

**LESOTHO NATIONAL REPORT ON THE
IMPLEMENTATION OF THE UNITED NATIONS
CONVENTION TO COMBAT DESERTIFICATION**

**REPORT PREPARED FOR CONSIDERATION BY THE THIRD SESSION OF THE
CONFERENCE OF THE PARTIES (COP3) TO THE UNITED NATIONS CONVENTION TO
COMBAT DESERTIFICATION (UNCCD) IN THOSE COUNTRIES EXPERIENCING SERIOUS
DROUGHT AND/OR DESERTIFICATION, PARTICULARLY IN AFRICA.**

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LESOTHO NATIONAL REPORT ON THE IMPLEMENTATION OF THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

SUMMARY

1.0 An introductory section highlights the fact that Lesotho's land terrain is dominated by rugged mountains with only 9% arable land, predominately in the lowlands zone. A brief overview of Lesotho's economic indicators is given, noting that agricultural sector contributes about 14% of GDP. This is the lowest agricultural Productivity in the Southern African region. Mention is also made of principal development objective of the government as being poverty alleviation. It is also emphasised that the country is threatened by desertification, because of soil erosion and land degradation. Soil is lost through water and wind effects. Loss of organic 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, and general damage to soil structure. Land suitable for cultivation and grazing is becoming more scarce. Lesotho is facing a major crisis of land degradation due to soil erosion.

2.0 policies, strategies and priorities established within the framework of sustainable development plans are covered. among other things, national development plans, and national plan to implement agenda 21 are outlined. the national environment policy that provides the national policy to ensure the protection and conservation of the environment with a view to achieving sustainable development for lesotho; and strategies to combat desertification developed prior to unccd are also mentioned. in particular land use policies which aim at achieving land use policy that is suited to the local climatic zone and soil type are elaborated. therefore, policies have been developed for each of the major uses, namely:

◆ **Agricultural Policy**

The Government's agricultural policies are focussed on increasing production and marketing of agricultural crops. Livestock and livestock products in a manner consistent with the conservation of the land base.

◆ **Livestock and Range Management Policies and Strategies**

Aim at achievement of self-reliance and increased incomes for livestock owners and the Livestock and Range Management Policy states as its overall

goal the protection and regeneration of the natural environment and the resource base.

◆ **Water Resources policy**

Aims at achieving utilization of water resources that improves the economic and financial livelihood of the people by ensuring the quantity and quality of water resources.

- 3.0 Institutional measures taken to implement the convention are outlined as follows: The responsibility for co-ordination of the preparation and implementation of the National Action Programme is delegated to the National Environment Secretariat (NES), which becomes the focal point for the programmes. NES is to take urgent steps in the elaboration and implementation of the CCD programmes at national level. In relation to the NAP process, the NES has become a Government agency responsible for co-ordinating activities related to the preparation of the NAP document, implementation of programmes, monitoring and assessing the impacts of programmes. These measures are both considered important and complementary and should be carried out concurrently, as an integral part of programmes aiming at combating desertification in Lesotho.

Lesotho Environment Bill (1998) provides a basis for co-ordination of activities of different sectors and departments, and provide legal mechanism for setting minimum standards for the protection of the entire environment. Such laws also provide mechanisms for regulating cross-sectoral issues, and for intervention in the enforcement of standards.

- 4.0 An outline is given on the participatory process in support of the preparation and implementation of action programmes to execute the NAP process. The establishment of NDSC in 1994 and a desk-top study commissioned in the same year enabled the conducting and holding of district workshops with participation from District Secretaries, Principal Chiefs, Departmental Heads at district level, District Development Committees, farmers associations, traditional heads and Members of Parliament. The climax was the holding of a National Forum on desertification issues, in March, 1998, whose output was the NAP Document.
- 5.0 In the interest of popular participatory approach all stakeholders were invited to participate in a consultative process in support of the preparation and implementation of the national action programme. Besides the continued support and commitment exhibited by the Lesotho Government, partnership agreement with some United Nations agencies and developed countries to implement the Desertification Convention was achieved. In this regard, the following co-operating partners have been very instrumental: UNDP, IFAD and CCD Secretariat provided much needed financial support. UNSO assisted on

community of Ha Khoro village pilot project with financial support for land reclamation activities.

- 6.0 Section 6.0 outlines measures undertaken to combat desertification and technical programmes in this field. Accelerated combating of soil erosion in Lesotho dates back to 1930s. Until recently, such efforts mainly emphasised structural works such as terracing, contours, silt traps, diversions etc. This strategy has been found to merely offer temporary solutions.

Government policy is now shifting towards biological conservation methods with a strong emphasis on community participation. To solicit the latter, the strategy now seeks to marry production with conservation and environmental objectives. Successful agricultural diversification and commercialisation require the establishment of effective conservation and environmental protection measures. There is a need to adopt a holistic approach that integrates rural development with conservation and environmental planning, laying emphasis on acceptable and affordable techniques. This section also identifies planned measures within the framework of the NAP. These include the following:

- ◆ to review the legal framework within which convention activities are implemented;
- ◆ to investigate both physical and social factors that lead to the deterioration of the land base;
- ◆ to intensify efforts in water harvesting by rehabilitating old ponds and dams and by constructing new one;
- ◆ to adopt a participatory resource management approach that places more emphasis on the farmer and the community as agents of development;
- ◆ to consolidate and rationalise the operations of institutions that deal with issues of environment, conservation and land use; and
- ◆ to strengthen the programme of conservation of endangered indigenous species.

- 7.0 Section 7.0 briefly identifies the national budget that has a direct bearing on desertification control. The total amount of about M101million (1USD = Maloti6.00) has been identified from the financial records of the government and these reveal that this amount is the annual contribution by Lesotho Government together with donor Community.

8.0 Lastly, a review of the benchmarks and indicators required to measure progress and assessment thereof have been identified. In this regard, it has been observed that desertification indicators are measurable and observable parameters that should permit the assessment of an area according to its degree of degradation. They may be either physical or socio-economic characteristics. So far the field level indicators of desertification in Lesotho have been suggested and will be further looked at before they are employed.

