# Swedish Support to the National Environment Management Council in Tanzania

**Grant Milne** 

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Sida Evaluation 00/5

**Department for Africa** 

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## **Table of contents**

Exe	cutive summary	i
1.	Programme context	1
	1.1 Project History	
	1.2 Development Context	
	1.3 Project Description	4
2.	The evaluation and methodology	10
	2.1 Justification for the evaluation	10
	2.2 Scope and focus of the evaluation	
	2.3 Evaluation approach	
	2.4 Limitations of the evaluation	11
3.	Findings	12
	3.1 NEMC's Organisational Structure, Effectiveness and Efficiency	
	3.2 Performances and Results	28
	3.3 NEMC'S Role in the Society	36
4.	Conclusions	40
₹.	4.1 Project History, Development Context, Project Description	
	4.2 NEMC's Organisational Structure, Effectiveness and Efficiency	
	4.3 Performance and Results	
	4.4 NEMC's Role in Society	
5.	Recommendations	46
6.	Lessons learned	48
Ref	erences and documents reviewed	49
App	pendix 1	51
App	pendix 2	52
App	pendix 3	56
App	pendix 4	58
App	pendix 5	59
App	pendix 6	60
App	pendix 7	62
Δnr	andiv 8	67

## **Executive summary**

#### **Project Description**

The overall goal for Sweden's development co-operation in Tanzania is to raise the living standards of the poor. Environmental care forms one of six development pillars for Sida aid programmes in Tanzania. Improved environmental management will provide a foundation for longer-term economic and social growth, especially in rural areas. Within this broad framework, Sida has been the largest single source of financial and technical support to Tanzania's National Environment Management Council (NEMC) since 1986. The Council was created in 1983 through enabling legislation that defines an advisory and co-ordinating role. NEMC reports to a Board and operates as a statutory body in the Vice-President's Office. NEMC was originally structured around three Directorates (Natural Resources; Pollution Prevention and Control; Research; Finance and Administration) reporting to a Director General. A fourth Directorate (Environment Education and Documentation) was established in 1990. A fifth Directorate, Environmental Impact Assessment, was recently created. The Council's legal mandate has not changed significantly over time. Current staff complement is 96, of which 52 are professional officers. Roughly one-third of all staff are female.

Sida support has been vital to the growth and development of NEMC. It has covered capital equipment, training, technical advisors, and financial resources for specific tasks in each Directorate. A detailed evaluation of both the Council's activities and the Sida support project has been hampered however, by poor documentation of project goals, objectives, inputs and outputs, especially during the first several years from inception. Therefore, an accurate accounting of Sida investment since 1986 cannot be made. Sida estimated however, that the average investment was about 5 million SEK per annum.

#### **Purpose and Focus of the Evaluation**

From the terms of reference, the evaluation was to assess:

- the extent to which the Swedish institutional support to NEMC has contributed to increase
  the competence of the institution and its ability to achieve goals
- the overall achievements and results from the Sida supported activities for NEMC as a whole and within the different departments, in relation to stated targets and objectives
- NEMC's ability to influence on environmental and other sector policies, major governmental decisions on development activities, mass media, public awareness etc.

#### **Summary of Findings, Conclusions and Recommendations**

Swedish allocations comprised of 72 percent of total donor funds and 63 percent of the total income in NEMC for 1994/95. This pattern has continued to the present time. Sida is the only donor to have provided consistent institutional support to NEMC. One issue is that NEMC is dependent upon Sida support for most technical operations. Government funds are generally limited to staff salaries, office rental, and modest operating expenses. This situation is not sustainable. As part of government's review of institutional structures in environment, it is likely that NEMC functions and staff will continue in some form, once the review process and legal reform is completed, perhaps in another two years. Sida should continue to support NEMC through this review process. As future

institutional structures become more defined, Sida will be in a better position to assess longer-term investment options. It is imperative that NEMC (or similar statutory bodies that emerge from the institutional review) become more financially independent. Several options exist for NEMC to generate revenues and these should be explored.

Sida support has largely been focused on building the technical capacity of NEMC. It is clear that this investment has had a positive and significant impact on the ability of NEMC to perform technical functions within the confines of its legal mandate. Each of the technical Directorates has achieved successes in advancing the environmental agenda in Tanzania. Highlights include leading the process to draft a National Conservation Strategy for Sustainable Development, establishment of an EIA process, incorporation of environmental education into school curricula, completing national inventories of wetlands and pollution sources, and making significant progress in addressing pollution for specific sectors. NEMC has gradually built a wide network of partners both within the country and externally. NEMC has also had a major impact on policies and programmes in other organisations. Examples include the Tanzanian Investment Centre incorporating EIA screening into its project appraisal process, and the Planning Commission considering the environmental impact of public investment programmes.

NEMC must continue evolving into an organisation that "makes things happen" by identifying issues, bringing partners together and helping access financial resources. This trend of working through partnerships is being accelerated through the efforts of the new Director General who has a clear vision about NEMC's mission and operating culture. The current strategic planning process will effectively guide the organisation's activities and ongoing internal change management into the millennium.

Sida's support to capacity development has had a significant and positive impact on the ability of NEMC to fulfil its mandate. Training has focused on professional staff through a mix of long-term and short course options, both locally and external. This mix and focus was appropriate to match NEMC's early needs and level of development. Future training support should shift the focus slightly. While many professional staff still should attain MSc academic qualifications, younger staff require opportunities to gain experience in specialised fields. Study tours, executive exchanges and attending technical workshops are options for Sida to consider.

Sida also provided long-term expatriate technical advisors in three Directorates over the past decade (Natural Resources, Pollution Prevention and Control, and Finance and Administration). All advisors brought substantial skill and experience that were relevant to the assigned tasks. However, with a couple of exceptions, it appears the advisors tended to take on an inordinate share of line functions rather than guide and share skills with counterparts. As a result, the long-term impact of advisors on NEMC counterparts was low. Future advisors should be retained on a part-time basis, guiding but not doing specific tasks.

While acknowledging NEMC's technical successes from Sida support, it is also clear that NEMC's internal management systems received inadequate attention from 1986 to the present. Over the period 1994–2000, the four technical Directorates (DNR, DREED, DPP&C, EIA) account for 78 percent of total Sida C-Fund expenditures. The relatively low investment in Finance and Administration has manifested itself in NEMC lacking modern and robust financial, project and human resource management systems to underpin an organisation that has grown from a staff of six to almost 100 in the past 13 years. Some examples of internal problems include:

- Reliance on manual accounting systems (being upgraded now through Dutch aid)
- No strategic plan from inception to help identify priorities and resource shifts
- Poor linkage between project inputs, objectives and outputs (until 1999)
- Inability to provide effective project reporting (until 1999)
- Lack of proper job descriptions for most staff
- Ineffective performance appraisal system

#### Recommendations are:

- 1. It is recommended that as an interim measure until the institutional review is completed, Sida continue its bridging programme to the end of 2000.
- 2. It is recommended that Sida consider providing short-term technical support to NEMC's strategic planning initiative if requested by NEMC management.
- 3. It is recommended that Sida consider supporting a detailed needs assessment of all NEMC staff and development of a long-term training plan by the end of 2000 to help NEMC meet strategic priorities.
- 4. It is recommended that a comprehensive training plan present a mix of long-term training (mainly at MSc level), and options for helping younger staff gain experience.
- 5. It is recommended that future expatriate advisors be retained on a part-time basis.
- 6. It is recommended that Sida consider amending the bridging programme to allow for short-term training in gender, equity and basic economics for professional staff.
- 7. It is recommended that to the end of the bridging programme and beyond, Sida consider supporting the Director General to implement internal improvements to management systems
- 8. It is recommended that Sida consider short-term technical support to rationalise environmental information systems through establishing a NEMC-led partnership of relevant information centres.
- 9. It is recommended that Sida consider providing technical assistance to review potential revenue generation from economic instruments, fees for service and rental income on fixed assets.

### **List of Abbreviations**

AGENDA Non-Government Organisation for Environment and Responsible Development

CIDA Canadian International Development Agency

DNR Directorate of Natural Resources Management – NEMC

DoE Division of Environment (in Vice-President's Office)

DREED Directorate of Research, Environmental Education and Documentation – NEMC

EIA Environmental Impact Assessment (also the Directorate of EIA in NEMC)

EIS Environmental Impact Statement (also Environmental Information System)

F&A Finance and AdministrationGDP Gross Domestic ProductHDI Human Development Index

ILFEMP Institutional Framework for Environmental Management Project

LEAT Lawyers Environmental Action Team

LFA Log Frame Analysis

NCSSD National Conservation Strategy for Sustainable Development

NEMC National Environment Management Council

NEP National Environment Policy NGO Non Government Organisation

PPC Directorate of Pollution Prevention and Control – NEMC

SEK Swedish Crowns (national currency)

Sida Swedish International Development Agency

SOER State of the Environment Report

TCMP Tanzania Coastal Management Policy

TSH Tanzanian Shilling

UNDP United Nations Development Programme

USD United States Dollar VPO Vice-President's Office

WRI World Resources Institute, Washington, D.C.

## 1. Programme context

#### 1.1 Project History

NEMC is the lead national advisory and co-ordination body for the environment in Tanzania. It was established through legislation in 1983, as a corporate body (or parastatal) in the Ministry of Lands. The political responsibility for the environment was, however, transferred to the Vice President's Office (VPO) and subsequently in December 1995, NEMC was placed under the VPO.

The Government of Sweden, through the Swedish International Development Co-operation Agency (Sida), has been the main bi-lateral partner with the National Environment Management Council, (NEMC), since 1986. The annual Swedish contribution has been approximately 5 million SEK for general institutional support and international advisors within NEMC.

Sweden's support to NEMC from 1986 to 1996 was through the Tanzania-Sweden Forestry and Environmental Programme. However, in the process of preparing a new programme of support to land management activities 1997–2000, it was agreed that NEMC was to come under a separate agreement. Instead of signing a new three-year agreement it was decided to extend the present agreement with NEMC by one year, for 1997. This was to be a "transition year", which would give the Government of Tanzania time to consolidate NEMC's role and mandate and prepare a proposal for a Swedish support to NEMC for 1998–2000. However, due to continued uncertainties of NEMC's role and mandates in relation to other institutions as well as in its internal organisation, the collaboration came to a temporarily halt beginning January 1998.

In order to streamline the institutional framework on environmental management, the government has commissioned the Institutional Framework for Environmental Management Project (ILFEMP) in Tanzania, funded by the World Bank. This study is co-ordinated by a working group and the outcome of the project is anticipated to influence NEMC's future role and mandate. As a bridging move, in February 1999, a new agreement was signed for Swedish support to NEMC while waiting for the results from the ILFEMP.

#### 1.2 Development Context

Tanzania is considered a low-income country with GDP per capita of \$670 USD (1995 purchasing power parity basis). Compared to other countries in Eastern and Southern Africa, Tanzania is ranked quite low, both in terms of GDP per capita and the UNDP's Human Development Indicator (HDI). From Table 1, Tanzania ranked 149 out of 175 countries in the world according the HDI, thus classifying it as a low human development country.

Table 1. HDI ranking, population density, GDP and distribution of national income, Eastern and Southern Africa.

Country	HDI Rank	HDI Score	Population	Land	Population	GDP/Capita	Dis	stribution of GI	OP .
	1994	1994	1994	Area	Density	(PPP 1995)		1995 (%)	
			(million)	('000 ha)	(people/km2)	(\$)	Agriculture	Industry	Services
Mauritius	61	0,831	1,1	203	541,9	13 270	9	33	58
South Africa	90	0,716	40,6	122104	33,3	5 240	5	31	64
Botswana	97	0,673	1,4	56673	2,5	5 630	5	46	48
Swaziland	114	0,582	0,8	1 720	46,5	2 950	Х	Х	Х
Namibia	118	0,570	1,5	82329	1,8	4 100	14	29	56
Zimbabwe	129	0,513	10,9	38685	28,2	2 1 4 0	15	36	48
Kenya	134	0,463	30,3	56914	53,2	1 430	29	17	54
Lesotho	137	0,457	2,0	3035	65,9	1 240	11	40	49
Zambia	143	0,369	7,9	74339	10,6	990	22	40	37
Tanzania	149	0,357	29,2	88359	33,0	670	58	17	24
Madagasgar	152	0,350	14,4	58154	24,8	680	34	13	53
Uganda	159	0,328	19,1	19965	95,7	1 490	50	14	36
Malawi	161	0,320	9,6	9408	102,0	770	42	27	31
Mozambique	166	0,281	16,6	78409	21,2	910	33	12	55
Eritrea	168	0,269	3,1	10000	31,0	Х	11	20	69
Ethiopia	1 70	0,244	54,6	103366	52,8	460	57	10	33
Total			243,1	803663					
Regional Avera	ge	0,458			71,5	2 798	26,3	25,7	47,7

Source: (UNDP 1997; WRI 1999)1.

Tanzania's economy is heavily dependent on natural resources. Long-term economic and social development can only be sustained if the underlying biological resources and ecological services are carefully managed. Tanzania's share of GDP from agriculture (58 percent) is the highest in the region. This includes formal and informal agriculture, fishing and forestry. Not surprisingly, Tanzania's GDP earned from industry and service sectors are well below the regional average. Industry tends to be concentrated in several pockets around the country, particularly in Dar es Salaam. Mining, cement production, and agricultural and fish processing are major industries. Within agriculture, cotton and coffee are major cash crops. Tanzania is blessed with unique natural characteristics and biodiversity that support a large tourist industry. Examples include the Ngorogoro crater, Mt. Kilimanajaro, the Serengeti, and white sand beaches along the coast. Wildlife is often a central feature. Tanzania also boasts the largest area of mangrove forests in Eastern and Southern Africa. A large proportion of the service sector in Table 1 is comprised of tourism based activities.

The environment has been under great stress for decades. At a macro-level, from 1960 to 1994, the average annual population growth was 3.1 percent. Concurrently, the average real growth in GDP over the same period was 0.6 percent (UNDP 1997). A key condition of sustainable development is that average growth in real GDP exceeds average annual population growth. Based on this broad criterion, Tanzania has not been following a sustainable development path.

Approximately 75 percent of Tanzania's 30 million people live in rural areas and most are directly dependent on the land for income and food production. This is reflected by the fact that 94 percent of all forest harvesting is for fuelwood and charcoal (WRI 1999). Continued pressures on the rural environment are expected through land conversion to agriculture, deforestation and soil degradation.

2

<sup>&</sup>lt;sup>1</sup> While these data may differ slightly with various published and unpublished sources within individual countries, they provide a measure of consistency. UNDP and the World Resources Institute obtain the data mainly from official government sources in each country.

The chronic poverty in many rural areas is a catalyst for young people to move to cities in search of employment, often in the informal sector. By the year 2000, close to 30 percent of Tanzanians could be living in urban areas, increasing the stress on urban environments. The urban population growth rate in cities such as Dar es Salaam ranges from between four and six percent per annum. At these rates, Dar es Salaam's population of 3 million could easily expand to 5 million within ten years. Air and water pollution in major urban areas is becoming serious for municipal authorities.

Another major contributor to environmental stress is institutional failure from inefficient environmental policy and legislation. Tanzania, like many countries in the region, suffers from a tangled web of outdated and conflicting legislation dealing with the environment. As well, the government is implementing macroeconomic reforms to address structural problems and provide a more attractive climate for domestic and foreign investment, particularly in tourism and industry. These reforms are a two-edged sword for the environment. In the short-term, civil service and parastatal reform, and tight fiscal policy will result in resource constraints for agencies responsible for environmental management. This can lead to implementation failure with responsible agencies unable to effectively monitor and enforce legal and regulatory environmental frameworks. As well, private sector rationalisation in response to a more open economy means more retrenchments and people turning to natural resource exploitation to earn income.

On the other hand, the country's economy is responding positively to economic reforms, which could have positive impacts in the longer-term. Economic growth for 1998/99 is estimated at 3.6 percent, while the average annual population growth estimated for 1994–2000 is 2.4 percent. Inflation in August 1999 was just over 7 percent, down from 30 percent five years ago. The government's cash budget system with monthly outflows not exceeding average quarterly inflows has resulted in balanced budgets. These positive changes suggest that at a macro-level, Tanzania is approaching a more sustainable development path. Provided that longer-term macroeconomic benefits translate into improved personal incomes and increased government support among the rural poor and other disadvantaged groups, the environmental linkage will largely be positive. The key environmental issues outlined in Tanzania's 1994 National Conservation Strategy for Sustainable Development are land degradation, pollution and coastal zone/marine degradation. Despite recent and positive changes in the macroeconomic framework, these environmental issues will likely continue to be serious impediments to local sustainable development.

From information found at the embassy, the overall goal for Sweden's development co-operation is to raise the living standards of the poor. Within this framework, Sweden has established six subgoals, of equal status, for development co-operation:

- i. **Economic growth** to contribute to an increased production of goods and services
- ii. **Economic and social equality** to help reduce the gap between rich and poor, and ensure the satisfaction of basic needs
- iii. **Economic and political independence** to help countries to national selfdetermination
- iv. **Democratic development** to contribute to people being able to exercise greater influence over development at the local, regional and national level
- v. **Environmental care** to contribute to the sustainable use of natural resources and protection of the environment
- vi. **Gender equality** to promote equality between men and women

Sida support to NEMC falls under goal (v), environmental care. Improved environmental management associated with development policies and programmes will provide a foundation for longer-term economic and social growth, especially in rural areas. As Tanzania's most visible environmental body, NEMC is in a strong position to influence sustainable development, which in turn addresses poverty. Sida support to NEMC has been designed to strengthen the Council's ability to advise government and formulate policy relating to environment and development. Sida support to NEMC has played a major role in this process and thus is making a substantial contribution to sustainable development in Tanzania.

#### 1.3 Project Description

#### a) Broad project goals

The project goals have gradually evolved from 1986 when Sida began to assist NEMC. Archive information from the Swedish Embassy on project goals, activities and achievements was of variable quality and did not predate 1989. No documents were found that clearly identified hierarchical goals for the project, especially for the first several years. Therefore, only general statements about goals can be determined for the first few years of support. In later years, project goals were more clear but were tied to specific NEMC Directorates rather than cutting across the organisation.

#### 1986-1990

During this period, Sida support to NEMC was part of general Tanzania-Sweden forestry support. Both countries agreed to focus on two broad areas: 1) community forestry and soil conservation, and 2) management and utilisation of industrial plantations. Neither of these issues were directly related to NEMC support and needs at that time.

#### 1991-1997

A follow-up phase of Sida forestry support, signed in 1991, was the five-year, Tanzania-Sweden Forestry and Environmental Co-operation Plan. NEMC continued to be a small part of the plan. The *broad goals* of the plan were to strengthen:

- Training and transfer of knowledge
- Participation of the rural people, particularly women
- Incorporation of environmental aspects
- Planning improvement
- Commercialisation

Sida support to NEMC generally addressed all of the above goals except the last on commercialisation, which is to be expected. Therefore at a broad level, good congruence exists between Sida support to NEMC and overarching goals in the Forestry and Environmental Co-operation Plan.

