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EXECUTIVE SUMMARY

The Department of Soil and Water Conservation falls under the Ministry of Forestry and Land Reclamation, which was upgraded from a department in the Ministry of Agriculture and Food Security in March 2003. The decision to establish this ministry was based on the fact that soil erosion and land degradation demanded a more focused and concerned approach as they were still on the increase.

The Office of the Auditor General undertook an audit in the Department of Soil and Water Conservation to examine why measures put in place to curb soil erosion and land degradation were ineffective, thereby come up with suggestions to remedy the problem.

The audit covered four financial years, 2003/04 to 2006/07

Data was collected by means of;

- Document review – to gather information about the activities that were being carried out.
- Interviews – officials from the audited department and various stakeholders were interviewed to substantiate information gathered from the documents.
- Physical observations – to see what activities were being carried out and how they were being carried out, site visits to on-going projects were made.

FINDINGS AND RECOMMENDATIONS

Soil surveys

Finding

The audit team found out that during the period under review soil surveys had not been carried out. As a result interpretation and preparation of land capability classifications for specific land use was not done.

Recommendation

The department should make communities aware of the importance of soil surveys and also that even individuals can approach the department for assistance in that regard.

Information dissemination

Finding

The audit team observed that information relating to conservation does not reach the target group because;

- The radio programme was scheduled when a majority of the target group had already left their homes
- Most areas do not have television reception.

Recommendation

The Information Division should schedule radio programmes in the evenings when the majority of the target group would be able to listen. Public gatherings should be held more often than the use of technical materials such as audio-visuals because public gatherings cover a large portion of the target group.

Environmental Impact Assessment (EIA)

Finding

The audit team established that land users do not abide by the terms stipulated in the clearance certificates. This was because the National Steering Committee (NSC) was dysfunctional. There were no spot checks done on development projects and NSC did not respond to National Environment Secretariat's memoranda.

Recommendation

The department should play a leading role within the National Steering Committee to ensure that members attend all meetings and abide by the terms of the clearance certificates issued by the National Environment Secretariat.

Non-enforcement of appropriate laws

Finding

The team found out that people engaged in anti-conservation land use practices, because there are no clearly defined penalties for perpetrators though the Land Husbandry Act 1969 binds the Ministry with the responsibility to regulate the use of land.

Recommendation

The department should advise the Minister to make regulations for revision of the penalty clauses against perpetrators.

Incomplete projects

Finding

The audit however revealed that some conservation works were left incomplete; for instance, at Manganeng catchment, tree and grass

planting was not done in other areas because arrival of seeds was delayed until the financial year and the season were over.

Recommendation

As some of the conservation activities are seasonal and do not follow the financial year, the Department of Soil and water Conservation should plan to carry forward these seasonal activities to the following financial year.

CONCLUSION:

On the basis of the findings, the team concludes that soil erosion and land degradation are still on the increase because:

- The Department of Soil and Water conservation puts more focus on rehabilitation of degraded lands than prevention of soil erosion.
- There are inappropriate and insufficient methods of information dissemination and information does not reach the target group.

CHAPTER ONE

1. INTRODUCTION

1.1 BACKGROUND

The Ministry of Forestry and Land Reclamation (MFLR) was established in March, 2003 to primarily address the problem of soil erosion and land degradation in the country. Previously, this Ministry was a department in the Ministry of Agriculture and Food Security. The Department was upgraded to be a ministry because the National Conversation Plan for Lesotho revealed that the country experienced an average erosion rate of 40 million tones per hectare per year. It was estimated that at this rate 30 centimetres of soil would be removed in 100 years thereby reducing the productive capability of soil in Lesotho. It should also be stated that only 9% of the land is arable as the country is mountainous.

The ministry is composed of the following departments: Forestry, Conservation and Range Management whose functions are inseparable. Rangelands are usually protected by grass cover to reduce run-off and provide feed for livestock. The gentle flow of water from rangelands can be diverted safely into storage facilities (dams and tanks) for irrigation hence more cover on arable land. Tree planting is done to provide fuel wood, but trees also clothe the land as well and purify the air. Soil and water conservation is a process of providing land cover which benefits the soil and animal life of each area.

