



Lesotho

UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

**THIRD NATIONAL REPORT
KINGDOM OF LESOTHO**

MINISTRY OF TOURISM, ENVIRONMENT AND CULTURE

NATIONAL ENVIRONMENT SECRETARIAT (NES)

SEPTEMBER, 2004

Executive Summary

The Convention to Combat Desertification describes desertification as land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors including climatic variations and human activity, in Lesotho desertification a major problem, more especially in the southern part of the country and the Senqu Valley where the agricultural land, rangelands, aquatic plants are seriously threaten. The situation manifests itself to loss of biological productivity resulting from over-exploitation and mismanagement of the natural resource base, be it water, soil, land, plants or animals. Many special and fragile ecosystems such as bogs sponges as well their associated species have been threatened by over-utilisation and trampling of livestock.

Lesotho showed its commitment to the process of sound environmental in 1989 with the formulation of the National Environmental Action Plan (NEAP). The NEAP tries to highlights increased awareness of environmental concerns in sectoral planning and programming. Subsequent to NEAP, the National Action Plan (NAP) to implement Agenda 21 was launched in 1994. One of the major concerns itemised within NAP includes among other things convention to combat desertification, climate change, poverty, biodiversity etc.

The efforts of sufficiently managing the natural resource base and combating desertification have been unsuccessful in Lesotho as land degradation continues to increase. There are various reasons contributing to the nation's inability to address land degradation issues. Perhaps the most significant reason is inadequate information to help guide decision making. Government institutions responsible to land management, although they realize the problem of land degradation, lacks the will to gather, analyse and manage information on land management and the forces leading to its degradation. It is premised here that the efforts of the country on combating desertification and mitigating the effects of drought, however well planned and intentioned, will not succeed as long as there is no first hand data or information to help to identify the primary causes of land degradation. The efforts will remain, as they are today with no tangible successes.

The United Nations Convention to Combat Desertification (UNCCD) for which Lesotho is a party requires that nations draw their action programmes; particularly *Article 10*:National

Action Programmes. Because of the seriousness of desertification and drought, the nations of the world agreed on the context of the Convention at the Rio Earth Summit and proposed that the context of the Convention at the Rio Earth Summit and proposed that combating desertification and mitigating the effects of drought be part of Agenda 21. Lesotho has drawn its National Action Plan to Implement Agenda 21 and within it are strategies to combat desertification and mitigate the effects of Drought (Agenda 21, Lesotho 1994). Lesotho's strategies are;

- Prepare a comprehensive National Plan for combating drought and desertification;
- Develop anti-desertification measures to be integrated within the plan;
- Develop early warning systems to enhance preparedness; and
- Promote public awareness of desertification control and management of effects of drought.

Desertification is not the only challenge faced by Lesotho, there are other problems that need urgent attention and they include increasing urban and rural poverty due to mainly escalating level of unemployment, high HIV/AIDS prevalence which ranged between 31 and 35%, pollution of land and water, low environmental awareness among policy and decision makers and the general public, low or weak institutional capacity to deal with environmental problems, lack of public participation in all steps of project management (identification, design, implementation and monitoring and evaluation), legal impediments especially to women both social and economic and finally poor law enforcement by the policy makers.

In order for the Lesotho government to fulfill or overcome the above challenges, more especially in the area of desertification, policies and strategies have been formulated to enable the country to combat the problem. These policies and strategies are formulated in such a way that they help the government to address the problem at both National Level and grassroots level. The policies includes among other things Lesotho Vision 2020, which indicate that by the 2020 Lesotho shall be stable democracy, a united and prosperous nation at peace with itself and its neighbours it shall have a healthy and well developed human resource base. Its economy will be strong and of course its environment will be well managed. Poverty reduction strategy paper is also the important policy adopted

by the government of Lesotho. In the area of environment rehabilitation the strategy stipulates many interventions to combat desertification, they includes promotion of environmental conservation with improved production, strengthening management of solid and water waste as well as air pollution, strengthening curriculum and media programmes on environmental education and reduction of loss of biodiversity and improvement of the policy, legal and institutional framework giving particular attention to the capacity of the National Environment Secretariat and implementation of Environment Act 2001.

The government of Lesotho has also formulated other policies which compliment this two macro policies in order to combat desertification and most of them are situated in the Government Ministerial sectors, they includes land use policies, which its main purpose is to promote land use suited to the climatic zone and environmental conditions of the country. The sectoral policies include Agricultural Sector Strategy which its general overall objectives are to reduce of poverty, improve food security for all and sound resource management. This has been planned in three phases being short term, midterm and long term. Within the strategy the government put more emphasis on promotion of water management techniques that are more appropriate to local conditions. They include smaller farming units where small scale irrigation and water management technologies are needed.

The government of Lesotho has also developed the water policy. The policy recognize the seriousness of the problem water supply in the lowlands hence why the Lowlands Water Supply Project has been proposed by the government in relevance to convention to combat desertification. The project is intended to promote sustainable and integrated development management of water resource as well as intensify water harvesting techniques through measures such as earth dams. To date the feasibility study has been conducted. The general policy objective is to utilize water resources in order to improve the economic and financial livelihood of the people by ensuring the assessment and forecasting of the quantity of water resources of the country. Apart from that the government is planning develop and implement a Rural Electrification Programme. The intention being to implement the energy policy so as to reduce the burden on the small forest resource of Lesotho hence reduce the risk of land degradation.

To implement these policies in an efficient and effective way, Lesotho has set up a multi-disciplinary Desertification Steering Committee (DSC) both at national as well as district level. At National level the DSCs serve among other things to oversee the elaboration and implementation of the NAP in collaboration with the National Environment Secretariat as the national focal point. At the district level the DSCs main role is to coordinate activities at district level, the structure at both national and district level consist of government departments, traditional authorities, as well as representative of the Non-Governmental Organisations (NGOs). The establishment of the DSCs has been strengthened by the formulation of Environmental Act 2001 and Environmental Policy but because NES has no authority or legal stand over other departments it becomes very difficult to enforce these laws and it is assumed that establishment of the autonomous and independent authority with due legal power could be the answer to effective and efficient implementation of the Convention to combat desertification in Lesotho.

Apart from that NES is operating under a very centralized structure with limited outreach in the districts by way of environment officers. Outreach is limited to special programmes of youth activities in environment and other livelihoods projects. In its current form, the NES lacks the capacity in terms of finances, human resources and material to operate environmental units in the district. There are plans within the NES to deploy graduate level personnel in the district to provide frontline and on the ground intervention by training and monitoring.

Despite this pitfall within NES, Lesotho has a number of programmes and projects implemented by both the government and NGOs. They include Environmental Management for Poverty Reduction, Conserving Mountain Biodiversity in Southern Lesotho (CMBSL), Maloti-Drakensberg Transfrontier Conservation Development Project, *Partnership for Development of Environmental Law and Institutions in Africa (PADELIA)*, Southern African Botanical Network and Sustainable Mountain Development Projects. The other projects which are coordinated in other Ministerial department such as Ministry of Agriculture and Food Security and newly formed Ministry of Land Reclamation and Forestry. The projects within Ministry of Agriculture include Sustainable Agricultural Development Programme for Mountain Areas and the Agricultural Policy and Capacity Building Project (APCBP). Apart from that there are other related interventions which are

coordinated by other affected parties such as LHDA, Wetland Section in the Department of Water Affairs, NGOs and of course the local initiators.

Government of Lesotho in an effort to intensify a fight against land degradation has established and identified new actions that include the establishment of Ministry of Forestry and Reclamation which has mandate over afforestation, conservation of soil and water and management of range resources. Another important new action initiated by the GOL to fight environmental degradation was the launching of the Lesotho Environmental and Education Support Programme (LEESP). The main aim of the programme is to enhance environmental education initiatives in all primary, secondary and tertiary institutions through curriculum reviews and capacity building over a period of three years.

National Medium Term Investment Programme and the formulation of Bankable Investment Project Profile in support to the NEPAD CAADP implementation is also one of the important programme adopted by Lesotho to intensify fight against land degradation. The objectives the programmes includes among other things to support sound management and regeneration of rangelands in the project area, to improve the productivity of cropland and rangeland through rehabilitation and protection from further erosion using physical and biological means as part of the normal farming practice, to increase availability and sustainable production and harvesting of wood for fuel, poles and other uses as well as other forest resources, and to reduce use of animal waste as fuel and to promote the development of fruit trees in accordance with the agro-ecological zones.

HIV/AIDS has been regarded to have serious impact on both human and physical environment because those infected and affected by the disease are unable to devote the necessary extra effort to agricultural cultivation let alone to soil conservation works. To this effect the Cabinet has decided to establish a new broad based National AIDS Commission, while on the hand has directed all Ministries to put aside 2% of their budget to fight the pandemic putting more emphasis on prevention and impart mitigation. In order to scale-up the national response to the HIV/AIDS pandemic Government of Lesotho has produced a National Strategy entitled “Turning a **CRISIS** into an **OPPORTUNITY**”.

Although the Government of Lesotho has identified these several interventions to combat desertification most of its activities are constrained by unavailability and limited financial resources. Up to now the government main sources of budget have been derived from Lesotho Fund for Community Development, Lesotho Highlands Water Authority and International Donor agencies such as Global Environment Facilities. For monitoring and evaluation the government uses benchmarks with the intention to provide a baseline for monitoring at the local and national level.