In 1996, NEMC was transferred to the Vice-President's Office to give environment a stronger institutional base. Sida agreed to fund NEMC for one additional year as a separate project, pending a government review of environmental legislation and institutions. The focus for Sida support continued to be on operational objectives rather than broader goals.

#### b) Operational objectives, activities planned and undertaken

From various documents from Sida and NEMC, the general objectives of Sida support to the Council can be summarised as:

• Strengthening technical capabilities of Directorates

- Initiating National Conservation Strategy for Sustainable Development process
- Purchasing basic office equipment, including vehicles
- Improving the capacity of the documentation centre
- Raising public awareness on environment and issues
- Strengthening internal human resource capacity through short and long-term courses and workshops, and provision of a long-term technical advisors

Detailed NEMC operational objectives from 1989 to 1997 were identified and dated from archival documents (Table 2). The letter "X" in Table 2 signifies an objective being stated for that particular year and reflects the best information available. The wording of objectives was not always consistent with conventional practice of stating objectives in action terms and with measurable performance standards. In recent years however, the clarity of objectives improved significantly. It should be emphasised that the objectives/activities in Table 2 are from NEMC documents linked to Sida support.

Table 2. Operational objectives by Directorate, Sida support project, 1989–1997

Directorate and Project Objectives 1989-1997	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Directorate of Natural Resources								
Workshops on environmental management	X	X	X					
National Conservation Strategy for Sustainable Development process		X	X	X	X			
Inventory of all natural resource and environmental conservation projects			X	X	X	X	X	X
Inventories of destructive activities on aquatic environments				X	X	X	X	X
Inventory of wetlands				X	X	X	X	X
Support EIA review					X	X	X	X
Marine contingency plan					X	X	X	X
Assess methods of community participation					X	X	X	X
Preparation of national guidelines and procedures for EIA in Tanzania							X	X
Wetland Monitoring						X	X	X
Directorate of Pollution Prevention and Control								
Surveys of polluting activities	X							
Strengthening monitoring and laboratories capacity	X							
Urban air quality monitoring	21	X	X	X				
Improve pesticide management, including storage and importation		X	X	X				
Study to evaluate lubricant recycling		X	21	X				
Hazardous chemical management and awareness		X						
Mining operation surveys in Southern, Eastern and Western zones			X	X	X			
Introduce mercury recycling techniques in small scale mining sector			X	X	X			
Draw priority list of polluted water sources and identify monitoring options				X	X			
Draw guidelines for environmental reporting				X	X			
Inventory of hospital wastes					X			
Environmental standards and regulations					X	X	X	X
Greenhouse gas survey					X			
Ozone layer survey					X			
Municipal waste management						X	X	X
Environmental auditing, monitoring and reporting						X	X	X
Phasing out of leaded fuels in Tanzania						X	X	X
Directorate of Research, Environmental Education and Documentation								
Environmental education consultancies, workshops	X	X		X				X
Introduce EE into primary schools with collaboration of MEC		X	X	X	X			
Introduce EE into secondary schools with collaboration of MEC		X	X	X	X			
Production of publications on environmental issues		X	X		X	X	X	X
Environmental awareness and sensitisation		X	X	X	X	X	X	X
State of the Environment Report								X
Establish documentation centre								X
Directorate of Finance and Administration (including Legal and Audit)								
Acquisition of office equipment and literature	X	X	X	X	X	X	X	X
Acquisition of vehicles	X							
Strengthen financial management system						X	X	X
Streamlining sector legislation on environment								X
Reviewing village/district by-laws								X

Table 2 reflects a gradual deepening of objectives/activities for each Directorate over time as NEMC continued to develop, largely through Sida assistance. It also reflects the changing organisational structure of NEMC. Sida's support gradually shifted from more technical operations to institutional activities such as training, largely because of issues raised in the NCSSD process. The level of achievement relative to objectives is discussed in the "Findings" section of this report.

#### c) Training objectives and priorities

Not reflected in Table 2 is a significant *training* component throughout the period of Sida support. The earliest document that outlined broad training objectives was background information to Sida from NEMC for long-term planning in 1995. Again, the objectives are not action statements but

rather activities and priorities. No dates are usually given. Detailed justification only began after 1995. General training objectives and priorities from 1995 NEMC documents were as follows:

#### i) Directorate heads

Should be trained to Master's level and those with Master level degrees should take periodic short courses in current topics to maintain their level of expertise.

ii) Junior professionals (trained to Bachelor level but without significant experience)
Should be recruited to fill vacancies, groomed for higher positions and supported in efforts to achieve Master's level competence.

#### iii) Administrative and support staff

Skills should be brought up to date primarily through the use of short courses.

Based on the 1995 documents, priorities for technical training were:

- Environmental education and documentation systems
- Environmental impact assessment and environmental accounting
- Hazardous waste and toxic chemicals management
- Environmentally friendly industrial technologies
- Environmental law enforcement
- Chemistry and chemical engineering
- Agriculture, economics and public health
- Integrated aquatic management issues, including wetlands management
- Public health issues
- Financial reporting and management

#### d) Swedish inputs

Sida support has covered the main components of the Council's budget for operational activities. Financial support comprises of two channels. The first, "C" funds are financial resources transferred to NEMC. From 1986 to 1997, this occurred via the government of Tanzania's budgetary process. Each quarter, funds were transferred from Sweden (through the embassy) to the central government treasury and then to NEMC. For the bridging project (1999–2000), funds are now disbursed directly to a NEMC bank account. C-funds are used by NEMC to finance the operational activities identified in work plans approved by Sida and include the objectives/activities in Table 2, training, and capital items. The second channel is "D" funds, which are retained by the embassy and used to support technical advisors in NEMC and external consultants. From 1986–1997, Sida supported approximately 20 person-years of expatriate technical advisor assistance, usually full-time placements.

Records made available during the study mission from either from Sida or NEMC did not allow *consistent* tracking of C and D-fund expenditures from 1986 to the present time. Audited accounts for *expenditures* were only available from NEMC for 1991/92 (D-Funds only) and 1994–1997 (C-Funds only). Sida provided disbursement figures for C-funds for 1990/91, 1997 and 1998. A number of documents from Sida archives provided information on budget requests from NEMC for various years but like disbursements, they may not reflect actual expenditures on an annual basis. From various documents, NEMC consistently underspent C-fund disbursements early in the project.

Appendix 1 provides audited expenditures for C-funds spent by NEMC through Sida support, for 1994–1997. Proposed expenditures for 1999 and 2000 are also provided. These are allocated to Directorates. The lack of consistent financial data precludes a wider analysis. Over the period 1994–2000, Sida support averaged approximately 2.8 million SEK per year. From 1994–1997, real expenditures in TSH declined, both from reductions in Sida contributions and inflation. This trend will be reversed in 1999–2000 because the proposed budgets indicate a significant increase in cash flow and, inflation is now around 7 percent, compared to over 30 percent in 1994. According to the audited expenditure data, the Directorate of Pollution Prevention and Control received the highest allocation during the period of review followed by Natural Resources and, Environmental Impact Assessment (Figure 1). The percentage spent on equipment is likely understated because in early years of the project, expenditures on equipment were quite high to facilitate the establishment and growth of NEMC. Most vehicles for example, were purchased before 1994.

Figure 1. Trends in Sida support by Directorate, 1994–99

#### 6000000 5000000 4000000 SEK 3000000 2000000 1000000 1994 1995 1996 1997 1998 1999 2000 ■ Natural Resources Management ■ Pollution Prevention and Control ■ Environmental Impact Assessment Research, Education and Documentation ☐ Finance, Administration, Legal, Audit ■ Training □ Equipment

#### Sida support to NEMC 1994-97 and proposed funding for 1998-99, C-Funds

With the exception of 1997, the Directorate of Finance and Administration (including Legal and Audit divisions) consistently received a comparatively low Sida allocation. The high level of expenditure in 1997 reflects a few major activities such as strategic planning and legal work. In the 1999-2000 bridging project, Finance and Administration still is allocated a relatively low budget.

#### e) Expected outputs, effects and impact

No documents were found that succinctly stated expected outputs, effects or impacts from the long-term Sida support. Based on a review of various reports (including archival information) however, a general expected impact was:

The expected impact for Sida's support was a strengthened NEMC's professional and administrative capacity to deliver its legal mandate of advising government and formulating policy relating to environment and development.

In addition to specific activities designed to strengthen the technical capacity of individual Directorates and staff, the broad expectation of Sida support was to assist NEMC to do its job more effectively and efficiently.

## 2. The evaluation and methodology

#### 2.1 Justification for the evaluation

The Swedish support to NEMC, its effectiveness as an institution, and role in society has never been properly evaluated. An evaluation is necessary to provide an important basis for Sida's consideration of continued support to NEMC including volume, form and content. The purpose of the evaluation is to provide information about the experiences of Swedish support to NEMC to be used as an input to the decision regarding a possible continued support to the organisation.

#### 2.2 Scope and focus of the evaluation<sup>2</sup>

The scope of the evaluation is to assess:

- the extent to which Swedish institutional support to NEMC has contributed to increase the competence of the institution and its ability to achieve goals
- the overall achievements and results from the Sida supported activities for NEMC as a whole and within the different departments, in relation to stated targets and objectives
- NEMC's ability to influence environmental and other sector policies, major governmental decisions on development activities, mass media, public awareness etc.

The evaluation considers the whole period of Swedish support to NEMC but is mainly focused on the period, 1994-1999. Based on the evaluation, and the ongoing study on Institutional Framework for Environmental Management Project (ILFEMP), the report elaborates on how a possible future Swedish support to NEMC could be directed to support the national process to strengthen the environmental management in Tanzania.

#### 2.3 Evaluation approach

The evaluation is based on information gathered from project documents and personal interviews with key stakeholders and NEMC officials. Project documents were obtained from Sida archives and NEMC. These provided important background information, particularly in terms of annual objectives for each Directorate, various achievements, and the growth of NEMC since 1983. Additional documents such as policy papers, technical reports and legislation were also reviewed to understand the institutional setting and issues relevant to NEMC.

Personal interviews with NEMC management and staff<sup>3</sup> were focused on the internal operation of the organisation, including planning, human resource and financial management, and programme development. In addition, the interviews provided information on technical capacity relative to position requirements and future training needs. Follow-up discussions were held with specific individuals where necessary. These interviews were valuable in assessing the impact of Sida support within NEMC. Personal visits to both offices and the documentation centre also provided important information.

<sup>&</sup>lt;sup>2</sup> Derived from Terms of Reference in Appendix 2

<sup>&</sup>lt;sup>3</sup> Refer to Appendix 8

Discussions with NEMC management helped in developing a list of external stakeholders that were subsequently interviewed to gather information mainly on their linkages with NEMC, and the impact of NEMC and Sida support outside the Council. Priorities for future Sida support were also discussed. At each interview, the respondent was asked about other organisations that should also be interviewed. This peer nomination process resulted in several additional individuals being interviewed. NEMC facilitated the external interviews and provided transport. Since most external respondents had access to E-mail, the author was able to follow-up using this medium. In addition, one institute on Zanzibar was surveyed using E-mail to save time and money.

For both NEMC and external interviews, questionnaires were used to ensure consistent responses. Individual questionnaires were designed to meet the different characteristics of each organisation. The author also had discussions with Sida officials involved in the environment programme.

#### 2.4 Limitations of the evaluation

The full terms of reference could not be addressed due to information gaps, particularly financial data. Archival information from Sida and NEMC was insufficient to build a *consistent* picture of trends since 1986 for Sida inputs and NEMC activities. From 1986 to 1988, expenditure data could not be found in the time available. For the same period, information on project goals, objectives and achievements was not as complete as desired. The quality of information improved in the early 1990s but still was below expected standards. Complete data on C-fund expenditures (as opposed to proposed budgets), by each Directorate were only available for 1994-1997 from a NEMC audit. For 1999, Sida only was able to provide a general figure for the total disbursement to NEMC, not allocated to individual Directorates.

The situation with project plans and achievements was similar. A few annual reviews were found but linking these with expenditures proved impossible. The poor quality of project plans prior to 1990 made a direct comparison of objectives and achievements quite difficult. Part of the problem was that Sida sent many archival records to Stockholm. A shift to a new accounting system at the embassy partway through the period 1986-1999 may have also contributed to the problem with financial records<sup>4</sup>.

<sup>&</sup>lt;sup>4</sup> With more time, it might have been possible to trace individual invoices sent to the Embassy for payments. This could have improved the financial records available to the author, however the point must be made that basic financial information should have been maintained by Sida in a format that would aid evaluations of this nature.

## 3. Findings

#### 3.1 NEMC's Organisational Structure, Effectiveness and Efficiency

Assess the relevance of NEMC's organisational structure and work plans in relation to its legal mandate, underlying policies, and formal/informal agreements with other organisations. How has this changed over time?

#### a) Legal mandate

NEMC was created as a statutory body corporate through the enactment of the National Environmental Management Act (Act 19 of 1983). NEMC was initially established as a parastatal in the Ministry of Lands. In 1996, NEMC was placed under the Vice-President's Office (VPO) where it remains today. The 1983 Act also established the office of Director General as the Chief Executive of NEMC with wide-ranging powers related to environmental matters. The Director General is appointed by the President. The Director General reports, and is responsible to a Board (Environment Council) comprised of high profile individuals appointed by the Minister. The Chairman of the Board is appointed by the President. The 1983 Act articulates the legal mandate of NEMC (See Box 1). Based on the Act, NEMC's roles and responsibilities are mainly advisory. In Box 1, the action verbs have been highlighted. Words like "recommend, advise, promote and co-ordinate" clearly indicate the advisory role of the Council. More recently, NEMC assumed new powers and functions in respect of the administration and management of village lands, especially in the area of environmental impacts of land-use planning and management (Village Lands Act 1999). This Act allows NEMC to influence land-use planning and management through it power to specify land which may not be developed because of its environmental significance.

#### b) Policy framework

The most concrete environmental policy developments have occurred in the last five years. In January 1994, the country completed a National Conservation Strategy for Sustainable Development (NCSSD). The process of crafting the NCSSD was led by NEMC, beginning in 1988 and involved substantial stakeholder input. The NCSSD provides an overview of Tanzania's natural resources, environmental priorities and a plan of action to address key problems. The plan of action in the NCSSD was distilled from a larger national environmental action plan (NEAP) completed by the Division of Environment, another environmental institution created in 1990 and resident in the Ministry of Tourism, Natural Resources and Environment. An institutional analysis in the NCSSD restates the legal mandate of NEMC and argues for a strengthened role, particularly with supervisory functions.

In December 1997, Cabinet approved a National Environmental Policy (NEP), prepared by the VPO. The NEP recasts information from NCSSD in the form of environmental policy objectives, at both national and sectoral levels. Policy instruments are outlined including EIA, legislation, economic tools, standards and indicators. The NEP adds enforcement and EIA arbitration roles for NEMC. The NEP shifts the policy formulation function from NEMC to the Department.

#### Box 1. Legal mandate of NEMC

The functions of the Council shall be to advise Government on all matters relating to the Environment, and in particular, the Council shall:

- Formulate policy on environmental management and recommend its implementation by the Government
- Co-ordinate the activities of all bodies concerned with environmental matters and serve as a channel of
  communication between those bodies and the Government
- **Evaluate** existing and proposed policies and the activities of the Government directed to control pollution and the enhancement of the environment and to the accomplishment of other objectives which affect the quality of the environment and, on the basis of that, **formulate** policies and programmes which will achieve more effective management and enhancement of environmental quality
- **Recommend** measures to ensure that Government policies, including those for the development and conservation of natural resources, take adequate account of environmental effects
- **Foster** co-operation between the Government, local authorities and other bodies engaged in environmental programmes
- **Stimulate** public and private participation in programmes and activities for the national beneficial use of natural resources
- Seek advancement of scientific knowledge of changes in the environment and encourage the development of technology to prevent or minimise adverse effects that endanger man's health and well-being
- **Specify** standards, norms and criteria for the protection of beneficial uses and the maintenance of the quality of the environment
- Establish and operate a system of documentation and dissemination of information relating to the environment
- Formulate proposals for legislation in the area of environmental issues and recommend their implementation
  by the Government
- **Establish and maintain** liaison in other national and international organisations respect of issues and matters relating to environmental protection and management
- **Undertake or promote** general environmental educational programmes for the purpose of creating an enlightened public opinion regarding the environment and the role of the public in its protection and improvement
- **Perform** such other functions as the Minister may assign to the Council, or are incidental or conducive to the exercise by the Council of all or any of the preceding functions

Source: National Environment Management Act, No. 19 of 1983, September 10, 1983

#### c) Organisational structure

From 1986 to 1990, NEMC had the following organisational units reporting to the Director General:

- Directorate of Pollution Prevention and Control (PPC)
- Directorate of Natural Resources Management (DNR)
- Directorate of Finance and Administration (F&A)
- Legal and Audit Divisions (L&A)

In 1990, the Directorate of Research, Environmental Education and Documentation (DREED) was added. In 1997, a fifth Directorate, Environmental Impact Assessment, was created, taking some responsibilities from Natural Resources Management, and adding a stronger EIA focus (Appendix 3).

#### d) Directorate objectives and functions

The establishment of Directorates was driven by needs (and budgets), however, clear definitions of objectives for each Directorate were weak until 1997, when NEMC developed a strategic plan. From this plan, the principle objective and functions of each Directorate are as follows<sup>5</sup>:

#### i) Pollution Prevention and Control

Principle Objective: Develop and introduce mechanisms for mitigating the environmental impact from polluting activities

Primary functions: Facilitate, implement and co-ordinate activities in waste management, environmental standards, chemical management, environmental monitoring, auditing and reporting, promotion of cleaner industrial production technology, and support the implementation of international and regional conventions.

#### ii) Natural Resources

Principle Objective: Ensure that approaches to conserving and managing natural resources and ecosystems are developed, introduced and implemented.

Primary functions: Monitor endangered habitats and ecosystems, support community initiatives in sustainable resource management and conservation strategies, develop and promote integrated ecological-based resource planning, support development of aquatic and terrestrial ecosystems management, develop and introduce methods to combat land degradation, support implementation of relevant regional and international environmental conventions.

#### iii) Research, Environmental Education and Documentation

Principle Objective: Enhance environmental education, research and documentation

Primary functions: Provide environmental education to strategic stakeholders, establish systems for collection, analysis, documentation and dissemination of environmental information, prepare State of the Environment Reports (SOERs), and disseminate environmentally friendly technology.