1.2 REASONS FOR THE AUDIT

In his speech to the National Assembly in March, 2003, on the creation of the Ministry of Forestry and Land Reclamation, the Prime Minister stated that,

“The extent of soil erosion and land degradation in Lesotho demands a more focused and concerted approach to land reclamation and environmental preservation.”

It was evident however 3 years after the inception of such a Ministry that Soil erosion and land degradation demanded a more focused and concerted approach, as they were still on the increase. The Office of the Auditor General therefore undertook an audit in the Ministry of Forestry and Land Reclamation, with specific focus on the Department of Soil and Water Conservation, to find out why measures put in place by the department to curb soil erosion were ineffective, thereby come up with recommendations that could remedy the situation.

1.3 STATUTORY MANDATE

The Ministry of Forestry and Land Reclamation derives its mandate from the Land Husbandry Act No. 2 of 1969. The Act prescribes that the Ministry is bound by the following responsibilities:

- prescribing the precautions to be taken to prevent soil erosion.
- prohibiting or restricting the cultivation and grazing of designated land.
- providing for the preservation of water resources.

1.4 VISION AND MISSION STATEMENT OF THE DEPARTMENT OF SOIL AND WATER CONSERVATION

VISION

According to the Department's strategic plan the Department's vision is stated as follows:

“25% of severely degraded area will be reclaimed and brought back to productive use by 2020. The prime land-base will be conserved through promotion of proper management of natural resources that leads to enhanced livelihood of communities in an environmentally sustainable manner.”

MISSION STATEMENT

The Department of Soil and Water Conservation is mandated, ***“to provide technical assistance to land users in order to protect the land-base and realize the production potential. This is achieved through planning and establishing improved land management practices, structural conservation measures and water harvesting activities to ensure increased agricultural production.”***

1.5 ORGANISATIONAL STRUCTURE

The Department of Soil and Water Conservation is headed by a Director. There are three divisions namely; Soils, Engineering and Field Operations. These divisions are under the responsibility of

Chief Conservation Officers. There are also ten District Offices headed by District Conservation Officers. The Department is supported by three units namely; Management and Administration, Planning and Information. At the time of the Audit the department was undergoing restructuring and the proposed organisational structure was still being processed by the Management Services Department of the Ministry of Public Service. The current and proposed organograms have been attached as Appendices 1a and 1b respectively.

1.6 BUDGET

The department's budget is prepared in accordance with the activities outlined in the annual workplan. The workplan and budget are prepared for individual programmes and then consolidated at headquarters for approval by the Ministry of Finance and Development Planning. There is also another funding provided under a joint venture between the Government of Lesotho (GOL) and the Arab Bank of Economic Development (BADEA), whereby GOL and BADEA contribute 14,5% and 85,5% respectively. This funding is directly and specifically geared towards technical assistance in engineering design of soil and water conservation structures. The tabulations below illustrate the land management budget for 2003/04 to 2005/06 financial years.

Land Management Budget

TABLE 1: CAPITAL BUDGET (CATCHMENTS)

Period	Budget	Expenditure	Variance
2003/04	M1,200,000.00	M1,175,032.00	M24,968.00
2004/05	M7,000,000.00	M6,551,620.87	M448,379.13
2005/06	M7,000,000.00	M7,169,641.02	(M169,641.02)

Source: Ministry of forestry and Land Reclamation Accounts Section

TABLE 2: BADEA

Period	Budget	Expenditure	Variance
2003/04	M112,000.00	M55,928.75	M56,071.25
2004/05	M112,000.00	M89,630.00	M22,370.00
2005/06	M112,000.00	M105,473.15	M6,526.85

Source: Ministry of forestry and Land Reclamation Accounts Section

1.7 DESIGN OF THE AUDIT

1.7.1 SCOPE OF THE AUDIT

The audit focused on the Department of Soil and Water Conservation and other stakeholders, which include; Ministry of Agriculture and Food Security (Departments of Crops and Field Services), Ministry of Public Works and Transport (Departments of Roads and Rural Roads), Ministry of Tourism, Environment and Culture (National Environment Secretariat – NES), Local Councils and the Public.

