

**THE STATE OF ERITREA
MINISTRY OF AGRICULTURE**

**NATIONAL REPORT
ON THE IMPLEMENTATION OF THE
UNCCD**

Asmara, Eritrea
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I. Introduction

In accordance with article 6 of the United Nations Convention to Combat Desertification (UNCCD), and the decisions of its Conference of parties (COP), particularly decision 11/COP1, each party to the convention is required to communicate, through the UNCCD secretariat, reports on measures undertaken to implement the UNCCD. Accordingly, Eritrean first national report was prepared in May 1999. This national report is the second in a series that is prepared pursuant to that requirement.

This report is prepared in accordance with the detailed guideline prepared by the CCD Secretariat in the document entitled “National Reports on UNCCD Implementation, Help Guide”.

II Executive summary

1. The strategies and priorities established within the framework of sustainable development plans and/or policies

Eritrean national strategy on sustainable development described through five main initiatives, which form the basis for sustainable development. The five initiatives are: - a) Macro Policy (1994), b) Economic growth and Poverty Reduction Strategy (PRS) (2001), c) National Environmental Management Plan (NEMP-E) (1995), d) National Action Programme to Combat Desertification and Mitigate the effects of drought (NAP) (2001) and e) National Biodiversity Strategy and Action Plan (2000).

Each of the strategies has published a document with the same title given above.

2. The institutional measures taken to implement the Convention

According to the agreement reached between the Government of Eritrea and the Government of Denmark to support the preparation and implementation of the National Action Programme (NAP) for implementation of the United Nations Convention to Combat Desertification (UNCCD), CCD/ NAP project has become operational since the beginning of January 2000. The national management of the project is with the NAP national secretariat, under the Ministry of Agriculture’s Land Resources and Crops Production Department, which is assigned to play the main role as to coordinate the implementation of CCD/NAP. Major activities identified to be implemented during this phase of the project were, strengthening of NAP national secretariat, strengthening NAP, capacity building for the NAP national secretariat, sub-regional consultation, NAP regionalisation research and launching village centered development initiatives.

Improving institutional setup for CCD/NAP planning and implementation was one of the major activities of the project. Accordingly CCD national secretariat has been established staffed with a coordinator, assistant coordinator, a secretary and 6 CCD facilitators. In addition to this the office of CCD national secretariat has been equipped with all basic office facilities including e-mail and internet service.

In addition, new institutional setup has been proposed in the NAP document which clearly show the role and responsibilities of all stakeholders including the local community in implementing the convention.

3. The participatory process in support of the preparation and implementation of the action program

All stakeholders from governmental and non-governmental organizations, civil society groups and community-based organizations have participated in all stages of development of the action programme. Seminars, workshops, awareness raising campaigns, and conferences were organized to collect and reflect the views of all stakeholders in the NAP document. The local communities have effectively participated in this process through regional and sub-regional level consultations that were organized through out the country.

4. The consultative process in support of the preparation and implementation of the NAP and the partnership agreement with developed country parties and other interested entities.

In addition to the consultations, which were carried out in various regions, more in-depth consultations have been carried out at sub-regional level (SRL) in order to raise the level of awareness of all stakeholders at local community levels. The SRL consultations have been carried out in all sub-regions throughout the country. More than 5000 people from governmental organizations, NGOs, community based organizations, farmers and pastoralists participated the consultations.

Consultations were among the involved organizations as described above, however, combat desertification being a complex task, inputs such as funds, expertise, and guidance have been sought and attained from diverse sources such as UNSO/UNDP, IGAD, and DANIDA.

5. The measures taken or planned within the Framework of the NAP, including measures to improve the economic environment, to conserve natural resources, to improve the institutional organization, to improve knowledge on desertification and to monitor and assess the effects of drought.

Several measures have been taken to implement the UNCCD by the government, non-governmental organizations and community based organizations. Apart from their active involvement in preparation the NAP document as members of the Technical Committee, they have done tremendous amount of work to combat desertification in various fields.

Increasing energy efficiency, promoting energy conservation and encouraging development of new sources of energy are top priorities of Eritrea. Ministry of Energy and Mining is working on several fronts, including prospecting for petroleum, and the commissioning of the Hirgigo power plant, built at the cost of 1.5 billion Nakfa (1 USD =

13.5 Nacfa), which will increase electricity production from 52 megawatt to 136 megawatt. The department of energy has developed energy efficient stove and is distributing them to the rural community. So far more than 4000 stoves have been distributed.

Ministry of education on the other hand is working hard to incorporate environmental education in school curriculum. Parallel to the existing environmental awareness-raising programmes and activities in the schools, efforts are being made by ministry of education to introduce environmental clubs and school afforestation programmes into schools to engage students in extra-curricula. Some schools have already established these clubs. Asmara Teachers Training Institute, an institute which train young students who completed their secondary school education to be elementary school teachers, has already incorporated Environmental Science as a subject in its curriculum. The University of Asmara has opened a new department, department of land resource and environmental studies, and accepted students starting from 2001/2002 academic year.

MoA is implementing programs to reduce soil degradation and improve control over water in rain fed areas through the Integrated Watershed Development Program (DANIDA) and the Land Productivity Management Initiative (FAO).

The ministry in collaboration with all concerned governmental and non-governmental organizations and assisted by the local communities is undertaking an accelerated and sustainable afforestation programs. One element of the program is to encourage communities to establish woodlots on community lands. Residents actively participate in designing and managing the community woodlots, and the Ministry of Agriculture provides the seedlings and overall guidance. A second element is to involve young people who are part of the Summer Youth Program in building terraces, planting trees and undertaking other soil and water conservation activities.

Since 1994, Eritrean students throughout the country have been participating in afforestation and soil-conservation campaigns during their summer vacations, during *Kremti* (June-September), organised by the Ministry of Education (MoE) and the Ministry of Agriculture. Over 60 % of the work goes into combating desertification through participation in environmental conservation and development activities

As an integral part of the country development plan, the first round of a National Development Campaign was organised on May 1998 with wide participation and financed by the Eritrean population. In this campaign, 25,893 people from the National Service were deployed on 10 degraded catchments for three weeks. The work accomplished during the campaign was impressive. Thus, 400 ha of hillside terraces, 167 km of check-dams, and 20 ha of micro-basins were constructed, and 439,408 pits for planting seedlings were prepared

6. Financial allocations from national budget in support of implementation of as well as financial assistance and technical cooperation received and needed, identifying , identifying and prioritizing requirements

The government allocates significant amount of money every year for anti-desertification measures carried out by different sectors.

In addition to the government budget allocated for the implementation of conservation activities, international non-governmental organizations and bilateral donors fund several projects. The existing funding sources include: UNDP, IGAD, World Bank, ADB, GEF UNCCD, and DANIDA. The governments of Saudi Arabia, Kuwait, and United Arab Emirates also support different programmes which focuses mainly on improving power generating capacity of the country. As biomass fuel is most widely used source of household energy in Eritrea, this programme is expected to have significant contribution in reducing degradation of our forest resources.