#### iv) Environmental Impact Assessment

Principle Objective: Institutionalise EIA as a mandatory guiding tool in achieving sustainable socio-economic development and ecological sustainability.

Primary functions: Collaborate with legal division in the formulation of EIA policy and legislation, finalise national and sectoral EIA policies, procedures and guidelines, establish an appropriate monitoring and auditing system, conduct public awareness activities on EIA, and collaborate with national, regional, and international institutions dealing with EIA and related matters.

<sup>&</sup>lt;sup>5</sup> Source: NEMC Strategic Plan for 1998-2002 (December 1997)

#### v) Finance and Administration (and Audit)

Principle Objective: Enhance institutional capacity of NEMC

Primary functions: Acquire human resources to fill key vacancies, secure necessary material and equipment, develop and implement effective management mechanisms for internal co-ordination and co-operation, propose an appropriate organisation chart, develop procedures for dealing with crises and ad hoc tasks, develop and implement staff incentive packages, computerise the accounting system, improve administrative procedures within NEMC, improve equipment and material management.

#### vi) Legal Division

Principle Objective: Recommend supportive environmental policy and legislation

Primary functions: Revise and propose amendment and/or repeal of all related environmental Acts, formulate and propose new relevant environmental and related Acts, and recommend the incorporation of ratified international and regional conventions into the national environmental legal regime.

#### e) Congruence between mandate, policy, structure, functions and activities

With the exception of the Village and Lands Act (1999) that added new powers over land development, NEMC's legal mandate has remained unchanged since its inception in 1983. NEMC reviewed its enabling 1983 Act in 1994 and submitted proposed amendments to the VPO, however no action has resulted. The proposed amendments were centred around stronger enforcement and regulatory functions, mainly for pollution. Based on a review of the Council's legal mandate, current functions and activities, a reasonably good fit appears to exist (see Appendix 4). The PPC, NR and EIA Directorates address the broadest array of specific mandates under the 1983 Act.

Comparing the NEP with legal mandate, functions and activities reveals an inconsistency with pollution enforcement, highlighted in the Council's proposed amendments to the VPO. The 1997 NEP specifies that NEMC shall enforce pollution control, and to that effect, the Council has been strengthening its capacity with respect to EIA and pollution. The specification of standards, norms and criteria (such as regulatory standards) is well within the Council's legal mandate (Section 4-h of the 1993 Act). There is some debate about the Council's legal powers of enforcement under the 1983 Act. A reading of the 1983 Act appear to provide the Director General of NEMC with an indirect legal mandate for enforcement of regulations and standards, basically by convincing sectoral agencies (water, health, forests, etc) to implement enforcement elements of their own legislation (Section 7-a of the Act). Others would argue however, that NEMC does not have direct powers of enforcement and is therefore weakly positioned to carry out these functions.

The existing organisational structure appears to support the range of activities that address specific issues in the legal mandate. Since 1983, the Council has grown in staff and activities but largely within the governing legal mandate. The co-ordination mandate is critical since to be effective, most NEMC programmes must involve a range of actors, including sectoral Ministries and departments, research institutes, and donors. One concern that was raised by some NEMC staff and external stakeholders was the need for the Council to apply a matrix management system where

teams cutting across Directorates would be established to focus on specific tasks. The Director General appears to be moving this way already.

#### f) Institutional issues

NEMC operates as a lead agency in the institutional milieu governing environmental management. This leadership role is recognised in both the legislation and underlying policy frameworks. However, NEMC management, stakeholders and donors are increasingly worried over the growing tangle of environmental institutions and relationships between key players in the past several years. Initially, the NEMC was created as a corporate body in 1983 by legislation. In 1990, the Division of Environment (DoE) was created as a department in the Ministry of Tourism, Natural Resources and the Environment through a Presidential Instrument. There was no underlying legislation and the Presidential Instrument simply established an "Office" in the Ministry with responsibility for environmental policy, environmental protection, environmental sanitation, beach erosion protection, and the NEMC. There was no mention of the creation of the DoE in the Presidential Instrument, however the DoE appears to have emerged as a government department without a mandate specified through formal legislation.

In 1995/96, the environmental portfolio was transferred to the VPO. The NEMC was placed *under* the VPO as an advisory body while the DoE was placed *within* the VPO headed by a Permanent Secretary and reporting to the Minister responsible for Environment. In 1997, Cabinet approved the NEP. The NEP clearly indicates Ministry pre-eminence in core business activities of environmental policy-making, co-ordination, monitoring, environmental planning, and policy-oriented environmental research.

According to the NEP, the DoE's functions are as follows:

- Provide policy and technical back-up
- Execute the oversight mandate of the Ministry as required
- Undertake policy analysis, and develop policy choices to influence decision-making
- Co-ordinate broad-based environmental programmes, plans and projects which go beyond single sector approaches
- Facilitate meaningful involvement of civil society to broaden consensus and reduce insularity
- Develop basic management tools such as guidelines for EIA, environmental standards, national action plans, strategies and programmes, etc

These functions would be implemented through three sections; Environmental Policy and Planning, Environmental Pollution, and Environmental Impact Assessment. The DoE's staff complement has grown significantly since 1990 and its organisational structure appears to mirror that of NEMC in many respects. While the working relationship between DoE and NEMC may be collaborative, on paper there appears to be significant duplication between the functions of the DoE and NEMC, the former specified in the NEP, and the latter specified in the 1983 Act. Some people outside NEMC felt that the poor clarity of roles and responsibilities between NEMC and the DoE impacted negatively on NEMC's performance during the support period.

In addition, many other Ministries have environmental provisions in central, sectoral or local legislation. A recent report by the Lawyers Environmental Action Team (LEAT 1999) identifies ten cross-sectoral Acts, three local government Acts and 32 sectoral Acts with environmental provisions. Most of the Acts were promulgated more than 10 years ago, and some almost 25 years ago.

The report outlines many areas of duplication, a principle cause of institutional failure<sup>6</sup>. The issue of institutional conflict extends well beyond NEMC and DoE.

To address this institutional conflict, the VPO launched the Institutional and Legal Framework for Environmental Management Project (ILFEMP) in 1998. The project has consulted widely and solicited reasoned opinion from experts, including a team of lawyers from LEAT. The ILFEM project is structured in three phases. *Phase I* will establish the analytical basis to enable government to make an informed decision on the preferred institutional structure of future environmental management. *Phase II* will draft a new framework Environmental Management Bill to provide the legal foundation for institutional reform. *Phase III* will identify priority areas and a framework for a National Environmental Management Programme for co-ordinated donor support.

A draft report of the ILFEMP prepared in October offered four options for the structure of the central ministerial responsibility for environment. The analysis and identification of options was based on needs and functions rather than existing bodies, legal mandate, roles and responsibilities. In other words, the analysis started with a clean slate and tried to identify an effective and efficient institutional framework for all environmental matters.

The first two options support variations of a Ministry of Environment with no statutory bodies such as NEMC. The last two options support variations of a Ministry of Environment, with two statutory bodies such as NEMC. Based on a ranking using criteria of co-ordination, mainstreaming, stakeholder participation, good governance, capacity requirement, and response to national policies, the third option scores the highest. Key features of this option are shown in Box 2.

#### Box 2. Key features of ILFEMP option III

#### Ministry

- Located within either the President's Office, Vice-President's Office, or Prime Minister's Office
- Implements core functions of policy, legislation and inter-ministerial co-ordination

#### First Statutory Body

• Responsible for regulation and enforcement (inspection and enforcement of legislation, environmental audit, compliance and EIA)

#### Second Statutory Body

• Responsible for environmental development (co-ordination, information, education and awareness, capacity building, EIS, research and development)

Assuming this option is supported by Cabinet, most of the functions presently carried out by NEMC will be captured by the proposed statutory bodies. The main exception is policy formulation, which will clearly be a Ministry responsibility. If Cabinet approves the third option, a possible outcome is a split of NEMC functions between the two proposed statutory bodies. The present EIA, and Pollution Prevention and Control Directorates could be rolled into the first statutory body, while the Directorates of Natural Resources, and Research and Environment Education could form the core of the second proposed statutory body.

<sup>6</sup> This situation is not unique to Tanzania. Many countries in the Eastern and Southern Africa region are characterised by a complex web of environmental legislation, and many are now in the process of environmental law reforms.

17

Sida must proceed with caution in terms of longer-term support to NEMC until the ILFEMP process comes to closure. Cabinet will receive the ILFEMP submission through the VPO before the end of 1999 or certainly early in the year 2000. Drafting new legislation could take a full year, however since 2000 is an election year, the framework Bill could be delayed into 2001. Once the Cabinet decision is made however, the future institutional direction will be clear. If options three or four are selected, the mandate and functions of the proposed statutory bodies will be clarified. In the author's view, there is a high probability that existing NEMC Directorates and staff will form the core of both statutory bodies. If options one or two are selected, it is logical to assume that the professional staff in NEMC would be shifted to a central Environment Ministry, given their skills and experience. Therefore, Sida should continue to implement the present two-year bridging programme to NEMC. Once Cabinet makes a decision on the ILFEMP submission, Sida can assess longer-term support options.

Assess the professional competence of NEMC staff against stated job descriptions and required qualifications. How has human resource capacity changed over time?

When NEMC was created in 1983, initial staff numbers were less than six. In 1995, the Council had 44 staff, comprising of 19 professionals and 25 in support positions such as drivers, secretaries and administrative officers. A recent list provided to the author indicated 96 positions filled. Of these, 52 are professional, and 44 support. According to the Director General, the number of professional staff is approximately 80 percent of desired levels. One-third of the total staff complement are female. Two of the five Directors are female. Of the professional staff, approximately 30 percent are female.

Interviews indicated that some employees and Directors were not aware of job descriptions for their posts. Some staff indicated they had written their own job descriptions at the request of their Director but were not aware if these had been approved. An exercise was carried out under the auspices of the 1996 strategic planning process where most staff wrote a summary of their primary job functions. However, it appears from staff interviews that little follow-up on this activity has occurred. If job descriptions exist for most staff, it was not apparent to both the author and most people interviewed. It is important that job descriptions be drafted for all staff, from the DG down to the lowest paid administrative officer. The job descriptions should follow a consistent format, including a position number (according to civil service categories), job title, reporting relationships, summary of general responsibilities, budget and supervisory authority, followed by a more detailed listing of key job functions with proportionate time requirements (in percentages) listed alongside. The required and desired qualifications for each position should also be listed, including education, experience, and personal suitability. Job descriptions should be kept on the employee's personal file, with a copy held by the respective employee. Job descriptions are necessary for recruitment of staff and annual performance appraisals in the work planning cycle. They should be dynamic documents that reflect changing organisational priorities and individual job functions required to fulfil the mandate. If NEMC moves forward to improve job descriptions, a short-term consultancy could assist in providing ideas and helping draft a consistent template.

The apparent lack of job descriptions for all staff precludes a thorough assessment of stated requirements against qualifications of existing staff. Interviews and a review of documents indicate that at the professional level, most staff possess reasonable academic qualifications against current job functions. In 1995, of 19 professional staff, 11 had a Masters degree, seven had a Bachelors degree (or equivalent), and only one had a diploma level education. Presently, of the 52 professional

staff, two have PhD qualifications, and 29 have a MSc. degree. Most of the remaining professionals possess degree qualifications. The range of PhD and MSc. qualifications is extremely wide (Table 3) but still suggests that further capacity development is required for NEMC to meet its legal mandate and Directorate objectives.

Table 3. Final diploma, undergraduate and post-graduate qualifications among professional staff

General Field and Qualification	PhD	MSc	BA/Sc.	Dip.
Agriculture, soil science, veterinary science		2	4	4
Biology, botany, ecology, entomology	1	2	2	
Business studies		1		1
Cartography, GIS, remote sensing		2		1
Chemistry		4		
Communications		2		
Education			2	2
Engineering		2	2	
Forestry sciences			5	2
Law			3	
Marine and fisheries sciences	1	6	5	4
Natural resource and environmental management		6	3	1
Other		2	2	
Social sciences (economics, sociology)		5	1	
Zoology			4	

In the author's opinion, professional staff within NEMC are reasonably well-qualified (as measured by formal technical education) compared to similar organisations in other countries within Eastern and Southern Africa. However, there is still a need for professional staff with Bachelor's qualifications to obtain Master degrees as per the general goals of capacity building for NEMC. Further, justification could be made for selected professional staff to undertake PhD training, particularly where there is a strong research bias and/or a highly specialised advisory component to job functions. Should Sida consider longer-term assistance to NEMC, the Council must develop a comprehensive training plan, based on the priorities flowing from the current strategic planning process (see next section).

Evaluate NEMC's internal management system, including financial, human resource and programme management. Identify mechanisms to achieve more effective linkages between budget and programme planning.

#### a) Background

An organisation's internal management system is a critical factor in efficient and effective achievement of mandate, mission and goals. Successful organisations tend to be characterised by well-developed systems for managing financial and human resources, facilities and equipment, and programmes. The situation at NEMC is presently in transition to more efficient and effective management systems. Senior management is aware of the importance of this transition and is committed to

19

<sup>&</sup>lt;sup>7</sup> Information was not available to group training levels by staff within individual Directorates. Only the EIA Division provided this information within the four week mission period.

following through. An effective internal management system must encompass strategic planning, operational planning, budgeting and financial control systems, facilities and equipment management, and performance reviews of both people and programmes.

#### b) Strategic planning

Effective management begins with corporate strategic planning that addresses:

- Scope and mandate of an organisation's activities
- Matching of activities with the operating environment
- Matching of activities with resource capability
- Allocation and shifting of resources
- Values, expectations and goals of people in the organisation
- Direction that the organisation will move in the long term
- Implications for change throughout the organisation

NEMC produced its first strategic plan in 1997. The document reflects considerable input by senior staff. It provides valuable information on national environmental issues and priorities, the institutional structure surrounding NEMC, and detailed programme objectives for each Directorate using a Log Frame Analysis (LFA). The plan represents a good start at strategic planning but falls short in many areas. For example, existing resources and potential shifts to match priorities are not discussed. The document is essentially a detailed operating plan for each Directorate with little strategic intent and integration of Directorates. NEMC Directors who had been involved in plan development were aware of the document but did not use it in annual planning. Other Directors and most professional staff interviewed were unaware of the plan. This clearly indicates that the strategic planning process ended with the production of the report rather then being pushed down through the organisation into operating plans. A consensus of staff interviewed was that the 1997 strategic plan did not provide a clear sense of direction to the organisation.

NEMC is presently involved in a new strategic planning process driven by the Director General who clearly understands the value of effective strategic planning and has demonstrated experience in this area. External clients have been surveyed as part of the "environmental" review, and work is beginning on development of an organisational vision and mission. Internal resources are also being assessed. These developments augur well for the future and the process should provide a sound platform to guide the organisation into the next century. This process should be supported by Sida where required by NEMC, through short-term consultants. The strategic planning process is fundamental to guide the organisation through the potential changes in mandate and functions stemming from the ILFEMP process. It will also outline priorities for organisational development and programmes that might require future donor assistance.

#### c) Operational planning

An organisation such as NEMC needs an annual work plan with clear programme/project objectives, linkages with strategic priorities, specific resource allocations (personnel and budgets), measurable performance standards and defined accountability. Operational planning and review provides the framework for implementing strategic actions and broader organisational change. An external reviewer should be able to read an annual operating plan and gain a clear picture of what the organisation is doing, why, how resources are being allocated to achieve objectives, and where the resources originate.

Historically, NEMC's operational planning system has been ad hoc and donor driven. Systematic reviews of the work plan, as a normal component of a planning cycle, were not consistently applied until this year. Thus, the linkage between plans, budgets and review was very weak. One reason for this situation has been the uncertainty of sustained financial resources. Another important cause (see next section below) has been poor financial reporting systems. Resource constraints on government funds and delays in receiving donor funds from Treasury helped create a reactive operational planning approach. A third and easily addressed reason is that most people in management positions lack formal management training. A fourth reason has been the absence of a proper strategic plan to give overall direction and set priorities.

On a positive note, senior management is well aware of the need to improve operational planning, and positive changes have already occurred. The author is confident that the new strategic plan will link with, and guide lower level planning. Further refinements to the operational planning system could take 1-2 years and may require technical and financial support. The system should be computer-based to facilitate plan and budget roll-ups as well as end-of-year reviews as part of a planning cycle. The plan should reflect all activities within the organisation, including donor-funded projects. Improving annual work planning will fit with the government's goal of implementing a performance-based management system. In both strategic and operational planning, the goal is to establish an effective process to assist implementation rather than produce plans.

#### d) Budgeting and financial control

An annual work plan must match capital and recurrent budget allocations to specific activities. NEMC's core financial management system is based on manual ledgers and accounts. From 1986 to 1992, all accounts were kept in one ledger. This constrained the ability of NEMC to separate expenditures by income source, such as different donors. From 1993 to the present, each donor project has had separate ledgers. An overarching factor has been that donor funds to the government of Tanzania are not required to be reported or audited unless requested by donors. For the Sida bridging project, Excel spreadsheets are now used to produce financial reports. NEMC can now provide an excellent record of project objectives, achievements and financial performance. While these changes are positive, an organisation of NEMC's scale and budget level requires a more sophisticated computer-based financial management systems for cash-in and cash-out ledgers, variance, personnel (payroll, leave, etc), asset depreciation, and regular production of income and expense statements, and balance sheets. Requests for financial reports by donors would be much easier to meet<sup>8</sup>. Through Sida, a financial advisor was placed in NEMC from 1996-97 to advise on how the manual system could be computerised, train accountants on the new system, and help develop a new coding system and format for financial reports. Progress was made in coding and reporting (with Excel) but no progress was made to computerise the actual accounts. The insufficient time relative to the poor state of the accounts meant that the advisor's impact was limited.

The Dutch government will provide a computer-based system for accounts, plus training, within the next few months. The contract also includes revision of NEMC's financial management procedures by a major accounting firm. This is a major step forward and hopefully by the end of 2000, the system will be fully operational. It is important that all Directors have on-line "read-only" access to this system to monitor financial performance for projects under their control. A further posi-

<sup>8</sup> An example is the financial management system used in Forestry Canada where the author worked from 1980-1992 in one of the regional institutes. Staff complement was 75 and annual budgets were approximately \$4 million USD from

one of the regional institutes. Staff complement was 75 and annual budgets were approximately \$4 million USD from several sources. Each manager could look at his/her programmes through a networked computer and see the original budget allocation by project, expenditure to date, outstanding commitments and free balances. The accounts were updated weekly by a staff of two professionals and one manager.

tive development is that the new Chief Accountant in NEMC is a certified public accountant with solid private sector auditing experience.

Even before new accounting software is introduced, Finance and Administration staff should be trained on daily back-up methods using diskette or tape medium. It is understood that no routine back-up of the Excel financial reports is done. A simple step is to use the Windows back-up feature. Losing all the financial information on the computer without back-up systems would mean returning to the manual ledgers and re-entering all the information again. Training on backing-up files could be provided over a few days using local consultants.