The country is divided into ten districts; however the audit was conducted in four districts that had on-going conservation works at the time of the audit. These were, Mohale's Hoek, Mafeteng, Leribe and Berea. The audit covered four financial years; 2003/04 to 2006/07.

1.7.2 METHODS OF DATA COLLECTION

To collect data the team used document reviews, interview and physical observations.

DOCUMENT REVIEW

The team reviewed documents to gather information about the activities that were being carried out. A list of those is attached as Appendix 2.

INTERVIEWS

In order to substantiate information gathered from the documents the team conducted interviews with officials in the audited department and from the various stakeholders. A list of interviewees is attached as Appendix 3.

PHYSICAL OBSERVATIONS

In order to see what activities were being carried out and how they were being carried out, the team went on site visits to the catchment areas that had conservation projects going on at the time of the audit.

Seven catchment areas were visited, two catchment areas per district visited. However in Berea only one catchment area was visited.

CHAPTER TWO

2. PREVENTION OF SOIL EROSION AND RECLAMATION OF DEGRADED AREAS

2.1 ROLES AND RESPONSIBILITIES OF KEY PLAYERS

2.1.1 THE DEPARTMENT OF SOIL AND WATER CONSERVATION

The department comprises three divisions which technically deal with soil and water conservation. These are: Soils, Engineering and Field Operations.

To achieve its objectives the Department of Soil and Water Conservation engages in the following activities;

- Prepares land capability classifications for specific land use and interprets proper use for different soils
- Introduces new innovations on conservation and educates land users on care and maintenance of conservation works.
- Conducts engineering surveys to improve standards and specifications for conservation structures and assists with technical supervision for water harvesting.
- Monitors environmental degradation and provides grass seeds and fertilizers.

2.1.2 OTHER STAKEHOLDERS

In execution of its activities the Department of Soil and Water Conservation liaises with the Ministry of Agriculture and Food Security, National Environment Secretariat and Lesotho fund for Community Development as follows:

MINISTRY OF AGRICULTURE AND FOOD SECURITY (MAFS)

MAFS works in consultation with MFLR to advise farmers on appropriate farming methods to prevent soil erosion. They advise farmers not to plough up and down the slope as this causes soil erosion during rainy seasons. Farmers are advised to plough crops in accordance with the suitability of the soil, for example, sorghum is drought resistant, and therefore it can be ploughed in dry areas, such as the southern districts. They are also taught to avoid overgrazing as bare land is easily eroded. They are also advised that tractors must not be used in mountainous areas as the soil is shallow.

MINISTRY OF PUBLIC WORKS AND TRANSPORT (MPWT)

The Departments of Roads and Rural Roads do not have a clear cut policy on their collaboration with the Department of Soil and Water Conservation in prevention of soil erosion. However all their projects are subjected to Environmental Impact Assessment (EIA) which is done by National Environment Secretariat. This has to be done before construction of roads commences. The departments have to comply with the terms stipulated in the project proposal, for instance,

there is a requirement that the ground should be re-instated, by planting grass after completion of a road construction.

NATIONAL ENVIRONMENT SECRETARIAT (NES)

NES is a coordinating and advisory body on environmental issues. As such it is charged with the responsibility of ensuring coherence to environmental policy framework. This has to be done with the input of various stakeholders comprising NGO's, Government Ministries and Village Development Committees. NES implements the United Nations Convention to Combat Desertification which has been organised into a multidisciplinary National Steering Committee (NSC) to oversee the implementation of the National Action Plan (NAP) and report back to NES.

All development projects are subjected to Environmental Impact Assessment (EIA). EIA assesses whether developments would not have a negative impact on the environment. The environment Act provides guidance in terms of implementation. According to section 9 of the Act, the Environment Authority which should implement the Act and regulate the activities has to be established. This authority would also have to monitor the projects.