Abbreviations and Acronyms

ASDP	Agricultural Sector Development Programme
CCD	Convention to Combat Desertification
DFID	Department for International Development
DDC	District Development Council
EU	European Union
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
LHWP	Lesotho Highland Water Project
LUPD	Land Use Planning Division
LHWRF	Lesotho Highland Water Revenue Fund
NAP	National Action Programme
NDF	National Desertification Fund
NDSC	National Desertification Steering Committee
NES	National Environmental Secretariat
NEAP	National Environmental Action Plan
NEYC	National Environment Youth Corps
NGOs	Non Governmental Organizations
ODA	Overseas Development Agency
RLMAs	Range and Livestock Management Associations
RMA	Range Management Area
RMD	Range Management Division
SADPMA	Sustainable Agricultural Development Programme for the Mountain Areas
Sida	Swedish International Development Agency
UNCCD	United Nations Convention to Combat Desertification
USAID	United States Agency for International Development
VSECC	Vegetation and Soil Erosion Control Concept

1.0 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 30,352 square kilometres.

Lesotho has an estimated population of 2.03 million people (Bureau of Statistics, 1996). The population growth rate is fairly high, averaging 2.63 percent 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 regions. The lowlands account for about 20 percent of the land area and lie between 1500 and 1800 metres elevations on the western and northern borders. The foothills cover about 15 percent of the land area and lie at elevations between 1800 and 2200 metres. The mountains zone takes about 61 percent of the land area on elevations from 2100 to 3000 metres (with peaks up to 3482m). The fourth ecological zone is the Senqu river valley covering about 4 percent of the total land area. About 9 percent of Lesotho's land area is considered arable and this predominantly being in the lowland zone.

The orography 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 85 percent of the annual rainfall occurs in the seven months from October to April. Precipitation varies from 500mm in the Senqu 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°C in summer) is highly variable in different ecological zones and on diurnal, monthly, and annual time scales.

Lesotho's economic performance has improved considerably in the last few years in the wake of structural adjustment support from the IMF/World Bank and bilateral/multilateral aid agencies. Real annual GDP growth averaged over 8% between 1991 and 1996 **despite several drought years** whilst GNP grew at a lower rate of 6%

owing to the decline in remittances from migrant workers. GDP growth was fuelled by the construction of the estimated USD 2.5 billion Lesotho Highland Water Development Project (LHWDP) designed to export water to South Africa. In 1996, GDP represented 70% of GNP, whereas before the LWHDP, the ratio had been about 50%. Inflation dropped from 19.5% in 1991 to 8.5% in 1997. The budget deficit of over 9% of GNP in 1988/89 was converted into a surplus of 3.5% in 1996. Similar improvements on the external account resulted in an overall current account surplus equivalent to 8.5% of GDP, while foreign exchange reserves rose from 1 month of import cover to seven months. Although the services (45%) sectors dominate, the agricultural sector which contributes about 14% of GDP, plays an important role by providing a livelihood for well over 55% of the country's population. However, agricultural productivity is one of the lowest in Southern Africa.

Although Lesotho has a GNP per capita of USD 670, which categorises it as a low-middle-income country, **nearly 50% of Basotho households are poor**. Major improvements have been made in a number of social indicators since independence in 1966. Life expectancy has increased from 42.9 years in 1960 to 61 years in 1995. Child mortality has decreased by half from 149 to 79 per thousand over the same period and adult literacy now approaches 70% overall. However, Lesotho's ranking on the 1997 Human Development Index (HDI) remains low at 137 out of 175 countries.

Over 80% of the population is classified as rural and nearly two-thirds of the rural population largely depends on agriculture for their livelihood. Hence, the rubric of the current Government policy and strategy is to increase the productivity of the agricultural sector as the basis for improved household food security and employment creation. It is now accepted that the pursuit of grain (maize) self-sufficiency in the past was economically unsustainable and environmentally harmful by encouraging the cultivation of grain crops on increasingly marginal lands thereby exacerbating their rapid degradation. The principal development objective of the Government of Lesotho (GOL) is **poverty alleviation**.

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 the 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.

2.0 THE STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES.

The principal challenges facing Lesotho are 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.

2.10 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.

2.11 National Development Plan

The government of Lesotho's commitment to national development is articulated in its National Development Plans, which spell out its social, economic and environmental policies. The current (Sixth) National Development Plan addresses the economic and social development policies and strategies. These include sustainable human development with a focus on poverty reduction, appropriate roles for the public and private sectors, public participation in development, gender issues, regional economic co-operation, public finance, and development of the financial sector and disaster management.

2.12 National Environmental Action Plan

The Constitution of Lesotho, Section 36, provides the mandate on environmental management and it states that: Lesotho shall adopt policies designed to protect and enhance the natural and cultural environment of Lesotho for the benefit of both present and future generations and shall endeavour to assure all citizens a sound and safe environment adequate for their health and well-being.

The government of Lesotho formulated the National Environmental Action Plan (NEAP) in 1989. The NEAP provides a framework for the integration of environmental

considerations into the planning and decision making process for social and economic development and for the implementation of Agenda 21.

The NEAP focuses on the following priority areas: Improvement of the living and working environment of the poor, through eradication of poverty; conservation of biological diversity; protection and sustainable management of land resources; protection and enhancement of the quality and supply of fresh water resources; protection of human health and improvement in the quality of life; protection of the atmosphere by combating climate change; environmentally sound management of wastes; and involvement of major groups in planning, decision making and implementation of development programmes.

2.13 National Plan To Implement Agenda 21

The National Action Plan to implement Agenda 21 was launched in 1994 and it is built on the foundations of the NEAP. This plan incorporates sectoral priorities and national plans for implementing international conventions on biodiversity, climate change and desertification control. In particular, Agenda 21 Implementation Plan aims to achieve close Government and inter-agency co-ordination and co-operation in environment planning co-ordinated by the National Environment Secretariat. Agenda 21 Implementation Plan further provides an umbrella to support and reinforce on-going and new initiatives for achieving economic growth, sustainable development and improved resource management.

2.14 National Environmental Policy

The National Environmental Policy relates directly to Lesotho's national development priorities. It focuses on the social and economic dimensions, the management and conservation of natural resources, protection and improvement quality of environment and the promotion of community participation.

The goal of the national policy on environment is to ensure the protection and conservation of the environment with a view to achieving sustainable development for Lesotho. The purpose of the national environmental policy is to facilitate sustainable development based on sound management of natural resources.