Another aspect of financial management is the control system. Presently, financial control rests with the Director General. This system is not uncommon in bureaucratic organisations and it does provide for tight control with only one person holding budget authority. However, the system also brings costs of periodic delays in having requests approved (if the Director General is away), and having the Director General spend valuable time on scrutinising and signing all expenditure requests, some of which might be for trivial amounts. As part of the shift towards improved organisational efficiency, delegating limited financial authority to the Director level could be a longer-term goal of NEMC. Under this system, which is used widely in both the private and public sector in many countries, Directors would have signing authority for their budgets up to a certain amount. Expenditures over this level would still require approval by the Director General. Expenditure limits could gradually be increased for Directors as financial management experience is gained. This development however, can only occur once a more robust financial management and annual work planning system are established. The goal of financial delegation is recognised by senior management. This is another positive sign.

#### e) Facilities and equipment management

The present facilities and supporting infrastructure for NEMC are inadequate to allow full achievement of its mandate. Staff are currently spread between two buildings, about a five minute walk away. Management, finance and administration, and some senior staff are concentrated in the head office at Tancot House. Most other professional staff are located in the other office at Pamba House. Both facilities are overcrowded, with most staff sharing offices. Furniture allocation in the satellite office is inadequate for staff numbers but is improving through Sida support.

Having junior professional staff separate from management in another building is an obvious constraint to organisational performance. Information management is more difficult as junior staff must walk to Tancot House to review files or use the documentation centre. Managers do not have daily contact with all junior staff, reducing opportunities for interaction and direct supervision.

The most serious physical constraint is the phone system. Because of an 8 million TSH phone bill to the state communication parastatal, all phones were disconnected. At this time, only three phones work; a cell phone in the Director General's Office, and one phone in each of two small donor-funded projects (non-Sida). The Director General's cell phone is used to support a fax machine as well as periodic logging on to E-mail and Internet service. Virtually all external stakeholders complained that the Council is difficult to contact, thus leading to a perception by some that the Council is slow and unresponsive. It must be stated that Council management and staff do the best job possible under these extremely trying conditions, but without better communication systems, NECM can not fulfil its mandate. A recent decision to use a local wireless firm for communications is leading to marginal improvements in phone communication and access to Internet, however further improvements are still required.

The lack of phones in every office means that communication is difficult and E-mail is not readily available. Even fax communication is being compromised. More important, opportunities for staff to use the Internet are limited. The Internet is an invaluable source of information, statistics, research and contacts in all technical fields related to NEMC's activities. It can provide useful material often at no direct cost compared to ordering hard copies of books and periodicals. Some organisations such as EDI of the World Bank are developing on-line training material in subjects such as environmental economics. On the other side of the coin, NEMC could establish web sites to facilitate co-ordination and information exchange with domestic and international stakeholders. A full phone service in NEMC would cost about 2500 SEK per month, while a single Internet/E-mail contract is about 400 SEK per month. While donors might not wish to support recurrent phone costs, there is scope to provide equipment to monitor all outgoing phone calls as a control measure, and support wider Internet access.

Not all professional staff have a computer. While Sida has provided a large number of computers over time, this has not kept up with organisational growth. Some Directors and many professional staff are writing material by hand, then submitting it to a secretary for typing. The Sida bridging programme will increase computers in the EIA Directorate, but this will not address wider issues of inadequate computer facilities for other Directorates. Purchasing computers and printers is important, but the longer-term ability of NEMC to provide for consumables and periodic asset replacement could be a problem. Table 4 indicates that almost half the computers purchased by Sida since 1986 are no longer working.

The crowded facilities at Tancot House have also restricted the continued development of the documentation centre. Shelf space is limited and as a result, new acquisitions cannot be catalogued and stored. At this time, approximately two-thirds of the material on hand is catalogued. A computer system is used for classification and searching, but it is not clear if it is compatible with systems used by other libraries, for example at Universities and research institutes. There is no system for inter-library loans, which could improve sharing of limited reference resources among different libraries. The documentation centre is used by many professional staff, but complaints about the lack of space and subsequent constraint prohibiting new material being catalogued and shelved were common. The material and related services offered by the documentation centre cannot expand further without a larger room.

Two suggestions are made to improve the impact of the documentation centre. First, for internal staff, the librarians should circulate a list of recent acquisitions every couple of weeks. This allows staff to know about new material that has been received and it can be reviewed before being piled in a corner or under a table in the documentation centre. Second, NEMC should lead an initiative to co-ordinate the cataloguing of all relevant material in various partner libraries. It is not cost-effective for NEMC to duplicate collections kept elsewhere. Similarly, other libraries need to keep all the same information as NEMC. Shared cataloguing among environmental libraries is needed. A consultant might be required to help review catalogued material in each partner library, evaluate the compatibility of cataloguing systems, and make recommendation to improve the co-ordination aspect.

The Finance and Administration Directorate is responsible for keeping an inventory of equipment. Sida has provided vehicles, computers, printers, software, office furnishings, and laboratory equipment for monitoring. An inventory list was given to the author, dated August 1999. Separating Sida and government funded inventory is difficult because until recently, coding was the same. However, based on discussions with staff, most of this inventory is through Sida support (Table 4). It is clear that Sida has provided the majority of capital equipment to NEMC since 1986. However, the high

proportion of non-working electronic equipment suggests that NEMC has not been able to replace worn out or broken items. With computers, regular maintenance and dust covers will reduce problems.

Table 4. Estimated inventory of Sida funded capital equipment

Description	Number	Condition
Tables and desks	+/- 60	All good
Chairs	+/- 135	2 broken
Filing cabinets	10	All good
Shelves	18	All good
Air conditioners	15	All good
Desk top computer monitors	21	6 not working
Computer CPU's	28	12 not working
Printers	21	9 not working
Central power units (CPUs)	17	7 not working
Laptop computers	6	3 not working
Audio-visual equipment	3	All good
Photocopy machines	3	1 not working
Fax machines	1	Good
Vehicles	6	2 not working

#### f) Human resource management and performance review

Regular evaluations of staff and management performance are an integral component of effective planning and management systems. These systems typically have managers and individual employees meet at the beginning of the planning cycle to establish objectives and budgets for work activities, and then identify individual performance criteria. Each employee has specific performance targets identified for the coming budget year, based on his/her job description, as well as corporate and Divisional goals. These are then reflected in the annual work plan. Periodically throughout the year, and certainly near the end of the year, each employee's performance reviewed by his/her supervisor. The Chief Executive would evaluate the performance of Directors against targets. These reviews form the basis of employee evaluation. The best systems have annual performance targets set jointly by employee and supervisor, forming a "contract" for subsequent evaluation.

NEMC ostensibly uses the government appraisal process where employees fill in part of a form to describe their achievements, which is then passed onto the manager who fills in other areas. The form is then apparently reviewed by the Director General and filed. Employees are not allowed to see these forms once they are completed. In NEMC, annual performance appraisals are not regular practice for most Directors and staff. Some staff did not know about appraisals. All people interviewed expressed a strong desire to move towards a more meaningful appraisal system. As mentioned earlier, job descriptions are an important element of performance appraisals. In any shift towards an improved planning system, consistent job descriptions must be drafted for all staff. A short-term consultant might be required to assist NEMC strengthen its performance review system, including a revision of forms and training.

Assess the financial structure of NEMC according to sources of income over the period of study. Evaluate the ability of NEMC to sustain future activities under a scenario of possible phasing out of Swedish support. Discuss options for NEMC to generate greater internal fiscal sustainability.

#### a) Income sources

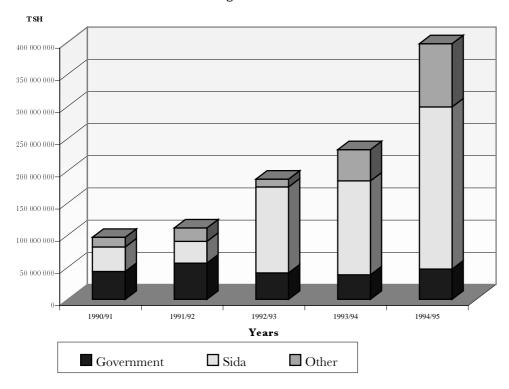
NEMC receives operating income from two sources, government disbursements through the annual estimates as per Section 16 of the 1983 Act, and donors. The only records of income by source made available to the author were for the period 1990/91-1994/95 (Appendix 5). The results are summarised in Figure 2. A number of trends are evident. First, government contributions (in nominal terms) have remained fairly static during the period. Government funds essentially cover salaries and allowances. Given that NEMC has expanded staff numbers in the past three years, government contributions have increased. It is understood that government contributions for 1999/2000 are approximately 72 million TSH.

Applying index numbers to the government expenditures indicates trends after adjusting for inflation<sup>9</sup>. In real terms, the government allocation in 1994/95 has the only about 41 percent of the purchasing power of the 1990/91 allocation. Clearly, government allocations have not kept pace with inflation. Presently however, inflation is under more control and should have less impact on the real value of allocations.

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<sup>&</sup>lt;sup>9</sup> Since the index value (national Consumer Price Index) had a base year of 1994 = 100, the index values before that time will tend to increase nominal expenditures. After 1994, nominal values will decrease when adjusted. None of the values in Appendix 5 use an index value of 100 since they are presented in fiscal years. The approach was to use the index number for 1991 to adjust the fiscal year 1990/91, 1992 to adjust fiscal year 1991/92, etc. Though not exact, the results give an indication of how inflation has reduced purchasing power of government allocations. Source: Bank of Tanzania Economic Bulletin, Q2 1995.

Figure 2. NEMC income by source, 1990/91-1994/95



#### NEMC Funding 1990/91-1994/95

The proportion of donor funds from total income has increased from 55 percent in 1990/91 to almost 90 percent in 1994/95. Sida allocations comprised of 72 percent of total donor funds and 63 percent of the total income in NEMC for 1994/95. Based on discussions with NEMC management, this pattern has continued to the present time, with the exception of 1998, when support was temporarily suspended. It is important to note that the other donor funds are tied to specific projects such as the Cross-Border Biodiversity initiative and the Coastal Management Programme. Sida has been the primary source of resources for NEMC capacity and institutional development. As well, Appendix 5 only accounts for C-funds disbursed through the government of Tanzania. D-funds retained by Sida for technical advisors, external consultants and major capital items are not included. Consequently, Appendix 5 understates the level of overall Sida support to NEMC. Unfortunately, financial records available to the author during the mission do not allow a more detailed analysis. The main point here is that Sida has largely underwritten the growth and development of NEMC from 1986 to now. The period 1990/91 to 1994/95 provides a detailed snapshot of this situation.

#### b) Financial sustainability

Appendix 5 and Figure 2 illustrate that NEMC is dangerously dependent on Sida. The dependence has continued to the present time. Should Sida withdraw support, it is unlikely that government allocations can fill the void in light of fiscal constraints imposed by the ongoing structural adjustment programme. Current government allocations to meet salaries and minimal recurrent costs are barely adequate. The government now makes disbursements to line ministries and parastatals like NEMC based on income received over the previous quarter. This has meant that salary payments have been delayed on a few occasions. Without Sida support since 1986, the Council would not have developed to its present scale. Withdrawing this support in the absence of other income

sources would render the Council inoperable. Staff would still be paid by government, but the Council would not be able to fulfil its operational mandate at an effective level.

Would other donors step in should Sida decide to withdraw its funding? It is unreasonable to assume that another donor would be willing to make up the Sida allocations in the immediate term for two reasons. First, many donors are now holding back environmental support pending the ILFEMP review. As indicated earlier, it could be two years before new legislation is passed and a comprehensive national environmental management programme is developed to guide a more coordinated approach for donor support to the environmental sector. Second, some donors are reducing bi-lateral aid due to tighter fiscal policies at home. Once the ILFEMP process has culminated in an environment management programme, it is logical to assume that a co-ordinated mix of donors could support specific functions of NEMC in any statutory bodies that might emerge.

The bottom line at this time is simple. If Sida withdraws its support to NEMC during the course of the ILFEMP process, NEMC will collapse. It is suggested that Sida continue to assist NEMC, particularly for organisational development, technical programmes and training. Whatever form NEMC takes after the ILFEMP process, its core functions will continue and professional staff utilised.

#### c) Options for increasing NEMC revenues

Given the poor financial base of NEMC without donor funds and the bleak outlook for additional government resources, a logical solution is to explore options for NEMC to earn revenues<sup>10</sup>. A longer-term goal would be to reduce the dependency of the Council on both government and donors for core operating expenditures.

Rather than examining how NEMC can raise revenues based on existing legislation (which are limited), a pro-active approach is needed to look beyond ILFEMP and the legislative changes this will bring. Creative initiatives will be required to provide sustained income to NEMC or its successor. A truly independent statutory agency would be largely self-financed, have adequate facilities and equipment, and retain skilled staff being paid a realistic income, commensurate with private sector levels.

A NEMC submission to Sida in March 1996 for future programme support identified several options for raising revenues. These can be classified into three categories of revenue; 1) economic instruments, 2) fees for service and 3) income from fixed assets. No estimates were made for potential revenues with the first two types.

#### Economic instruments

This category includes taxes on polluting products such as agro-chemicals, fines for violating laws and regulations, emission charges, etc. Several options for these revenues were identified, however in some cases sectoral agencies were better positioned to collect the revenues, for example fishing and forestry.

#### Fees for service

This category covers situations where the Council provides a service and collects a fee. Examples include performing EIA reviews, providing consulting services, charging for publications, etc.

<sup>10</sup> The retention of revenues by government agencies is not new to Tanzania and is a policy thrust of economic reforms. Similar situations exist in other countries in the region, for example Zimbabwe's Department of National Parks and Wildlife Management recently was transformed to an Authority through legislation. It is allowed to retain a certain percentage of all revenues collected from fees and permits. The department is now virtually self-sufficient.

#### Income from fixed assets

The report presented a case for donors to build a new Environmental Centre to house the Council. The estimated cost, using present exchange rates, is about 3 million US\$. The Centre would have excess capacity for commercial rental at market rates. Based on available rental area of 1,000 m², it was estimated that a minimum of 90,000 US\$ per year could be retained as net revenue. This is equivalent to the total government budget allocation to NEMC for 1999/2000. In the opinion of this author, NEMC requires a new building. Some donors such as JICA could possibly support this type investment. However, it is recommended that plans for a new building be postponed until Cabinet has decided on a future institutional framework for environment.

Another source of sustainable income is for NEMC to establish a trust fund. The legal mandate to establish such a fund exists in the 1983 Act. Environmental trust funds attached to one organisation are used in many countries in the developed world to ensure revenues raised from environmental sources are returned to the organisation. This is slightly different than a broader environmental fund envisioned in the NEP where income is used for field projects such as planting trees, rehabilitating degraded land, etc. Arguments against trust funds are based on efficiency, that is, revenues might earn a higher return if spent in other areas such as health or education.

Assuming a NEMC trust fund could be created, income sources could be from bulk donor contributions, fees for service and selected economic instruments. A fund with a 5 million US\$ capital base could, at a 10 percent rate of return, generate a pre-tax sustainable income equivalent to the level of Sida support for 1999. A more modest capital base of 2 million US\$ could generate 200,000 US\$ annually, or approximately 160 million TSH. Combined with a rental income of 70 million TSH per annum, this income flow could sustain the bulk of NEMC's current operations.

It is interesting to note that during the period 1990/91 to 1994/95, average Sida contributions were approximately 282,000 USD\$ per annum. If these funds had been deposited into a trust fund, earning 10 percent per year, the accrued value of this fund after five years would have been 1.7 million US\$. If three donors could each contribute 250,000 US\$ per annum for five years, the trust fund would reach 4.6 million US\$ at a 10 percent return and generate 460,000 US\$ per annum.

It is suggested that Sida consider underwriting a study to identify and quantify potential revenues earned from economic instruments, fees for service, rental income from fixed assets and compare these to core operating expenses of NEMC. This would provide an idea of the capital base required from a trust fund to earn sufficient income to meet a gap between revenues from the other sources and expenditure needs.

#### 3.2 Performances and Results

Assess the relevance of the Swedish supported **training** programme in relation to goals and expected results. What is the impact from the Swedish support on the general competence of the institution and its ability to achieve objectives?

#### a) Goals and results

The broad goals of the training programme were outlined on page 7 of this report. To summarise, training has been provided to build technical and institutional capacity within NEMC to allow more effective delivery of its legal mandate. Appendix 6 provides a list of training outputs from Sida investments, for the period 1989 to 1997. No records were found prior to 1989. In the 1999–2000 bridging project to NEMC, training has received a low priority. From 1989 to 1993, records of Sida-funded training were located, however the quality of the information leaves much to be desired. For example, the nature of the training is not described, number of participants is often

omitted, and costs are not shown. From 1993 to the present, the quality of information generally improved with the exception of consistent financial data. For this reason, the cost per participant in various training exercises cannot be derived. Only a qualitative assessment of training options is possible.

From Appendix 6, the main capacity development options used were short courses and long-term training. Professional staff were the principal recipients of training, both in Tanzania and externally. Finance and administration staff tended to participate mostly in local training programmes. There were several cases of people outside NEMC being offered training such as teachers, industry, Members of Parliament and officials from the government Department of Chemistry.

Given the pressing need to build internal capacity in almost all technical areas after the Council was established, the emphasis on professional staff was a logical priority. From Appendix 6, it appears that staff in Finance and Administration did not participate in Sida-sponsored training until 1993/94. Considering the problems in project planning and financial management for the first several years, it might have been prudent to invest more resources in these areas from the beginning of Sida support in 1986.

Long-term training is a big investment that carries a high risk of trained staff leaving for greener pastures at the first opportunity. Sida, along with other donors such as the Netherlands, has helped support selected staff to upgrade their academic qualification to the Master's level, which is in line with stated capacity development goals for NEMC. It is important that professional staff have respectable academic qualifications not only to perform more effectively, but also to build public confidence in the Council. Staff turnover has been exceptionally low. Thus, newly trained staff have been retained, adding value to NEMC with their expanded skills and knowledge. Over the early period of review, few institutions in Africa could offer high-quality graduate and post-graduate training in the specialised fields relevant to NEMC. Therefore, the decision to send staff to external universities for advanced degree training was valid.

The value of external, short-term training is often mixed. Certain courses are only available externally and, if of high quality, justification can be made to send selected participants. Several staff completed intensive training in EIA at the Centre for Environmental Management and Policy at Aberdeen, Scotland. This course is one of the best in the world of its kind. The NEMC staff who completed this training have clearly demonstrated application of their new knowledge and skills to EIA process and policy in Tanzania. The impact has been very positive in this area. On the other hand, questions must be raised with some of the external training, for example a computer course in Nairobi, human resource management in the UK, and project planning in Swaziland. It is not known if similar courses were available in Tanzania at the time, but if so, there would have been less justification for external training.