LOCAL COUNCILLORS AND THE PUBLIC

Local Councillors together with the Chief work as mediators between District Conservation Officers and the public. They facilitate holding of public gatherings, whereby district conservation officers sensitise the public about the importance of conservation works. Some

members of the public are trained to be foremen when conservation activities are being carried-out. The public is also sensitized to look after conservation works even after completion of the projects. For instance herd-boys are trained to avoid overgrazing.

2.2 PROCESS DESCRIPTION

Soil Erosion is a natural on-going process, which gradually removes the top most soil. The process starts as a furrow until the area becomes a gully if unattended.

Soil Erosion is caused by a lot of factors which include:

- **Topography:** Lesotho is a mountainous country. It therefore becomes easy for erosion to occur as the soil runs off during rainy seasons because the country is rough, steep and uneven.
- **Management of the Land:** Land use practices also determine the rate and extent of soil erosion, for example, overgrazing leaves the land bare and prone to soil erosion.
- **Malpractices:** Veld burning and poor farming practices such as monoculture increase soil erosion.

As soil erosion cannot be easily eradicated, the department can only minimize the impact by means of control. In order to identify and determine how to prevent soil erosion and reclaim the affected areas, the department engages the following divisions:

DISTRICT CONSERVATION OFFICERS

District Conservation Officers identify areas to be conserved and reclaimed. These affected areas are divided into catchment areas and sub-catchments. Identification of areas to be conserved depends on the community's initiative and the extent of degradation. District Conservation Officers make site visits to the identified areas to assess the extent of degradation and identify its causes in order to determine intervention measures. They also cost and submit budget proposals to headquarters. Funds are allocated to different catchment areas in accordance with the extent of degradation and the size of each catchment area.

SOILS DIVISION

Soils Division carries out soil surveys, interprets soils and then prepares land capability classifications for specific land use and interprets proper use for different soils. This is done as soils have different characteristics; such as texture and depth. Conservation activities are therefore carried out in accordance with the physical properties of the soil.

ENGINEERING DIVISION

The responsibility of this division is to carry out engineering surveys and designs on identified areas and to train and upgrade technical competence of field workers. The division also provides technical assistance, training material and demonstrates construction of water harvesting and soil conservation structures.

FIELD OPERATIONS DIVISION

Once catchment areas have been identified and selected for soil conservation, this division monitors the activities. They supervise the communities when planting trees, building stone silt traps and stone belts in gullies and diversions. They are responsible for monitoring environmental degradation and ensuring maintenance of conservation technical standards. The division also facilitates acquisition and maintenance of equipment, such as spades, chisels, hammers, wheel barrows and picks. They also provide grass seeds, trees and fertilizers to the communities.

After conservation works have been completed, the division compiles a report that would be forwarded to the Planning Unit. Planning Unit therefore consolidates Departmental quarterly and annual reports that would be submitted to the Director for review and approval. The Planning Unit together with the director's office and the District Coordinators are responsible for follow-ups on and maintenance of the completed conservation works. They liaise with relevant Local Government structures; Local councils and Chiefs address problem issues outlined in the reports and to ensure that conservation structures are well maintained by the public.

INFORMATION DIVISION

The division's responsibility is to sensitise the public on conservation activities, through mass media productions. They produce promotion materials such as audio-visuals, posters and technical bulletins, and distribute them at public gatherings and through door to door

distribution. The division also has 15 minutes radio and television slots once a week, on Fridays 05:15 am and Wednesdays 07:30pm respectively. They also hold public gatherings, workshops and go on study tours to introduce new innovation works. The public is sensitised on both preventive and rehabilitative measures.

CHAPTER THREE

3. FINDINGS, RECOMMENDATIONS AND CONCLUSION

3.1 SOIL SURVEYS

3.1.1 Finding

It is responsibility of the Soils Division to carry out soil surveys for the communities as well as individuals. However the team found out that no individuals were assisted, as neither the plans nor reports reflected assisted individuals and those to be assisted. The division could not fully interpret and prepare land capability classifications for specific land use. As a result land users continue to engage in improper land use, thereby causing and increasing soil erosion.