The Policy Objectives are to:

- secure for all citizens of Lesotho a high quality of environment to enhance their health and well-being;
- use and conserve the environment and natural resources for the benefit of present and future generations;

- halt environmental degradation, and to restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere and the maintenance of biological diversity;
- raise public awareness and promote understanding of essential causal linkages between development and environment, and to ensure that environmental awareness becomes an integral part of education at all levels;
- encourage and facilitate the participation of individual, NGO, Community Based Organisations, academic and research institutions and private sector in environmental management;
- foster community management and sharing of benefits from sustainable utilization of natural resources on customary land;
- put in place environmental legislative and regulatory measures complimented by social and economic incentives and institutional arrangements to influence positive behaviour towards environment and promote sustainable economic and social development;
- set up programmes of resource inventory and environmental accounting, complemented by regular and accurate environmental assessment, monitoring reporting, and dissemination of information on the state of the environment to all sectors of society;
- ensure that the true costs of environmental use and abuse are borne by the user, i.e. application of the “polluter pays” and “user pays” principle;
- enact and implement a land tenure policy which encourages and enhances sustainable natural resource management;
- enhance that programmes and measures of structural adjustment, economic reform and debt servicing repayment take into account the country’s environmental circumstances and needs;
- conserve the Basotho cultural heritage and utilises it for the benefit of the present and future generations;
- explore the use of fiscal policy and incentives (e.g. taxation, subsidies, public expenditure) to promote better environmental management;
- use markets, pricing of goods and services and economic incentives to complement regulatory and institutional measures for better environmental management;

- empower women to play key role in natural resource use and management activities; and
- co-operate in good faith with other countries in the Southern Africa Development Community (SADC) region, in Africa, and with international organizations and agencies to achieve sustainable management of transboundary shared natural resources and effective prevention or abatement of adverse transboundary environmental impacts.

2.20 National Policies Or Strategies In The Field Of 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 Nations Convention to Combat Desertification (UNCCD). These encompass conservation and developmental policies having a bearing on the environment.

2.21 Land Use Policies

The overall 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 to. The Land Act, 1979, was enacted to facilitate the new 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.

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. The destocking effort would be encouraged by the introduction of a grazing fee system.

2.22 Agricultural Land Use Policies

Lesotho's overall agricultural land use policy is to increase production and marketing of crops, livestock and livestock products in a manner consistent with the sustainable management of the land resources base. This policy has a crop production and range and livestock component.

The general policy is that crop production should be carried out only in the Foothills and Lowlands agro-ecological zone, and the mountains should be used solely for livestock production (grazing).

The major components of agricultural land use policy are:

- Development of comprehensive watershed management programmes in order to integrate water and soil conservation activities including rehabilitation through the use of improved production techniques to expand output of both crops and livestock;
- Promotion of intensive livestock production in the lowlands to conserve the land resources base necessary for crop and fodder production; and
- Encouragement of controlled and improved management of the rangelands through the creation of grazing associations and improvement of rangelands, and hence livestock productivity; training and educating households in the sustainable use of land and water.

2.23 Livestock and Range Management Policies and Strategies

Livestock and Range Management Policy states as its overall goal the achievement of self-reliance and increased incomes for livestock owners and the protection and regeneration of the natural environment and the resource base.

Several strategies are listed for the realization of the overall objectives in which village level institutions will play a major part. Those that have a direct bearing on desertification include:

- Promotion of improved range carrying capacity by developing appropriate management programmes;
- Promotion of intensive livestock production in the lowlands and extensive livestock production in the foothills and mountain areas;
- Promotion of enhanced levels of livestock nutrition by maintaining sustainable stocking rates and by expanding the fodder resource base; and
- Training of livestock owners in the sustainable use of land and water resources;
- Promotion of overall livestock and rangeland management through creation of Range and Livestock Management Associations (RLMA).

To implement these policies, village level RLMAs will play a major role. Their activities will be guided by the bye-laws and capabilities of their management committees and membership.

2.24 Water Resources Policies

The water resources policies are covered under the institutions of the National Meteorological Service and the Department of Water Affairs.

National Meteorological Services aims to give proper advice on environmental issues so as to minimize the effect of climate change and ensure the natural balance that exists in any eco-systems.

The strategies for achieving this aim are to:

- maintain and increase the number meteorological stations and upgrade rainfall stations;
- install several upper atmosphere stations to monitor carbon dioxide concentration through air samples in order to monitor the green house effect;
- deploy trained staff at different technical levels in key positions in the Service;
- undertake continuous staff training to maintain and improve the quality of the services offered to data users or information derived from the data;
- improve the specialised service geared towards aviation, agriculture, weather-included disasters; and
- change the structure of the services in accordance with prevailing demands to give a full and exclusive service through the specialised sector of agricultural meteorology, climatology, and weather forecasting.

The Department of Water Resources' policy 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 in order to meet the needs of all sectors of the society, to enable mitigation of water related hazards, and to maintain or enhance the condition of the environment in order to achieve a sustainable development.

The strategies for achieving these objectives are to:

- increase the awareness of the decision makers of the value of water resources assessment;

- improve the information and databases by employing available significant advances in instrumentation, thus making data more accessible and useful to a greater range of clients;
- improve human resources development, education and training;
- implement institutional arrangement and consolidation including well articulated legislation for water resources management;
- increase the financial resources of the water resources assessment agency by introducing a charge for supplying all hydrometeorological data to users in order to supplement budgetary allocations.

2.25 Energy Policies

Lesotho's energy policy is to ensure an energy supply for all sectors and in all regions of the country through the implementation of the Energy Master Plan designed to satisfy the energy needs of the country at minimal social, economic and environmental costs. The measures envisaged to achieve the overall strategy as spelled out in the Master Plan include:

Promotion of the efficient use of energy – promotion of energy conservation in all sectors of economy;

Substitution of imports by local sources – development of solar energy to minimize the use of imported electricity, coal and petroleum products;

Enhancement of supply through development of all viable energy local energy resources – increase tree planting activities, the development of biogas and the development of hydropower and solar energy.

3.0 INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION

3.1 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 June, 1998 a new Ministry of Environment, Gender and Youth Affairs was created, 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. National Environment Secretariat is responsible for overseeing the formulation and implementation 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

The National Desertification Steering Committee was established to operate under the auspices of National Environment Secretariat. Its principal objective is to serve as the main organ through which National Environment Secretariat shall advise and guide 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 Divisions:

Soil and Water Conservation Division

Land Use Planning Division

Agricultural Research Division

Range Management Division

Forestry Division

Ministry of Home Affairs and Local Government

Disaster Management Authority

Lesotho Council of Non Governmental Organisations (LCN)

Other NGOs that deal with afforestation and soil conservation

The National Desertification Steering Committee (NDSC) is responsible to the Director of Environment Department and reports on a monthly basis on the progress and performance of its work. The duties of the NDSC include the following:

- advise Government on all land management issues;
- advise on information that should be disseminated to the public;
- advise on the best and effective ways and means of reaching the grassroots communities;
- advise Government on the National, District and Local projects formulation, to ensure proper planning, implementation and monitoring by Technical Staff as well as by the communities;
- advise on the best methods to use in order to ensure popular participation in sustainable land management programmes and activities;

- advise Government of Lesotho on land management issues that require an integrated approach and advise on the ways and means of effecting such Inter-Ministerial approach to implement these land management programmes;
- advise implementing Ministries and NGOs on the best land-use activities in different land classification systems and locations. This will include advising the land authorities on the relevance of the land tenure systems in use to the intended land improvement and rehabilitation; and
- advise on all matters relating to implementation of programmes under the Convention to Combat Desertification.