Study tours and technical meetings are an excellent means of providing practical knowledge and sharing of ideas for people possessing good academic qualifications but lacking experience. A well-organised study tour or technical meeting can "open eyes" and result in new initiatives in the home country once participants return. Appendix 6 indicates that two study tours were organised, one for senior management to Sweden on general environmental management, and the second to South Africa and Ghana on EIA. Given the need to build academic qualifications first, the low use of study tours is justified for the period under review.

Capacity development was extended beyond NEMC, in some cases for post-graduate training. Some might argue that the training should only have been available to NEMC staff. However the reality is that NEMC is a co-ordinating and advisory body. Effective implementation of environ-

mental policies and programmes depends on trained staff in line agencies of government, industry and other organisations. The decision to offer training outside NEMC is justified. The best example is the training provided to teachers in environmental education. This initiative will have benefits to Tanzania that endure well beyond Sida's support programme.

Interviews with NEMC staff and stakeholders suggests that the training component of the Sida support project had a significant and positive impact on the ability of people to address technical issues and deliver the organisation's legal mandate.

#### b) Future needs and options

An assessment of qualifications (earlier in this report) indicates that more than 50 percent of professional staff possess at least a Master's degree. Future support programmes should consider embracing post-graduate training for professional staff holding bachelor's degree, including those in Finance and Administration. It is suggested however, that suitable programmes be identified in Africa that are cost effective compared to Europe or North America. Programmes are available; for example several South African universities now offer high quality post-graduate training in many environmental fields. Using a South African institution could mean sending two or three people for the cost of one person in Europe or North America. In certain cases, selected staff should be considered for PhD training if their job functions carry a major research or advisory function. In these cases, the investment carries a higher risk because of the improved marketability of participants once they graduate. Many donor programmes are littered with cases of PhD trainees failing to return to their home country, or if they do, taking up employment with NGOs or the private sector where conditions of service are more attractive. PhD training must be used with caution and appropriate bonding mechanism used to ensure trainees return to NEMC for a given number of years.

With short-term training, a review of approach is needed. Sending one person to an external short course is not cost-effective. A better strategy might be to bring suitable external trainers to Tanzania and offer similar training to a wider number of people. This approach does not always result in a certificate from an institution, but what is the goal: to provide training or earn a certificate? It is suggested that in future, where training can be done locally, this is the priority instead of sending a smaller number of people to short courses outside the country. For certain programmes like CEMP in Aberdeen, there is no choice but to send participants abroad.

Given that a high proportion of professional staff now have post-graduate academic qualifications, future training programmes should place more emphasis on building experience. Several stakeholders expressed a view that younger NEMC professional staff had strong academic skills but lacked experience. One method to build experience is through study tours or technical meetings. Another approach is executive placement overseas for a few months in national environment agencies<sup>11</sup>.

A cheaper approach to gaining experience is through local executive exchanges. A number of professionals in other government departments suggested seconding younger NEMC staff into line positions in natural resource agencies, for example forestry, wildlife, fishing, mining, etc. Selected NEMC staff would gain strong sectoral field experience and knowledge necessary to provide expert sectoral advice to the Vice President's Office. At the same time, NEMC would benefit from having senior sectoral staff rotate into NEMC to gain national experience and build a broader array of in-

<sup>&</sup>lt;sup>11</sup> The Acting Director of Pollution Prevention and Control was the beneficiary of such a programme through an American fellowship. He was placed in the federal Environment Protection Agency, the private sector and universities over a six-month period. The experience gained was invaluable.

ternational contacts. This is a low-cost approach to build capacity within NEMC and sectoral agencies.

One critical area where improvement is needed is in management training. Most of the Directors interviewed have no formal management education. Managers are not borne with the requisite skills and knowledge. Management is instead learned over time through experience, and backed up with formal training. Most Directors are fairly new to their positions, having been promoted from senior technical posts. All expressed a need for management training. Suggested topics include basic accounting, advanced project planning, financial management and human resource management. In addition to current Directors, younger staff with management potential should also be exposed to basic management training to prepare them for future promotions to management positions. Management training can be effected through suitable short courses and having the documentation centre acquire a mix of reference books, periodicals and newsletters. It should be an ongoing process.

Training to external participants should continue where it is felt that the organisation and/or individual is a critical stakeholder in environmental management. This is necessary to build capacity more broadly in the country.

Assess the effectiveness and efficiency of Swedish support to address identified **organisational needs** and weaknesses and more generally for institutional building, staff development, and financial management.

Inconsistent financial information means that the efficiency of Sida support cannot be properly evaluated. General effectiveness can only be reviewed, since broad project goals were not evident. As indicated earlier in this report, Swedish assistance to NEMC has covered all aspects of organisational development. Certainly, one of the early needs was to equip the office to allow technical activities to proceed. Second, many staff needed technical training. Third financial management systems needed to be developed in concert with a growing organisation.

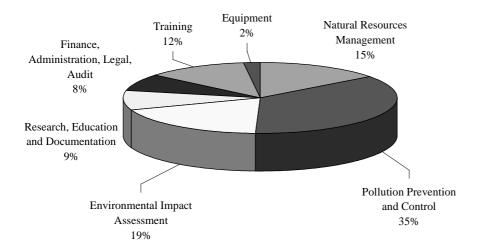
Over the period 1994-2000, the four technical Directorates (DNR, DREED, DPP&C, EIA) account for 78 percent of total C-Fund expenditures (Figure 3). Of these, the Directorate of Pollution Prevention and Control spent the largest share. One reason given was that pollution was an early priority. From the National Conservation Strategy and National Environment Policy, several other environmental priorities exist, such as land degradation. The allocations to technical Directorates supported the bulk of the Council's operational activities. Sida support has allowed the technical Directorates to grow and deliver NEMC's legal mandate.

Training accounted for 12 percent of expenditures and contributed to the ability of staff to fulfil NEMC's legal mandate. As discussed earlier in this report, these expenditures were generally well-targeted and had a significant impact on operational effectiveness. As long as trained staff are retained by NEMC, they will continue to add value to the organisation.

Equipment allocations during this period were only 2 percent, although as stated earlier, the bulk of equipment procurement occurred prior to 1994. Vehicles, computers and office furniture allowed NEMC to achieve a reasonable level of effectiveness for a young and growing organisation. One emerging problem however, has been the inability of NEMC to repair and replace defective equipment such as vehicles and computers due to government fiscal constraints. A second problem is the ability of NEMC to pay for consumables such as printer cartridges, toner, etc.

Finance and Administration accounted for only 8 percent of total expenditures during the period of review. As explained previously, one of the most serious constraints to operational effectiveness until recently was ineffective project and financial management. The placement of a Financial Advisor for two years did not fully these problems. The level of Sida support to these functions should have been higher from 1986. The investment in internal management systems did not keep pace with growth in other Directorates.

Figure 3. Total expenditures, Sida C-Funds, by Directorate 1994-2000



Assess the Swedish consultant's performance and impact on the development of the organisation.

#### a) Performance and impact

NEMC used D-funds to support a range of expatriate technical advisors (Table 5).

Table 5. Sida supported technical advisors

Directorate	Advisor Focus	Time Period
Natural Resources	NCS advisor (1)	1991-1993
	NCS/organisational advisor (1)	1992-1996
Pollution Prevention and Control	Pollution specialists (3)	1986-1987
		1988-1991
		1991-1997
Finance and Administration	Financial specialist (1)	1995-1997

Based on discussions with NEMC managers and senior staff, all the technical advisors had strong knowledge and skills. The DNR advisors made a significant contribution, especially in assisting the NCSSD process to completion. The three advisors in DPP&C made significant progress in expanding the scale of activity in the Directorate. The contribution of the financial specialist in F&A was felt to be more limited compared with stated objectives. Although progress was made with project coding and establishing Excel for financial reporting, the broader goal of computerising accounts was not met due to inadequate time relative to the task.

#### b) Working relationship with NEMC

Full-time expatriate advisors are a major investment in terms of recruitment, fielding and demobilisation costs, and international salary and benefits. The way in which advisors are placed in a host organisation and their approach to sharing skills and experiences are critical success factors. Some models have an advisor paired with a single counterpart, while others have the advisor floating among a pool of counterparts. Advisors themselves can support and nurture counterpart development, or take on the majority of responsibilities while leaving the counterparts behind.

The technical advisors placed in NEMC appear to have followed a floating system, working together with more than one counterpart. This approach can be a very effective method of sharing skills and experience. By working with several counterparts, capacity building tends to be broader but with less depth in any specific field. On the other hand, building broad capacity avoids the problem of one highly trained counterpart eventually leaving and the organisation having no "bench strength".

Where counterparts take on the majority of the day to day activities, much like a staff member, more objectives are achieved but at the expense of building counterpart expertise. With the exception of the NCS advisors, the consensus among NEMC staff and management interviewed was that advisors tended to work in isolation, taking on responsibility for much of the specific tasks or Directorate's activity. The end of assignment report for the final pollution advisor tends to confirm this view. The report clearly indicates that the advisor assumed a de facto staff role, attending meetings on behalf of NEMC without counterparts, sitting on technical committees, etc. A mitigating factor might be that the Director General at the time wished to see this role played by advisors. While the advisors advanced the NEMC agenda, it was often done independently and with insufficient transfer of skills and knowledge to counterparts. As a result, the consensus was that with the exception of the NCSSD advisors, the technical advisors generally had a low impact in terms of leaving behind enduring skills and experience.

#### c) Future options

All Directorates indicated that future advisory support was required (Table 6).

Table 6. Suggested needs for future technical advisors in NEMC

Directorate/Division	General Fields of Expertise
Natural Resources	Genetics, biotechnology, biodiversity
Environmental Impact Assessment	Environmental economics, audit, inspection
Pollution Prevention and Control	Environmental chemistry, standards
Research and Environmental Education	Information technology, Internet, library management
Finance and Administration	Implementing new financial management system and linking with work plans
Legal	Linking ILFEMP with EIA, standards, etc.

While recognising these needs, the consensus was for a different model for external advisors, based on a part-time approach. Advisors would travel to Dar es Salaam periodically throughout the year, and work from 2-4 weeks each time. Specific tasks would be designed and initiated with counterparts. The advisor could also provide in-house training related to the tasks. Then the advisor would depart, coming back later to review progress, begin new tasks, etc. In this approach, NEMC counterparts would be responsible for moving the project forward and learning would be continuous without the danger of the advisor becoming a de facto staff member. Assuming NEMC can rebuild its communication capability, counterparts could discuss issues and progress with the advisor by E-mail. Documents could also be sent by E-mail for review. A benefit to Sida is that this model would be considerably cheaper than a full-time resident advisor, even taking into account air travel and short-term accommodation. It is estimated that a part-time advisor could be contracted for between 10 and 20 weeks a year depending on the operational requirements of NEMC.

Another issue is that NEMC management and senior staff did not appear to be as fully involved in selecting advisors as desired. NEMC would have had an opportunity to review CVs and provide input on the paper qualifications, but more involvement should be encouraged if possible and subject to financial constraints. Personal suitability is an important selection criterion and personal interviews are the best approach for assessment<sup>12</sup>. However, arranging interviews for part-time advisors is difficult to justify. One possible alternative is telephone interviews with prospective advisors.

Assess the outputs and results of the Swedish support in relation to costs. To what extent can the support to institutional building, staff training and financial management be said to have been cost effective? (addressed in 2)

This element cannot be assessed due to inconsistent financial information. The cost element of training, advisors, institutional building, etc. has been discussed in previous sections.

Assess the overall achievements and results from the Sida supported activities within the **different** departments in relation to stated targets and objectives.

#### a) Background

Table 2 provided a detailed list of objectives/activities for each Directorate, culled from various documents. Using these objectives/activities as a template, Appendix 7 provides a detailed listing of achievements for each Directorate from 1989 to 1997. Poor records preclude an evaluation prior to 1989. The achievements were culled from available documents such as ad hoc progress updates, annual requests for funding from NEMC to Sida, and project plans where past accomplishments were noted.

In general, each Directorate made a significant number of achievements. However, when compared to the timing of objectives, progress was slower than anticipated in many cases. The 1994-1997 management audit pointed out numerous examples where objectives were not achieved as planned. Part of the problem of slow progress was likely due to inexperience in project planning and the lack of a strategic plan for the organisation from inception. A proper strategic plan from 1986, when Sida funding started, would have helped NEMC identify priorities and focus scarce resources more effectively. A related issue is the poor definition of objectives earlier in the project. In many cases, quantifiable and measurable performance standards were never stated. In the author's view, NEMC might also have tried to achieve too many objectives early in the project. This reflects lack of experience in project planning and management, both on the part of NEMC

<sup>&</sup>lt;sup>12</sup> With the author's own experience as a senior advisor on a large CIDA environment programme in Zimbabwe, senior Zimbabwe Ministry staff were flown to Canada to help interview the short-listed candidates for senior advisory positions. The Zimbabweans made the final decision about selection.

and Sida. As experience was gained however, it is also clear that defining objectives and the level of achievement has improved.

#### b) Natural resources and EIA

Ten objectives were noted in Appendix 7. In all cases, activity occurred with varying degrees of success. In several instances, even where objectives were set several years ago, further work is required to bring closure to the task. This implies that objectives might have been too ambitious in some instances relative to organisational strength and experience. Major success stories include completion of the NCSSD, ongoing EIA activity encompassing reviews and the introduction of public hearings into the process (for the Rufiji prawn farm project), draft marine contingency plan, and compiling a wetlands inventory. Many of these activities involved direct participation from stakeholders. NEMC was instrumental in initiating and co-ordinating activities leading to a final product, knowledge being transferred, etc.

#### c) Pollution prevention and control

Seventeen individual objectives were found from 1989 to 1997. Activities ranged from short studies to longer-term projects, spanning several years. Most of the activities related to each objective came to reasonably full closure. Some of the highlights include the draft plan for oil spill contingencies, the regional surveys of polluting activities, introduction of mercury recycling methods in gold mining, demonstration projects of municipal waste management, and development of air and water quality standards. In these success stories, NEMC undertook research or co-ordinated multipartner activity, especially as work progressed to the implementation stage. This is well within NEMC's legal mandate. Part of the reason for the high achievement rate of objectives rests with the steady flow of technical advisors through this Directorate. Although questions have arisen about the effectiveness of skill transfer to counterparts, there is no doubt that the advisors contributed to the success stories.

In a number of other cases however, where a study was completed, or a report prepared, the obvious question is "what happened next"? There is little information to indicate that follow-up work occurred in these cases (urban air quality, lubricant recycling, surveys of mining operations, hospital waste disposal, greenhouse gases and ozone, and phasing out leaded fuels).

#### d) Research, environmental education and documentation

Seven distinct objectives were found from available documents. These reflect a mix of short-term and ongoing activities. Probably, the most measurable success was the introduction of environmental education into national school curricula at primary, secondary, and tertiary levels from 1990-94. Several workshops to raise awareness were held but the impact is not measurable. However, the workshop to sensitise members of Parliament was well targeted and should pay long-term dividends in the country. The establishment of the documentation centre is another success, although as indicated earlier, lack of space has constrained continued development. A newsletter is published bi-monthly, and the quality has improved significantly. The Directorate has demonstrated a strong bias to work in partnership with other organisations and this is a notable achievement.

#### e) Finance and administration (plus legal and audit)

Five separate objectives were identified. The core objectives relate to acquisition of office equipment, literature and vehicles. Inventory lists indicate that a significant quantity of equipment was procured. At the same time however, the inventory shows a high proportion of equipment is no longer working, especially computers. It is not clear if maintenance of equipment has received as high a priority as procurement. As an example, using cloth dust covers for computer equipment can extend working life and reduce failure rates. The slow progress in upgrading the financial manage-

ment system has been a serious constraint since project inception and blame must be apportioned to both Sida and NEMC. Limited progress was made with legal reform.

#### 3.3 NEMC'S Role in the Society

Assess how and to what extent NEMC relates to and interacts with different actors in the society, for example (other governmental institutions and ministries, politicians, the private sector, mass media and NGOs, local government, general public).

From the organisations surveyed, NEMC has gradually developed reasonably strong working relationships with a wide range of external stakeholders and partners. This is facilitated mainly in four ways (examples given are not all inclusive):

- i) Contracts for studies and other contributory work with joint projects:
- State of the Environment report with AGENDA (an environmental NGO)
- Legal work by LEAT
- Environmental education with AGENDA, teachers groups and Government
- Consulting work by various university departments on TCMP, EIA, mariculture
- ii) Joint committees, boards, and working groups:
- Cross-membership between NEMC, Water and Land-Use boards
- Various government line-departments and NGOs sit on NEMC working groups related to environmental education, TCMP, Cross-Border Biodiversity projects, State of the Environment, etc.
- iii) Personal relationships and good organisational working relationships:
- NEMC may advise government agencies, NGOs and the private sector on a range of issues such as EIA, pesticides, environmental standards, etc.
- NEMC staff are often asked to lecture in University programmes
- General information-sharing
- iv) General public awareness:
- Media articles in the press
- Newsletter and technical reports
- Use of documentation centre by other groups
- Periodic workshops to sensitise specific groups
- Public hearings with EIA (example of Rufiji Delta case)

These examples illustrate that NEMC can and does work through other organisations. There is a clear opportunity for NEMC leadership in some tasks where they have a comparative advantage in expertise. EIA is a good example. On the other hand, several stakeholders suggested that NEMC should increasingly let other groups lead certain tasks. NEMC's role would be to help identify priorities, bring the right groups together and then help secure financial resources from donors. In other words, NEMC would "make things happen" and where necessary, let another group take the lead role. This role fits NEMC's current legal mandate and resource situation. NEMC's unique position in the VPO makes it a logical organisation to become a catalyst for priority actions in which it might then play a minor role. This approach appears to be supported by the Director

General and most Directors, and reflects a growing maturity in the organisation. Several stakeholders felt that in the past year, NEMC has become much more open about working with other organisations. This trend should be supported.

Assess the demand for NEMC's services from ministries, the industry, NGOs, the public, etc. How has this changed over time and why?

Interviews with stakeholders revealed a moderate demand for NEMC services, where an organisation contacts NEMC for direct assistance. As explained in the previous section, the interaction between NEMC and external stakeholders takes many forms. Often NEMC initiates contact when it seeks input or collaboration on a specific task. This is part of NEMC's co-ordination function. Some organisations such as the Planning Commission, Investment Centre, Water Board, Division of Environment, Land Use Planning Commission, environmental NGOs, universities, and the Forestry Division contact NEMC frequently for technical assistance. On the other hand, a few stakeholders had a lower demand for NEMC services, particularly with environmental information. The NEMC documentation centre was felt to be limited in certain areas such as business environmental management, economics, and law. However, these same stakeholders argued that NEMC need not have an all-inclusive documentation centre. A partnership with other libraries to share the responsibility for maintaining environmental information is a more realistic option.