By allocating enormous amount of money and expertise, Danida through the Agricultural Sector Support Programme (ASSP) has been assisting the government programme of improving the agricultural development sector in which watershed and other soil and water conservation activities take the lion's share of the total budget.

The National Action Programme) places significant emphasis on project profiles which represent the practical actions required to implement it. NAP has elaborated 23 projects profiles with a total funding requirement of about 38 million US dollars.

As to the funding of the 23 proposed Project Profiles (PPs), it is suggested that a total of US\$ 37.890 million will be needed in order to carry them out, of which US\$ 3.815 million (10%) is to come from local sources, and the remaining US\$ 34.075 million (90%) from external sources.

7. A review of benchmarks and indicators utilized to measure progress and an assessment thereof

No change has been made after the 1st national report. Benchmarks and indicators, which had been developed and indicated in the national report, remain unchanged.

III. The strategies and priorities established within the framework of sustainable development plans and/or policies

1. National Economic Growth and Poverty Reduction Strategy (PRS)

In 2001 the Government published the strategy for growth and poverty reduction. The document entitled “*Transitional Economic Growth and Poverty Reduction Strategy*,” reiterates the Government commitment to poverty reduction and economic development as reflected in three key clauses of the Eritrean Constitution:-

“The state shall work to bring about a balanced and sustainable development through the country, and shall use all available means to enable all citizens to improve their livelihood in a sustainable manner, through their participation (Article 8, paragraph 2)”.

“Every citizen shall have the right of equal access to publicly funded social services. The State shall endeavour, within the limit of its resources, to make available to all citizens health, education, cultural, and other social services (Article 21, paragraph 1)”.

“The State shall secure, within available means, the social welfare of all citizens and particularly those disadvantaged (Article 21, paragraph 2)”.

The PRS makes five salient points:-

- Poverty is concentrated in rural areas and is deepest in the arid zones
- The greatest number of poor live in the highlands
- Households headed by women are not poorer than average
- Access to social services is poor; as a result the health, nutrition and educational levels are amongst the worst in World.

The PRS proposes a two-pronged approach:

- Immediate period, 2001-2002. The Government intends to focus on:
 - Meeting immediate needs for emergency humanitarian assistance,
 - Reconstructing infrastructure,
 - Assisting displaced people,
 - Restoring a stable macroeconomic framework, and
 - Demobilizing and reintegrating combatants.
- Medium-term period, 2003-2005. The government will concentrate on:
 - Developing new export markets
 - Rebuilding the port business
 - Increasing agricultural productivity so that the sector can contribute a much greater portion to GDP, (currently only 16%) commensurate with the high proportion of the population depending on agriculture (currently 60-80 percent)
 - Achieving macroeconomic stability
 - Attracting private sector investment and privatising government owned enterprises
 - Developing a sound financial system.

2. Water Resources

The department of water at the Ministry of Land, Water and Environment is charged with the responsibility of formulating the sector's policies, strategies and programmes. The government's main objective with regard to this sector is to develop and manage the water resources of the country in order to secure an adequate and reliable supply of water for human and animal consumption as well as for agricultural and industrial purposes. Three main objectives are planned to be achieved before the year 2005, viz., a) 40 litre per capita per day to be delivered to 75% of the rural population, b) 40 litres per capita per day to be delivered to 100% of the urban population, and c) the water supply facilities be 75 – 80% effective and functional. To that end 26 water supply projects are planned to be completed by the year 2005. It also planned to undertake a comprehensive

assessment of water resources in 2002, for which it is seeking donor support. This will become the basis of a national water resources policy and development plan.

3. National Biodiversity Strategies and Action Plan for Eritrea (NBAP)

Following the ratification of the Biodiversity Convention in 1996, Eritrea undertook the necessary activities to formulate a strategy and action plan which was adopted in July 2000. The Department of Environment (DOE) also undertook a study and published a report assessing the Biodiversity of Eritrea. The NBAP recognizes three core areas, Terrestrial, Marine and Agricultural biodiversity.

The **10 themes** for NBSAP are:

- Integrated management,
- Sustainable use of natural resources,
- Alien invasive species,
- Pollution management,
- *In-situ* conservation (protected areas),
- *Ex-situ* conservation,
- Taxonomic knowledge,
- Information acquisition and storage,
- Public awareness and education; and
- Legal and institutional structure (capacity building).

4. Eritrean Initial Communications Under the United Nations Framework Convention on Climate change

Climate change issues in their organized form are relatively new to the world in general and to Eritrea in particular. Bearing this in mind, it is not possible to see clearly stated national perspectives and policies on climate change issues. However, climate change related activities have been going on in Eritrea, which includes the preparation of the environmental management plan. There has been an increase in awareness at all levels since Rio earth summit in 1992.

In line with its obligation under the United Nations Framework Convention on Climate Change (UNCCD), which Eritrea has acceded to in 1996, Eritrea has started a programme of assessing the levels of greenhouses (GHG) emissions in the country. The Department of Environment, Ministry of Land, Water and Environment in Collaboration with other line ministries has conducted the inventory using the revised IPCC 1996 guidelines. The revised IPCC 1996 methodology was used in conducting the inventory and the year 1994 was taken as the base year. CO₂, CO, CH₄, N₂O, NO_x and NMVOC are the green house gases considered in this inventory.

Like most developing countries, Eritrea's contribution to the emission of green house gases is insignificant. Even though the country's contribution to the emission of green house gases is minimal, Eritrea is working to reduce green house gases by shifting to clean development mechanisms such as solar energy, wind energy, geothermal energy, rural electrification and developing policies that give due emphasis to the sustainable use

of the environment. At this stage, Eritrea needs the development of policies and programmes to address the impact of climate change, as 80% of its population is dependent on agriculture and livestock. Human impact on wildlife and marine should be taken carefully and protected by law.

5. Agriculture

Actions are being taken to raise productivity of traditional arable agriculture. The ministry is implementing programs to reduce soil degradation and improve control over water in rain fed areas through the Integrated Watershed Development Program (DANIDA) and the Land Productivity Management Initiative (FAO). It is reorienting agricultural research activities to focus more on smallholders' declared problems and concerns, such as developing crop varieties suitable for rain fed agriculture, identifying measures to reduce soil erosion and improve small scale irrigation and nutrient management, and defining ways to overcome the shortages of labor and draft power. It is developing a strategy for extension service that will give the private sector a greater role in delivering agricultural inputs and therefore free government agents to respond more effectively to farmers' demands for technical assistance. To create a more demand-responsive system of agricultural research and extension, it is decentralizing responsibility for program development and management to zoba and sub-zoba levels of government, and building their capacities to do so effectively. At the same time, the ministry is strengthening its core functions in policy formulation, strategic planning, agricultural statistics development, technical advisory services, applied research, regulatory development and oversight, and monitoring and evaluation. During the next few years the ministry will transfer most, if not all, of its commercial activities to the private sector or farmers' associations, while ensuring that essential inputs such as fertilizers, quality seeds, pesticides and animal medicines remain available during the transition period.

