to reduce rural travel burden;</p> <p>To influence the use of alternative energy sources to wood such as bio-gas and solar;</p> <p>To raise environmental awareness among the rural people.</p> <p>Carry out an Environmental Impact Assessment (EIA) for all transport projects and ensure that construction and maintenance works adhere to environmental protection guidelines;</p> <p>Ensure continuous environmental impact assessment in the provision of transport services; and</p> <p>Ensure that both local and foreign investors and operators are involved in the development of infrastructure and operations coupled with environmental protection</p>	<p>It emphasizes the application of EIA Environmental in all transport projects.</p> <p>The policy recognizes the importance of various national strategies / programmes such as:</p> <ul style="list-style-type: none"> - National Poverty Eradication strategy; - Rural development Strategy (RDS); - Civil Service Reform Programme; - Parastatal Sector Reform Programme; <p>It addresses the need for private sector involvement; gender issues; environmental sustainability and eradication of diseases and literacy.</p> <p>It recognizes the need for consideration of disadvantaged groups, especially in urban transportation</p>
16.	CROSSCUTTING	National Policy on HIV and AIDS (2001)	<p>To create and sustain increased awareness of HIV and AIDS and prevent further transmission of HIV and AIDS;</p> <p>To promote early diagnosis through HIV voluntary testing;</p> <p>To provide counselling in HIV and AIDS and care for People Living with HIV and AIDS (PLHAs);</p> <p>To strengthen the role of all sectors and other stakeholders and provide framework for coordination and collaboration;</p>	<p>Recognizes the significant negative impact of HIV and AIDS on the growth in GDP and Poverty;</p> <p>Recognizes the need for the government to finance national response to HIV and AIDS;</p> <p>The policy is based on some specific guiding principles based on the human rights conventions including the International Conference on Population and Development (ICPD, 1994), the Beijing Conference (1995) and the Copenhagen World Social Summit (1995).</p>

	SECTOR	POLICY	OBJECTIVES	ASSESSMENT INDICATORS
			<p>To participate in HIV and AIDS research and establish a system to disseminate scientific information;</p> <p>To create legal framework for HIV and AIDS to address legal and ethical issues in HIV and AIDS</p>	
17.	CROSSCUTTING	National Gender Policy (1992)	<p>To create an atmosphere which gives equal opportunities for all to participate and implement development activities without gender bias including sex.</p> <p>To make sure that communities are educated about environmental degradation which becomes a burden for women, especially in fetching fire wood and water;</p>	<p>Identifies environment degradation as one of the major factors that increase work burden to women, especially in rural areas where the women walk long distance to fetch water and firewood;</p> <p>Recognizes the need to promote awareness campaigns at all levels on the importance of gender balance in the formation of environmental protection committees;</p> <p>It recognizes the need for involvement of women to participate in environmental protection in their surroundings</p>
18.		Women and Gender Policy (2000)	<p>To improve opportunities for women and men play equal roles in the society based on specific gender requirements.</p> <p>To minimize limited participation of women in economic development activities.</p>	<p>Focuses on using available resources to increase incomes, eradicate poverty and improve living standards.</p> <p>Recognizes the linkage between poverty and environment as it associates environmental degradation with increased poor women's burden.</p> <p>It calls for full participation of women in natural resource management and encourages the rational use of natural resources.</p>