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FOCAL POINT INSTITUTION FOR LESOTHO

1. Institution

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There is no country-specific website relating to desertification.

2. Status of NAP

In 1996 – 1997 nationwide workshops were held to sensitize communities on desertification and the convention. In 1998 March 17 – 19 first forum was held drawing participants from stakeholders in all the ten districts. The deliberations of that forum emanated in the formulation of the National Action Programme (NAP).

The National Action Programme (NAP) was approved by the Cabinet in 2000. It has five programme areas:-

- a) Equity, Poverty Alleviation, Solidarity and Participation
- b) Technical Measures to Alleviate the Pressure on the Natural Resources Base.
- c) Institutions, Organizations and Instrumentation
- d) Knowledge Support, Learning and Communication
- e) Drought Preparedness and Drought Relief Schemes

The Poverty Reduction Strategy paper (PRSP) has been finalized but the aspirations of the NAP have been realized in it.

The National Development Strategy also indicates that the Government intends to reduce the amount of soil erosion by 50% from 40 tonnes per hectare per year to 20 tonnes/ha/year by 2006 which is also what the NAP is striving to achieve.

NAP was validated during the first forum in 1988 and is currently being enshrined into many national development strategies and also actions plans of Ministries of forestry and Land Reclamation, Natural Resources and Tourism, Environment and Culture.

3. Member of SRAP/RAP

Lesotho is a member state to SADC and the SRAP is one organ which Lesotho is well aware of, except that during the restructuring process that has clustered the former 21 sectors coordinated by member states *(Lesotho-SADC-ELMS and SADC WATER) into four Directorates.

Since the clustering there has not been much progress in terms of coordination of environmental issues and the SADC Environment Ministers are concerned, and are going to resolve this problem of stagnancy.

At country level the techniques related to land rehabilitation are since 2002:

Activity	Achievement
1. Construction of Gully Stone Structures	33297.686m ³ silt traps
2. Construction of diversion furrows	36875.12m diversions
3. Stone lines	51 336.20m stone lines
4. Grass sodding	An area of 29 567.13m ³ sodded with kikuyu
5. Infiltration ditches	200m ditches constructed
6. Fodder production	33.4ha put under eragrostis curvula
7. Tree planting	1.2 million trees planted
8. Water tanks	138 water tanks
9. Pond excavation	1216.85m ³ earth removed
10. Desilting of dams	603m ³ silt removed

4. NCB

National Coordinating Body was formed in 1996, and it is renewed/reinstated annually, and the chairperson plays the role of being assistant National Focal Point.

Name of Institution	Composition		Name of an individual	Male	Female
	Govt.	NGO			
1. NES	√		N.J. Malephane		√
2. National University		√	Mr I Yedebe	√	
3. Nat. Res. Meteorology	√		J. Mphethi		√
4. Soil & Water Cons.	√		S.M. Mabaso	√	
5. Agric Research	√		M. Mofubetsoana		√
6. Range Management	√		M. Marakabei		√
7. Forestry Division	√		N. Maile	√	
8. Ministry of Local Govt.	√		District Secretary Maseru, Mafeteng & Mophale'sHoek		
9. Disaster Management	√		M. Mojaki		√
10. Other NGOs					
TRC		√	M. Seqhee	√	
LYF		√	M. Mokutlulu	√	

5. Only LCN is the NGO accredited to the process, there is no committee of NGO's related to desertification.

6. No laws related specifically to UNCCD except other laws such as Forestry Acts, Range Management Regulations and Environmental Act.

7. Consultative Process

Except UNDP, UNEP, IFAD and UNCCD Secretariat there have not been meetings by donor community with regard to UNCCD implementation in Lesotho. The chief file is also not formalized but UNDP can take the role.

8. **Projects**

1. Environmental Management for Poverty Reduction (former NEYC) due to phase out in December 2004 – NAP.
2. NCSA, it is an 18 months project due to start in October with a budget of USD200,000 from GEF/UNDP – NAP.

*Comments

In Lesotho the Focal Point Institution is very weak; it needs to be strengthened with resources such as funding and this will lead to increase in personnel and other supporting materials.

List of Acronyms

APCBP	Agricultural Policy and Capacity Building Project
ASDP	Agricultural Sector Development Programme
CAADP	Comprehensive Africa Agriculture Development Programme
CCD	Convention to Combat Desertification
DFID	Department For International Development
DMA	Disaster Management Authority
EU	European Union
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
GOL	Government of Lesotho
GTZ	German Foundation for International Development
IMF	International Monetary Fund
IFAD	International Fund for Agricultural Development
LCN	Lesotho Council of NGOs
LFCD	Lesotho Fund For Community Development
LHWP	Lesotho Highland Water Project
LUPD	Land Use Planning Division
NAP	National Action Plan
NDF	National Desertification Fund
NDSC	National Desertification Steering Committee
NEPAD	New Partnership for Africa's Development
NES	National Environment Secretariat
NEAP	National Environment Action Plan
NGOs	Non-Governmental Organizations
RMA	Range Management Area
SADPMA	Sustainable Agricultural Development Programme for the Mountain Areas
UNCCD	United Nations Convention to Combat Desertification
WFP	World Food Programme

Background

The Kingdom of Lesotho is a small land locked country located between 28° S and 31° S latitude and 27° E and 30° E longitude. The country is completely surrounded by the Republic of South Africa. The land area covers 30,532 square kilometers.

Lesotho has an estimated population of 2.2 million (Bureau of Statistics, 2001). The population growth rate is fairly high, averaging 2.6% per annum over the period 1976-1996. Much of this population is concentrated along a relatively narrow strip of lowland along the western borders of the country.

The land terrain is dominated by rugged mountains, and the country is divided into four distinct ecological zones. The lowlands account for about 20% of the land area and lie between 1500 and 18000 metres elevations on the western and northern borders. The foothills cover about 15% of the land area and lie at elevations between 18000 and 2200 metres, the mountains zone takes about 61% of the land area on elevations from 2100 to 3000 metres (with peaks up to 3482 metres). The fourth ecological zone is the Sengu river valley covering about 4% of the total land area. About 9% of Lesotho's land area is considered arable and this predominantly being in the lowland zone.

The topography consists of the Drakensberg that runs from the south to the east along Lesotho/South Africa border and the Maloti which runs in the middle of the country. The Drakensberg on the east abruptly cuts off Lesotho from the tropical influence of the south Indian Ocean, and the resultant climate enjoyed in the South Africa area of Natal. Although the Drakensberg is generally a barrier to tropical flows, the mountain tops and some eastern facing slopes still receive rainfall associated with the Indian Ocean currents.

Lesotho enjoys a temperate climate with well-marked seasons of spring, summer, autumn and winter. It lies in the part of Southern Africa where summer is the rainy season and more than 855mm of the annual rainfall occurs in the seven months from October to April. Precipitation varies from 500mm in the Sengu river valley and the lowland districts to over 1300mm in the north-east along the Drakensberg mountains. Temperature records include

a rare lowest temperature of -20° C to a rare highest of 36° C. The average temperature (-2° C in winter, 28° in summer) is highly variable in different ecological zones and on diurnal, monthly and annual time scales.

Lesotho's economic performance improved dramatically from the mid-nineties with structural adjustment support from multilateral and bilateral development partners. The main thrust of the structural adjustment programme was to improve the efficiency of the public sector, promote investment opportunities for the private sector, privatize state-owned enterprises, diversify the fiscal revenue base, and improve management of the government budget. GOL de-regulated and privatized most marketing facilities with a view to promoting private sector participation in agriculture. GOL also started withdrawing from direct production activities where the private sector could perform better.

Between 1991 and 1997, real annual Gross Domestic Product (GDP) growth averaged over 8% despite several drought years. The high GDP growth rate was fuelled by the construction of the Katse dam at an estimated cost of USD 2.5 billion. In 1998, however, GDP declined by 5% partly as a result of political unrest, recovering marginally with a modest growth of 0.2% in 1999.

Overall, the real annual average GDP growth rate has been estimated at 4.2% over the past twenty years through 2001. The service, manufacturing, and agricultural sectors account for 42%, 40% and 18% of Lesotho's GDP of approximately USD 1 billion, respectively, which translates into a per capita income of USD 470. Recent GDP growth has been fuelled by the manufacturing sector especially in the garment sub-sector which currently employs roughly 50 000 people primarily within the framework of the Africa Growth and Opportunities Act (AGOA).

The country is threatened by desertification, because of soil erosion and land degradation. Soil is lost through water and wind effects. Loss of organic matter content and nutrients from the soil due to poor agricultural practices and various forms of biomass removal lead to reduction of soil water-holding capacity and decreased soil depth that hinders proper root development, leading to poor aeration and drainage and general damage to soil structure. The dearth of energy sources and rampant poverty in rural areas is a principal

cause of removal of tree and other vegetative cover, which exacerbates soil erosion and degradation of the ecology. Degraded rangelands, rock outcrop, and gullies occupy the largest proportion of the land. Forest cover and water catchments have shrunk, giving rise to serious soil erosion caused by rapid water run-off, reduced infiltration rates and aquifer recharge rates.

Methodology

The methodology employed during the preparation of this national report has been a participatory and integrated approach. In other words all ministries involved in the implementation of NAP and all other stakeholders like NGOs provided information and input both during the preparation of the first draft which was then subjected to a very close scrutiny during the validation workshop of stakeholders. This final report has incorporated all their comments and suggestions. The consultations made revealed that there is need to strengthen coordination in the information exchange area, most organizations have done a lot on the ground but not recorded properly to facilitate dissemination of information.