6. Soil Fertility Initiatives (SFI)

The SFI was launched in Eritrea by the Ministry of Agriculture (MoA) in mid 1998 when it set up a Soil Fertility Working Group (SFWG) to prepare a series of thematic working papers. The findings of these studies have been used as the basis for preparing the draft Concept Paper which outlines an Eritrean strategy for a holistic and integrated approach to soil fertility improvement. The strategy is centered on the land management problems of the various rural households and communities engaged in crop production, agro pastoralism and/or pastoralism. The strategy's approach involves identifying, developing and adopting locally appropriate combinations of improved plant, soil and rainwater management practices, that together offer both production and conservation benefits.

The SFI is not intended to be a free –standing programme but as an instrument through which to strengthen collaborative action between those national and international organizations concerned with agricultural development, and to give greater impetus to activities and programmes which are already focusing on issues related to soil fertility in Africa. It is seen as contributing importantly to the broader development agenda which focuses on food security and poverty reduction and as supportive of the goals of the convention to Combat Desertification (CCD).

7. Energy

About 96 percent of energy consumed by households is biomass. However, biomass resources are becoming increasingly scarce due to the severe depletion of the country's forest resources. Moreover, due to the intermittent droughts and erratic rainfall patterns, the availability of biomass is highly variable. Given the dwindling biomass resources and scarcity of foreign exchange for importing petroleum products, Eritrea's current pattern of energy consumption is unsustainable. Furthermore, burning biomass in open hearths and stoves uses energy resources inefficiently and pollutes indoor air, causing respiratory disease. Hence, increasing energy efficiency, promoting energy conservation and encouraging development of new sources of energy are top priorities of the Eritrean government. To develop viable energy supplies for Eritrea, the Ministry of Energy and Mining is working on several fronts such as petroleum.

For the renewable energy, the potential of cost effectively using hydro, solar, wind power, geothermal and biogas energy is being explored. Recent studies conducted by the US Geological Survey indicate that the potential for developing thermal energy is significant. Continuous efforts are also being made to ensure that energy is priced at full cost to encourage development of new energy sources, promote efficient energy use and energy conservation, and protect the environment.

IV. Institutional measures taken to implement the Convention

1. The National Coordination Body (NCB)

The National Coordination Body which was established after ratification of the convention is still operational. The Ministry of Agriculture through its land resource and crop production department spread head the NCB.

2. Technical committee of NAP

We can see activities and responsibilities of the NAP technical committee as it is revised and proposed in the NAP document below.

3. Institutional Measures for a transitional period (2000 – 2002)

An improved and agreed organizational and institutional setup for CCD/NAP planning, decision making and implementation among key stakeholders have been established with financial support from Danida under the programme 'Danish support for combating desertification'. This particularly include the clarification of the structure and membership of a national decision making body of the NAP, the role of the technical committee as well as the modalities for the National Desertification Fund (NDF)).

The institutional structure proposed reflects the requirements needed for achieving the immediate objective (the 'steering' nature of the technical committee as well as the capacity strengthening of the coordinating body of the CCD/NAP and the regional level). As such the structure aims at strengthening and building up on the principles of ownerships of the CCD/NAP by the key stakeholders involved.

The national management of the project is with the NAP secretariat; under the Ministry of Agriculture's Land Resources and Crop production Department, which is assigned the main role as to coordinate the implementation of the CCD/NAP in Eritrea. Other key bodies involved in the management and implementation of the CCD/NAP are the following:

- National steering committee,
- NAP secretariat,
- Technical committee, and
- Implementing agencies.

The NSC mainly deal with ensuring the national commitment to the CCD/NAP, selecting criteria for approval of projects under the project profiles of the NAP, annual work plans, budgets and reports, as well as evaluate the implementation of the NAP. The NAP secretariat mainly coordinate, facilitate and administer the CCD/NAP processes and as such operates as the project management unit.

The technical committee is mainly responsible for completing issue papers on land degradation and prepare useful project profiles for the NAP. Further more, the committee acts as the NSC to develop criteria and monitoring mechanisms for implementation of the field activities.

The implementing agencies at regional and sub-regional levels are important institutions as they are involved in capacity development events, implementation (consultation) and evaluation of the pilot field activities.

The support given to the establishment of the NAP secretariat, through capacity development programmes for its staff and the supply of equipment and other hardware for its operations, have provided a significant basis for organisational sustainability of the NAP secretariat in its task to administer and facilitate the CCD/NAP process. The capacity development activities which have been carried under this programme were management training and other skills development related to maintaining and developing an organization of this kind, as well as specific CCD topic related knowledge and skills improvements.

4. Long run legislative and institutional framework arrangements

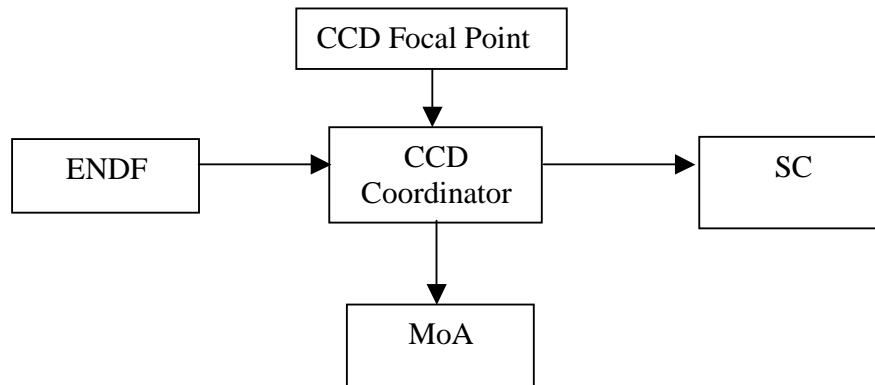
4.1 Proposed structure for implementation of the NAP

The following is a proposed structure for implementing the National Action Programme to Combat Desertification in the NAP document.

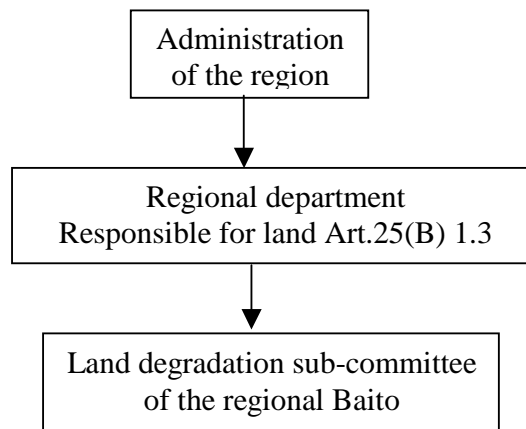
NAP at the National Level

The lead institution responsible for implementing the NAP is the Ministry of Agriculture. Because land degradation is a cross cutting issue many other institutions, particularly the Ministries of Local Government and Land, Water and Environment, must be actively

involved in the process of implementing NAP. The structure proposed for overseeing the implementation of NAP at the National level is as follows:



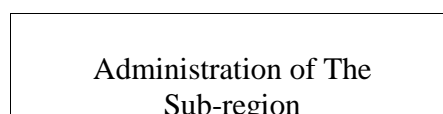
NAP at the Regional Level

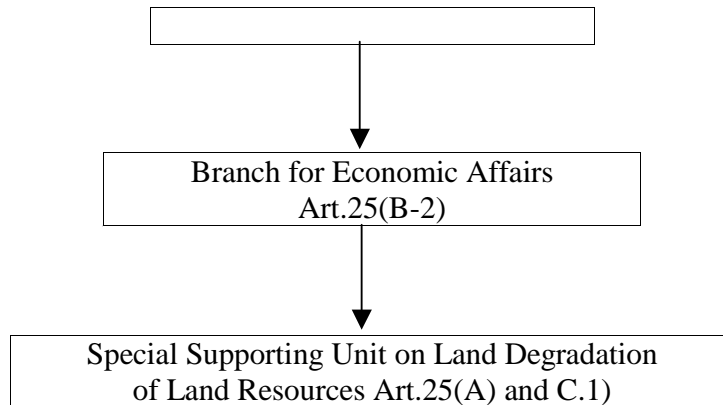


As regards the composition of the sub-committee Art. 10(3) A of the Proclamation on Regional Administration, shall apply i.e. 30% of the membership shall be reserved for women and they shall have equal opportunity for the remaining 70% of the seats.

The Sub-Committee on land degradation of the Regional Baito shall have broad powers to deal with land degradation issues, *enter-alia...*

NAP at the Sub-region Level

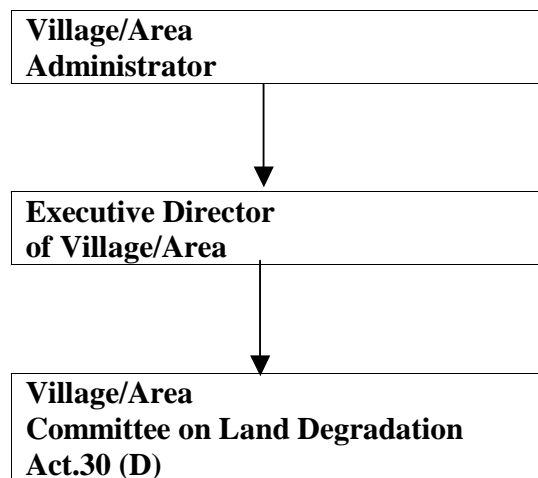




NAP at the Village/Area Level

A key mechanism for implementing the NAP at the "grass-root" level is the "Megabaaya"...

The proposed structure for implementing the NAP at the village/area level is as follows:



The principle actors in implementing the NAP at the grass-roots level are the village/area administrator and the Executive Director.

The powers and duties of the village/area level committee are defined in Art. 30 (D).

4.2 Legal measures to implement NAP

Two GoE Proclamations provide the necessary legal basis for implementing NAP. These are:

- The Land Reform Proclamation (No. 58/1994); and
- The Proclamation for the Establishment of Regional Administrations (No. 86/1996).

At present it is considered that those two proclamations provide sufficient legal basis for implementing NAP. Additional legislation, still in draft form (*e.g.*, a Forestry & Wildlife Act) would provide added legal capacity to implement NAP, once they are adopted.

The Land Reform Proclamation (No. 58/1994):

This Proclamation has been described earlier (see, *e.g.*, Fact Sheet B.1). The Proclamation provides:

- A good basis for security of land tenure. That in turn provides an incentive for better land husbandry and for increased long-term investment in land improvement;
- An equitable and fair distribution of land resources amongst men and women; and
- Improved access to land for those groups which had been traditionally denied such access.

The Proclamation for the Establishment of Regional Administrations (No. 86/1996):

The Proclamation provides:

- An empowering framework for action at the *Zoba*, *Sub-zoba*, and Village/Area levels;
- A clear mandate to local-level officials – especially *Zoba*, *Sub-zoba*, and Village/Area Administrators – to take action in protecting and preserving land resources; and
- A framework for the evolution of grassroots action against land degradation.

5. The NAP document and National Forum of NAP

5.1 NAP document

The NAP document is divided into four parts:

Part A provides an over view of land degradation in Eritrea. It also presents the national vision and philosophy on land degradation and the measures to be taken to combat it.

Part B presents a comprehensive list of factors contributing to land degradation. These include both physical and socio-economic factors. Adequate recognition is given to the underlining socio-economic reasons for land degradation.

Part C describes the Action Plan”, i.e. the practical measures proposed to address land degradation. These include policy measures as well as projects and programs.

Part D presents the implementation plan. This part describes the financial, institutional and human resource required to implement the NAP. It also provides information on the sequence envisaged in implementing the NAP.

Annex 1 contains all the project profiles to be undertaken in the framework of the NAP.

5.2 National Forum

The NAP was discussed at a National FORUM which was held on September 2001 and its main conclusions and recommendations were endorsed. Following the forum, the government communicated with UNCCD secretariat through diplomatic channel for

official adoption of the NAP. In addition to endorsing NAP document, resolutions were passed by the participants of the forum. The following are some of the resolutions:

- Considering the negative impact of the desertification on the livelihoods of our people especially on the rural poor, combating desertification has to be integrated in all sustainable development and poverty alleviation programmes and strategies on priority basis,
- Adopt the National Action Programme to Combat Desertification and pledge to exert all efforts for implementation of the programme,
- Establishing and strengthening Eritrean National Desertification Fund (ENDF).
- Strengthening the CCD secretariat,
- Forestry and wild life laws have to be promulgated and put into effect very soon,
- Laws for establishing National Parks have to be promulgated and put into effect as soon as possible,
- Integrating introduction of efficient and alternate energy sources with other rural development programmes,
- Large scale awareness raising campaign to ensure full participation of the local community in all desertification combating measures, and
- Designate 'Combating Desertification Week', in which all citizens participate in various desertification control activities for one week.

6. Linkages and synergies with other environmental conventions and, as appropriate with national development strategies

Biodiversity, land degradation and climate change issues are very much interrelated and hence require synergy and harmony among them. It was for this reason that concerned institutions, Ministry of Land water and Environment, Ministry of Agriculture, Ministry of Local Government, Ministry of Fisheries and Civil Societies have made a coordinated effort in preparation of programmes and action plans for biodiversity, desertification, and climate change issues. In all of the above areas, human, institutional and infrastructural capacities were identified as a problem which needs to be improved as soon as possible if Eritrea's contribution towards global environmental challenges is to be met. Moreover, all of them reflect national priorities, which will help Eritrea in poverty alleviation, economic growth and in protection of the environment.

V. The participatory process in support of the preparation and implementation of the action program.

1 Effective participation of actors involved in defining national priorities.

The development of Eritrea's macroeconomic and sector development policies, strategies and programmes is highly participatory, involving ministry staff at the central and local levels, members of the national assembly, and representatives of local government down to the community level. It also involves the participation of non-governmental and civil society organizations, and the private sector.