The demand for NEMC services appears to have increased since inception. This is due to the increased status of environment in the political agenda, and the perception that environmental standards and regulation were gradually tightening. It must be noted that these changes are mainly due to NEMC activities to raise public awareness, and develop more effective environmental guidelines.

One consistent concern raised by stakeholders was that NEMC is now very difficult to contact because of inadequate phone service. It is hoped that the small improvements to the phone system in NEMC will continue.

Assess the overall impacts from NEMC's activities in the society. In what way has NEMC been able to influence:

- Environmental legislation and policies and other relevant sector policies
- Environmental management
- Governmental decisions on major development activities
- Mass media and public environmental awareness
- Gender awareness

#### a) Environmental legislation and policies, and other relevant sector policies

As shown earlier in the report, environmental institutions are being reviewed through the ILFEMP process. Phase II next year will involve a major overhaul of environmental legislation to consolidate numerous Acts and provide a legal foundation for the selection institutional option. NEMC has played a central role in the push to review the existing institutional framework as well as in the process itself. NEMC reviewed its own Act in 1994 but no changes resulted. The recent review of village By-Laws will likely result in changes to legislation in the near future.

With environmental policy, NEMC led the NCSSD process from implementation to completion. This process involved a wide range of stakeholders and the document underpinned a significant portion of the subsequent NEP, which was drafted by the Division of Environment. The main difference between the NEP and the NCSSD is institutional arrangements, but this is being addressed by the current ILFEMP process.

NEMC has had a strong influence on other sector policies. One specific example is the Investment Centre incorporating an environmental screening step into the appraisal of potential investment projects. In the author's view, the environmental section on the project investment application form needs to be strengthened, however the fact that environment is even considered by the Investment Centre is a positive development. Another example found in several line Departments such as Wildlife, Water, and Forestry is that policies concerning environmental impacts were developed.

Most stakeholders interviewed felt that the most significant impact of NEMC on their own operation was the raising of awareness about the importance of the environment and the need to consider impacts in policy and programmes. The awareness-raising has occurred through collaboration on projects, information exchanges and NEMC technical studies.

#### b) Environmental management

Through activities of the Pollution Prevention and Control, and the EIA Directorates, the private sector is slowly beginning to accept the fact that environmental management must improve. A few examples have been found where companies changed their practices based on NEMC audits and technical support. Current NEMC activities are continuing to promote environmental management in the private sector. As an example, NEMC is planning a workshop for industrialists on environmental management and EIA for early next year.

The recent inclusion of environmental assessment into the Investment Centre appraisal process has helped reduce the environmental impacts of new projects, with the exception of mining, where the Ministry of Mines has its own guidelines. It was understood that new mining projects are directed to the Ministry of Mines rather than through the Investment Centre. This anomaly is slowly being addressed at a policy level, but will likely require changes in legislation. The general consensus of stakeholders was that private sector support for environmental management was still very low. NEMC's enabling legislation has very opaque and rather limited enforcement functions. This has constrained the ability of the Council to push industry into improving environmental management through a combination of regulations, standards, penalties and economic instruments.

#### c) Governmental decisions on major development activities

NEMC has certainly raised public awareness of the linkage between development and environment. The 1997 Rufiji Delta prawn farm development proposal was arguably the single most important project that NEMC intervened with to provide objective advice to government. Against the technical advice of NEMC and many other organisations, a political decision to approve the project was made, however a subsequent legal challenge appears to have scuttled the development. The public outcry was largely due to NEMC sharing its findings through public hearings and other media, and more importantly not backing down from political pressure.

Another and more recent case involves a hydro-electric plant and the negative impact this could have on a rare species of toad. Government has made it clear that the power generation is critical, yet as signatories to the Convention on Biodiversity, it cannot allow the development to proceed if it means extinction of the toad. NEMC has been leading a process of compiling objective technical information on this development. Advise is and will continue to be provided to government but as with the Rufji Delta project, NEMC does not have the legal authority to make a final decision. Pending changes to environmental legislation governing NEMC, higher authorities are still free to make political decisions.

#### d) Mass media and public environmental awareness

Related to the previous points, NEMC has had a significant role in raising public awareness on the environment through the media. Even in the four weeks the author was in Dar es Salaam, several articles were found in the daily newspaper that discussed the environment and referred to NEMC. The inclusion of environmental modules in primary, secondary and selected tertiary curricula will have a longer-term impact on environmental awareness in the country. People casually interviewed at the hotel and shops by the author were generally aware of NEMC, although not always sure about its programmes. NEMC is well-known and there appears to be a confidence that it will act in the best interests of the country.

#### e) Gender awareness

Although gender refers to both men and women, the main concerns in Eastern and Southern Africa are the inequality of opportunities for women, and lack of appreciation of the important role played by women in society. A scan of various NEMC documents and technical reports suggests that female gender issues are often noted. As an example, the September 1999 newsletter has one article specifically on rural women and a cartoon depicting the working day of a "non-working" rural woman. A number of NEMC articles in the media also highlight the importance of women in the environment and development equation. This point was difficult to assess and suggestions for possible improvements (if necessary) are provided in the next section.

Assess the organisational sensitivity, policy and professional knowledge with regard to:

- gender and equity issues
- national economic performance
- poverty alleviation
- youth and children activities

Interviews with staff and a review of published material suggest a strong awareness of gender and equity issues as well as general linkages between poverty and environment. Most staff have rural roots and are well aware of the need for poverty alleviation. Although many NEMC activities do not *directly* address poverty, a reduction in environmental degradation will ultimately contribute to sustainable development and an increase in rural income. It is a fair assessment to state that NEMC activities should not directly raise rural incomes, increase education opportunities, etc. The Council's legal mandate and core functions are targeted at making indirect contributions to these issues in an advisory role to government and other stakeholders. While there is no specific gender/equity expert on staff, many professional officers have some training in these subjects.

There is clearly a strong awareness of youth and children's activities among staff in the Research and Environmental Education Directorate, evidenced by past and current programmes to incorporate environment into school curricula. Knowledge of the national economy and how it is changing is limited to a few staff with formal economics training. It is important that staff have a basic understand of these changes and how they can affect government budgets, inflation, exchange rates, etc.

If there are deficiencies in certain areas among staff, this can easily be addressed through internal short courses. Another approach to ensure that female gender, poverty, etc are covered in publications is to establish a checklist for the editorial committee to follow when reviewing material. Various criteria could be assessed and suggestions made to the author(s) to add relevant material.

# 4. Conclusions

# 4.1 Project History, Development Context, Project Description<sup>13</sup>

#### History

Since 1986, the Swedish International Development Agency (Sida) has been the largest single source of financial and technical support to Tanzania's National Environment Management Council (NEMC). The Council's 1983 enabling legislation defines an advisory and co-ordinating role. NEMC reports to a Board and operates as a statutory body in the Vice-President's Office.

#### Development Context

Sida support to NEMC falls under a development goal of environmental care, one of six general development goals for Swedish aid to Tanzania. Improved environmental management associated with development policies and programmes will provide a foundation for longer-term economic and social growth, especially in rural areas. NEMC is in a strong position to influence sustainable development, which in turn addresses poverty. Sida support to NEMC has been designed to strengthen the Council's ability to advise government and formulate policy relating to environment and development. Sida support to NEMC is thus is making a substantial contribution to sustainable development in Tanzania.

#### Project Description and Constraints to the Evaluation

Sida support has been vital to the growth and development of NEMC. Sida support to NEMC has allowed the organisation to grow from an initial staff complement of less than six to almost 100 professional and administrative positions, covering capital equipment, training, technical advisors, and resources for specific tasks in each Directorate. A detailed evaluation of both the Council's activities and the Sida support project was hampered however, by poor documentation of project goals, objectives and outputs, especially during the first several years from inception. Broad goals were not usually stated. Instead, lists of proposed activities (assumed to reflect objectives) were attached to individual Directorates. Until recently, objectives were rarely defined with measurable performance standards for effectiveness and efficiency. Therefore, a fairly course evaluation has been undertaken.

# 4.2 NEMC's Organisational Structure, Effectiveness and Efficiency<sup>14</sup>

#### Organisational Structure and Mandate

NEMC is headed by a Director General, appointed by the President, who reports and is responsible, to an independent Board. NEMC was originally structured around three Directorates (Natural Resources; Pollution Prevention and Control; and Finance and Administration) reporting to a Director General. A fourth Directorate (Research, Environmental Education and Documentation) was added in 1990. In 1996, a fifth Directorate (Environmental Impact Assessment) was created, shifting resources and staff from Natural Resources. The Council's legal mandate has not changed significantly over time. A reasonably close fit exists between the legal mandate and functions and activities of the Directorates. The main underlying policy governing NEMC is the recent National Environment Policy (NEP), which was led by the Division of Environment in the Vice-President's

<sup>&</sup>lt;sup>13</sup> Refer to Section 1.0 of the main body for more information.

 $<sup>^{14}</sup>$  Refer to Section 3.1 of the main body for more information.

Office. Growing concern by many stakeholders over a confusing institutional structure over environment has led to a major review of institutions. The task force responsible for the review will soon submit its report to Cabinet. Four options are presented and based on a ranking of various criteria, an option that would retain and strengthen the legal mandate and functions of NEMC is preferred. However, this option would likely see the current NEMC split into two statutory bodies. Sida's support will not be lost as NEMC functions and staff would continue to operate, although through these other bodies.

#### Human Resources

NEMC is blessed with a core of highly trained staff in a wide range of technical fields. In general, a good fit exists between the qualifications of professional staff and function. Of the 96 current positions filled, 52 are professional, and 44 support. Of the professional staff, 31 have post-graduate qualifications. One-third of the total staff complement is female, including two Directors. One issue however, is that most staff are not aware of their current job description that lays out general duties, reporting relationships, financial authority, detailed responsibilities and academic/experience requirements.

#### Internal Management Systems

Perhaps the most serious impediment to NEMC's output has been poor internal management systems. The first strategic plan was only completed in 1997, 14 years after NEMC was created. This plan appears to strengthen the approach of planning on a Directorate basis rather than more holistically where tasks would cut across Directorates. The plan failed to provide a clear sense of direction for the organisation. The lack of a strategic plan earlier in NEMC's history compounded a bias towards ad hoc and donor driven operational planning. Budgeting and financial reporting has until recently, been extremely poor, resulting in Sida and NEMC being unable to consistently account for how much was spent since 1986 and in what areas. The historical linkage between annual project planning, budgets and achievements leaves much to be desired. However, significant progress has been made in the past year to generate improvements in these areas. A more robust strategic plan is being developed. Planning is becoming more team-oriented and performance based. A financial reporting system for the Sida project can now link budgets, expenditures, and achievements. A new computer-based financial management system is being developed with assistance from the Netherlands to replace the manual ledgers still being used. In hindsight, Sida should have directed more financial and technical support to NEMC's internal management systems, beginning in 1986. This would have helped avoid subsequent and very serious problems with NEMC's planning and financial management both at an organisational level, and specific to the Sida project itself.

Human resource management within the Council needs further strengthening. Staff indicated a strong desire to be evaluated within a performance based management system where annual objectives are jointly agreed between staff and management, and then used as a basis for annual appraisals. This is one area where future Sida support could be directed.

Other constraints to organisational effectiveness are having staff split between two buildings and inadequate phone service. NEMC desperately requires a new building, capable of housing all staff and thus promoting more synergy between Directorates. Phone service was cut off after NEMC accumulated arrears of 8 million TSZ. Most external stakeholders complained about the difficulty of contacting NEMC. It is incomprehensible for professional staff in a high-level statutory body like NEMC to not have a telephone. The problem rests with government's structural adjustment programme and fiscal restraint. Yet while Ministers proclaim to support the environment, a national body with major environmental responsibilities does not have the ability to communicate effectively with other organisations. Senior management is slowly and creatively addressing this problem

through a wireless system that provides modest phone, E-mail, fax and Internet service, however significant investment is still required to bring the Council's communication capability to an effective level. Sida should consider supporting wider introduction of wireless phone capacity and technology that NEMC can use to monitor phone costs.

#### Financial Structure and Options for the Future

Government support to the Council is generally limited to salaries and benefits for staff, plus modest contributions to the recurrent budget. Other donors have assisted periodically but mainly for specific projects. The proportion of donor funds from total income increased from 55 percent in 1990/91 to almost 90 percent in 1994/95, the only years for which information was available. Sida allocations comprised 72 percent of total donor funds and 63 percent of the total income in NEMC for 1994/95. Based on discussions with NEMC management, this pattern has continued to the present time. Sida is the only donor to have provided consistent institutional support to NEMC. These data paint a picture of NEMC dependence on Sida for the bulk of capital and operating expenses outside of salaries and benefits. This dependence must be addressed through a combination of measures to generate revenues, including:

- Economic instruments (taxes and charges on pollution, fines, etc.)
- Fees for service (cost-recovery for services such as consulting and EIA review)
- Income from fixed assets (rental income from excess space in a new building)
- Trust fund income (annual income from a NEMC trust fund)

A trust fund with a capital value of 2 million USD and office rental income of 100,000 USD\$ could meet most of NEMC's operational costs and lead to an organisation with sustainable income. These developments can be implemented once the institutional framework surrounding NEMC is cleared up through the ongoing ILFEMP process. Sida could support this process by funding an interim study to identify and quantify potential revenues from economic instruments, update the study on potential rental income and assess donor support for a trust fund.

# 4.3 Performance and Results<sup>15</sup>

Assessment of the Training Element of Sida Support

Sida's support to capacity development has had a significant and positive impact on the ability of NEMC to fulfil its mandate. This activity has primarily embraced long and short-term training with a focus on professional staff. Training has taken place both locally and externally. This mix and focus was appropriate to match NEMC's early needs and level of development, as well as the reality that few institutions in Tanzania could offer a quality of education equivalent to foreign institutions. Most of the external training was justified with a few minor exceptions. Looking ahead, NEMC still has a need for professional staff to undertake post-graduate training to meet the broad objective of all professional staff having at least Master's level academic qualifications. In exceptional cases, PhD training could be justified where an individual has significant research and highly specialised advisory functions. Academic qualifications must be balanced with experience, especially in an organisation with a strong advisory mandate. A stronger shift to regional "external" training programmes is suggested for the future for cost efficiency reasons, provided that the programmes are of high quality.

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<sup>&</sup>lt;sup>15</sup> Refer to Section 3.2 of the main body for more information.

Many stakeholders expressed a concern that some of the younger staff in the Council, while holding solid academic qualifications, lacked the necessary experience to provide sound technical advise in highly specialised fields. Future capacity development programmes for NEMC must therefore have a stronger bias towards building experience. This can be done through programmes to place the individual in overseas organisations for 2-3 months, including government environment agencies, private sector and research institutes. A lower-cost approach is an exchange programme with government line agencies in Tanzania such as Forestry, Fisheries, Wildlife, Water, Energy, Mining, etc. Younger NEMC professionals could gain important field experience in a selected discipline, while more experienced line staff could work in NEMC to gain a broader perspective. Another training method that will build experience is greater use of study tours and participation at technical/scientific meetings.

#### Assessment of the Institution Building Element of Sida Support

Lack of consistent financial data precluded an assessment of efficiency and effectiveness of this element. Over the period 1994-2000, the four technical Directorates (DNR, DREED, DPP&C, EIA) account for 78 percent of total Sida C-Fund expenditures. Of these, the Directorate of Pollution Prevention and Control spent the largest share, although it is not clear why this was the case. Sida support has allowed the technical Directorates to grow and deliver NEMC's legal mandate.

Training accounted for 12 percent of expenditures and contributed to the ability of staff to fulfil NEMC's legal mandate. The procurement of vehicles, computers and office furniture allowed NEMC to achieve a reasonable level of effectiveness for a young and growing organisation. One emerging problem however, has been the inability of NEMC to repair and replace defective equipment such as vehicles and computers due to government fiscal constraints. A second problem is the ability of NEMC to pay for consumables such as printer cartridges, toner, etc.

Finance and Administration accounted for only 8 percent of total expenditures during the period of review. The level of Sida support to these functions should have been higher from 1986. The investment in internal management systems did not keep pace with growth in other Directorates.

#### Assessment of the Swedish Consultants Performance

Sida supported expatriate technical advisors in Natural Resources, Pollution Prevention and Control, and Finance and Administration from early in the project until 1997. All advisors were technically competent and advanced the NEMC agenda, particularly in pollution control. However, with two noted exceptions, the advisors had a tendency to assume most of the work responsibilities rather than advising, guiding and sharing knowledge. The long-term impact of the advisors in terms of imparting enduring skills and knowledge to counterparts was felt to be low by NEMC staff interviewed. Future support programmes should consider part-time advisors who work on specific tasks and who would be resident for short periods throughout the year. All Directorates expressed a desire to use expatriate advisors in this manner and outlined several areas where expertise was needed.

#### Assessment of the Achievements by Directorate

Sida support has been largely responsible for helping NEMC Directorates complete a large number of activities. Each Directorate had several success stories that have had an impact on the environmental agenda in the country. At the same time, some activities were slow to be completed, and others did not progress beyond completion of a final report. NEMC tried to achieve too many objectives early in the project. This reflects lack of experience in project planning and management. As experience was gained however, it is also clear that defining objectives and the level of achievement has improved. Another positive trend is the co-ordination function, where NEMC identifies

issues, creates partnerships and finds resources. The vast scale of the environmental agenda in Tanzania means that relevant organisations each must play a small part, based on inherent expertise and legal mandates. NEMC is uniquely positioned to play a central role in "making things happen", and this function should be supported by Sida.

### 4.4 NEMC's Role in Society16

Relationships with other Stakeholders

Since 1986, NEMC has gradually extended its links with a wide number of stakeholders. These linkages occur mainly through:

- Contracts for studies and other contributory work with joint projects
- Joint committees, boards, and working groups
- Personal relationships and good organisational working relationships
- General public awareness

Many examples provided by stakeholders illustrated that NEMC often does work through other organisations. Several stakeholders suggested an even stronger co-ordinating role for NEMC. Activities should be led by NEMC where the Council has a comparative advantage in skills in experience. If not, the leadership of specific tasks could be shifted to a partner. A pivotal role of NEMC in future should be to "make things happen" by identifying priorities, bringing the right players together and then helping find resources where needed. This approach is being pursued by management and should be supported by Sida where necessary.