1.0 The Strategies and Priorities Established within the Framework of Sustainable Development Plans and/or Policies

The principal development objective of the Government of Lesotho is poverty reduction within a context of sustainable development. The country is threatened by erosion, induced desertification and land degradation. Water erosion is the most prevalent form of accelerated erosion causing loss of organic matter and nutrients from the soil as a result of poor non-sustainable agricultural practices and various forms of biomass removal. The dearth of energy sources and rampant poverty in rural areas is a principal cause of deforestation and loss of vegetative cover.

Thus the strategies and priorities of Lesotho are established in the context of challenges facing the country in the form of accelerated soil erosion resulting in land degradation, loss of arable land and eventual desertification; periodic prolonged drought and scarcity of water for agriculture; increasing urban and rural poverty; pollution of land and water; low environmental awareness among policy and decision-makers and the general public; low level, weak institutional capacity to deal with environmental problems; lack of public participation in project identification, design and implementation; legal impediments in the way of women's social and economic progress; and absence of an enabling legal mechanism to advance on sustainable development programmes.

1.1 National Plans and Strategies Available in Other Social and Economic Areas

This section highlights the policies and strategies that have been formulated at the national level to address the land degradation problems which have been the major issue for several decades.

1.1.1 National Vision For Lesotho

By the year 2020 Lesotho shall be a stable democracy, a united and prosperous nation at peace with itself and its neighbours. It shall have a healthy and well-developed human resource base. Its economy will be strong, its environment well managed and its technology well established.

The National Vision for Lesotho makes food security and poverty reduction, along with sustainable resource management the main priorities of the Government. The following matrix summarises strategies proposed to combat environmental degradation.

Table 1: Matrix Summarising Strategies Proposed to Combat Environmental Degradation

Strategic Actions	Indicators	Means of Verification	Main Actors
1. Strengthen coordination of institutions responsible for natural resource management	No. of operational Environmental Units	Environmental Reports	Ministry of Tourism, Environment and Culture and LTDC
2. Protect air, soil and water quality	Existence and implementation of legislation and Policy	Policy documents	Ministry of , Tourism Environment and Culture and LTDC
3. Develop and implement proper land management systems	Successful implementation of legislation of Policy	Environment monitoring reports	Ministry of Forestry and Land Reclamation, Ministry of Local Government and CBO's
4. Preserve and conserve biodiversity and heritage	Number of protected areas	Environment reports	Ministry of Tourism, Environment and Culture and LTDC
5. Improve institutional capacity to implement the Environment Act 2001	Well resourced ministerial environmental units	Environment programmes and reports	Ministry of Tourism Environment and Culture, Private Sector and LTDC
6. Reduce over-harvesting of natural resources	Existence and implementation of regulations	Policy documents	Ministry of Natural Resources and CBO's
7. Improve effluent and solid waste management systems	Effective Effluent management standards Waste recovery rates	Waste management standards	City Authorities, WASA and Ministry of Environment, Tourism and Culture and CBO's
8. Promote use of renewable energy resources.	Diverse and environmentally friendly energy resources	Environmental reports	Ministry of Natural Resources and Private Sector

Source: National Vision 2020

The above matrix clearly indicates strategic actions that will be implemented by GOL starting from the next financial year 2005/06 using government owned resources as it has been indicated in the budget guidelines for the next financial year. Looking at the last column of main actors it is also very clear that all stakeholders including the private sector are expected to take part in this important plan of action, this is the main principle employed in the NAP where everybody has participated in the preparation and still expected to take part even in the implementation stage.

1.1.2 Poverty Reduction Strategy Paper

The overarching development goal of the PRSP is to provide a broad based improvement in the standard of welfare for the current generation of Basotho, without compromising opportunities for future generations. By 2020, such improvements shall have been manifested in reduced incidents of poverty, longer life expectancy, better and more appropriate educational standards, rehabilitation of the environment, and a more diversified and integrated economy with greater ownership by Basotho.

The PRS process has identified eight priority areas and two critical cross-cutting issues. Management and conservation of environment has been identified as priority area number seven with specific pro-poor strategies to be implemented over the next three years to ensure improved environmental management.

In order to ensure that today's economic growth and development is sustainable, GOL will exercise its specific responsibility to take into account the necessary "trade-offs" to ensure that optimal economic growth is balanced with the conservation of ecosystems. It will ensure that production practices neither endanger the environment nor limit the options of future generations. Some productive activities, notably mining, remove finite national resources and are inherently unsustainable. GOL, will therefore, ensure that activities generate additional flows of tax or benefits which can be applied to assist other sectors in creating long-term economic activities, A multi-sectoral approach will be taken as environmental issues which cut across various ministries.

Specific strategies for the period include:

- a) Promote environmental conservation with improved production by targeting committed families to be taught to harness water resources, increase ground cover and incorporate conservation and agro-forestry techniques into production.
- b) Strengthen management of solid and water waste as well as air pollution.
- c) Strengthen curriculum and media programmes on environmental education.
- d) Reduce loss of biodiversity by implementing Maloti-Drakensberg Transfrontier Park, maintaining existing reserves and moving towards the establishment of Qeme Nature Reserve
- e) Address range management issues by establishing and/or revitalizing grazing associations in collaboration with new local government authorities.
- f) Improve the legal, policy and institutional framework, giving particular attention to the capacity of the National Environment Secretariat and implementation of the Environment Act 2001.

As mentioned above this strategy has a direct bearing on land degradation and this is so because most of the vegetative cover has been removed due to lack other alternatives for household to use for heating and cooking.

1.2 National Policies or Strategies aimed at Combating Desertification Developed Prior to UNCCD

This section identifies the principal Government policies and strategies designed to address problems in the environment – development nexus developed prior to United National Convention to Combat Desertification (UNCCD). These encompass conservation and developmental policies having a bearing on the environment.

1.2.1 Land Use Policies

The overall objective of the land use policy is the promotion of land use suited to the climatic zone and soil type. Policies have been developed for each of the major uses in the country. These policies are aimed at encouraging people to use land for what it is best suited for. The Land Act, 1979, was enacted to facilitate the land use policies by providing security of tenure under a lease system, where a lease holder may lease, rent, or sublease out his land to users who can more effectively use the land. Like any other piece of legislation in this country Land Act has never been fully enforced due to insufficient capacity on the ground. However, with the advent of Local Government the situation will probably change.

1.2.2 Range Management and Grazing Regulations

The 1980 Range Management and Grazing Control Regulations were also introduced to control grazing and to encourage destocking. One aspect of controlling grazing is to reorganize the use of cattle posts commonly known as adjudication. The destocking effort would be encouraged by the introduction of a grazing fee system which is still under discussion within the government circles and a recent assessment has just been made by an American expert on the subject.

1.2.3 Forestry Act 1998

Forestry activities and the status of tree ownership are governed by the Laws of Lerotholi and Forestry Act of 1998. The latter empowers the Ministry of Forestry and Land Reclamation, through the Chief Forestry Officer, to transfer ownership of trees, forest plantations or indigenous forest / woodland to groups or individuals, for a specified number of years and subject to certain terms and conditions. The Chief Forestry Officer is to scrutinize applications and ascertain that candidates have necessary resources and management skills. Successful applicants would be required to follow a management plan approved by the Chief Forestry Officer. Transfer of title shall be effected by means of a written agreement between the holder and Government. If the holder breaches the terms of the agreement, for example, by failing to manage the woodlot in a sustainable way as prescribed by the management plan, the government has the right to repossess the resource. Amendments are still underway after some

institutional changes that have taken place. The enforcement of the current Act is not without problems as many people responsible to enforce some of the provisions are not very conversant with the law and this alone discourages officers in-charge as they normally lose in court. However, in areas where people understand and are able to interpret its provisions properly a lot has been realized in terms of protection of trees and the land itself.

Until very recently, Lesotho had never had a formally approved policy for its forestry sector. Notwithstanding this policy gap, the Government had always assumed the lead role initiatives. The adoption of a National Forestry Policy in 1997 marked a radical shift in direction by emphasising in the development and maintenance of forest resources since 1876. In this policy, the government has firmly committed itself to local ownership of forest resources. To this effect, the National Forestry Policy states:

It is the policy of the Lesotho Government to maximize, through actions consistent with other stated policies and development goals, the contribution that forests can make to the alleviation of poverty, livelihood security and environmental protection in Lesotho, and to enhance the participation and contribution of women in this endeavour.

The abovementioned policy is in the process of being reviewed through the National Forestry Programme process under the auspices of FAO. This is justified by the new challenges in the forestry sector as a result of the new institutional arrangements brought by the establishment of the Ministry of Forestry and Land Reclamation with broader mandate.

1.2.4 Agricultural Sector Strategy 2003

- ❖ This document provides a statement of government policy in the agricultural sector. It is based on national strategic principles by the National Vision. The most important of the principles specified are: the reduction of poverty, food security for all and sound resource management. These provide the basis for policy in the Ministry and are complemented by the need to create employment and work toward a more equitable distribution of income.