3.11 Level of Representation

In view of the highly technical nature of the activities of the NDSC it was found advisable that the level of representation from the organisations/ministries should be of the highest calibre in educational qualifications as well as seniority of posts held in their organisations/ministries. For the sake of maintaining the required continuity in the attendance of the NDSC meetings, it was further advised that only one representation per organisation as listed above should be nominated.

3.12 Operational structures in the districts

For smooth running of operations in the districts and local levels, it is necessary to establish coordinating bodies similar to the NDSC. However this has not yet been done. The use of existing administrative institutions is being maintained. These structures consist of the District Development Council (DDC) at the district level under the chairmanship of the District Secretary. Membership includes Heads of departments at the district, Principal Chiefs, Selected number of representatives of the Village Development Councils and Representatives of NGOs. At the local level is the Village Development Councils, 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 it 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 Development Councils over that of the local chiefs.

3.2 Legal And Regulatory Framework

Lesotho Environment Bill (1998) provides a basis for coordination of activities of different sectors and departments, and provides legal mechanism for setting minimum standards for the protection of the entire environment.

4.0 PARTICIPATORY PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF THE ACTION PROGRAMME

The National Environment Secretariat (NES) is responsible for coordinating implementation of the UNCCD. In November 1994 NES initiated the establishment of the National Desertification Steering Committee. This interministerial, multidisciplinary committee has acted as a catalyst for the National Action Programme process. The committee worked on activities leading to the holding of the first national forum; and on issues to be discussed during that forum.

However, the National Desertification Steering Committee has always had problems meeting. In many cases meetings would not take place due to poor turn up of members (not making a quorum). This problem is due to (as a major reason) the fact that most of the individuals who are members mostly come from government departments and other institutions (private, NGO, parastatal) where human resource capacity is alarmingly low hence such individuals are always over committed. Other reasons for poor turn up as identified by committee members, is lack of incentives provided to members upon attendance in meetings; as well as unclear mandate of the committee. In fact according to the terms of reference, the committee provides advise to NES and nothing more.

4.10 Participation In The NAP Process

At the beginning of the NAP process in 1994 a desk-top study on the issue of desertification and drought was commissioned. This study was done as a first step in the process of providing a basis for a national dialogue and to create public awareness. It became the responsibility of the steering committee to review and approve the desk top study report as one of essential collections in the information kit on desertification. The report was accepted and then given wide distribution. This report paved a starting ground for the initiation of consultations for the participatory process.

The first planning workshop on the NAP process was held in mid-May, 1996. The workshop discussed modalities of disseminating the contents of the UN Convention to Combat desertification and of creating awareness on the UNCCD to the general public in all the districts. This workshop also decided on the first round of district workshops and the relevant stakeholders to attend such workshops; as well as the message to be transmitted. The participants of this planning workshop came from relevant Government Ministries, NGO's and the private sector.

The district workshops commenced from September through December 1996. The participants were District Secretaries, Principal Chiefs, Heads of Government Departments at district level, representatives of farmers associations, Members of

Parliament, Development Councils representatives, traditional healers\doctors and other representatives of community based organizations.

During this initial round of workshops presentations regarding UNCCD were made by resource persons. Participants identified causes and effects of land degradation, and developed objectives that offer alternative solutions to the problems identified as well as who would be responsible for implementing the solutions.

Further consultations were made during 1997 whereby a local consultant was engaged to pursue further countrywide sensitisation of the public on desertification and drought issues. This activity involved 37 meetings at community level, which were attended by a total of 3578 people out of which 1080 were women. Participants were also informed about the need to formulate National Action programme on the UNCCD and their contributions were sought.

In 1997 district level consultations were also undertaken among the key stakeholders who included Ward Development Councils, District Development Councils, and Principal Chiefs. Ward Development Councils are made up of representatives of Village Development Councils, the lowest local authorities in local structures; and are a representative of a large section of the rural population. District Development Councils are made up of representative from Ward Development Councils and as such are an important link between communities at village level and the Government at district level. Principal Chiefs represent traditional structures which are not subject to elections and are important in organizing the people at village level; and also provide a good basis for continuing of development programmes as they are permanent structures.

The district level consultation undertaken during 1997 in the form of workshops also included representatives of NGOs and relevant Government Departments at district level.

At these workshops a summary concept paper on NAP was prepared in both English and Sesotho language highlighting important issues to be discussed. A format for capturing inputs of participants was designed to facilitate systematic recording and incorporation of their contributions into the concept paper. The concept paper was a working document for the National forum out of which to develop a National Action Programme document.

The National Forum was held in March, 1998. Deliberations at the National Forum started with paper presentations by experts to set the stage for discussions and then group discussions elaborated on strategies and action plans to combat desertification and mitigate the effects of drought. This first national forum was attended by 122 participants composed of representatives of all stakeholders such as those of development councils, farmers, community based organizations, NGOs, Principal Chiefs, members of parliament, Government departments, etc. At the end of the discussions, the national forum approved that the concept paper be developed into a National Action Programme document and finally made a resolution to be forwarded to the Government.

The resolution of the National Forum was that the Government of the Kingdom of Lesotho should take note of the deliberations and recommendations made in the National Forum and must work to **integrate them into national planning**.

The resolution further stated that the Government should, *inter alia*, implement the following measures:

- improve the economic environment with a view to eradicating poverty;
- alleviate pressures on the natural resource base and fragile ecosystems;
- define roles of Government, Non-Governmental Organizations and communities, and build partnerships in natural resource management and encourage active participation;
- improve knowledge and national capabilities to manage natural resources, promote research in natural resource management and improve monitoring and assess the effects of land degradation and drought; and
- facilitate drought preparedness and drought relief schemes, including self-help arrangements; and promote and strengthen the means of resource mobilization, especially in natural resource management.

The resolution also urged Government to fully and effectively implement the provisions of the resolution, and requested the Secretariat of the forum to forward the resolution to the Office of the Prime Minister for presentation to the Cabinet and Parliament.