The transitional Economic Growth and Poverty Reduction Strategy is a compilation of the government's various development programmes. It is being shared in draft form with

Eritrea's development partners and the private sector with the expectation that the further comments and suggestions would be forthcoming.

2. Participatory processes involving civil society, non-governmental organizations and community based organizations

As it has been mentioned earlier, all stakeholders including non-governmental organizations civil society groups and community based organizations apart from their involvement in the NAP process as members of Technical Committee, they actively participated in all desertification control activities: to mention some of these efforts:

- National Union of Eritrean Women (NUEW) in collaboration with the department of energy and through its branch offices in regions and sub-regions play very significant role in distribution of energy saving wood stoves to the rural community.
- National Union of Eritrean Youth and Students made tremendous effort in mobilizing the youth to be participated in various land degradation control measure.
- Local and international NGOs are working with the government in emergency and rehabilitation programmes and various soil and water conservation activities

3. Gender focus

Women have always played a most significant role in independence struggle of Eritrea. Women continue to play an equally significant role in sustainable development. Currently about 47 percent of the labour force is comprised of women. Because of the important role played by women in the society and in the economy of Eritrea, the Government is fully committed to raising their status even more. Among the most important measures the government is taking is improving their access to education and productive assets, including land. The government is also actively encouraging and upholding women's right to organize themselves at the village level to gain political voice and to press for their priorities

4. Exchange of information

People at all levels need to have access to a range of information. The greater the extent of the information flow, the more likely people will make better decisions.

Lack of sufficient acquaintance with the Convention to Combat Desertification (CCD) concepts and principles of those involved in the process of NAP; limited awareness about land degradation particularly at regional and local levels are some of the constraints encountered in the NAP process. In addition to this, the most obvious but possibly least recognized constraint for the implementation of the CCD is lack of awareness of its existence at all levels. Accordingly, a lot of effort have been made by CCD secretariat through training and community awareness raising programmes to address the issue of land degradation and to make people aware that the convention exists and that it is a tool that can be used to achieve community goals.

The efforts exerted so far to increase environmental awareness at the local-community

level have been encouraging. However, those efforts should continue in order to ensure sustainability. People need to be educated continuously, both formally and informally. Additionally indispensable for ensuring a sustainable and successful package of environmental protection are efforts by the mass media, local training, workshops, tours to countries with substantial experience, etc. These approaches are especially important for *Baito* executives, leaders of mass organisations such as NUEW and NUEYS, and community representatives.

Prior to completion of the NAP document, sub-regional level consultations were carried out in all regions aimed at increasing the participation of the local community in preparation of the document and exchange ideas among all stakeholders about the process of land degradation, its causes, effect and solutions. More than 50 consultations were held in 6 regions. More than 3000 people were participated and a number of issues were raised and discussed during these consultations. The consultations and deliberations were carried out mainly focusing in 4 thematic areas: *consequences of desertification, natural resource conservation, land use planning, livestock production and management, the role of the community and local government in NRM*

VI. Consultative process in support of the preparation of the NAP and the partnership agreements with the developed country parties and other interested entities

1. Regional and Sub-Regional level consultations

As it has been indicated in the previous report, all stakeholders have been participated in all phases of development of the National Action Programme. Through regional and sub-regional consultations, it has been tried to identify priority issues, opportunities and potential challenges for combating land degradation. In order to discuss and adopt the NAP document a national forum was carried out on September 2001.

2. Partnership agreements with the developed country parties

2.1 Danida supported CCD/NAP programme (2000-2002)

According to the agreement reached between the Government of Eritrea and the Government of Denmark to support the preparation and implementation of the National Action Programme for implementation of the United Nations Convention to Combat Desertification (UNCCCD), CCD/ NAP project became operational since the beginning of January 2000. It is a transitional programme with duration of 3 years (2000-2002). The national management of the project is with the NAP national secretariat, under the Ministry of Agriculture's Land Resources and Crops Production Department, which is assigned to play the main role as to coordinate the implementation of CCD/NAP. Major activities identified to be implemented during this phase of the project are:

- Strengthening of NAP national secretariat,

- Strengthening NAP, capacity building for the NAP national secretariat,
- Sub-regional consultation, NAP regionalisation research, and
- Launching village centered development initiatives.

VII. 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

Measures have been taken to improve the economic environment with a goal of poverty reduction such as promotion of alternative source of income and improving the agricultural production system. Equally important are, measures which have been taken to conserve natural resources such as erosion prevention and the use of alternative source of energy. The following are the measures taken by the different sectors of the country that could directly or indirectly contribute to the combat against desertification.

1. Measures taken

1. 1. Measures taken to improve the economic environment

1. 1. 1. Agriculture, Forestry, Rangeland and livestock

- The integrated farming system (IFS) programme which has been under taken since 1998 is continuing.
- MoA has been working hard in encouraging farmers to produce high-value crops and livestock products for export.
- It is also encouraging farmers to produce goods that can be used as raw materials for industry and high-value cash crops for domestic consumption that can substitute for imports.
- Measures that the government is taking include constructing roads and water storage facilities in suitable areas, and providing information on cultivation techniques, markets and prices.
- Efforts are undertaken to increase the productivity of herds by enhancing rangeland and water resources management with the traditional pastoral system, promoting superior animal breeding systems, improving animal health and nutrition by expanding vaccination and other veterinary services, developing a peri-urban dairy industry,
- developing higher quality animal feed and pasture through the development of crop and livestock integrated farming systems.
- The ministry is also making efforts to improve marketing of livestock by providing technical advice to producers on management and marketing, helping to create market outlets, and encouraging widespread use of refrigerated transportation services for perishables.
- In the commercial sector, the strategy involves developing the dairy industry, by training smallholder farmers in dairy husbandry, supporting dairy farmers' associations, and establishing milk collection infrastructure.

1.1.2. Rural credit

- MoA distributes credits worth some US\$ 2 million/year to farmers. *Around 75%* of this is medium-term (mostly for draught animals) and 25% is long-term (mostly for pumps, water pipes, or tractors).
- The most promising initiative in Eritrea is the development by the Associates for Co-operation & Research in Development (ACORD) of savings & loan associations, evolving into farmer-owned rural banks, in *Zoba Debub*. Owing to the careful approach used, the realistic lending rates, and the excellent repayment record (group liability), these savings & loan associations could, with appropriate further support, become self-supporting in the not too distant future.
- The micro-credit component of the MoLG Eritrean Community Development Fund (ECDF) seems to follow an approach similar to that of ACORD, *i.e.*, group liability and the combining of savings mobilisation with lending.

1.1.3. Energy

- **Increasing energy efficiency, promoting energy conservation and encouraging development of new sources of energy are top priorities Eritrea, the Ministry of Energy and Mining is working on several fronts, including prospecting for petroleum, and the commissioning of the Hircigo power plant, built at the cost of 1.5 billion NKF which will increase electricity production from 52 megawatt to 136 megawatt.**
- In concert with increasing generating capacity, electricity transmission and distribution systems are being expanded and upgraded with assistance from the world Bank, the European Union, the government of Italy, and SIDA.
- To optimize the use of power across the major consumption centers, power grids in Massawa, Asmara, Keren, Dekemhare and Mendefera have been interconnected.
- Major effort is also being undertaken to bring power supplies to rural areas to improve access to services and facilitate establishment of rural non-farm businesses – both important actions to reduce rural poverty.