Above all the Ministry of Agriculture and Food security has recognized that water management in all its forms holds the key to success in agriculture in Lesotho and has re-oriented its policy to promote water management techniques that are more appropriate to local conditions. This implies focusing particularly on the needs of smaller farming units where small scale irrigation and water management technologies are needed. The impact of this policy is yet to be realized as it has just been adopted end of 2003 together with the irrigation policy that has a direct bearing in mitigating effects of drought.

1.2.5 Water Resources Policies

Over the last two years Government has increased its efforts to better serve both rural and urban areas through a variety of projects and local schemes. Implementation of on-going and new projects are being coordinated under the leadership of the new Commissioner of Water's Office. The following strategies are being implemented:

Monitor, refine and formulate water policies and legislation

The sustainable provision of water for various purposes cannot take place without a supporting policy and legal environment. For this reason, in 1999, a Water Resources Management Policy was adopted by Government and this alone has created enabling environment for the water sector and facilitated development of other sectors such as manufacturing. And so far water sources have been identified that will eventually be harnessed to supply both rural and urban population with portable water and make it possible for them to irrigate their fields during dry periods.

Improve water storage, delivery and distribution

The central strategy for the water sector is to improve storage, delivery and distribution. The key achievements in this area are the Lowlands Water Feasibility Study and the scoping exercise that leads to EIA for construction of Metolong Dam.

1.2.6 Energy Policies

As the majority of the poor use –and it will continue to use– biomass as their primary fuel, the Government has increased the resources allocated to forestry, particularly to the expansion of private and public woodlots.

GOL has already piloted National Rural Electrification Programme in areas such as Tsoelike in Qacha's Nek and other areas where rural communities now use electricity instead of kraal manure which otherwise should be taken to the crop fields to recondition the soil. This programme will reduce the burden on the small forest resources available in the country, hence reduce the risk of land degradation.

2. Institutional Measures Taken to Implement the Convention

2.1 National Coordination Body

The National Environment Secretariat (NES) was established in 1994 under the Office of the Prime Minister to oversee and coordinate the national Plan to Implement Agenda 21 in Lesotho. In March, 2003 a new Ministry of Tourism, Culture and Environment, was realigned, of which NES is now a department. The CCD is embraced in Agenda 21 and by virtue becomes part of the activities of the NES. The NES is responsible for overseeing the formulation and implementation of the National Action Programme (NAP) on the CCD.

In compliance with the terms of the CCD Lesotho has set up a multi-disciplinary National Desertification Steering Committee (NDSC) to oversee, in collaboration with NES, the elaboration and implementation of the NAP. The NES realizes the important role multiple groups can play in the elaboration and implementation of the NAP. This multi-disciplinary Steering Committee that has been set up has to lead the NAP process; forge closer and greater technical and scientific cooperation; assist in the transfer, adaptation and acquisition of technologies; and increase popular participation in NAP implementation and evaluate and assess the impacts of the action programmes. However, all this good work was interrupted by the restructuring of the SADC where various Technical Units were all centralized in Gaborone, Botswana.

The NDSC operates under the auspices of National Environment Secretariat. Its principal objective is to serve as the main organ through which National Environment Secretariat advises and guides the Government, private and public sectors on the conservation, protection and sustainable use of the country's natural resources. The committee includes the following institutions:

- National Environment Secretariat (Coordinator)
- National University of Lesotho
- Natural Resources (Hydrology and Meteorology)
- Ministry of Agriculture and Food Security
- Ministry of Forestry and Land Reclamation Departments:
 - Soil and Water Conservation Department
 - Range Management Department
 - Forestry Department
- Ministry of Local Government
- Disaster Management Authority
- Lesotho Council of Non-Governmental Organizations (LCN)
- Other NGO's that deal with afforestation and soil conservation

The NDSC is responsible to the Director of Environment Department. As mentioned earlier this committee advises NES on matters related to land degradation. One particular example is the study carried out by Chakela and Seithleko, where the committee provided all the baseline information from their respective institutions and assisted NES to review the study on its behalf.

2.1.1 Operational Structures in the Districts

For smooth running of operations in the districts and local levels, District Desertification Steering Committees have been established in 2003 to coordinate activities at district level. These structures consist of the District Secretary, Heads of departments at the district, Principal Chiefs, selected number of representatives of the Local Authorities Development Councils and Representatives of NGO's. At the local level is the Local

Authorities, which are the planning structures at village level in as far as developmental and land-use issues are concerned. Although these structures seem strategic, their effectiveness in dealing with desertification is still questionable as land degradation remains the foremost national problem. This is partly due to the conflicting legislation over natural resources and undefined roles of Local Authorities over that of the local chiefs.

2.1.2 Evaluation of the Functional Effectiveness of the National Environment Secretariat including the Institutional Framework for Coherent and Functional Desertification Control

The National Environment Secretariat (NES) has due legal standing in the promulgation of policy and legislation in environmental matters. In this regard the NES has significant influence. For example, the NES has been very instrumental in coordinating the promulgation of the National Environment Policy (1989), National Environment Action Programme (1989) and Environment Act (2001). However, the basic problem curtailing the extend of its influence is structural. As it is, the NES is a Department of the Ministry of Tourism, Culture and Environment with no authority over other departments and/or Ministries dealing with the environment. Its role can only be advisory. The ideal situation would be the establishment of an autonomous and independent authority with due legal and enforcement powers on matter of the environment. Such a strategy is being considered by way of contemplating the establishment of Lesotho Environment Authority. This is constrained by resources.

The NES has eventually managed to deploy Environment Officers at the district level and collaborate closely with other line ministries which have been in the districts for sometime now. This has improved the human resource capacity to enable it to provide the frontline and on the ground intervention by training and monitoring.

The NES coordinates and links with various United Nations Conventions such as the Convention on Biological Diversity and the Convention to Combat Desertification. This coordination includes good networking initiatives within the constraints of time and material resources available to the NES. The membership into the various NES

participative fora is based on representation by selection of members from stakeholder groups and organizations. There are on-going attempts to build capacity for monitoring and responding to environmental matters within the different stakeholder Ministries.

Communications and information systems between the NES and its various stakeholder groups and organizations is continually improving especially through established data management systems dealing with land issues, chemical management and persistent organic pollutants. To date an active database has been established. A profile on chemical management has also been produced and the State of the Environment Report is currently under review. The NES also has a web site and library.

2.2. National Action Programme (NAP) as Part of the National Economic and Social Development and Environment Protection Plans

The framework of the National Action Programme (NAP) is based on key priority areas for the country addressing the social development and environmental protection plans and to this extent it is coherent with the objectives and aspirations of the various development initiatives. The NAP is thus considered as a strategic framework for action. For example, the Range Management Department has developed programmes of action based on the NAP. The salient example of such programmes is the Sustainable Agricultural Development Programme for Mountain Areas (SADPMA). This programme and others have adopted the principles of participation, partnership and programme approaches. Furthermore, the NAP process has been very interactive with national development goals, objectives and aspirations.

The NAP was adopted and approved by the Cabinet of the Government of Lesotho in 1999. However, there has been no specific budgetary support and has only been partially funded through other related activities as a sub-item in others.

3. Participatory Process in Support of the Preparation and Implementation of the action Programme Coherent and Functional Legal and Regulatory Framework

3.1 *NGO Involvement*

During the preparation of the National Action programme a study was done on Non Governmental Organizations (NGO's) undertaking land management, poverty alleviation and drought mitigation programmes. The study has described the conservation related programmes undertaken by the NGO's, their implementation strategies, and the lessons learned from implantation of past and on-going programmes. These NGO's are: Africa 2000 Network Programme; Rural Self-Help Development Association; Durham-Lesotho Link; Lesotho Red Cross Society; Machobane Agricultural Development Foundation; Care Lesotho; Christian Council of Lesotho; World Vision International; Lesotho Work Camps Association; and Lesotho Scout Association. Efforts have been made to form an NGO forum whose activities have relevance to land degradation. A workshop was held and LCN was selected as a focal point in UNCCD implementation.

4. Measures Taken or Planned Within the Framework of the NAP, Including Measures to Improve Economic Environment, to Conserve Natural Resources, to Improve Institutional Organization, to Improve Knowledge of Desertification and to Monitor and Assess the Effects of Drought

4.1 Established Technical Programmes and Functional Integrated Projects to Combat Desertification

There are currently a number of programmes by Government and NGO's, being undertaken to combat land degradation and desertification. Government programmes are coordinated by the Ministry of Tourism, Environment and Culture, Ministry of Agriculture and Food Security and the Ministry of Forestry and Land Reclamation. Linkages with NAP will be established to the Agricultural Sector Development Programme (ASDP) now being elaborated. The other programmes are carried out by a number of NGO's active in the land management activities including academic institutions such as National University of Lesotho, Lesotho College of Education and Lesotho Agricultural College.

4.4.1 National Environment Secretariat Programmes and Projects

Environmental Management for Poverty Reduction

Currently, the NES is running and coordinating the programme of the Environmental Management for Poverty Reduction Project which is now in third and last year of implementation. The project is still in line with the project support document signed in October 2001. The project is supporting NES and the country in a comprehensive response to address issues and priorities of the environment and poverty, through demonstration of better conservation and protection of the country's natural resources.