The National Action Programme document has been translated into the Sesotho language and distributed to representatives of all the stakeholders.

4.11 NGO Involvement

During the preparation of the National Action programme a study was done on Non Governmental Organisations (NGOs) undertaking land management, poverty alleviation and drought mitigation programmes. The study has described the conservation related programmes undertaken by the NGOs, their implementation strategies, and the lessons learned from implementation of past and ongoing programmes. These NGOs are: Plenty Lesotho; Africa 2000 Network Programme; Rural Selfhelp Development Association; Durhan-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 a contact NGO selected as a focal point in UNCCD implementation.

4.12 Networking

Networking exists with the following bodies interested in the conservation of land based resources.

Agro-forestry Network (AFNET): an informal grouping of interested parties in spreading and supporting land husbandry approaches;

Innovative Farmer Network (IFN):_a loose grouping of rural resource users who strive to combat land degradation and generate incomes through hard work and technical innovations;

Grazing Associations and Village Grazing Schemes; though most promoted through government support, many have emerged out of own initiative to integrate range conservation with enhanced livestock production. A liaison committee for these community-based organisations has been formed.

5.0 CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF THE NATIONAL ACTION PROGRAMME AND THE PARTNERSHIP AGREEMENT WITH THE DEVELOPED COUNTRY PARTIES AND OTHER INTERESTED ENTITIES.

5.10 Support From International Partners For Cooperation

From its inception the formulation of National Action Programme was financially assisted by United Nations Development Programme (UNDP). The money allocated covered the preliminary activities regarding nation wide awareness and sensitisation campaigns as well as district workshops.

Further assistance was received from the CCD Secretariat amounting to USD20,000. This was used for a desk-top study on desertification in Lesotho, and the two consultants were commissioned to undertake that study.

When the sensitisation stage was accomplished there had to follow other processes. This part of activities was financed by the grant provided by the International Fund for Agricultural Development (IFAD) with the sum of USD200,000. The funding was used to do the following:

- preparation of a methodology and workplan for defining and formulating the National Action Programme process;
- preparation of a vision statement and brief concept paper for implementation of the CCD in Lesotho;
- preparation of requisite inputs to National Forum;
- organisation and convening of the first National Forum; and
- preparation of an umbrella framework programme document outlining all required elements for the implementation of the NAP process after the first National Forum.

Another assistance was from UNSO whereby a local level initiative was assisted with US10,000 and with that a community of Ha Khoro in the district of Mafeteng was assisted on land reclamation activities.

6.0 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.

6.10 Diagnosis of past experiences

Considering the efforts of the past by Government and other organizations, it is obvious that the issue of land degradation in Lesotho is very old and continues to be a concern of many people and organizations. Although the Government is keen to conserve the land and the land based resources, this concern has not been met by individual Basotho assuming appropriate responsibilities and initiatives. Although Basotho rural people realize the problem of land degradation due to soil erosion, most of the efforts of Government supported programmes and of NGOs to assist them in order to sustainably manage the natural resource base and combat desertification have been unsuccessful as land degradation continues unabated. Apparently the root causes of the land degradation problems have not yet been addressed. It is possible, that this has been caused by partial views, professional bias, or lack of trust among the persons concerned with combating desertification. Some of programmes and projects addressing desertification are summarised below. Some have elapsed while others are on-going.

6.11 Farm Improvement with Soil Conservation (FISC)

The project was aimed at helping the communities to implement conservation works on communal land; raising the general standard of living of the communities by promoting income generating activities and providing training to government staff, Village Development Committee members and farmers. This was implemented in the two southern districts of Mafeteng and Mοhales Hoek. This project managed to find production strategies to support agricultural development in farming communities.

6.12 Matelile Rural Development Project

The project was engaged in the following activities: Large scale tree and shrub nursery for plant introduction, propagation and bulking; livestock extension, including a bare foot veterinarian programme of basic livestock health; extension programme in agronomy, horticulture and range management and fodder production. Apparently, this has been one of the most successful projects in implementing and encouraging communities and individuals' initiatives.

6.13 Soil and Water Conservation (SoWaCo) Project

This project supported the soil and water conservation in the southern districts. It was aimed at helping communities plan and implement soil and water conservation activities; introducing soil and water conservation practices into school curricula and training government staff in soil and water conservation techniques. This project achieved its main objectives in this area.

6.14 Maoamafubelu Integrated Watershed management Project

The project was aimed at strengthening and institutionalising the watershed development committee as a democratically run people's organisation representing the interests and socio-economic institution of the 32,000 residents of Maoamafubelu watershed area. They used the Lihase Co-operative as a model for reactivating and strengthening three dormant cooperatives in the surrounding villages of Pitseng, Mahobong and Malaoaneng. By the end of the project; training of about 1100 community members in skill areas related to resources and credit management, cooperative development and improved agricultural techniques was accomplished.

6.15 Soil and Water Conservation and Agroforestry Programme (SWaCAP)

The project had four components: conservation based agricultural production; reorganization of extension services of MOA; agroforestry research and development; conservation strategy and policy coordination.

6.16 Production Through Conservation (PTC)

The project was aimed at developing a clear strategy for extension with heavy emphasis on sustainable production where farmers were responsible for their own development programmes. The project has supported land users in increasing production through conservation of the natural environment upon which production depends; fostering self sustaining rural communities, capable of planning the development of their resources for a sustained and improved utilization and fostering self sustaining communities capable of carrying out economic land husbandry programmes and build government of Lesotho's service rendering capacity.

The production through conservation concept is attempting to address the complicated problem of land tenure system in Lesotho. The program has encouraged individuals/associations/groups of people with similar objectives to initiate projects for production, while at the same time addressing conservation issues. Similarly, the

incentive has been in terms of being a role model, not so much as offering economic incentives. The initiative for the programme comes from the individuals themselves. One of the most important projects under this programme is dongas reclamation. Individuals have been allocated dongas for reclamation and production. The emphasis on donga reclamation is not only on restoration of the degraded land but also on food production, biodiversity restoration and desertification/soil erosion control.

6.17 Range Management Area (RMA) Programme

The programme is aimed at increasing the productivity and income of rural livestock producers; stimulating commercialization of extensive livestock industry and allowing management of natural resources in a manner that is sustainable and socially acceptable to Basotho in rural areas.

The achievements of the RMA programme include: improvement of range condition, and improvement of quality of animals as a result of use of better breeding stock; empowerment of range users in administration and management of rangeland; provision of range and livestock husbandry skills to stock owners and extension staff; and strengthening the capacity of local authorities in range management issues.