APPENDIX VII: CAPACITY BUILDING REQUIREMENTS

	Institution	Capacity Building Requirements <i>(These are areas where capacity need to developed by way of short and long term training, seminars, workshops, study tours, conferences, on job training etc)</i>
1.	National Advisory Committee	<ul style="list-style-type: none"> ✓ Analytical skills especially on policy issues and environmental regulations ✓ Policy coordination and exposure to Vision 2025 and how it related to environment ✓ Lobbying skills in order to ensure that environmental issues are given priority and budget estimates are pushed through ✓ Sector knowledge and speciality ✓ Environmental strategic thinking abilities
2.	Vice President's Office - Directorate of Environment	<ul style="list-style-type: none"> ✓ Awareness and sensitisation of all the National Policies and how they relate to the environment. This can be done through workshops and seminars. A consultant can be invited to educate and introduce staff of VPO on different National Policies. Alternatively, VPO can commission a consultant to draw up the environmental implication of each and every National Policy and present his findings to them in the form of a workshop. ✓ Environmental strategic thinking abilities ✓ Environmental laws and International laws on environment and their implications on the local legislations ✓ Exposure and access to all environmental agreements and how they affect us. Capacity can be built in terms of attending these international conventions also subscriptions to various international agencies coordinating these conventions. ✓ Monitoring and evaluation skills including familiarisation with some of the best M&E software available ✓ Report writing skills ✓ Presentation skills ✓ Negotiation skills
3.	National Environment Management Council (NEMC)	<ul style="list-style-type: none"> ✓ Project Management skills and this would involve planning and coordination skills, resource mobilisation and organisations of project manpower. ✓ Exposure to local and international environmental audit standards and guidelines ✓ Research and report writing skills ✓ Land use expertise ✓ Environmental Impact Assessment methodologies ✓ Extensive knowledge of environmental management and all issues pertaining to that ✓ Exposure to International Health, Safety and Security standards on environmental projects ✓ Mass communication skills ✓ Presentation skills ✓ Monitoring and Evaluation skills ✓ Environmental Supervision and enforcement skills

	Institution	Capacity Building Requirements (These are areas where capacity need to developed by way of short and long term training, seminars, workshops, study tours, conferences, on job training etc)
4.	Sector Ministries	<ul style="list-style-type: none"> ✓ Coordination and follow up skills. This will entail training in areas like general management, time management and allocation, stakeholder analysis techniques etc. ✓ Mass communication skills to cover management and production of radio and TV programmes, publications mass campaign techniques ✓ Strategic environmental thinking process. This can be a tailor made kind of a course and mostly these can come in the form of short course. ✓ Working knowledge of environmental regulations and legislations. ✓ Environmental Impact Assessment methodologies ✓ Presentation skills ✓ Monitoring and Evaluation skills ✓ Research and Report writing skills ✓ Project Management
5.	Regional Secretariat	<ul style="list-style-type: none"> ✓ Coordination and planning skills ✓ Knowledge of the environmental legislations and regulations
6.	Local Government Authorities (Environmental Management Committees)	<ul style="list-style-type: none"> ✓ Knowledge of the Environmental Management Act ✓ Coordination and follow up skills. This will entail training in areas like general management, time management and allocation, stakeholder analysis techniques etc. ✓ Mass communication skills ✓ Environmental management expertise to enable them to monitor, review and approve Environmental Impact Assessments for local investments ✓ Information management skills. This can be implemented in the form of training in database management, both manual and computerised, word processing skills and presentations.
7.	Township, Hamlet (Kitongoji), Ward, Street (Mtaa) and Village:	<ul style="list-style-type: none"> ✓ Training on the key salient features of the Environmental Management Act and how it should be implemented and rolled out at their level. ✓ Awareness campaigns and participatory techniques ✓ Environmental supervision and project management ✓ Basic coordination and follow up skills.

APPENDIX VIII: DONOR FUNDING/SUPPORT ALLOCATION TO ENVIRONMENTAL SECTORS FY 2003/2004

The following is a list of donor funded programs in Tanzania in the FY 2003/04 according to the Ministry Of Finance March, 2004. The list indicates names of donors and sectors where the programs are. Additionally, the amount of funding is indicated in Tsh '000,000. As such Tsh 83,590 billion is available for 2003/04 for environmental programs.