The Project made interventions in the following areas:

- a) Strategic Planning – Produced the costed Action Plan to establish LEA.
- b) Sustainable Livelihoods:
 - ❖ Mobilised and trained 1308 youth in land rehabilitation and afforestation
 - ❖ Mobilised and trained 343 youth on waste collection sorting and recycling in urban areas
 - ❖ Planting of 39240 fuel wood trees and 765 fruit trees

- ❖ Built 1052 silt traps in side gullies
- ❖ Undertook series of income generating activities of youth such as tree nurseries, vegetable gardens and broilers.

c) Environmental awareness:

- ❖ Production of newsletter on environment e.g. Our Environment and Youth and Environment
- ❖ Procurement of Paqualab equipment
- ❖ Held meetings and workshops on pollution control

In building the capacity of NES with resources available the project has been of assistance in issues of poverty reduction and youth self-employment activities such as coffins, tapestry making and stone curving.. In all its activities the project mainstreamed issues of gender and HIV/AIDS pandemic.

Conserving Mountain Biodiversity in Southern Lesotho (CMBSL)

The CMBSL is a five year project, with a GEF budget of USD 2.485 million, sought to ensure the conservation and sustainable utilization of unique montane biodiversity through the involvement of local communities, who would also be beneficiaries. There are two complementary interventions – firstly to work with government and communities to create a network of small protected sites targeting specific biodiversity values, and secondly to incorporate biodiversity values in rangeland management systems. The project uses National Execution modalities, with implementation through institutions with comparative advantage including Range and Conservation Departments in the Ministry of Forestry and Land Reclamation, National University of Lesotho and NGOs. The National Environment Secretariat (NES) provides oversight and coordination.

Achievements

Over the last five years the project has made some significant achievements

- ❖ It is working in three districts (Quthing, Qacha's Nek, Mohale's Hoek) and has a strong presence in each. There are functional District Implementation Teams in each district comprising of the District Project officer and local government officers from key technical departments.
- ❖ The project has made interventions at around 16 sites or sets of communities (8 in Mohales' Hoek, 4 in each of the others). At many of the sites there is a greatly increased awareness of biodiversity issues and the need for conservation. This integrated conservation and development project has effectively linked Conservation and Development in the minds of many at district and community level, but unfortunately much less so at national level.
- ❖ Some target communities, facilitated by the project, have formed conservation groups or grazing associations (e.g Mapotsane, Masita and Qobong conservation of Spiral aloe). Some areas have been protected from grazing for a significant period so that the range and plants are recovering (e.g Tlhabeli and Mapotsane there is an established botanical garden).
- ❖ A number of communities are now more empowered (e.g. Qobong, Masita), more able and willing to take decisions on resource use into their own hands. The project has provided an enabling environment.
- ❖ Much training of community members and district-level workers has taken place. Most have relevant capacity for conservation. In addition to short courses, there have been a number of study visits or look/learn tours-to other initiatives in Lesotho (e.g. Lesotho Highlands Water Project sites) and to Community Based Natural Resource Management (CBNRM) areas in Zimbabwe. These have been beneficial and greatly appreciated. Two MSc students from the Department of Range management were sponsored to study Range Science in South Africa.

- ❖ Three areas have been formally designated for conservation – Letseng la Letsie, a particularly scenic and biologically interesting area in Quthing, has received a high level of attention from the project- it can be regarded as its “flagship”.

Undoubtedly, some natural resources in some areas are in a more healthy shape than they were three or so years ago, but the extent of this area is probably quite small.

Maloti-Drakensberg Transfrontier Conservation Development Project

This project is the joint venture between Lesotho and the Republic of South Africa and it is funded by GEF through the World Bank. Maloti Transfrontier covers three districts of Botha Bothe, Mokhotlong and Qacha’s Nek. The project activities include conservation, management and protection of 300km escarpment of Maloti Drakensberg Mountains on the eastern part of the country.

The overall objectives of this five year bilateral project are but not limited to :

- ❖ The protection, preservation and conservation of the alpine biodiversity
- ❖ Management of biodiversity resources and wetlands systems with the view to giving them international recognition under RAMSAR, Wetland and World Heritage Conventions
- ❖ To establish the long term international Transfrontier Peace Parks between Lesotho and South Africa

To date the project has achieved a number of objectives that include sensitisation and training of communities adjacent to project that include herdboys and community at large.

Partnership for Development of Environmental Law and Institutions in Africa (PADELIA)

This is an initiative whose overall purpose is to assist countries in developing environmental law and institutions for rational and up to date management of the environment and natural resource.

The project will focus on the following objectives:

- Development and harmonization of environmental laws
- Institutional capacity building including training
- Creating awareness on environmental law and effective implementation of the project. The outputs of the project will be revised and harmonized environmental law, an enhancement of the capacity of institutions and people in their ability to take more proactive part in the development of appropriate environmental legislation and awareness of environmental law and issues among members of parliament, judges and NGO's associated with environmental issues and their active participation in the sustainable conservation and management of natural resources.

Southern African Botanical Network

The Southern African Botanical Network (SABONET) is a Network of Southern African Botanical Institutions that originated as a result of discussion held between plant diversity scientists over several years at various workshops. There are about ten countries participating in projects and Lesotho is one of them. They include Angola, Botswana, Malawi, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. The project is funded by Global Environment Facility (GEF) and implemented by the United Nations Development (UNDP). In addition it was also co-funded by USAID/UCNRO through the Regional Network and Capacity Building initiative. The project started in 1996 and was supposed to end in 2002 but it ended in 2003.

The Objectives of SABONET

- ❖ To develop a strong core of professional botanists, taxonomists and plant diversity specialists within the ten countries of Southern Africa competent to inventory, monitor, evaluate and conserve the botanical diversity of the region
- ❖ To respond to scientific needs of the convention of biological diversity

SABONET's main goal is taxonomic initiatives aimed at strengthening botanical institutions (herbaria and botanical gardens) in Southern Africa in order to conserve biodiversity.

Sustainable Mountain Development Projects

Like other world mountainous countries Lesotho is committed itself to embark on sustainable mountain development. The main objective of the programme is to generate and strengthen knowledge on the ecology and sustainable development of mountain ecosystems and promotes integrated watershed development and alternative livelihood opportunities.

The programme will also include other cross cutting issues that include resource inventory, capacity building for local communities in resource management, establishment of catchments management authorities and development plans with communities. To date the project has launched an international year of mountains and the symposium was held among the NGOs, government and donor organisations. The theme of the symposium was to discuss various issues that affect sustainable mountain development in Lesotho. And all the activities undertaken at the mountain region are being harmonised and coordinated.

4.4.2 Agriculture and Land Management programmes and Activities

The sector which is most directly intertwined with environment in Lesotho is agriculture hence its activities have a direct impact on resources such as soil, water and vegetation. Due to an apparent lack of adequate technical know-how in land management and partial failure of past conservation approaches agriculture continues to impact negatively on the environmental quality in the country. Currently agricultural activities are degrading Lesotho's environment as there is soil erosion, caused by bad agricultural practices, and overgrazing in the rangelands, poor arable cover due to low crop productivity and excessive ecosystem destruction due to over-utilization and over-harvesting of wood resources.

The Ministries of Agriculture and Food Security and of Forestry and Land Reclamation have several programmes that deal with the conservation of soil, water and other related environmental components. Many of these are led by the Departments of Forestry, Soil and Water Conservation and Range Management Resources. In

particular, the former Department of Conservation, Forestry and Land Use Planning has over the years operated soil conservation programmes that dealt with rehabilitation of degraded lands and tree planting. Currently, the Ministry of Forestry and Land Reclamation through the Department of Soil and Water Conservation is placing emphasis on watershed management as a means of halting the degradation of rangelands and reducing soil erosion.

4.4.2.1 Agricultural Sector Development Programme

The Agricultural Sector Development Programme (ASDP) aims at improving the productivity of the agricultural sector through a number of measures, including a unified agricultural extension service. In the framework of ASDP, additional projects are being implemented, such as the IFAD-funded Sustainable Agriculture Development programme for the Mountain Areas (SADPMA) and World Bank Agricultural Policy and Capacity Building Project. These programmes of the Ministry of Agriculture as set out in the ASDP are therefore linked with the activities of the NAP so that partnerships are built, maximum impact is affected and duplication of efforts is avoided.

The following achievements have been realized in the various programmes:

4.4.2.1.1 Sustainable Agricultural Development Programme for Mountain Areas

Sustainable Agricultural Development Programme for Mountain Areas (SADPMA) was initially designed to be a five year programme intended to resolve agricultural problems of farmers in Thaba Tseka, Mokhotlong and Qacha's Nek. The completion period for the programme was March 31st 2004, but due to hopeful signs of performance and regained momentum the programme has been extended for two years period. Services of competent implementing NGO partners such as GROW, Participatory Ecological Land Use Management (PELUM) and Machobane Development Foundation have been contracted to carry out adaptive research and field trials for various seeds.

The project made interventions in the following areas:

a) Agroforestry:

- ❖ 230 farmers were trained in forest tree nursery management
- ❖ 70 forest tree nursery have been established in the project area
- ❖ 14 community woodlots have been established

b) Soil conservation measures

- ❖ 52 gullies covering an area of 6 ha has been rehabilitated
- ❖ 20 roof water harvesting tanks have been constructed
- ❖ 170 farmers have been trained in soil and water conservation issues

c) Range management and adjudication

- ❖ 8.5 ha of denuded rangelands has been reseeded in Mokhotlong
- ❖ 5 grazing associations have been revived

d) Local Capacity Building

40 staff members of the Ministry of Agriculture and Food Security have been trained in various fields such as procurement procedures, financial management as well in technical fields like irrigation engineering.