6.18 Forestry Programmes

Forestry initiatives in Lesotho date back to 1855 (May, 1992). Overall their success record has been poor. Although millions of trees were planted, very few have survived to harvestable age. Both bio-physical constraints, mainly harsh climatic conditions, and socio-economic factors were responsible for this limited impact. Most of the earlier efforts were directed at encouraging individuals to plant trees, either for provision of wood or for soil conservation. Planting of trees for soil conservation purposes intensified from 1942 to 1947, and focussing on communal planting in dongas or other unproductive areas. This scheme was largely unsuccessful, as tree survival rates were constrained by sub-standard planting practices and the absence of supervision and protection of planted areas from human and natural damage.

Following the limited success of community plantings, the Lesotho Woodlot Project (LWP), which commenced in 1973, had as its intermediate objective the establishment tree plantations that were owned and managed by the Government. LWP established woodlots, or forest reserves (FRs), with a total planted area of over 7000ha. It also produced tree seedlings for planting in catchment areas. In addition, LWP set up the infrastructure that formed the basis of the Forestry Division, provided extensive staff training and undertook basic forest research.

In spite of the expenditure and effort put into LWP, which included contributions by the UK Overseas Development Administration (ODA), the World Food Programme and the

South African mining companies Anglo-American and De Beers Consolidated, serious doubts were raised about the sustainability of the programme by donors.

The 1980s witnessed the introduction of a number of area-based projects that included a significant forestry component (e.g Plenty, Matelile Project etc). These projects have tried to involve people in tree planting activities both on a communal and individual basis. Following such experiences and in line with worldwide trends, considerable interest in community or social forestry has been generated in Lesotho. This essentially entails assisting local people to plant their own trees.

Social Forestry Project financed by both GOL and German Government started in 1993 aiming at supporting communities to plant trees of their own.

There has been a shift in forestry from the government initiated forestry programmes to social forestry programmes. The shift is not only in the implementation of the programme but is supported by a change in policy

6.20 Established Technical Programmes and Functional Integrated Projects to Combat Desertification

Measures have been undertaken by the GOL to address drought and desertification. Since the ratification of the UNCCD by Lesotho in 1995, steps have been taken to conform with the provisions of the Convention.

There are currently a number of programmes by Government and NGOs being undertaken to combat land degradation and desertification. Government programmes are co-ordinated by the Ministries of Environment, Gender and Youth Affairs; and Agriculture, Co-operatives and Land Reclamation. Linkages with the NAP will be established to the Agricultural Sector Development Programme (ASDP) now being elaborated. The other programmes are carried out by a number of NGOs active in the land management activities.

6.21 National Environment Secretariat Programmes and Projects

Currently, the NES is running and co-ordinating the programme of the National Environment Youth Corps (NEYC). The NEYC programme functions to educate the youth about environment and how to protect it. The youth are taught how to rehabilitate the degraded lands through soil conservation methods. The programme now covers all the ten districts Lesotho whereby youth are involved in land rehabilitation activities. The NEYC also addresses poverty alleviation by engaging youth in income generating activities such as produce and sale of tree seedlings, recycling, and off-farm activities.

The activities of the NYEC programme are designed to pre-empt land degradation by raising awareness among the youth on land degradation issues. This programme is intended to prevent land degradation, rehabilitate and reclaim degraded lands.

Other related projects such as the Drakensberg-Maloti Mountains Conservation Project and the Maloti-Drakensberg Transfrontier Conservation and Development Project are being co-ordinated by NES. These projects are aimed at ensuring the conservation and sustainable utilisation of the unique alpine and montane landscapes in Lesotho. Working with local communities is one of the key strategies in these projects.

6.22 Agriculture Programmes and Activities

The sector most directly intertwined with environment in Lesotho is agriculture. All agricultural activities directly affect environmental components, such as vegetation, biodiversity, water, etc. Due to an apparent lack of adequate technical know-how in land management by the Lesotho land resources users, agriculture seems to be impacting in a negative sense in the environmental quality of the country. Current agricultural activities are degrading Lesotho's environment as there is soil erosion, caused by bad agricultural practices, and overgrazing in the rangelands, low crop and animal productivity and excessive ecosystem destruction due to over-utilisation and over-harvesting of wood resources.

The Ministry of Agriculture has several programmes that deal with the conservation of soil, water and other related environmental components. These programmes are led by the Department of Conservation, Forestry and Land Use Planning (DCFL) and Range Management Division (RMD) of the Department of Livestock Services. The DCFL has over the years operated soil conservation programmes that dealt with rehabilitation degraded lands, donga rehabilitation and tree planting. Currently, the DCFL is placing emphasis on watershed management as a means of halting the degradation of rangelands and reducing soil erosion. In cultivated lands, the Department is emphasising conservation farming through the programme of Production Through Conservation (PTC).

In addition, the RMD of the Department of Livestock Services plays a crucial role in advising Basotho rangeland users on ways to better manage their grazing areas. Through the programme of Range Management Areas (RMAs), the Division is advancing the vegetative soil erosion control concept (VSECC). The VSECC is based on the understanding that the ecological balance will be restored and rates of soil erosion and runoff will be reduced to acceptable levels when vegetative cover and top soil conditions are improved and provided there is good management of cultivated and grazing lands. The Division recognizes that in order to attain an ecological equilibrium in rangelands, in which soil fertility, productivity and infiltration rates are increasing and soil erosion and runoff are decreasing, there must be involvement of land users as managers of the land rather than just users of the land.

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 in the pipeline, such as the IFAD-funded Sustainable Agriculture Development Programme for the Mountain Areas (SADPMA) and the World Bank proposed Agricultural Policy and Capacity Building Project. The current proposals are in line with the ambitions of the NAP and, among others, stress the need for coordination through NES and aim at decentralized planning for natural resources management.

These programmes of the Ministry of Agriculture as set out in the ASDP must therefore be linked with the activities of the NAP so that partnerships are built, maximum impact is effected and duplication of efforts is avoided.

6.23 NGOs' 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. The leading and very active programmes are the Mafeteng and Phamong crop production improvement run by Rural Self-Help Development Association, the Taung land rehabilitation and tree planting programme run by World Vision (Lesotho), the Sebapala and Mphaki tree planting by Durham-Lesotho Link, and the crop production improvement by Machobane Farming Systems Foundation.

6.24 Local Initiatives

About thirty local initiators have been identified in six districts. 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. The information on the work profiles of these local initiators is currently being documented.