Sector	Donor	Program	FY 2003/2004 (Tsh '000,000)
Agriculture	Denmark	Agric. Sector Program Support	393
Agriculture	Denmark	Sustainable Cities- ASPS- HIMA	1,738
Agriculture	France	Reform Extension service	409
Agriculture	Germany/GTZ	Coconut dev Program	64
Agriculture	Germany/GTZ	Integrated Pest Management	125
Agriculture	I FAD	Participatory Irrigation Dev,	4,689
Agriculture	IDA	Agric. Research	4,150
Agriculture	IDA	River Basin Management and Irrigation	1,140
Agriculture	Ireland	Agric sector Dev Program	430
Agriculture	Ireland	Oriental Research	410
Agriculture	Japan	Agric Sectors Dev Program	350
Agriculture	Japan	National Irrigation Master Plan	121
Agriculture	NORWAY	Research Cooperation - TARP II	1,590
Agriculture	Sweden	Soil and Water Cons.	63
Agriculture Total			15,671
Environment	GEF	Lake Tanganyika Mgt Planning	531
Environment	IDA	Lake Victoria Environment	1,440
Environment	GEF/UNEP	National Adaptation Program of Action on Climate Change	200
Environment	USAID	Participatory Environmental and Natural Res. Mgt Project	10
Environment	GEF	Persistent Organic Pollutants (POPS)	498
Environment	UNDP	Small Grants Program	5
Environment	UNDP	Mainstreaming Environment into Poverty Reduction Strategy	601
Environment	GEF (trust Fund)	Development of the National Biosafety Framework	160
Environment	IDA	Lower Kihansi Environmental Project	1,097
Environment Total			4,542
Livestock	EU	Livestock Services Development	3,736
Livestock	Switzerland	Southern Highlands Dairy Dev Program	281

Sector	Donor	Program	FY 2003/2004 (Tsh '000,000)
Livestock Total			4,017
Natural Resource & Tourism	NORWAY	Strengthening Capacity for Environment	5,131
Natural Resource & Tourism	Denmark	Sustainable Cities - Moshi	578
Natural Resource & Tourism	Denmark	Sustainable Cities - Tanga	720
Natural Resource & Tourism	Denmark	Sustainable Cities- Arusha	398
Natural Resource & Tourism	Denmark	Sustainable cities- Mtwara	200
Natural Resource & Tourism	Denmark	Sustainable Cities-Iringa	770
Natural Resource & Tourism	EU	Institutional Strengthening of the Tourist Sector	180
Natural Resource & Tourism	Finland	National Forest Programme	1,516
Natural Resource & Tourism	France	Regional Tourism Support	1,400
Natural Resource & Tourism	France	Rehabilitation of Sites in Kilwa	563
Natural Resource & Tourism	Germany/GTZ	Community Wildlife Mgt	610
Natural Resource & Tourism	Germany/GTZ	Forestry Advisory Services	477
Natural Resource & Tourism	Germany/GTZ	Katavi Rukwa Conservation and Development	534
Natural Resource & Tourism	Germany/GTZ	Sadani Cons and Dev Project	755
Natural Resource & Tourism	Germany/KfW	Forest Policy and Impl. Programme	477
Natural Resource & Tourism	Germany/KfW	Game Reserve and Buffer Zone Rehab.	8,735
Natural Resource & Tourism	IDA	Forest Conservation & Management	11,844
Natural Resource & Tourism	Ireland	Tanga Coastal Zone Programme	100
Natural Resource & Tourism	NORWAY	Mgt of Natural Resources	3,975
Natural Resource & Tourism Total			38,961
PO-RALG	Belgium	Sustainable. Environmental Mgt. Kilombero Valley	305
PO-RALG	Ireland	Ulanga Districts Integrated Project	305
PO-RALG	Sweden	Hesawa (water)	496
PO-RALG	Sweden	Land Use management (LAMP), Babati	425
PO-RALG	Sweden	LAMP- SIMANJIRO	427
PO-RALG	Sweden	LAMP-Kiteto	432
PO-RALG Total			2,390
Water	BADEA	Feasibility Study For Water Supply	1,992
Water	IDA	Rural Water Supply and sanitation	9,998
Water	Japan	Rural Water Supply (Maji Vijijini)	237
Water	Japan	Rural water Supply	5,670
Water Total			17,898
Grand Total			83,480