4.4.2.1.2 Agricultural Policy and Capacity Building Project

The Agricultural Policy and Capacity Building Project (APCBP) was a 3-year World Bank co-financed project. APCBP formed part of a long term Programme (15 years). The original completion date was December 2001 but an extension was granted to December 2003. The total value of the funds was the Maloti equivalent of US\$10.98 Million. It had four components and 15 sub-components. APCBP covered all the 10 districts. The executing agencies were the now ministries of Agriculture and Food Security; Local Government; Forestry and Land Reclamation; and Trade, Industry and Co-operatives and Marketing.

The objective of the APCBP was to improve institutional and policy arrangements for sustainable and efficient management, financing and delivery of public and private

agricultural services in Lesotho. The project was expected to assist in redefining the core public roles of the ministry in view of facilitating increased participation of the private sector in provision of agricultural support services. APCBP was co-financed by the World Bank (IDA), ADB, GTZ and DFID.

The following were components under APCBP:

Sector Strategy and Management

An Agricultural Sector Strategy has been developed which included departmental, divisional and subsidy policies. It worth noting that some of the activities undertaken were not necessarily part of the pre-set objectives of the project but proved to be crucial as implementation continued. The monitoring and evaluation guidelines were developed. A baseline study to facilitate monitoring and evaluation of the project was undertaken and a follow-up study was also carried out.

The following achievements were made:

Agricultural Support Services

The Unified Extension System, the main element of this component, is operational countrywide, together with the Community Action Plans, which are now well appreciated by the extensionist staff, NGOs and the farmers. About 170 Farmer Community and Support Fund projects were implemented.

Land management and Administration

A draft Land Policy was prepared, following the Land Policy Review Commission's Report. A draft Land Bill has subsequently been prepared and is ready for further discussion and adoption at the political level (parliament). The land Acquisition and Compensation Bill together with the revised Town and Country Planning Bill have been drafted but consultations are still on-going before they can be submitted to the Attorney General Chambers. Several civil works were completed, these were office blocks in Botha-Bothe, Berea and Mafeteng.

Change Process Management

The Ministry Of Agriculture Strategic Plan was prepared and this document was used as the basis for restructuring and rationalisation resulting in the total reduction of the Ministerial establishment by over 30% in 2003/04 and envisaged 68% by the end of 2005/06 with Headquarters to District ratio of 20%:80%. This process recognize the policy of decentralization by GOL.

Other related programmes

The Lesotho Highlands Water Project

Besides the construction of huge dams in the mountains the project had also been involved with the project that had impacted on local communities. In terms of land management programmes the project has managed to facilitate in a number of activities in both phase 1A and B. The achievements include identification, preparation and implementation of comprehensive environmental action plan in order to minimise the negative impact. To date three protected areas covering 5600 ha have been established in three ecological unique areas of Bokong, Tšehlanyane and Liphofung. The project has also established a high altitude botanical garden at Katse Dam while on the other hand monitoring of biological resources is conducted regularly within the project area.

Wetlands Conservation Projects

Wetlands in Lesotho seem to contain high diversity of endangered species or endemic species. Most wetlands in Lesotho are found in riverheads, and therefore, are sources and origins of major rivers and streams. Wetlands play a major role in ground water recharge, organic matter production and reduction of sediments. Wetlands like any other land use are threatened mainly by land degradation associated mainly with unsustainable land use practices that include overgrazing and trampling by livestock, poor road construction activities, soil erosion and displacement caused mainly by invasion of barrowing animals such as rats. Wetlands degradation has also been associated with change in climatic conditions, which in the long run has altered the hydraulic regimes.

There are some initiatives including several wetland studies undertaken by LHDA in both phase 1A and B of the Lesotho Highlands Water Project. Apart from that LHDA has undertaken some rehabilitation activities since the implementation of the project with the attempt to restore the conditions of the wetlands.

The government through the Ministry of Natural Resources under Department of Water Affairs is also involved with the rehabilitation of the wetlands in the head waters of the main rivers in Lesotho. The rehabilitation activities include construction of gabions and re-vegetation. The proposed programmes include the natural management wetland programme. The overall goal of this programme is to consolidate and provide a coordinated framework approach to all wetlands initiatives undertaken in Lesotho by various stakeholders.

The specific objectives include:

- To generate and improve knowledge and information on Lesotho wetlands including compilation of inventory of wetlands
- To establish and advance effective wetlands management governance
- Capacity building and used to address country key challenges
- Develop and implement wetlands restoration or rehabilitation measures
- Develop and implement wetlands management plan

This is a new unit only established in 2003 therefore only preparatory activities have been undertaken and on the ground the activities will be carried out during the next reporting period.

4.4.3. NGO's Programmes and Activities

There are other land management programmes in the country, operated by Non-Governmental Organizations. These programmes are mostly rehabilitation work and improvement of crop production.

CARE Lesotho

CARE is an international relief and development organisation. The organisation's main thrust is to help people devastated by emergencies and those who struggle each day to survive and improve their livelihoods. The activities include education, health care, agriculture, income generating, gender, equity and strengthening local capacity through partnerships and has been involved with training and capacitating locals on affordable livelihoods coping mechanisms such as food security. In the area of land management, Care has been involved directly with the implementation of social forestry initiative project by the name of Highlands Community Livelihoods Project. Project was supported by EU and LHDA. The main objectives of the project were to compensate people for loss of trees as a result of the impact the LHWP construction in phase 1A, control land degradation and of course provide adequate supplies of wood for construction and fuel for local community.

The major achievements of project by June 2001 were:

- A nursery producing 170,000 seedlings per annum and more than 3 672, 967 were produced over a period of four years
- A compensation programme aimed at replacing 10,606 trees to 601 households and 1,017 fruit trees issued.
- The project established 20 environmental clubs within schools and 101 workshops for herd boys, village development councils, and chiefs.
- The project stimulated the planting of 156 Ha in 75 villages for firewood production and rangeland management.

The project has addressed a fundamental problem of trying various tree species that one would not think they would survive the harsh climatic conditions that prevail in the project area and has proved beyond doubt that trees and livestock can live in harmony because all trees planted in rangelands areas.

Land management practices are also practiced by other NGOs such as Rural Self Help Association, Helvetians (now Serumula) Berea Agricultural Group, Grow, and Machobane Development Foundation. The thrust of these NGOs is nothing to advocate or promote innovation that may significantly contribute to sustainable farming in Lesotho by putting emphasis on minimum village use of local agricultural inputs, organic and intercropping.

World Vision Lesotho

World Vision Lesotho establishment could be traced as far back as 1987 when it was coordinating office for community development projects. Currently the organisation has adopted the Area Development Approach which is the vehicle to address the people development needs. The main thrust is transformational development that focus mainly on spiritual, and economic well-being of the poor. To achieve the above the organisation focuses on the following activities: food security, environment, health, child welfare and protection, education, infrastructure, Christian impact, advocacy, HIV/AIDS etc. The activities mainly achieved through projects and ministerial budget.

In the area of environment the organisation put emphasis on environmental rehabilitation, protection and conservation. The activities include combating soil degradation, gully reclamation, afforestation, environmental awareness and campaigns, training and capacity building. Like other NGOs the organisation is also embarking on proper farming methods that advocate or put emphasis on the use of available organic manure thus low input production. The activities are implemented in almost all of its 9 ADPs situated in 7 districts. The table below show the achievements from 2001 to 2004.

Table 2: Achievements from 2001 to 2004

Activities	Planned	Achieved
Dams	14	3
Stone structures		500
Tank Building	600	11
Afforestation	100,000	81960
Nursery		1

Other NGOs

There are other clusters of NGOs that have identified playing an instrumental role in environment rehabilitation and protection. They include Rural Self Help Association, Grow, Berea Agricultural Group, Serumula. Although these NGOs operate on a very small basis, their contribution in fighting drought and land degradation has been tremendous. The thrust of their activity is nothing but to promote use of local available resource base farming (organic farming). The technical elements include intercropping, localised placement of ash, household waste and manure. In Lesotho, this system commonly known as Machobane Farming System (MFS). To date this organisation has recruited 1000 small scale farmers with average area of 5 hectares per farmer. The system will be more powerful with the establishment of international association named of Participatory Ecological Land use Management association in Lesotho.

4.4.4 Local Initiatives

About 130 local initiators have been identified throughout the country. These are individuals who voluntarily rehabilitate the land by planting trees and protecting the natural resources. These individuals have been encouraged by providing them with hand tools such as wheelbarrows, spades, etc. to assist them to accomplish their tasks of land reclamation. Workshops have been held to enable them to learn from each other and equip them with more technical knowledge. Two of the initiators have been given the award of the Highest Order of Ramatšheatsana to mark the Kings Birthday during the period under report. They have rehabilitated an area equivalent to 50 ha each using both physical structures and biological measures as they produce some of the tree seedlings from their nurseries.

4.4.5 Identification of New Actions and Planned Measures

high in Government of Lesotho, in an effort to intensify a fight against land degradation has established the Ministry of Forestry and Reclamation which has the mandate over

(a) afforestation (b) conservation of soil and water and (c) management of range resources management. In fact, in the context of Lesotho, forestry should strive to address the problem of poverty and ensuring that forests and forestry play direct and indirect roles in improving the livelihood of the poor. Moreover, activities such as arresting environmental degradation, especially by protecting and improving watershed, combating desertification, preventing land degradation and conserving biodiversity are the national forestry agenda.