1. 2. Measures taken to conserve natural resources and for rehabilitation of degraded lands

1. 2. 1. Agriculture, Forestry, Rangeland and livestock

- MoA is implementing programs to reduce soil degradation and improve control over water in rain fed areas through the Integrated Watershed Development Program (DANIDA) and the Land Productivity Management Initiative (FAO).
- Soil and water conservation practices have been carried out on a large scale both on farm and off farmlands, together with afforestation programmes on hillsides and enclosures.
- MoA in collaboration with all concerned governmental and non-governmental organizations and assisted by the local community undertaking an accelerated and sustainable afforestation program. One element of the program is to encourage communities to establish woodlots on community lands. Residents actively participate in designing and managing the community woodlots, and the Ministry of Agriculture provides the seedlings and overall guidance. A second element is to

involve young people who are part of the Summer Youth Program in building terraces, planting trees and undertaking other soil and water conservation works.

- Small village centered development initiatives which are funded by CCD/NAP project and targeted mainly at soil and water conservation and afforestation measures have been identified and are under implementation .

1.2.2. Energy

- The Ministry has launched a campaign to popularize the use of an improved and more efficient biomass stove in rural areas. Use of the new stoves has the potential to reduce biomass consumption by 50 percent and reduce CO₂ emissions by 0.6 tons/household/year. So far more than 4000 improved energy efficient stoves have been distributed to the rural community.

1.3. Measures taken to improve institutional organization

1.3.1. Agriculture, Forestry, Rangeland and livestock

- Improving institutional setup for CCD/NAP planning and implementation is one of the major activities of the Danida funded CCD/NAP project. Accordingly, CCD national secretariat has been established staffed with a coordinator, assistant coordinator, a secretary and 6 CCD facilitators. In addition to this the office of CCD national secretariat has been equipped with all basic office facilities including e-mail and Internet service.
- Decentralisation of operational responsibilities to the zobas, initiated in 1997, has also been among the significant developments of the last few years, it needs to be stimulated further and associated with devolution of MoA work to the private sector.
- MoA is working further to improve its institutional set up mainly aimed at devolution of power to regions. It is envisaged that regions will be autonomous in planning and implementing technical activities in their respective regions. At the same time the central office strengthening its core functions in policy formulations, strategic planning, agricultural statistics development, technical advisory services, applied research, regulatory development and oversight, and monitoring and evolution.
- The CCD secretariat has been appointed as board member of Eritrean Dry Land Coordinating Group (DCG) since 2001. DCG is a forum for cooperation that promotes quality assurance of development projects dealing with food security and environmental rehabilitation in the dry lands of Africa. The Norwegian NGOs responsible for running the development projects funded under Sahel – Sudan – Ethiopia (SSE) programme established DCG. Noragric, the center for International Environmental and Development studies at the Agricultural University of Norway, functions as a secretariat and technical advisor.

1.3.2. Energy

1. 3. 3. Environment

- Environmental proclamation draft paper prepared and submitted to the government for approval and legislation
- The National Environmental Assessment procedures and guideline for environmental impact assessment is produced and is operational as of 1999
- National Capacity Self-Assessment (NCSA) for global environmental management, which aimed at assessing gaps and constraints of capacities facing Eritrea in its effort to meet national requirements and also its global environment obligations in the areas of biodiversity, desertification and climate change has been carried out.
- The University of Asmara has opened a new department, a department of land resource and environmental studies. The department has already accepted freshman students for 2001/2002 academic years.

1. 3. 4. Land

1.4. Measures taken to improve knowledge on desertification

1.4.1. Agriculture, Forestry, Rangeland and livestock

- **As part of Danida supported CCD/NAP project intensive short-term training for the CCD facilitators and local government staffs have been given in order to raise their level of awareness on land degradation and the UNCCD. The training focused on the following four modules: CCD principles and implementation procedures, communication and participatory rural development approach, project planning and management,**
- Aimed at upgrading the knowledge of the CCD facilitators on community mobilization and participatory methodology skills and to expose the participants with the real life situation of CCD process and implementation, a 3 weeks training visit to Tanzania have been organized and implemented
- **Various types of trainings mainly aimed at upgrading the knowledge of MoA staff and farmers in fields of soil and water conservation practices, forest conservation and management, improved livestock production and range land management system, and improved crop production and protection were planned and implemented.**
- **The CCD coordinator and one of the CCD facilitators have participated in GEF project development training in Italy which was organized by UNCCD secretariat.**
- **Three MoA staff (one of them is member of CCD technical Committee) and the CCD assistant coordinator attended a one month training on the use of remote sensing techniques and GIS in combating and monitoring of desertification.**
- The Ministry of Agriculture and ASSP hosted and organized a major international Danida workshop on watershed development from November 5th – 15th 2001. The organization and the actual preparations were largely carried out under IWDP. The vent, which had participation of 38 international and 90 local project managers, advisors, implementers and stakeholders of watershed management activities, included field trips and extensive discussions on watershed development. At the end

of the workshop each country prepared and presented main country specific recommendations.

- It is believed that NAP should be developed coherence with CCD principles during the appraisal of all relevant development programmes. Hence, preparation of *CCD principles and checklists* considered important to serve as an indicator to see NAP coherence with CCD principles. Accordingly a consultancy work is undergoing for preparing the CCD principles/checklists.
- Preparation of the National Action Programme envisaged within the framework of CCD has been completed. The project profiles, as part and parcel of the NAP preparation, have been prepared for each sector, which has direct or indirect relationship with the issue of land degradation. The projects are very preliminary and needs to be revised and completed by allocating special time and expertise. Accordingly, the revision work is nearly to be completed by local consultant.
- In order to address the issue of land degradation distinctly in different eco-geographic zones, it is proposed to make *NAP regionalisation research* to investigate the feasibility of developing NAP at regional (zonal) level. At a moment we are looking for local consultant to do the research.

1. 4. 2. Energy

- For remote rural villages, approaches using renewable energy for electricity are being piloted.
- For the renewable energy, the potential of cost effectively using hydro, solar, wind power, geothermal and biogas energy is being explored.
- As study was conducted by the US Geological Survey to investigate the potential for developing thermal energy.

1. 4. 3. Environment

- A workshop on Eritrea's Initial National Communication under the United Nations Frame Work Convention on Climate Change was held to sensitize the various stakeholders about climate change issues in Eritrea through the presentation of various papers having different climate change themes.
- The second Eritrea's National Communication on Climate Change is under preparation.
- A large number of articles produced by the staffs of Department of Environment, which are designed to raise the awareness of environmental issues, have been widely disseminated through the national media.
- As part of the preparatory process for a World Summit for Sustainable Development (WSSD) which is going to be held on September 2002, in Johannesburg, South Africa, a Rio + 10 country assessment report has been prepared.