Source: Ministry of Finance 2004 and VPO 2004

APPENDIX IX (A):PROGRAMMES / PROJECTS IMPLEMENTED TO ADDRESS VARIOUS CONVENTIONS / AGREEMENTS

	PROGRAMMES / PROJECTS	DONOR AGENCY	IMPLEMENTING AND EXECUTING AGENCY	FINANCIAL COMMITMENT	
				DONOR	COUNTRY
1.	Convention for the Protection, Management and Development of the Marine and Coastal Environment of the East African Region and Related Protocols				
(a)	Tanga Coastal Zone Conservation and Development Programme	Irish Government	Implement: Tanga Regional Authority and District Authorities (Muheza and Pangani)	Phase I: Swiss Francs 3.05 Mill. Phase II: Irish £ 1.76 Mill.	
(b)	Tanzania Coastal Management Partnership Project.	USAID	Implement: NEMC	US \$ 3.00 Mill.	-
2.	United Nations Convention to Combat Desertification				
(a)	National Action Programme (NAP) to Combat Desertification. Started on April 1999 (2 years)	UNCCD	VPO (Implementation ongoing)	USD 300,000	
(b)	The Greening of Chipea area –Masasi District	UNSO	Executing: VPO Implementing: MECAA ¹³	Tsh. 3.50 Mill.	
(c)	Strengthening Capacity on NGOs to implement CCD.	UNSO	Executing: VPO Implementing: JET	Tsh. 5.69 Mill.	
(d)	•Tree Nursery and Biogas Plant-Zuzu Village, Dodoma	UNSO	Executing: VPO Implementing: Zuzu Conservation Group (Dodoma)	Tsh. 3.97 Mill.	
(e)	Catalytic Support to the Muungano Women Group (MWG) – Iyumba Village-Dodoma	Australia Government through UNDP / UNSO	Executing: VPO Implementing: Muungano Women Group (Iyumba Village-Dodoma)	US \$ 10.00 Mill.	
(f)	Source and Sinks of greenhouse Gases	UNEP / GEF	Executing: VPO Implementing: CEEST ¹⁴	US \$ 223,587.29	
(g)	Technological and Other Options for the Mitigation of Greenhouse Gases in Tanzania	GTZ ¹⁵	Executing: VPO Implementing: CEEST	US \$ 151,650.00	
(h)	Assessment of Vulnerability and Adaptation of Climate Change Impacts	United States Country Studies Programme	Executing: VPO Implementing: CEEST	US \$ 194,300	

¹³ Masasi Environment, Commercial and Agriculture Association (MECAA)

¹⁴ Centre for Energy Environment, Science and Technology (CEEST)

¹⁵ German Agency for International Cooperation

	PROGRAMMES / PROJECTS	DONOR AGENCY	IMPLEMENTING AND EXECUTING AGENCY	FINANCIAL COMMITMENT	
				DONOR	COUNTRY
(i)	Formulation of a National Action Plan on Climate Change for Tanzania	United States Country Studies Programme	Executing: VPO Implementing: CEEST	US \$ 100,000.00	
(j)	Tanzania Enabling Activities for the Preparation of Initial National Communication Related to the Framework Convention on Climate Change (UNFCCC)	Global Environment Facility (GEF) / United Nations	Executing: VPO Implementing: CEEST	US \$ 254,000.00	
3.	Vienna Convention on the Protection of Ozone Layer				
4.	Montreal Protocol on Substance that Deplete Ozone Layer				
(a)	Phase Out of CFC-11 by Conversion to Methylene Chloride in the Manufacture of Flexible Polyurethane Foam at H.K. Foam Ltd		Executing: UNOPS ¹⁶ Implementing: UNDP Coordinating: VPO	US \$ 113,700	
(b)	Phase out CFCs at Mansoor Daya Chemicals Ltd		Executing: Ministry of Industry and Trade Implementing: UNIDO Coordinating: VPO-National Ozone Office	US \$ 417,163	
(c)	National Refrigerant Management Plan (For the Phase out of ODS in the Refrigeration and Air-Conditioning Sector)		Executing: UNOPS Implementing: GTZ Coordinating: VPO-National Ozone Office	US \$ 218,300	
5.	Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal				
(a)	Cleaner Production Investments in Tanzania	Norwegian Government	Executing: UNEP / TIE Focal Point: VPO Implementing: VPO (National Focal Point) & TISCO (National Coordinator)	US \$ 352,500	
(b)	Chemical Waste Management	Royal Netherlands Government	Executing: Royal Government of Netherlands Implementing: NEMC	US \$ 364,700	
(c)	Institutional Strengthening for the Phasing Out of Ozone Depleting Substances (ODS) and the establishment of a National Ozone Office (NOO)		Implementing: UNEP, VPO	USD \$ 70,000	
(d)	Phasing Out CFCs at Tanzania Domestic Appliance Manufactures Ltd		Implementing: UNIDO Executing: UNOPS		
(e)	Phase Out CFC-11 by Conversion to Methylene Chloride Blown Technology in the Manufacture of Flexible Polyurethane at Ply Foam Ltd		Implementing: UNDP Executing: UNOPS		