The following activities have been implemented and are still on-going activities within the Ministry of Forestry and Land Reclamation.

Table 3: Core Activities of the Ministry of Forestry and Land Reclamation and Achievements

Key Objectives	Activities	Achievements	Remarks
1.1 To increase planting of forest trees by 50% from 1 million to 1.5million by March 2004	1.1.1 Establish the total number of seedlings available in GOL nurseries per district by June, 2003	400, 000 seedlings	
	1.1.2 Establish the total number of seedlings in private nurseries per district by June,2003	400,000	
	1.1.3 Train 200 individuals on tree seedling production by March, 2004	32	
	1.1.4 Produce 700,000 tree seedlings from GOL nurseries by March, 2004	400 000	
	1.1.6 Produce 800,000 tree seedlings from private nurseries by March, 2004	480 000	
	1.1.6 Plant 1.5 million forest trees by March, 2004	1.2 million seedlings planted	Between March 2003 – Sept. 2004
1.2 To increase production of fruit trees to 64000	1.2.1 Produce 64000 fruit trees by March, 2004	50 773	
	1.2.2 Plant 64000 trees by March, 2004	41000	
1.2 To increase honey production by 100% from 0.1 tons to 0.2 tons by March, 2004	1.4.1 Train 100 farmers in beekeeping by March,2004	100	
	1.4.2 Produce honey by March, 2004	312 kg	
	1.4.3 Establish research apiary sites by 2004	1 site established	
	1.4.4 Establish local market for honey by 2004	4 pharmacies	
	1.4.5 Trap, split and breed 500 bee colonies by March, 2004.	500 colonies	
2.1 To increase the number of rehabilitated catchment areas by	2.1.1 Identify catchment areas that are prone to soil erosion in 80 constituencies	80 new catchments identified	

56% from 26 to 40 catchments by March 2004.			
	2.1.2 Identify the first 40 catchment areas to be rehabilitated by August, 2003.	41 catchments have been identified	20 funded under EMPR
	2.1.3 Construct 15km of diversion furrows in the 40 catchment areas by March, 2004.	A total of 36 km of diversion furrows have been constructed	
	2.1.4 Rebuild 30 km of terraces	0.6 km terraces rehabilitated and 6 ha terraces surveyed	
	2.1.5 Conduct soil mapping and classification on 2000 ha	4806 ha has been surveyed and mapped	
2.2 To increase water harvesting for small scale irrigation by 60% from 40 tanks to 100 by March, 2004.	2.2.1 Construct 100 roof water harvesting tanks	112 roof water tanks constructed	
	2.2.2 Build 60 water storage tanks for small scale irrigation of crops	27 spring development tanks	
	2.2.3 Conduct 15 feasibility studies for dam construction	21 feasibility studies were conducted	
	2.2.4 Design and supervise construction of 5 dams	3 dams constructed and 2 under construction	
2.3 To increase the rehabilitated land within and outside catchment areas from 0.5% to 2% by March, 2004.	2.3.1 Construct 25 km of stone lines	19.2 km stoneline constructed	
	2.3.2 Plant perennial grasses on 20 ha	20 ha of marginal land planted with eragrostis curvula	
	2.3.3 Construct 750m ³ of gully structures by March, 2004	4665 cubic metres of gully structures built	
2.4 To increase optimum vegetative cover through protection of rangelands from 50% cover to 60% cover by	2.4.1 Develop range management areas and establish ten new grazing associations	4 RMAs/GAs have drafted and adopted the constitution. 4 RMAs/GAs are now	Declaration and registration will soon follow.

2004.	- Train twelve existing associations to improve their performance	drafting the constitution. 1 VGS is assisted towards declaration 1 VGS is on constitution drafting stage A two day workshop was held for all established and proposed RMA/GAs/VGSs	
		28 areas identified in 21 constituencies	Reseeding has started
	2.4.3 Develop 10 grazing plans and prepare stocking rates guidelines	Two grazing plans developed	
	2.4.4 Consolidate and amend legislation on Range Management for law enforcement	Consolidation of all range management and grazing control regulations has been submitted to Law Office	
	2.4.5 Train herders, Principal Chiefs and Local Authorities on bad effect of burning in Lesotho and range reseeding and management	47 herders have received training in the Mountain districts	

Source: Ministry of Forestry and Land Reclamation Annual Reports

4.4.6 ADDITIONAL NEW ACTIONS

Environmental Awareness and Education

Another important new action initiated by the GOL to fight environmental degradation was the launching of the Lesotho Environmental and Education Support Programme (LEESP). The Programme or project is placed within the National Curriculum Development Centre (NCDC) of the Ministry of Education. The project is funded by the DANCED. The main aim of the programme is to enhance environmental education initiatives in all primary, secondary and tertiary institutions through curriculum reviews and capacity building a period of three years. In essence the project acts as the pilot stage for the environment to integrate environmental issues within the education curriculum. At present the project has identified twenty (20) schools (primary and secondary schools) to implement this programme.

If Basotho can understand and appreciate environmental issues and problems at their early age, then informed decisions by way of halting the degradation problem can be easily achieved.

NEPAD

National Medium Term Investment Programme and the formulation of Bankable Investment Project Profile in support to the NEPAD CAADP implementation.

The programme objectives are:

- To support sound management and regeneration of rangelands in the project area

- To improve the productivity of cropland and rangeland through rehabilitation and protection from further erosion using physical and biological means as part of the normal farming practice.
- To increase availability and sustainable production and harvesting of wood for fuel, poles and other uses as well as other forest resources, and to reduce use of animal waste as fuel.
- To promote the development of fruit trees in accordance with the agro-ecological zones.

Projects within the CAADP represent an extension of the Agriculture Sector Development Programme. They translate the priority objectives of the Agriculture Sector Strategy into activities suitable for financing by external as well as local development partners. The formulation of the strategy was completed in August 2003. The present project is proposed in support of the capital investment programme of the Ministry of Forestry and Land Reclamation aimed at addressing the critical issue of soil and water conservation in Lesotho. The project is a continuation of watershed management projects being implemented with the capital budget of the Ministry. Unfortunately, its impacts in terms of arresting land degradation are yet to be realized in few years to come as it is still at planning stage.

HIV/AIDS PANDEMIC

HIV/AIDS has a serious impact on both human and physical environment because those infected and affected by the disease are unable to devote the necessary extra effort to agricultural cultivation let alone to soil conservation works. It is also depleting both skilled and unskilled labour. According to Odenga 2003, the prevalence rate of HIV/AIDS amongst the adults of 15 – 49 years has risen in Lesotho from 4% in 1993 to 31% in 2002, placing the country the fourth highest rate in the world. In October 2003, the Government announced a

number of key decisions which will put Lesotho at the centre of the fight against the pandemic in Southern Africa.

To this effect the Cabinet has decided to establish a new broad based National AIDS Commission, and to core-stream the fight against HIV/AIDS into all Government activities and programmes. Government has also directed all Ministries to put aside 2% of their budget to fight the pandemic putting more emphasis on prevention and impart mitigation. In order to scale-up the national response to the HIV/AIDS pandemic Government of Lesotho has produced a National Strategy entitled “Turning a **CRISIS** into an **OPPORTUNITY**”.

To this effect the Ministry of Forestry and Land Reclamation has adopted orphans using the 1% share of its budget, one child from each district making a total of ten. All ten are engaged in land rehabilitation activities such as raising forest tree seedlings of their own, constructed roof water harvesting tanks and engaged in vegetable production using the water from the tanks

Achievement of all these efforts by government will reduce the intensity of the pandemic and such more people will be able to focus on land degradation and environment.

5. Financial Allocations from National Budgets in Support of Implementation as Well as Financial Assistance and Technical Cooperation Received and Needed, Identifying and Prioritizing Requirements

5.1 Adopted Financial Mechanisms

The availability of funds for support of local initiatives has always and at best been limited. This far the NES has always identified local initiatives and targeted them for support. However, other sources of funding like the Lesotho Fund of

Community Development (LFCD) available for funding community level initiatives are broadly canvassed especially by district level development officials. The LFCD is a permanent facility funded by Government from the Lesotho Highlands Water revenue sources.

The financing of NAP is overall a subject of national budgetary provisions and specific funding proposals in the context of projects designed by local actors or Government. The communities must be empowered to have the ability to make proposals and submit them for funding of participatory research and other initiatives. To date LFCD has financed Watershed Programme to the tune of USD1.0 million and under capital budget within the Ministry of Forestry and Land Reclamation USD1.5 million has been allocated covering 21 projects situated throughout the country.

6. Review of the Benchmarks and Indicators Utilized to Measure Progress and an Assessment Thereof

6.1 Operational Mechanisms for Monitoring and Evaluation

Benchmarks provide a baseline for monitoring at the local and national level; and are used to develop correlation between various parameters. Desertification indicators are measurable and/or observable parameters that should permit the assessment of an area according to its degree of desertification. They may be either physical or socio-economic characteristics.

At present various Government Institutions such as Soil and Water Conservation Department, Range Management Department and Department of Water Affairs have established their own benchmarks to observe various attributes such as rate of soil erosion, range condition trend and sediment flow respectively. Under the Department of Soil and Water Conservation an on farm trial at Ha Tebelo Catchment has been established in the last two years to correlate rainfall pattern

with the rate of soil erosion together with amount of soil nutrients lost through runoff. This exercise has collected a lot of raw data awaiting analysis by the National University of Lesotho.