#### Demand for NEMC's Services

The demand for NEMC's services appears to have increased over time as the organisation has grown and raised awareness of the environment. Several important stakeholders regularly request technical assistance from NEMC, particularly for EIA. Once EIA becomes folded into law, the demand for NEMC services in this area should grow. Given the resource constraints in NEMC however, creative ideas are needed to share the work such as partnerships with the university and other institutions, establishing a list of certified EIA professionals, etc. With information services, the documentation centre is one of several such libraries that stakeholders use for technical material. NEMC should lead a partnership of relevant information centres to encourage pooling of resources.

#### Impact of NEMC in Society

NEMC has created a measurable impact in many other organisations. Several stakeholders indicated that internal policies, programmes and activities were modified because of NEMC's activities. The most cited impact was from the NCSSD and its influence on sectoral policies, followed by EIA. As one example, the Tanzanian Investment Centre developed EIA screening policies because of its relationship with NEMC. The tough stand taken by NEMC through its EIA review process on some high profile and politically charged development proposals has earned the Council deep trust and respect. Environmental education has had a national impact, through ongoing media campaigns and the introduction of environment into primary, secondary and some tertiary curricula.

<sup>&</sup>lt;sup>16</sup> Refer to Section 3.3 of the main body of the report

#### Operational Sensitivity

Interviews with staff and a review of published material suggest a strong awareness of female gender and equity issues as well as general linkages between poverty and environment. While there is no specific gender/equity expert on staff, many professional officers have some training in these subjects. There is clearly a strong awareness of youth and children's activities among staff in the Research and Environmental Education Directorate, evidenced by past and current programmes to incorporate environment into school curricula. Knowledge of the national economy and how it is changing is limited. Deficiencies in certain areas among staff can be addressed through internal short courses and by establishing checklist for the editorial committee to follow when reviewing material.

# 5. Recommendations

- 1. The current ILFEMP process will likely reshape NEMC's mandate, structure and functions. Assuming Cabinet makes a decision on an institutional framework in 2000, Sida can then assess options for future long-term institutional support. It is recommended that as an interim measure, Sida should continue its bridging programme to the end of 2000.
- 2. The current strategic planning process is arguably the most important activity being undertaken by NEMC as it will guide the organisation through external shifts in legal function resulting from the ILFEMP process, and internal change management. It is recommended that Sida consider providing short-term technical support to this initiative if requested by NEMC management.
- 3. A comprehensive training plan should be one outcome of the strategic plan. It is recommended that Sida consider supporting a detailed needs assessment of all NEMC staff and development of a long-term training plan by the end of 2000 to help NEMC meet strategic priorities.
- 4. It is recommended that a comprehensive training plan present a mix of long-term training (mainly at MSc level and preferably within the region), and options for helping younger staff gain experience through secondments abroad, study tours, technical meetings, and local executive interchanges with line Ministries and Departments.
- 5. It is recommended that with expatriate advisors, future assistance from Sida focus on part-time assignments to build capacity within NEMC while avoiding problems of dependency.
- 6. It is recommended that Sida consider amending the bridging programme to allow for short-term training in gender, equity and basic economics for professional staff.
- 7. NEMC requires substantial and continued improvement to its internal management systems to become a more effective and efficient organisation. It is recommended that to the end of the bridging programme and beyond, Sida consider supporting the Director General to implement the following actions:
  - Improve project planning and management practices to support the shift towards team projects that cut across Directorates and form partnerships with other stakeholders
  - Improve human resource management through development of current, consistent and transparent job descriptions for all staff, and changing the performance appraisal system, including training where needed
  - Expand the wireless phone system, install monitoring equipment and increase Internet access
  - Improve the lifespan of computers by regular maintenance and using dust covers
  - Reduce potential computer software problems by using and updating a high-quality antivirus programme and internal management controls to stop virus entry into the computer system
- 8. It is recommended that Sida consider short-term technical support to rationalise environmental information systems through establishing a NEMC-led partnership of relevant information centres. This support would assist NEMC review the materials and cataloguing systems used in partner libraries, create an inter-library loan system, and build a web site at NEMC.

9.	To help build financial sustainability for NEMC, it is recommended that Sida consider providing technical assistance to review potential revenue generation from economic instruments, fees for service and rental income on fixed assets.

# 6. Lessons learned

This evaluation should provide valuable lessons for Sida to apply to similar institutional building programmes in other countries. These are as follows:

The most important lesson is that institutional support to the operational activities of an organisation will not ensure long-term effectiveness and efficiency. Financial and technical support to the organisation's internal management systems is equally, if not more important for long-term sustainability. Even before technical functions are strengthened, it is imperative for Sida to assess the status of internal management systems and the ability of the organisation to effectively absorb increased financial resources. Modern financial management, project planning and management, and general management information systems are vital to ensure that Sida funds are used effectively and can be monitored regularly. At the same time, it is important for local Sida offices to ensure that their own internal information management systems will provide an accurate record of disbursements, expenditures and outputs over time and in a consistent manner.

A related lesson is that basic communication systems must also be supported. As this evaluation has demonstrated, 13 years of technical support can be compromised if the host organisation is unable to communicate with the outside world. Adequate phone and Internet service are critical to the efficient operation of any organisation. While recognising that phone service in many developing countries leaves much to be desired, the shift from inefficient land lines (and state phone services) to private wireless systems offers hope for improvement. This is already happening with NEMC.

The pattern of continued institutional support without an ultimate goal does not build institutional sustainability but rather dependency, particularly in developing country economies. With a long-term support programme, the host organisation must be assisted to identify and create means of ensuring financial sustainability. The concept of trust funds and accessing various sources of revenue should be explored, including necessary legal reforms. If the host organisation cannot stand on its own after long-term donor support, questions must be raised about why the support was even initiated.

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Appendix 1

Sida financial support to NEMC, 1994–1997 and proposed funding for 1999–2000, C-funds.

Directorate	1994	1995	1996	1997	1998	3 1999	9 2000	%
Natural Resources Management	1070046	800778	968830	579196		0	0	15
Pollution Prevention and Control	778863	503594	1203315	108637		3545013	3 2226739	36
Environmental Impact Assessment	161125	464668	166120	475168		) 1622786	6 1501165	19
Research, Education and Documenta-	753755	476847	662550	243311		0	0	6
tion								
Finance, Administration, Legal, Audit	82936	2103	270269	1231133		) 198043	.3 144236	80
Training	608503	453064	579440	839210		) 116496	193054	12
Equipment	0	159927	65315	0		93197	7 56585	5
Total Expenditure SEK	3,455,228	2,860,981	3,915,839	3,476,655	0	5,575,535	4,121,779	
Total Expenditure TSH	236,821,327	230,165,921	363,938,077	276,359,306	0	478,603,924	371,495,941	
Real Expenditures TSH	262,551,360	198,761,590	259,770,219	169,962,673				
Exchange rates $(TZS/SEK)^{-1}$	68.54	80.45	92.94	79.49	82.92	85.84	90.13	
National CPI (December 1994=100) <sup>2</sup>	90.5	115.8	140.1	162.6				

Notes:

Figures for 1999 and 2000 reflect budget requests, not expenditures

<sup>1:</sup> Mid-year interbank rates (Oneida On-line exchange rates

<sup>&</sup>lt;sup>2</sup>: Bank of Tanzania Economic Bulletin, 4th Quarter 1995

DCD Tomas Andersson 1999-10-25

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Terms of reference for the evaluation of swedish support to national environment management council, (nemc), tanzania 1986–1999.

#### 1 Background

NEMC is the Tanzanian national advisory and co-ordination body for the environment. It was established in 1983, as a parastatal body under the Ministry of Lands. The political responsibility for the environment was, however, transferred to the Vice President's Office (VPO) and consequently, in December 1995, NEMC was transferred to VPO.

The Government of Sweden, through the Swedish International Development Co-operation Agency (Sida), has been the main collaborating partner with the National Environment Management Council, (NEMC), since 1986. The annual Swedish contribution has been approximately 5 million SEK for general institutional support and for international advisors within NEMC, with the purpose to assist in building up NEMC's professional and administrative capacity. Sweden has through this support covered the main parts of the Council's budget for development activities. Other donors, for instance the Netherlands and USAID, have contributed to different defined projects executed by NEMC but have not given substantial general institutional support.

Sweden's support to NEMC up to 1996 was one of the components of the Tanzania – Sweden Forestry and Environmental Programme. However, in the process of preparing a new programme support to land management activities 1997–2000, it was agreed that NEMC was to be lifted out and come under a separate agreement.

Instead of signing a new three year agreement it was decided to extend the present agreement with NEMC with one year, 1997. This year was to be seen as a "transition year" which would give the Government of Tanzania time to consolidate NEMC's role and mandate and prepare a proposal for a Swedish support to NEMC for 1998–2000.

However, due to continuos uncertainties of NEMC's role and mandates in relation to other institutions as well as in its internal organisation, the collaboration came to a temporarily halt 1 January 1998.

In order to streamline the institutional framework on environmental management, the government has commissioned a national study. This study on Institutional Framework for Environmental Management in Tanzania, ILFEMP, was launched by the Vice President's Office. This study is coordinated by a working group and the outcome of the work will probably influence on NEMC's future role and mandate.

In February 1999 a new agreement was signed for Swedish support to NEMC during a two year bridging period while waiting for the results from the ongoing study on Institutional Framework for Environmental Management.

The Swedish support to NEMC and how NEMC functions as an institution as well as its role in the society have never been properly evaluated. Therefore, such an evaluation will be conducted to provide an important basis for Sida's consideration of possible continued support to the organisation including volume, form and content.

#### 2 Purpose and Scope of the Evaluation

The purpose of the evaluation is to provide information about the experiences of Swedish support to NEMC to be used as an input to the decision regarding a possible continued support to the organisation.

The scope of the evaluation is to assess:

- A) the extent to which the Swedish institutional support to NEMC has contributed to increase the competence of the institution and its ability to achieve goals.
- B) the overall achievements and results from the Sida supported activities for NEMC as a whole and within the different departments, in relation to stated targets and objectives.
- C) NEMC's ability to influence on environmental- and other sector policies, major governmental decisions on development activities, mass media, public awareness etc.

#### 3 The Assignment

The evaluation shall cover, but not necessarily be limited to, the major aspects and issues listed below. The evaluation shall consider the whole period of Swedish support to NEMC but shall mainly focus on the period, 1994–1999. The consultant shall, from the findings from this retrospective evaluation, and in the light of the on going study on Institutional Framework for Environmental Management, elaborate on how a possible future Swedish support to NEMC could be directed to support the national process to strengthen the environmental management in Tanzania. The consultant shall during the evaluation be in close contact with the Vice President's Office to be fully informed about the present status of the ongoing process.

Specific issues to consider in the evaluation with specific point of departure from the years of 1986, 1994 and 1999:

#### A) NEMC's organisational structure, effectiveness and efficiency

- Assess the relevance of NEMC's organisational structure and work plans in relation to its legal mandate, underlying policies, and formal/informal agreements with other organisations. How has this changed over time?
- 2. Assess the professional competence of NEMC staff against stated job descriptions and required qualifications. How has human resource capacity changed over time?
- 3. Evaluate NEMC's internal management system, including financial, human resource and programme management. Identify mechanisms to achieve more effective linkages between budget and programme planning.

4. Assess the financial structure of NEMC according to sources of income over the period of study. Evaluate the ability of NEMC to sustain future activities under a scenario of possible phasing out of Swedish support. Discuss options for NEMC to generate greater internal fiscal sustainability.

#### B) Performances and results

- 1. Assess the relevance of the Swedish supported training programme in relation to goals and expected results. What is the impact from the Swedish support on the general competence of the institution and its ability to achieve objectives?
- 2. Assess the effectiveness and efficiency of Swedish support to address identified organisational needs and weaknesses and more generally for institutional building, staff development, and financial management.
- 3. Assess the Swedish consultant's performance and impact on the development of the organisation.
- 4. Assess the outputs and results of the Swedish support in relation to costs. To what extent can the support to institutional building, staff training and financial management be said to have been cost effective? (addressed in 2)
- 5. Assess the overall achievements and results from the Sida supported activities within the different departments in relation to stated targets and objectives.

#### C) NEMC's role in the society

- 1. Assess how and to what extent NEMC relates to and interacts with different actors in the society, for example (other governmental institutions and ministries politicians, the private sector, mass media and NGOs, local government, general public)
- 2. Assess the demand for NEMC's services from ministries, the industry, NGOs, the public, etc. How has this changed over time and why?
- 3. Assess the overall impacts from NEMC's activities in the society. In what way has NEMC been able to influence:
  - environmental legislation and policies
  - other relevant sector policies
  - environmental management
  - governmental decisions on major development activities
  - mass media
  - public environmental awareness
  - gender awareness
- 4. Assess the organisational sensitivity, policy and professional knowledge with regard to:
  - gender and equity issues
  - national economic performance
  - poverty alleviation
  - youth and children activities

#### 4 Methodology, Evaluation Team and Time Schedule

#### Qualifications

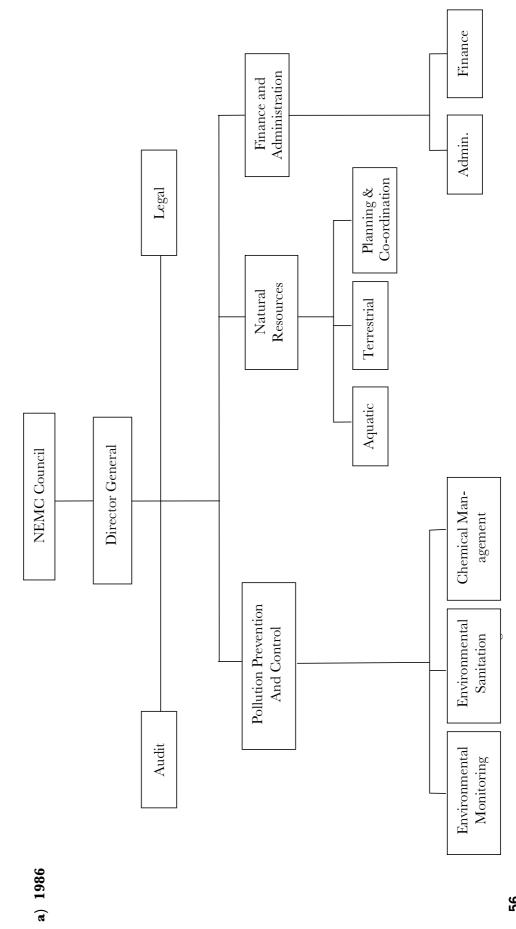
The consultant shall have good knowledge in environmental management and institutional organisation issues from developing countries. The assignment includes an evaluation of NEMC's ability to perform and reach its objectives and goals with specific point of departure from 1986, 1994 and 1999. The assignment is envisaged to demand a total of 30 working days of which 24 days in Tanzania and 6 days for preparations and report elaboration. The field work in Tanzania shall be carried out during November 1999 and a draft report shall be submitted to the Embassy not later than 15 January 2000.

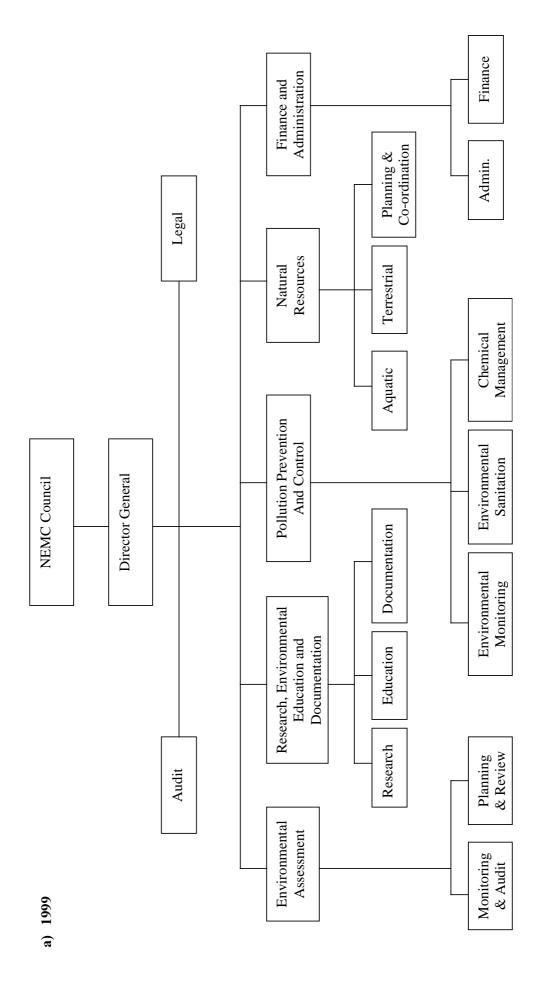
#### 5 Reporting

The consultant shall report his preliminary findings to the Embassy of Sweden in Dar es Salaam before departure from Tanzania. The evaluation report shall be written in English and should not exceed 40 pages, excluding annexes. Format and outline of the report shall follow the guidelines in Sida Evaluation Report – a Standardised Format. One copy of the draft report shall be submitted to the Swedish Embassy no later than 2000-01-15. Within 2 weeks after receiving the Embassy's comments on the draft report, a final version in 1 copy and on diskette shall be submitted to the Embassy. Subject to decision by the Embassy, the report will be published and distributed as a publication within the Sida Evaluations series. The evaluation report shall be written in Word 6.0 for Windows (or in a compatible format) and should be presented in a way that enables publication without further editing. The evaluation assignment includes the production of a Newsletter summary following the guidelines in Sida Evaluations Newsletter – Guidelines for Evaluation Managers and Consultants and also the completion of Sida Evaluations Data Work Sheet. The separate summary and a completed Data Work Sheet shall be submitted to the Embassy along with the (final) draft report.