¹⁶ United Nations Office for Project Services (UNOPS)

	PROGRAMMES / PROJECTS	DONOR AGENCY	IMPLEMENTING AND EXECUTING AGENCY	FINANCIAL COMMITMENT	
				DONOR	COUNTRY
6.	United Nations Convention on Biological Diversity Cartagena Protocol on Bio-safety to the Convention on Biological Diversity				
(a)	Lake Victoria Environmental Management Programme	The World Bank (IDA) GEF	Executing: Governments of Tanzania, Kenya and Uganda	IDA: US \$ 35 Mill. GEF: US \$ 35 Mill.	Three Countries: US \$ 7.6 Mill.
(b)	Lake Tanganyika Biodiversity Project	UNDP / GEF	Executing: UNOPS Focal Point: Natural Resource Institute-UK (NRI-UK)		
(c)	Formulation of a National Biodiversity Strategy and Action Plan	Royal Norwegian Embassy	Executing: VPO Focal Point: VPO	US \$ 350,000	
(d)	Conservation and Sustainable Use of Biodiversity of Eastern African Rift Valley Lakes and Wetlands	GEF	Implementing: UNDP / UNEP Participating Countries: Tanzania, Kenya and Ethiopia	US \$ 350,000 (Preparatory phase) Still ongoing project	
(e)	East African Cross-Border Biodiversity Project	GEF	Participating Countries: Tanzania, Kenya and Uganda	US \$ 12.5 Mill.	
(f)	Development of National Biosafety Framework in Tanzania	GEF	Executing: VPO	US\$ 160,000	US\$ 80,000