6.30 Identification of new actions and planned measures

A lot of work has gone into seeking solutions to Lesotho's land management and conservation problems. A number of management and institutional experiences were gathered in the 1980's to early 1990's through the United States Agency for International Development (USAID) funded initiatives. These included the Lesotho Agricultural Production and Institutional Support Project (LAPIS) and Lesotho Agricultural Policy

Support Programme (LAPSP). Experiences were also gathered through the World Bank funded Land Management and Conservation Project (LMCP). Many donors, notably the United Kingdom Overseas Development Administration (ODA), Swedish International Development Agency (SIDA) and the International Fund for Agricultural Development (IFAD) have also contributed in the area of forest management and improvement, land use planning and soil conservation. As a result of these efforts, a number of action plans to protect and promote Lesotho's natural resource base have been drawn up by various institutions.

In 1997 the Government embarked on a programme comprising of tenure reform; land use planning; soil, water and nature conservation; range management and adjudication; and forest management and improvement. This programme is intended to address land management issues.

6.31 Land Tenure Reform

In order to speed up the land reform process and improve security of tenure and hence the prospects for agricultural investment, conservation and agricultural diversification, GOL intends to:

- simplify and translate land laws and make the information understandable to those without a legal background;
- mount nation-wide awareness and educational campaigns;
- streamline bureaucratic procedures that are involved in the processing of land leases;
- examine the feasibility of introducing land taxes and develop leasing laws in order to promote the commercialisation of land;
- develop alternative social security systems (safety net) for the rural poor and the landless.

6.32 Land Use Planning

The GOL plans to carry out the following interventions to be undertaken by the Land Use Planning Division (LUPD) in close consultation with Department of Lands, Surveys and Physical Planning (DLSPP):

- streamlining, rationalising and co-ordinating agency responsibilities in the areas of land administration, planning and management;
- strengthening the capacity of the LUPD in the storage and manipulation of natural resources information for land use planning using Geographical Information Systems;
- incorporating village settlements planning into the community land use planning methodology;

- integrating natural vegetation into agro-ecological zones in order to determine suitability for different food crops, grasses and trees and hence to enable the creation of Managed Resource Areas as habitat for rare and endangered species.

6.33 Soil, Water and Nature Conservation

Accelerated combating of soil erosion in Lesotho dates back to 1930s. Until recently, such efforts mainly emphasised structural works such as terracing, contours, silt traps, diversions, etc. This strategy has been found to merely offer temporary solutions. Government policy is now shifting towards biological conservation methods with strong emphasis on community participation. To solicit the latter, the strategy now seeks to marry production with conservation and environmental objectives. Successful agricultural diversification and commercialisation require the establishment of effective conservation and environmental protection measures. There is a need to adopt a holistic approach that integrates rural development with conservation and environmental planning, laying emphasis on acceptable and affordable techniques.

GOL is aware that crop diversification and intensive livestock production will require an increased and more reliable water supply throughout the country. The Water Supply and Action Plan that has recently been drawn up advocates for a country-wide coverage with sustainable water supplies. The Plan further advocates for the improvement of the management and rational exploitation of water resources to ensure adequate supply for all water uses. It is expected that more comprehensive policies and programmes will emerge at the conclusion of the Water Resources Management, Policy and Strategies Study. In the meantime, a number of civil works projects involving dam construction for watering, animals and for crop irrigation have been financed from the Lesotho Highlands Development Fund (LHDF).

In the light of the above, Government plans to implement the following measures:

- review the legal framework within which conservation activities are implemented;
- investigate both physical and social factors that lead to the deterioration of the land base;
- intensify efforts in water harvesting by rehabilitating old ponds and dams and by constructing new ones;
- adopt a participatory resource management approach that places more emphasis on the farmer and the community as agents of development;
- consolidate and rationalise the operations of institutions that deal with issues of environment, conservation and land use; and
- strengthen the programme of conservation of endangered indigenous species.

6.34 Range Management and Rangelands Adjudication

Communal grazing in Lesotho has been blamed for large herd sizes and severe overgrazing. There is a significant divergence between private costs of overgrazing and social costs, which are heavily dominated by national concerns about soil erosion and declining soil fertility.

In the late 1980s, GOL attempted to reduce overgrazing by adopting a number of donor supported policy initiatives, such as rangelands adjudication, breed exchange and culling programmes, introduction of grazing fees and auction sales. With the assistance of USAID, recommendations of a National Livestock Task Force (1987) were incorporated into a national livestock policy that was adopted by GOL in 1989. On the basis of this plan, a National Livestock Policy Implementation Plan was drawn up in 1990.

The livestock policy guidelines focus on reducing livestock numbers while increasing: (a) rangelands carrying capacities; (b) livestock productivity; and (c) marketing efficiency to absorb increased off-takes. The policies call for the introduction of grazing fees and intensification of culling and breed improvement programmes. They also stress the need for expanding the National Cattle Post Adjudication programmes in order to restrict livestock movements, for discouraging the seasonal movement of livestock from the Lowlands to the Mountains and for increasing the number of Range Management Areas (RMAs) for organised grazing management. The latter have gained popular farmer acceptance, particularly in the Mokhotlong, Leribe and Qachas' Nek districts where the programme has concentrated its efforts

Experiences in implementing livestock policies have demonstrated that customary practices and individual farmer decisions have to be dealt with. Lack of homogeneity amongst livestock farmers, conflicts arising from the erosion of power of traditional authorities, as well as the absence of an enabling legal framework seem to be threatening potential of the RMA model.

Government would like to continue to investigate possibilities of increasing private costs in rangelands utilisation as a strategy of arresting natural resource degradation while relying on community-based, voluntary de-stocking measures in the short-term. The strategy calls for extensive consultations with local communities and the delegation of authority to local structures and organisations. In the meantime, the component will therefore concentrate on the following interrelated areas:

- de-stocking and breed improvements;
- expansion of the RMA model; and
- infrastructure rehabilitation and improvement.

6.35 Forests and Woodlands

Lesotho's forest resources are extremely limited. The main constraints to tree planting include agro-ecological conditions, poor soils, communal land tenure and inadequate extension that manifests itself in weak messages, inadequate technical knowledge and poor logistical support. There have been a number of forestry interventions since 1960's. The ODA-supported Woodlot Project, which is a pioneer in this case, planted 322 forest reserves on a total 6,332 hectares, mainly in the Lowlands. In addition to the state forest reserves, there are a number of communal plantations and homestead initiatives, mainly fruit trees.