# Appendix 3

NEMC Organisation Charts 1986–1999





Appendix 4 NEMC Legal mandate and scale of activities<sup>1</sup>

Legal Mandate	DPPC	DNR	EIA	DREED	F&A, LEGAL
<b>Formulate</b> policy on environmental management and <b>recommend</b> its implementation by the Government	×	XX	XX		
<b>Co-ordinate</b> the activities of all bodies concerned with environmental matters and serve as a channel of communication between those bodies and the Government	X	XXX	×	×	
<b>Evaluate</b> existing and proposed policies and the activities of the Government directed to control pollution and the enhancement of the environment and to the accomplishment of other objectives which affect the quality of the environment and, on the basis of that, <b>formulate</b> policies and programmes which will achieve more effective management and enhancement of environmental quality	XXX	×	XX		
<b>Recommend</b> measures to ensure that Government policies, including those for the development and conservation of natural resources, take adequate account of environmental effects	XX	XXX	×		
<b>Foster</b> co-operation between the Government, local authorities and other bodies engaged in environmental programmes	XX	XXX	×		
<b>Stimulate</b> public and private participation in programmes and activities for the national beneficial use of natural resources	XX	XXX	XX	XXX	XX
<b>Seek</b> advancement of scientific knowledge of changes in the environment and <b>encourage</b> the development of technology to prevent or minimise adverse effects that endanger man's health and well-being	XXX	XX	×		
<b>Specify</b> standards, norms and criteria for the protection of beneficial uses and the maintenance of the quality of the environment	XXX	X	XXX		×
<b>Establish and operate</b> a system of documentation and dissemination of information relating to the environment	XX	X	×	XXX	
Formulate proposals for legislation in the area of environmental issues and recommend their implementation by the Government	XX	X	×		XXX
<b>Establish and maintain</b> liaison in other national and international organisations respect of issues and matters relating to environmental protection and management	X	XX	×		
<b>Undertake or promote</b> general environmental educational programmes for the purpose of creating an enlightened public opinion regarding the environment and the role of the public in its protection and improvement	X	×	×	XXXX	
<b>Perform</b> such other functions as the Minister may assign to the Council, or are incidental or conducive to the exercise by the Council of all or any of the preceding functions.	X	×	X	X	X

 $^{1}$  X = low activity, XX = moderate activity, XXX = high activity

Appendix 5

NEMC income structure, 1990–1995

Nominal Values

Contributor	1990/91	1991/92	1992/93	1993/94	1994/95
Government	43,296,500	56,066,190	40,950,318	37,974,305	47,000,000
Donors					
Sida	37,904,070	34,010,500	133,632,000	145,853,604	251,738,548
Other	15,100,348	20,864,590	12,118,382	48,513,555	98,395,372
Sub-Total	53,004,418	54,875,090	145,750,382	194,367,159	350,133,920
Total Contributions	96,300,918	110,941,280	186,700,700	232,341,464	397,133,920
% donor funds of total	55	49	78	84	88
% of total from Sida	39	31	72	63	63
% donor funds from Sida	72	62	92	75	72
Real Values	;	,	i i	(	,
Index values (1994=100)	44.4	54.1	8.79	90.2	115.8
Government	97,514,640	103,634,362	60,398,699	42,100,116	40,587,219

Appendix 6 Summary of Training Through Sida Project

Year	Number Trained	Participant's Organisation	Duration of Training	Location of Training	Description of Training
1989/90	Unknown	NEMC	5 short courses	Tanzania	No description available
	Unknown	NEMC	2 long courses	Unknown	No description available
	2	NEMC	Study tour	Sweden	Study tour for NEMC Chairman and Director General
	Unknown	Industry	Unknown	Tanzania	Course in environmental management
1990/91	Unknown	NEMC	Short courses	Tanzania	No description available
1991/92	Unknown	School teachers	2 weeks	Tanzania	Training in environmental education
	2	NEMC, Ardhi Inst.	3 months	Aberdeen	Intensive EIA training at CEMP
	1	NEMC	Unknown	Swaziland	Mass management and rural development course
	_	NEMC	Unknown	Netherlands	Pollution training
	3	Various (1 - NEMC)	1–2 years	Unknown	Master's degree training in environmental management
1992/93	1	NEMC	3 months	Aberdeen	Intensive EIA training at CEMP
	3	Unknown	1–2 years	UK, Netherlands	Unknown
	Unknown	Unknown	Unknown	Outside Tanzania	Unknown
1993/94	4	NEMC	3 months	Aberdeen	Intensive EIA training at CEMP
	1	NEMC	2 weeks	UK	Course in managing sustainable development
	1	NEMC	1 week	Costa Rica	IUCN conference
	1	NEMC	1 month	Nairobi	Computer course
	_	NEMC	4 months	Netherlands	Course in environmental management
	1	NEMC	1–2 years	Netherlands	Masters in Business Administration
		_			

Year	Number	Participant's Organisa-	Duration of	Location of Training	Description of Training
	Trained	tion	Training		
1994-97	9	NEMC (3), MLHUD (1)	3 months	Aberdeen	Intensive EIA training at CEMP
		Dept. Chemistry Labs	l year	Netherlands	Post-graduate diploma (subject unknown)
	-	Dept. Chemistry Labs	6 months	Netherlands	Masters in industrial pollution
	1	Ministry of Agriculture	3 months	Netherlands	EIA course
	1	NEMC	2 weeks	UK	Course in environmental management for DG
	2	Board Members and MPs	2 weeks	USA	Course in environmental policy and management
	_	NEMC	3 weeks	UK	Course in human resource management (also did MBA earlier)
	-	NEMC	3 weeks	Nairobi	Computer and secretarial course
	3	NEMC	3 weeks	Tanzania	Accounting course
	П	NEMC	18 months	Tanzania	Office procedure course
	1	NEMC	2 years	Tanzania	Accounting diploma
	3	NEMC	3–6 weeks	Tanzania	Office procedure course
	П	NEMC	2 months	Tanzania	Computer course
	8	NEMC and others	2 weeks	South Africa, Ghana	EIA study tour
	100	Teachers	8 days	Tanzania	Contract TIE to train teachers on environmental education
	П	NEMC	l week	Netherlands, Mexico	International workshop on wetland monitoring
	1	NEMC	3 weeks	Botswana	Advanced course in human resource management
	1	NEMC	5 weeks	Tanzania	Course in micro-computer data base management
	1	NEMC	3 months	Tanzania	Accounting diploma
	1	NEMC	4 weeks	Swaziland	Course in environmental management and project planning

# Appendix 7

#### **Objectives Versus Achievements 1989–1997**

#### 1. Directorate of Natural Resources (including EIA)

- a) Workshops on environmental management (1989–92)
- Four national workshops on EIA to develop process, discuss guidelines
- One workshop on dams and environmental management
- b) National Conservation Strategy for Sustainable Development process (1990–94)
- Several preparatory national workshops
- NCSSD completed in 1993, released in January 1994
- Still needs to be translated into Kiswahili
- c) Inventory of all natural resource and environmental conservation projects (1991–97)
- Surveys completed in all mainland areas of Tanzania
- Results documents but computer system to be further developed
- d) Inventories of destructive activities on aquatic environments (1992–97)
- Surveys completed, mainly for coastal areas, documents produced
- Results require further consolidation
- e) Inventory of wetlands (1992–97)
- Inventories completed for Dodoma, Singida, Arusha, and Kilimanjaro regions
- f) Support EIA review (1993–97)
- 23 major EIA reports reviewed, including field visits
- EIA Directorate separated from Natural Resources in 1997
- Public hearings for first time with Rufiji Prawn farm project EIA review
- g) Marine contingency plan (1993–97)
- Draft plan produced with assistance of International Maritime Organisation
- Pending work is to undertake sensitivity mapping of critical habitats
- h) Assess methods of community participation (1993–97)
- Small number of studies completed and reports produced
- i) Preparation of national guidelines and procedures for EIA in Tanzania (1995–97)
- Draft national EIA guidelines and process completed, approval pending ILFEMP
- Development of sectoral guidelines for mariculture and roads
- Extensive consultation and co-ordination has occurred
- Follow up on several environmental issues throughout country
- j) Wetland Monitoring (1994–97)
- Limited monitoring work completed through Sida funds

#### **Directorate of Pollution Prevention and Control**

- a) Surveys of polluting activities (1989–90)
- Activity appears to have occurred later in programme
- Preliminary surveys of manufacturing carried out in Dar es Salaam, Lake Zone and Southern Zone
- Report prepared on Chang'ombe industrial area
- Standard survey methods developed
- b) Strengthening monitoring and laboratories capacity (1989–90)
- Portable monitoring and lab testing equipment purchased later in project
- Portable equipment has been used but gas chromatography equipment still in boxes
- c) Urban air quality monitoring (1990–93)
- Measurement of air quality in Dar es Salaam and Ubungo power station area
- Dar es Salaam study focused on analysis of sources, characteristics of pollution and recommendations for mitigation measures
- Consultant reports prepared with assistance from Department of Chemistry, University of Dar es Salaam
- d) Improve pesticide management, including storage and importation (1990–93)
- Studies on pesticide management at Vikuge, Twiga cement and Saruji ceramic plants
- Advice provided to improve pesticide management at these facilities
- Worked with TPRI to develop Prior Informed Consent protocols for pesticides and other hazardous chemicals
- e) Study to evaluate lubricant recycling (1990–93)
- Study on recovery and recycling completed and report prepared
- f) Hazardous chemical management and awareness (1990–91)
- Work planned for 1990/91 but most activity occurred later in programme
- Assessment of flow and end-use pattern of chemicals across Tanzania, report done
- Data base developed for chemicals in key industries in Tanzania, updated regularly
- Register of potentially toxic chemicals developed
- Strong networks developed with key stakeholders, including workshops
- PIC committee established in 1996 and has been active
- Draft plan for National Oil Spill Contingency completed
- g) Mining operation surveys in Southern, Eastern and Western zones (1991–94)
- Surveys completed for small and large scale mining operations, reports prepared
- h) Introduce mercury recycling techniques in small scale mining sector (1991–94)
- Pilot study completed by Department of Chemistry, University of Dar es Salaam
- Recycling techniques introduced in small scale mining in several areas

- i) Draw priority list of polluted water sources and identify monitoring options (1992–94)
- Inventory work completed for Morogoro, Pangani and three other regions
- j) Draw guidelines for environmental reporting (1992–94)
- Proposals on guidelines drafted and discussed with stakeholders
- k) Inventory of hospital wastes (1993–94)
- Study completed within Dar es Salaam municipality and report completed
- Study completed on safe disposal of medical wastes
- l) Environmental standards and regulations (1993–97)
- Work started in 1996, including establishing standards committee
- Standards for water and air developed with Tanzania Bureau of Statistics
- Consultant report on regulatory process and enforcement mechanism prepared
- m) Greenhouse gas survey (1993–94)
- Study completed to assess sources of ozone depleting substances
- n) Ozone layer survey (1993–94)
- No work started until 1996
- Further data compiled on sources of ODSs to build on (n) above
- o) Municipal waste management (1994–97)
- Surveys of Dar es Salaam, Tanga and Moshi completed to establish environmental status
- Demonstration projects on refuse recycling carried out for Dar es Salaam
- Demonstration project for refuse recycling in smaller urban areas completed
- Technical assistance provided to Dar es Salaam to identify new landfill site
- Study completed for Ngorogoro on more efficient waste management practices
- Initiation of community-based pollution control project with NGOs
- Work to develop national plan for solid waste management was initiated
- p) Environmental auditing, monitoring and reporting (1994–97)
- Consultant report completed on monitoring programmes in municipalities and industries in collaboration with other institutions
- Follow-up work completed in industries in 6 regions
- Work done to standardise procedures for monitoring
- r) Phasing out of leaded fuels in Tanzania
- Consultant study completed on scale of problem, and procedures and guidelines for phasing out leaded petrol (with assistance of Cleaner Production Centre)

#### Directorate of Research, Environmental Education and Documentation

- a) Environmental education consultancies, workshops (1989–97)
- Workshops completed for adult educators on incorporating environment into curricula
- b) Introduce EE into primary schools with collaboration of TIE and MEC (1990–94)
- Production of audio-visual materials for teachers to use in classrooms
- Environmental education introduced in "Maarifa ya Jamii" subject in 1995
- c) Introduce EE into secondary schools with collaboration of TIE and MEC (1990–94)
- Production of audio-visual materials for teachers to use in classrooms
- Environmental education introduced in social studies subject in 1995
- Introduction of environment in curricula from several post-secondary institutes (Vocational Education Training Authority, Dar es Salaam Institute of Technology, Institute of Adult Education, and Ministry of Agriculture Training Institutes
- d) Production of publications on environmental issues (1990–97)
- Production and dissemination of brochures, calendars and still pictures
- Establishment of bi-monthly newsletter with significant quality improvement over time
- Oversee production and dissemination of technical reports from other Directorates
- e) Environmental awareness and sensitisation (1990–97)
- Completed seminars and workshops for NGOs, Members of Parliament, economic planners (mostly on EIA), industrialists, women's groups, youth groups
- f) State of the Environment Report (1996–97)
- Through UCLAS and AGENDA, completion of draft report in 1999
- Complete initial work to design environmental information system to support regular production of SOER in Tanzanian
- g) Establish documentation centre
- Acquisition of technical and non-technical material has been ongoing
- Acquire and install computer-based system for cataloguing and literature searches
- One-third of material has been catalogued and shelved

#### Directorate of Finance and Administration (including Legal and Audit)

- a) Acquisition of office equipment and literature (1989–97)
- Equipment purchased throughout Sida support programme includes computers, printers and software, lab equipment for monitoring, office furniture, library material, video camera, and slide projector
- b) Acquisition of vehicles (1989–90)
- Six vehicles were purchased through Sida funds. Four are still on the road at this time
- c) Strengthen financial management system (1994–97)
- Financial technical advisor worked to improve manual system of accounts and establish coding system for project expenditures; improvements have occurred since 1994
- Computerisation of financial management system has only occurred through Dutch programme for one specific project in NEMC; corporate accounts are still manual
- d) Streamlining sector legislation on environment (1996–97)
- Review of NEMC Act completed in 1994 and sent to VPO but no changes occurred
- Seminar given to MPs to raise awareness on need to improve legislation
- Legal input provided into EIA guideline and regulation formulation
- Study commissioned to review need for Environmental Tribunal
- e) Reviewing village/district by-laws
- Work with LEAT to review by-laws and report complete

# Appendix 8

# People Interviewed

Saada	Juma	Executive Secretary		Agenda for Environment and Responsible Development
Н.Ү.	Katima	Executive Director		Agenda for Environment and Responsible Development
Гоmas	Andersson	Programme Officer	Environment	Embassy of Sweden
ane	Kibassa	Assistant Programme Officer	Environment	Embassy of Sweden
Zeinab	Ngazy	Seni or Economist		Institute of Marine Science
Franci s	Nyange	Co-ordinator		Journalists Environmental Association of Tanzania
Ruegemeleza	Nshala	Chairma		Lawyers Environmental Action Team
.M.	Kami	Land-Use Planner	Land Use Council	Ministry of Lands
Geral d	Mango	Deputy Director	Land Use Council	Ministry of Lands
S.D.	Mayeye	Director General	Land Use Council	Ministry of Lands
Sadock	Kimaro	Assistant Director	Fisheries Division	Ministry of Natural Resources and Tourism
Geoffrey	Nanyaro	Assistant Director	Fisheries Division	Ministry of Natural Resources and Tourism
Said	Iddi	Director	Forestry and Beekeeping Division	Ministry of Natural Resources and Tourism
Miriam	Zacharia	Senior Programme Officer	Wil dife Division	Ministry of Natural Resources and Tourism
eremi as	Kobalyenda	Principle Water Officer	Central Water Board	Ministry of Water
Ester	Kerario	Acting Director	Directorate of Environmental Impact Assessment	National Environment Management Council
acqueline	Maximillian	EIA Officer	Directorate of Environmental Impact Assessment	National Environment Management Council
Paul	Mt oni	EIA Officer	Directorate of Environmental Impact Assessment	National Environment Management Council
drias	Mzimbira	Acting Director	Directorate of Finance and Administration	National Environment Management Council
Esther	Paulin	Accountant	Directorate of Finance and Administration	National Environment Management Council
Witness	Shil ekirwa	Chi ef Account ant	Directorate of Finance and Administration	National Environment Management Council
Godrove	Mwansojo	Natural Resources Officer	Directorate of Natural Resources	National Environment Management Council
Frederick	Rugiga	Snr. Natural Resources Officer	Directorate of Natural Resources	National Environment Management Council
Kasim	Sengoe	Snr. Natural Resources Officer	Directorate of Natural Resources	National Environment Management Council
Thobi as	Bonaventura	Acting Director	Directorate of Pollution Prevention and Control	National Environment Management Council
Ruth	Lugwisha	Snr. Pollution Control Officer	Directorate of Pollution Prevention and Control	National Environment Management Council
Zafarami	Madayi	Documentali s	Directorate of Research and Environmental Education	National Environment Management Council
Ann a	Maembe	Acting Director	Directorate of Research and Environmental Education	National Environment Management Council
Francis	Stolla	Legal Officer	Legal Division	National Environment Management Council
eremi as	Daffa	Support Unit Leader	Tanzani a Coastal Management Policy Project	National Environment Management Council
Magnus	Ngoil e	Director General		National Environment Management Council
Generosa	Kamurosa	Assistant Director	Public Investment Planning	Planning Commission
Alfred	Shao	Director	Research and Planning	Tanzani a Investment Centre
M.J.	Moonile	Head	Department of Geography	University of Dar es Salaam
Kim	Howell	Professor	Department of Zoology and Marine Biology	University of Dar es Salaam
Yunas	Mgaya	Seni or Lecturer	Department of Zoology and Marine Biology	University of Dar es Salaam
Enic	Mugarusi	Director	Department of Environment	Vice-President's Office
Jeffrey	Lewi s	Techni cal Advi sor	ILFEMProject	Vice-President's Office

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99/29	Apoyo al Programa Nacional Indigena en Bolivia. Lars Eriksson, Maria Cristina Mejia, Maria del Pilar Sanchez Department for Latin America
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99/31	Proyecto VNU Promotores del la Paz en Guatemala. Kristina Boman, Göran Schill, Eberto de León Department for Latin America
99/32	Programme Assistance to Mozambique. A joint donors review. Grayson Clarke, Jens Claussen, Rolf Kappel, Jytte Laursen, Stefan Sjölander Department for Africa
99/33	Technical Assistance to the Ministry of Planning and Finance in Mozambique. Dag Aarnes, Svein Jörgensen Department for Africa
99/34	Integrated Basic Services Program in Nicaragua. Elisabeth Lewin, Kristina Boman, Marta Medina Department for Latin America
99/35	The Regional Water and Sanitation Group for Eastern and Southern Africa. Åke Nilsson, Knust Samset, Ron Titus, Mark Mujwahu, Björn Brandberg Department for Natural Resources and the Environment
99/36	Support to Collaboration between Universities. An evaluation of the collaboration between MOI University, Kenya, and Linköping University, Sweden. Beht Maina Ahlberg, Eva Johansson, Hans Rosling Department for Democracy and Social Development
99/37	Utbildning för demokrati. En utvärdering av projektet Education and Training Unit i Sydafrika. Annica Lysén Department for Africa
00/1	Swedish Support to Local Self Governance in Mongolia. Nils Öström, Lennart Lundquist Department for Infrastructure and Economic Cooperation
00/2	Reaching out to Children in Poverty. The integrated child development services in Tamil Nadu, India. Ted Greiner, Lillemor Andersson- Brolin, Madhavi Mittal, Amrita Puri Department for Democracy and Social Development
00/3	PROMESHA. Evaluacion del Programa de Capacitacion para el Mejoramiento Socio Habitacional. Ronaldo Ramirez, Patrick Wakely Department for Infrastructure and Economic Cooperation
00/4	Land Management Programme in Tanzania. Kjell J Havnevik, Magdalena Rwegangira, Anders Tivell Department for Natural Resources and the Environment

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