Source: VPO 2004

APPENDIX IX (B): INTERNATIONAL CONVENTIONS / AGREEMENTS TO WHICH TANZANIA IS A PARTY

1.	United Nations Framework Convention on Climate Change (UNCCC)-Rio de Janeiro, Brazil-1992 (UNEP) (12 June 1992) ^S (01 March 1996) ^R	14	Vienna Convention on the Protection of Ozone Layer-Vienna, Austria (Adopted: 22 March 1985; (In Force: 22 Sept. 1988) (7 April 1993) ^A
2.	Kyoto Protocol on the United Nations Framework Convention on Climate Change (UNCCC)-Kyoto Japan (Adopted: 11 Dec. 1997) (26 Aug. 2002) ^A	15	Basel Protocol on Liability and Compensation. (Adopted: 10 Dec. 1999) (14 Oct. 1994) ^S (26 Dec. 1996) ^F
3.	United Nations Convention on Biological Diversity-Rio de Janeiro 1992 (Adopted: 22 May 1992) (In Force: 29 Dec. 1993) (12 June 1992) ^S (01 March 1996) ^R	16	Ban Amendment to Basel Convention. (Adopted: 22 Sept. 1995) (26 Aug. 2002) ^R
4.	Convention on the Protection of Workers against Occupational Hazards in the Working Environment due to Air pollution, Noise and Vibration (ILO No. 148). (Adopted: 1977) (30 May 1984) ^S (30 May 1984) ^F	17	Montreal Protocol on Substances that Deplete the Ozone Layer-Montreal, Canada (Adopted: 16 Sept. 1987) (In Force: 01 Jan. 1989) (16 April 1993) ^A (16 Jul. 1993) ^F
5.		18	London Amendment to Montreal Protocol (1990)-London (16 Aug. 1993) ^A
6.	Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Flora and Fauna. Adopted: 08 August 1994) (08 Sept. 1994) ^S (10 Dec. 1996) ^F	19	Copenhagen Amendment to Montreal Protocol (1992)-Copenhagen, Denmark (06 Dec. 2002) ^R
7.		20	Montreal Amendment to Montreal Protocol (1997)-Montreal (06 Dec. 2002) ^R
8.	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)- Washington DC (Adopted: 03 March 1973) (In Force: 01 Jul. 1975) (30 April 1973) ^S (29 Nov. 1979) ^R (27 Feb. 1980) ^F	21	Beijing Amendment to Montreal Protocol (30 Dec. 1999)-Beijing, China (06 Dec. 2002) ^R
9.	Cartagena Protocol on Bio-safety-Montreal, Canada (Adopted: 29 Jan. 2000) (In Force: Sept. 2003) (24 April 2003) ^A (11 Sept. 2003) ^F	22	Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal-Geneva Swiss (Adopted: 22 March 1989) (In Force: 05 May 1992) (07 April 1993) ^F
10.	Agreement on the Preparation of a Tripartite Environmental Management Programme for Lake Victoria-Dar Es Salaam. (Adopted: 05 Aug. 1994) (In Force: 05 Aug. 1994) (05 Aug. 1994) ^S (05 Aug. 1994) ^R	23	Basel Protocol on Liability and Compensation on Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (Adopted 10 Dec. 1999 (14 Oct. 1994) ^S (26 Dec. 1996) ^F .
11.	Convention for the Protection, Management and Development of the Marine and Coastal Environment of the East African Region and Related Protocols (01 March 1996) ^R	24	African Convention on the Conservation of Nature and Natural Resource (Adopted: 15 Sept. 1968) (In Force: 16 June 1969) (15 Sept. 1968) ^S (15 Nov. 1974) ^R (22 Dec. 1974) ^F
12.	Stockholm Convention on Persistent Organic Pollutants-Stockholm 22 May 2001 (23 May 2001) ^S (17 May 2004) ^F	25	Rotterdam Convention on the Prior Informed Consent (PIC) procedure for Certain Hazardous Chemicals and Pesticides in International Trade-Rotterdam, 10 September 1998. (11 Sept. 1998) ^S (26 August 2002) ^R
13.	United Nations Convention on the Law of the Sea 1982 (16 November 1994) ^F - Agreement relating to the Implementation of Part XI of the Convention on the Law of the Sea-28 July 1994 (28 July 1996) ^F (25 June 1998) ^S Agreement for the Implementation of the provisions of the Convention relating to the conservation and Management of Straddling Fish Stocks (11 December 2001) ^F (Not Signed by the Country as at 16 January 2004)	26	United Nations Convention to Combat Desertification-Paris (Adopted 17 th June 1994) (26 th December 1996) ^F (April 1997) ^R
	-	27	Convention for the Protection, Management and Development of the Marine and Coastal Environment of the East African Region and Related Protocols-Nairobi (Adopted 25 June 1985) (1996) ^F (01 March 1996) ^R
		28	Bamako Convention on the Ban of the import into Africa and the Control of Trans-boundary Movement of Hazardous Wastes within Africa- (Bamako Convention)- Bamako, Mali (Adopted: 30 January 1991). (7 th April 1993) ^R (22 nd April 1998) ^F

Key: **S** = signed; **F** = entered into force; **R** = ratified

APPENDIX X: CHECKLIST/LEAD QUESTIONS FOR RESPONDENTS

PUBLIC EXPENDITURE REVIEW OF THE ENVIRONMENT: GUIDELINE QUESTIONS

INTRODUCTION

Tanzania's natural resources and environment are the main source of peoples' livelihoods and are the backbone of the country's main productive sectors: agriculture, tourism and mining. Recent research by the 2002/3 Participatory Poverty Assessment has again shown that most people in the country *directly* depend on a robust, healthy environment to support their income-generating activities and provide them with building and cooking materials, food and medicine. Therefore, environment is linked to poverty at the levels of livelihood, health and vulnerability. This linkage between environment and poverty has been recognized in both the National Environment Policy and Poverty Reduction Strategy Paper (PRSP). The Government has recognized the importance of environment as a cross-cutting issue in the PRSP, and has developed a programme with UNDP to integrate environment into the PRS process. A key challenge to this is how the Government is investing in the environment to meet the national development and poverty reduction objectives as set out in the National Poverty Eradication Strategy and Vision 2025. Consequently, VPO contracted Norplan as consultant to undertake the first public expenditure review of the environment (PER).

Objectives of the Study

To establish the levels, trends and distribution of environmental expenditure by Government.

To assess the level of environmental expenditure required in relation to the country's environmental priorities and poverty reduction objectives.