The Department of Water Affairs (DWA) has been monitoring the amount of rainfall and the information was used to design optimum water collecting tanks for assisting villagers. DWA has also been involved in reconnaissance studies for the construction of small and medium size dams at the constituency level; and for monitoring, construction and operation of water resources investment projects. Thirdly, DWA has formulated a National Action Plan and investment programme based on interactive database, forecasting models and environmental consideration. The data are collected by the Departments of Meteorology and Hydrology on a real basis and used for real time forecasting modes development.

The establishment of the Early Warning System Unit and Disaster Management Authority (DMA) are new measures taken to help protect areas, including mountain ecosystems, against erosion, floods, landslides, snow avalanches and other natural hazards. Based on the information provided by the Early Warning System, the DMA has been enabled to be in a state of preparedness to assist vulnerable groups in times of snow, drought and early frost disasters. Material assistance has included fuel, medical and food supplies, and agricultural inputs; and has contributed to building capacity for sustainable agriculture and conservation practices.

To date the field level indicators of desertification for use in Lesotho have been suggested as indicated in the National Action Programme. The aspects of monitoring and evaluation of the different initiatives related to the NAP implementation are not coordinated in any formal way. This constraint is real and serious. It would require some support initiatives to set up formal monitoring and evaluation mechanisms in place. As discussed earlier, there is limited data

collection within the NES in terms of land issues, chemical management, and persistent organic pollutants. The process of reviewing the state of the environment report, for example, requires dedicated monitoring and evaluation systems throughout and these are not in place. The result is that the dynamics of land degradation and ground assessment of resource degradation are not monitored.

6.2 Scientific and Technical Desertification Control Activities

Below are some of the achievements made in the implementation of programme areas identified under the NAP.

6.2.1 *Equity, poverty alleviation, solidarity and participation*

It is generally accepted that poor people tend not to take proper care of the environment and the associated natural resources whilst their basic needs for food, shelter and health are not met. As a result the rural poor put undue pressure on their natural resource base than they would otherwise do in instances of less poverty. Thus the NAP seeks, through programme area 1, to offset to the rural poor the negative consequences of land degradation which express themselves as diminished access to the use of natural resources. To the extent that current livelihoods and resource use systems are not able to maintain living standards, measures to alleviate poverty and reduce pressure on the land must be sought and adopted. The following achievements are relevant to the desertification control and drought mitigation within the NAP.

- Machobane Foundation has managed to promote sustainable farm technologies with low external inputs, e.g. they make use of kraal manure and ash. In the three mountain districts this system has gained a lot of popularity and it has been supported by IFAD funded SADPMA project.

- There are about 32 viable private tree nurseries with the capacity of almost 800 000 forest tree seedlings and 60000 fruit trees per year. GOL serves as the main market for their seedlings and this year private nurseries benefited a lot from the capital budget earmarked for rehabilitation of catchments.
- There are several cooperatives focusing on economic activities of common agricultural interest such as Lentsoe la Lihoai at Masianokeng.
- Recently most communities were engaged in food for work rehabilitation activities such gully structures construction and construction of 58 water ponds.

6. 2.2 Measures to Alleviate the Pressures on Natural Resource Base

In a fragile ecosystem such as Lesotho, natural resources management must focus on establishing and maintaining adequate vegetative cover. Application of corrective measures and rehabilitation of moderately and severely degraded lands should be through the introduction of environmentally sound, socially acceptable, fair and economically feasible land use systems which will enhance the carrying capacity of the land and maintain biotic resources. The following are achievements and some of the achievements in this regard are already covered under Table 3 above.

- Tebellong, in Qacha's Nek conservation farming has become so popular that 20% of crop fields are put under this practice and the generally people claim to yield more production with very minimum tillage while on the other conserving their fragile soils.
- Chemical fertilizers are becoming more expensive for ordinary farmers and have realised that the use of organic waste especially kraal manure or soil fertility.

- Table 3 above has shown achievements of 112 roof water harvesting tanks and 27 storage tanks and other water harvesting and retention techniques.

6.2.3 Drought Preparedness and Drought Relief Schemes

Disaster Management Authority is mandated to coordinate activities geared towards drought relief schemes. Currently, the National Steering Committee is carrying out inventories of all activities being implemented by various agencies with the support of FAO and WFP. The main focus is on the rural development programmes, but this time road construction does not feature as it exacerbates the land degradation process. Hence the main focus is mainly on water harvesting and erosion control measures by communities with the technical support by line Ministries.

7.0 Conclusions

A lot of work has been done in the last two years to address the land degradation problem in the country. However, soil erosion still continues to have a devastating impact on the vast numbers of rural people who depend on rainfed agriculture in the mountain and hillsides areas. To this effect a massive watershed management programme through effective participation of local people is a key to preventing further ecological imbalance. Moreover, past experiences show that it is essential for beneficiaries to identify own resources, needs, priorities, and perceptions in order to fully participate in the implementation of the programme activities in a meaningful way .

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UNCCD DATA COLLECTION (Country Profile)

Biophysical indicators relating to desertification and drought

1. Climate

1.1 Index of aridity

1.2 Normal rainfall 600-
780mm

1.3 Rainfall standard deviation
38.52

Sub national areas	mm
1.Highlands	1000
2.Lowlands	800
3.Senqu River Valley	500
4.Foothills	900

2. Vegetation and land use

2.1 NDVI (normalized difference vegetation index) 0.39
(ranges between -1 to

+1)

2.2 Vegetation cover (% of total land area) 29.97

2.3 Land use (% of total land) _____

Land use	1990 - 1999	2000 - 2003
Arable crop land	3976.44	7555.236 km ²
Irrigated		
Rainfed		
Pasture		19821.024 km ²
Forest and Woodland	203.100 km ²	122.352 km ²
Other land		3089.388 km ²

2.4 Surface albedo _____

Data Source

1. Ministry of Natural Resource, Department of Meteorology
2. Ministry of Agriculture and Food Security, Department of Crops
3. Ministry of Forestry and Land Reclamation, Department of Conservation, & Department of Forestry.

3. Water Resource

3.1 Fresh water availability (million m ³)	<u>15 million m³/yr</u>
3.2 Fresh water resources per capita (m ³)	<u>2482 m³/yr</u>
3.3 Agricultural water use (million m ³)	_____
3.4 Industrial water use (million m ³)	<u>3 million m³/yr</u>

4. Energy

Consumption

4.1 Energy use per capita (kg oil equivalent)	_____
4.2 Agricultural energy use per hectare (millions of BTU)	_____

Production

4.3 Energy from renewable excluding combustible renewable and waste (% of total supply)	
Biomass Energy (tons of CO ₂ equivalent)	<u>2380000</u>
Electricity	<u>80 Mw</u>

Renewable Consumption by sector

4.4 Industry (% of total renewable consumption)	_____
4.5 Residential (% of total renewable consumption)	_____
4.6 Agriculture (% of total renewable consumption)	_____

5. Types of land degradation

Type of degradation	1990 - 1999		2000 - 2003	
	Million ha	% of total area	Million ha	% of total area
Gully erosion	0.00153	5%		
Sheet erosion				
Rill erosion				

6. Rehabilitation

Lands under rehabilitation	1990 -1999	2000 - 2003
Rehabilitation of degraded crop land (km²)		
Rehabilitation of degraded rangeland (km²)		
Rehabilitation of degraded forest (km²)	-	4000 ha

Data Source

1. Ministry of Natural Resource, Department of Water Affairs, and Energy
2. Ministry of Forestry and Land Reclamation, Department of Conservation, and Department of Forestry.

7. People and economy

7.1 Population (total)	<u>2159540</u>
Population: urban (% of total)	<u>13.5</u>
Rural (% of total)	<u>86.5</u>
7.2 Population growth (annual %)	<u>2.0</u>
7.3 Life expectancy (year)	<u>54(2001)</u>
7.4 Infant mortality rate (per 1000 live births)	<u>80(2001)</u>
7.5 GDP per capita (current US\$)	<u>460</u>
7.6 GNI per capita (current US\$)	_____
7.7 National poverty rate (% of population)	_____

7.8 Crop production (metric tons)

Maize	Sorghum	Beans	wheat	Peas
0.62t/84834	0.45t/11954	0.3t/3700	0.82t/13109	0.4t/1302

7.9 Livestock production (metric tons)

Milk	Received
	1050802 mt
Hide & Skin	Hides
	5052
Mohair	Net weight
	262043 kg
Wool	Weight
	1386226 kg
Eggs Prod.	235797.5

8. Human development

8.1 Primary education completion rate (% age group)	<u>45%</u>
8.2 Number of women in rural development (total number)	<u>35%-570118.6</u>
8.3 Unemployment (% of total)	<u>42.7%</u>
8.4 Youth unemployment rate (age 15-24)	<u>23.0</u>
8.5 Illiteracy total (% age 15 and above)	
<u>36%</u>	
8.6 Illiteracy male (% age 15 and above)	
<u>27%</u>	
8.7 Illiteracy female (% age 15 and above)	
<u>9%</u>	

9. Science and technology

**9.1 Number of scientific institutions engaged in
desertification relate work (total number)**

1. Ministry of Statistics, Bureau of (Planning & Statistics)

NB: Data is not available in most instances hence assistance is requested.