A nation-wide energy survey carried out by the Energy Department in 1986 showed that firewood and shrubs contribute 62% of energy supply in rural Lesotho. Indeed, the Energy Department sees tree planting as the only realistic means of meeting the future energy demand of rural households. In addition to providing fuel and a range of other uses, the importance of forest resources in Lesotho lies in the protection of the already impoverished and degraded environment. The increased use of trees should support the conservation of soil and water resources, thus enhancing the productivity of both arable and livestock farming.

Although the Forestry Division has a network of nurseries in all the 10 districts, it is unable to meet the demand for seedlings, both in number and species. GOL would like to adopt people-based, participatory strategies in tree growing and forestry industries. It also wants to encourage the participation of small-scale private nursery operators by reducing subsidies on seedlings. These strategies form part of the overall forest development strategies contained in the National Forestry Action Programme compiled by the Forestry Division.

The programme proposes the following plan of action:

- development of an enabling policy and legal framework to facilitate community and individual initiatives in forestry development;
- definition of appropriate extension packages, expansion of forestry education to schools, production of a forest extension manual;
- development of local skills in wood utilisation and processing;
- promotion of private sector participation; and
- expansion of capacity through hands-on training, increased material support and strengthening of forestry research capacity.

7.0 FINANCIAL ALLOCATIONS FROM NATIONAL BUDGETS IN SUPPORT OF IMPLEMENTATION AS WELL AS FINANCIAL ASSISTANCE AND TECHNICAL COOPERATION RECEIVED AND NEEDED, IDENTIFYING AND PRIORITIZING REQUIREMENTS.

The Government of Lesotho has several institutions that address land management issues. These include the Department of Environment and four Divisions of the Ministry of Agriculture. Their combined total operational recurrent budget per year is about M9million (1USD = Maloti 6.00). The efforts of the institutions using this fund are directed to activities related to combating desertification. In the capital budget regarding land management programmes, a total amount of about M10 million is currently budgeted for, out of which Lesotho Government is contributing about M2million. International Partners contributing in the capital budget include Sida, CIDA, GTZ, EU, IFAD, DFID, and UNDP and the World Bank.

Lesotho Highlands Development Authority (LHDA) is currently contributing to the Rural Development Programme within the Lesotho Highlands Water Project (LHWP) area. The projects relevant to land management that are underway within this programme include Animal Husbandry and Range Management, Community Forestry, and Land Use Planning with the people. These projects are to continue up to the year 2005 and have a total budget of about M53million.

Another financial resource available for contribution to land resources management programmes is the Lesotho Highlands Water Revenue Fund (LHWRF). This Fund was established in 1991 by Legal Notice No.82 of 1991; financial regulations governing the Fund were published in Legal Notice No.91 of 1992. The objectives of the Fund include promotion of economic diversification and development by providing capital resources to the development process, stabilizing government development resources and providing additional revenues to government on a long-term basis. The Government perceived the Fund as a source of development resources, which were to be used for promoting the involvement of people at local levels in planning and executing development projects that they themselves have identified. The Fund's resources are to be used for introducing and maintaining the bottom-up development process, and therefore, reverse the top-down planning approach used in the past. Operations of the LHWRF commenced in September, 1994. The Fund's Development Committee forwarded appraised projects to the Management Board of the Fund. In 1995/96 the Management Board of LHWRF approved a number of projects including the following:

- Approximately 130 small dam construction projects, estimated at M15.9 million;
- Approximately 200 boreholes, allocated a budget of M0.8 million;
- Dam Construction by the Ministry of Agriculture at an estimated M4.6 million;
- Water resource Action Plan Study estimated at M4.4 million; and
- National Environment Youth Corps estimated at M3.2 million.

So far the National Desertification Fund (NDF) has not been established. A Cabinet Paper is in the process of being formulated to start the process towards NDF establishment.

8.0 REVIEW OF THE BENCHMARKS AND INDICATORS UTILIZED TO MEASURE PROGRESS AND AN ASSESSMENT THEREOF

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 Division, Range Management Division 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. A concerted effort has not yet been made to determine standard benchmarks. This is due to be considered under the National Action Plan.

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 Divisions of Meteorology and Hydrology on a real time basis and used for real time forecasting models 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 below and have been included in the National Action Programme.

Field Level Indicators of Desertification

Indicator Category

Methods of Measurement

Ecological Indicators

Water Status: Amount of annual and seasonal water deficits;

Length of dry season over years;

Annual, seasonal, and inter-seasonal rainfall amounts, distribution and intensity;

Ground water depth in wells and aquifers.

Soil Properties: Depth of soil over root inhibition zone;

Soil fertility in N.P.K. amount, organic matter and organic carbon content;

Presence of soil crusts causing surface;

Seasoning and development of small areas with swept appearance to large bare areas swept and packed;

Dust and dust storms and wind erosion status, rate and hazard.

Soil-Water relations: Water erosion status, rate and hazard as measured by density of rills and gullies, rate of mass movement, thickness of top soil, organic matter content, quality and type of sediment deposits downstream and in dams, slopes angle, presence of vegetational cover, soil texture, permeability and erodibility.

Vegetation:Vegetation characteristics as measured by its quality, Growth from, rate of regeneration and succession in formerly Cultivated and disturbed fields or grazing lands, change in Perennial and annual composition, woody and herbaceous litter, Prevalence of key species and vegetation yield and productivity.

Climate Indicators

Rainfall patterns:Decrease in rainfall as measured by daily, monthly and Annual rainfall total;

Cloud types;

Rainfall variability during the wet season.

Wind patterns:Wind directions and speed.

Economic Indicators

Cash income:Rate and degree of fluctuations of cash incomes available to meet felt needs and financial obligations.

Redistribution of wealth: Social mechanisms for wealth distribution and their Effectiveness, lobola, mafisa, feasts, festivals, funerals, etc.

Production System: Diversity of production systems as measured by the degree of diversity of array of production systems and resource availability to community.

Socio-cultural Indicators

Population density: Population estimates and fertility rates;

Social processes: Extent of conflicts and marginalization;

Breakdown of patterns of redistribution and forced out migration;

Discontinuities between subsistence and cash income economies.

Raising Awareness: Rate of formation of effective farmer conservation groups And of farmer to farmer training programmes;

Extent of local NGOs training schemes;

Local incentive programmes for abatement of desertification.

Tree Planting: Rate of uptake of farmers in the planting and care of trees.

Conservation works: Rate of adoption of soil conservation technologies;

Lengths and numbers of physical bunds and terraces Constructed and buffer strips laid out;

Improvement of soil fertility and structure.

Agroforestry: Rate of incorporation of agroforestry into existing Cultivation practices in dryland farming