PROPOSED QUESTIONNAIRES FOR FIELD SURVEY

Do you have any of the following in your sector/department/ministry?

Programs /strategies related to environment?

YES _____

NO _____

b. If YES please specify: e.g. which department / section is responsible for environmental issues

.....
.....
.....

Budget planning guidelines?

YES _____

NO _____

c. If YES please specify:

.....

How much budget was allocated and spent on environment related matters in your sector/department/ministry for FY 2000/01 and 2001/02?

Please fill in the table below if possible:

	ENVIRONMENT MATTERS	BUDGET ALLOCATED		AMOUNT SPENT	
		2000/01	2001/02	2000/01	2001/02
1.	E.g. pollution control, tree planting, etc.				
2.					
. etc.					

3. How much did the following environmental resources contribute to the national income in terms of GDP since 1995 to-date? Please if possible fill in the table below:

	ENVIRONMENTAL RESOURCES	'95	'96	'97	'98	'99	'00	'01	'02	'03
1.	Fisheries resource									
2.	Forestry resource									
3.	Mineral resource									
4.	Water resource									
5.	Tourist resource									

4. Budget, Allocation and Expenditures;

How much budget was allocated to your sector/department/ministry for FY 2000/01 and 2001/02?

How much did your sector / department requested for environmental management in 2000/01 - 2001/02.

How much did your sector/department/ministry spend for FY 2000/01 and FY 2001/02?

How much was allocated to environment and/or natural resource management (e.g. training, pollution control, forest protection, anti-poaching, tree planting, etc) for FY 2000/01 and FY 2001/02?

How much was spent on environment and/or natural resource management for FY 2000/01 and FY 2001/02?

Do you think the budget allocated to environment and/or natural resource management adequate?

YES _____

NO _____

If NO explain why and how much you think should be allocated?

5. Revenues:

(a) How much revenue was collected by the Central and Local Government during FY 2001/02 and FY 2002/03 from the following environmental resources? Fill in the table below please: Specify source of revenue (e.g. tax, fees, royalties, etc

	ENVIRONMENTAL RESOURCE	2001/02	2002/03
1.	Mineral resource		
2.	Fisheries resource		
3.	Forestry resource		
4.	<u>Wildlife resource</u>		
5.	<u>Tourist resource, etc.</u>		

How much was lost by the Central and Local government due to failure to undertake environmental intervention (e.g. by undercharging tax on timber products, wildlife hunting, mining royalties, etc.).

How much was gained by the Central and Local Government by undertaking environmental intervention. Fill in the `table below:

	TYPE OF INTERVENTION	2001/02	2002/03
1.	E.g. tax collection from charcoal, timber, etc.		
2			
3			
etc.			

6.

(a) How much is the government (VPO, NEMC) spending annually on capacity building for environmental management (E.g. human resource development, training, etc.)

What do you think are the requirements for capacity building in the area of environment?

(c) What elements do you think should be included in the capacity building programme in order to have sustainable/continuous integration of environment in the PER?

7.

(a) What is the existing multilateral/bilateral environmental agreements being implemented at national level (VPO, NEMC)?

(b) How much/what proportion of external aid was received from donor agencies for implementing those agreements? Fill in the table below:

	TYPE OF AGREEMENT	Financial requirement	Source of Funding			
			Government	%	Donor	%
1.						
2.						

What elements do you think should be considered in the economic valuation of the following environmental resources so that they can be used for performance monitoring purpose at national level?

	ENVIRONMENTAL RESOURCE	ELEMENTS FOR ECONOMIC VALUATION
1.	Forestry resource;	1. 2. 3. etc
2.	Fisheries resource:	1. 2. 3. etc
3.	Water resource:	1. 2. 3. etc
4.	Mineral resource:	1. 2. 3. etc
5.	Wildlife resource:	1. 2. 3. etc
6.	Tourist resource:	1. 2. 3. etc

9. How many communities are involved in environmental related management? How effective are they?

10. Is the existing institutional framework (physical, legal etc.) up for environmental management / monitoring adequate and efficient?

APPENDIX XI: REVENUE COLLECTION AND EXPENDITURE FOR NCAA

APPENDIX XII: REVENUE COLLECTION AND EXPENDITURE TANAPA