1. 4. 4 Land

1. 4. 5 Major groups

1. 4. 6 Water

- A preliminary Inventory on the water points of Eritrea has been carried out. The unpublished inventory report, which presently being finalized, revealed a total of 5,365 water points, of which 3,374 are unprotected dug wells and 1, 233 are contaminated surface water points.

1. 5. Measures taken to monitor and assess the effects of drought and for early warning systems for mitigating the effects of drought

1. 5. 1. Agriculture, Forestry, Rangeland and livestock, crop production

- Early warning and food information unit of MoA is consistently carrying out food production assessment. This system is helpful in indicating the food situation of the country. It also provides a timely recognition of problems and timely transfer of information to the decision-makers.
- Crop yield assessment is also carried out by land resource and crop production department of MoA every year in well systemic way.
- The Government of Eritrea has given clear support to the Eritrean Grain Board (EGB) in its mandate to establish a national strategic food reserve. The EGB being with others concerned undertake yearly crop assessment surveys so as to monitor the grain production prospects for Eritrea.

2. Measures planned

In addition to the 23 projects which have been identified in the NAP document, other development initiatives which address land degradation issues have been planned to be carried out in the coming few years are listed below.

2. 1. Measures planned to improve the economic environment

2. 1. 1. Agriculture, Forestry, Rangeland and livestock

- Continuing the Integrated Farming System programmes with wide participation of farmers,
- Increasing land under cultivation through designation of areas for settlement and provide infrastructure, essential services, access to credit and farm inputs, and secure rights of access to individual and groups,
- Developing small scale irrigation with the existing dams,
- Developing more than 21,000 ha of land under large scale irrigation programme in the coming five years,
- Developing surface and underground water by constructing of new dams coupled with sound catchment treatment programmes,
- Encouraging production of high value horticultural crops and ornamentals,
- Distributing more and better animal breeds to farmers, expand vaccination and other veterinary services, and improve the quality and availability of animal feed,
- Improve marketing of livestock by providing advice to producers on management and marketing, helping to create market outlets and encouraging widespread use of refrigerated transportation services for perishables,
- Develop and implement proper range land management plans and strategies, and

- Provide forest seedlings and guidance to communities that want to establish woodlands.

2. 1. 2. Energy

2. 1. 3. Environment

2. 1. 4. Land

2. 1. 5. Major groups (women, youth, workers, private sector,)

- Encourage the involvement of young people participating in the Summer Youth programme in building terraces, planting trees and under taking other soil and water conservation works,
- Awareness raising and encourage the involvement of women to use energy efficient stoves, and
- Continue to encourage to women's full participation in the civil service.

2. 1. 6. Water

2. 2. Measures planned to conserve natural resources

2. 2. 1. Agriculture, Forestry, Rangeland and livestock

- Continue work to reduce soil erosion and improve water control in rainfed areas through the Integrated Watershed Development Programme and the Land Productivity management initiatives,
- Strengthening forest plantation development,
- Strengthening the existing ones and establishing tree nurseries and assisting farmers to establish their own satellite nurseries,
- Continuing the roadside plantation along the main roads which interconnect major towns of Eritrea,
- Strengthening individual/ community tree planting schemes,
- Expanding enclosures in degraded areas to encourage natural regeneration.
- Conserving farm land with properly designed farm land terraces, and
- A project document to be funded by ADB on forestry and wildlife development mainly aimed at assisting the government of Eritrea in conserving and managing the country's natural forest and wildlife has been developed and approved expected to be implemented starting from January 2003. The EFWDP has four components: institutional strengthening, natural forest conservation and management, afforestation and farm tree planting, and wild life conservation and management.

2.2.2. Energy

- Implementation of the GEF funded project working on wind energy application in coastal regions of Eritrea.

2. 2. 3. Environment

- Implement the National Biodiversity Strategy and Action Plan (NBSAP, and

- Fully implementing the National Environmental Management Plan of Eritrea (NEMP).

2. 2. 4. Land

- Fully implementing the land proclamation law

2. 2. 5. Major groups (women, youth, workers, private sector,)

5. 2. 6. Water

2. 3. Measures planned to improve institutional organization

2. 3. 1. Agriculture, Forestry, Rangeland and livestock

- Structuring MoA in such way that agricultural services more responsive to small holders stated problems and concerns,
- Transferring most MoA's commercial activities to private sector, and
- Decentralising responsibility for programme development and management to regions and sub-regions and increase their capacity to carryout the new responsibilities

2. 3. 2. Energy

2. 3. 3. Environment

- Establishment of an environment information network in Eritrea with regional and global linkages, and
- Broadening of the understanding and use of IEA as both planning and regulatory tool through production of sectoral guidelines, ensuring ministries produce timely and high quality EIA reports, training EIA procedures, and developing a certification programme in EIA.

2. 3. 4. Land

2. 4. Measures planned to improve knowledge of desertification

2. 4. 1. Agriculture, Forestry, Rangeland and livestock

- Completing water resource study to assess potential for irrigation, and
- Assessment of cactus production in the eastern escarpment.
- National woody biomass survey,
- Inventory on Semenawi and Debubawi Bahri forests,
- Assessment of the mangrove species in the red sea coast, and
- Developing guidelines for silvicultural systems for the existing plantations and natural forests

2. 4. 2. Energy

- Explore potential hydro, solar wind power geothermal and biogas energy through studies.

2. 4. 3. Environment

- Create a regional land use plan for Gash Barka and management plans for specific resources, demarcate protected areas and draft plans for their management, and produce an inventory of biodiversity resources and zones of high diversity,
- Studies on database on key environmental parameters, and
- Production of country's first state of the environment.

2. 4. 4. Land

2. 4. 5. Major groups (women, youth, workers, and private sector)

- Organising National NGOs forum to establish National NGOs Coordinating Committee on Desertification (NCCD).

2. 4. 6 Water

- Carryout assessment of water resources and specify options for its development and management

3. Ongoing Interventions

The following are some of projects which are being implemented by concerned ministries for arresting land degradation.

Keru Project: the project is involved in soil & water conservation, supply of agricultural inputs, diversion canal from 1993 up to-date. Its main activities are land and water conservation, well construction, pond construction, river diversion, terracing. Input supply consists of agricultural tools, cereal seeds. Training of farmers is also included in the project. Gash-Barka is the location of the project.

Eastern Lowlands Wadi Development Project: main activities of the project are construction of permanent structures in Sheeb and Wade Labka, extension of cultivable land, drinking water supply development, establishment of research station, distribution of agricultural inputs, road construction, staff and farmer training.

Integrated Water Shed Development Project: The project is involved in training, establishment of nursery and terracing in catchment areas.

Forto Mogorayb: Main activities are soil and water conservation, dam construction and diversion canals and provision of soil conservation tools such as shovel, pickaxe, rake hoes and wheelbarrow.

***Greening Eritrea:* This project is involved in construction of hillside terraces, check dams, micro-basins, soil and stone bunds, planting trees, and dam construction.**

Central High Land horticultural development Project: This project is involved in construction of micro-dams, well digging and provision of motor pumps, input supply such as pesticides and training.