3.1.2 Recommendation

The Department should make the communities aware of the importance of soil surveys and also that even individuals can approach the department for assistance in that regard.

3.2 INFORMATION DISSEMINATION

3.2.1 Finding

The department has to sensitise the public on conservation issues. It was observed that the radio programme was scheduled at a time that majority of the target group had already gone to work. Also, most areas do not have television reception; therefore the television programme did not fully reach the target group.

The department also produces audio-visuals, posters and technical bulletins to disseminate information to the public. It was discovered that these promotion materials do not reach the majority of the target group; some information users do not have access to electricity that facilitates proper use of these materials.

As a result, information is not being disseminated as much as it should, hence people continue with improper land use practices.

3.2.2 Recommendation

The Information Unit should schedule radio programmes in the evenings when the majority of the target group will be able to listen. Public gatherings should be held more often than to use technical materials such as audio-visuals because public gatherings can cover a large portion of the target group.

3.3 ENVIRONMENTAL IMPACT ASSESSMENT

3.3.1 Finding

EIA has to be done and clearance be issued by National Environment Secretariat before commencement of land use projects. The team found out that the department and other stakeholders do not abide by the terms stipulated in the clearance certificates. This is attributable to the National Steering Committee being dysfunctional thereby not overseeing the implementation of the National Action Plan and reporting back to NES. There was non-attendance of meetings by members of the National Steering Committee, no spot checks on development projects and lack of response to NES's memoranda.

Consequently improper land use practices are continued hence more soil erosion and land degradation.

3.3.2 Recommendation

The department should play a leading role within the National Steering Committee to see to it that members attend all meetings and abide by the terms of the clearance certificates issued by NES. Co-working with stakeholders could result in remarkable land improvement. In 2005, for example, the Department of Soil and Water Conservation co-worked with the Department of Roads to rehabilitate a gully at Tlametlu Bridge, thus assisting in the improvement of land management practices and structural conservation measures.

3.4 NON-ENFORCEMENT OF APPROPRIATE LAWS

3.4.1 Finding

The department makes members of the public aware of pro-conservation land use practices through public gatherings. However, the team found out that people continued with anti-conservation land use practices, for example, frequent veld fires, ploughing up and down the slope, deforestation and overgrazing. This was attributed to penalties for perpetrators being too minimal.

3.4.2 Recommendation

The department should advise the Minister to make regulations for revision of penalty clauses against perpetrators.

3.5 INCOMPLETE PROJECTS

3.5.1 Finding

In accordance with the departmental operational plans the identified catchment areas are supposed to be worked upon within one financial year. The team established that some works within the catchment areas were not completed. For instance, at Manganeng catchment tree and grass planting was not done in other areas because arrival of seeds was delayed until the financial year and the season were over. As a result the work was partly done, hence soil erosion and land degradation continued.

3.5.2 Recommendation

As some of the conservation activities are seasonal and cannot follow the financial year, the Department of Soil and water Conservation should plan to carry forward these seasonal activities to the following financial year.

CONCLUSION

On the basis of the findings in the previous chapter the team concludes that there is still an increasing prevalence of soil erosion and land degradation, because:

- The Department of Soil and Water conservation puts more focus on rehabilitation of degraded lands than prevention of soil erosion, therefore they do not advise their partners in soil erosion prevention.

- There are inappropriate and insufficient methods of information dissemination and information does not reach the target group.

ABBREVIATIONS

BADEA: Arab Bank of Economic Development

EIA: Environmental Impact Assessment

GoL: Government of Lesotho

NAP: National Action Plan

MAFS: Ministry of Agriculture and Food Security

MFLR: Ministry of Forestry and Land Reclamation

MPWT: Ministry of Public Works and Transport

NAP: National Action Plan

NES: National Environment Secretariat

NST: National Steering Committee