Zulla Integrated Development Project: Zulla project is involved in construction of embankment, gabions and gully treatment, establishment of a tree nursery site, input supply, construction of water troughs for animals at water points.

Toker Land Husbandry Project: The project involved in integrated soil and water conservation activities since 1995. Its main activities are construction of terraces tree planting, training of farmers in basic agriculture, area closure, and provision of farm tools. The project is going in good progress.

National tree seed development project: Its main activity is to establish a national tree seed center, to provide physiologically and genetically most appropriate tree seed, carry out tree improvement and gene resource conservation.

National seed development project: Its main activity is to establish seed act and national quality seed standard systems, establish seed production farms, and train farmers on seed handling.

Special Program on Food Production: Its main activity is demonstration of improved varieties and multiplication of improved seeds on farmers' plots to increase food security, and input supply

Mendefera integrated rural development program: Its main activity is input supply, afforestation, check-dams, enclosures, and integrated pest management, construction of wells and ponds, and seed multiplication.

Rangeland development project: This is a project working in two sites for rehabilitating and developing rangelands.

Coastal area wind energy application project: This is a project funded jointly by the government and GEF for introduction of wind energy in the coastal area of Eritrea where it is proved as potential area for wind energy application.

4 . Linkage achieved with sub-regional and regional action programs (SRAP & RAP)

Eritrea as a member of Intergovernmental Authority for Drought and Development (IGAD), works with the IGAD secretariat in all phases of preparation of the sub-regional programme (SRAP), which mainly focused on transboundary natural resource management issues. It has actively participated in the development of IGAD sub-region environmental Education and training programme aimed at incorporating environmental education in the government education system and development of appropriate school curricula in environment.

In addition to this, a study on Community Based Natural Resource Management Condition in Eritrea and with financial support from IGAD has been carried out in year 2001. The overall objectives of the project were; assessment of the problems/ constraints and opportunities related to community based natural resource management prevailing in Eritrea and understanding of the causes of the problems identified aimed at successful implementation of CBNM in the country, collect and analyze existing policies laws and practices in the country with a view of learning lessons, identify the critical economic, social and constraints hindering the adoption of CBNM approaches that need to be addressed by designing development interventions and initiate a process of communication between practitioners and policy makers on CBNM.

Ministry of Agriculture is also closely working with Regional Land Management Unit (RELMA), a programme based in Nairobi, mainly in fields of soil and water conservation.

VIII. 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 allocates significant amount of money every year for anti-desertification measures carried out by different sectors. Since the beginning of 2002, the government has started parliamentary approved budgetary system for all government sponsored development programmes. In 2002, a significant share of this budget allocated for agricultural development and resource conservation programmes.

In addition, the government through its World Bank assisted programme of Eritrean Community Development Fund (ECDF) carryout various activities related to agricultural development and natural resource conservation schemes.

It is clear that some financial resources will be mobilised from the different stakeholders themselves, either as part of their budgetary allocation or else raised by them from other sources, both domestic and external.

In addition to the Government budget allocated for the implementation of conservation activities, International non-governmental organizations and bilateral donors fund several projects. Some of the existing funding sources include: UNDP, IGAD, World Bank, DANIDA, ADB, GEF and UNCCD. The governments of Saudi Arabia, Kuwait, and United Arab Emirates support different programmes which focuses mainly on improving power generating capacity of the country. As biomass fuel is most widely used source of household energy in Eritrea, this programme contribute very much in reducing degradation of our forest resources.

By allocating large amount of money and expertise, Danida through the Agricultural Sector Support Programme assist the government programme of improving the

agricultural development sector in which watershed and other soil and water conservation activities take the lion's share of the total budget.

As to the funding of the 23 proposed Project Profiles (PPs), it is suggested that a total of US\$ 37.890 million will be needed in order to carry them out, of which US\$ 3.815 million (10%) is to come from local sources, and the remaining US\$ 34.075 million (90%) from external sources.

1. Adopted financial mechanisms

The National Action Programme (NAP) will in time propose concrete actions addressing each of the issues mentioned in the NAP document.

As the NAP process becomes more and more institutionalised, each ministry or other government agency will have begun to report on the portion of its financial resources allocated to land-degradation issues. The NAP National Forum on Land Degradation will provide an appropriate opportunity to hear and discuss the financial reports of all the stakeholders. The UNCCD Co-ordinator's office will be required to present a consolidated analytical report analysing what resources each ministry allocate to land-degradation issues.

The MoA as the National Focal Point for CCD matters is interested to arrange for the creation of the Eritrean National Desertification fund (ENDF). The ENDF is the principle mechanism, which will be used to channel financial resources rapidly and efficiently to the local level. As a national focal point for CCD matters, MoA has set in motion for development of the modalities for establishing the ENDF. The process for the consultancy work for establishing ENDF has been already started and the consultancy will be done very soon.

- ENDF is the primary financial mechanism for supporting community-level anti-desertification and drought-mitigation activities;
- ENDF may be linked to the Eritrean Community Development Fund (ECDF), either formally or informally. The modalities for such a linkage are still to be determined by appropriate legislation; and
- Notwithstanding its possible link with ECDF, ENDF shall have a Board of its own, to be composed of representatives from MoA, from MoLG, and from each of the six *Zoba Baitos*.

Although ENDF is being created by Government decree and is to be linked to a Government structure, it will have a governing body of its own that will have members from all the stakeholders, particularly from the local communities. ENDF may receive some funding from the Government, but its main source of funds is to be external to the central Government Treasury. Thus, ENDF may receive funds from:

- The GoE National Treasury,

- International multilateral or bilateral sources, including nongovernmental organisations (NGOs), and
- Any other voluntary organisation.

2. Mobilization of national resources

Community participation in the choice and execution of development interventions is the essential condition for achieving sustainable development. The main idea behind the need for participation – *i.e.*, in terms of labour, materials, and cash – is to increase the effectiveness and sustainability of development interventions. With community participation, programmes are based on better information. Local people are more likely to contribute to the programme and sustain it after outside support has been phased out. In fact, it has now become the general consensus that grassroots participation in development is a necessary pre-condition for communities to be able to manage their affairs, control their environment, and enhance their well-being.

In Eritrea, the prevailing local frameworks or grassroots organisations – the Council (*Baito*) at the Regional (*Zoba*) level and the Assembly (*Megebaaya*) at the Village level – serve to bolster community participation. Indeed, the *Baitos*, NUEW, and NUEYS are some of the most precious heritages to have emerged from our War of Liberation of 1961-1991, having proved most worthy in the ongoing post-war development process. Similarly, their role in environmental protection and management is also becoming significant. These community organisations are facilitating participation by the local people, mobilising their efforts and resources. Owing to their crucial roles in ensuring community participation, the need has become essential for strengthening the administrative capacities of Local Governments, NUEW, and NUEYS, as well as their capacity for implementing and managing environmental projects.

Since 1994, Eritrean students throughout the country have been participating in afforestation and soil-conservation campaigns during their school vacations, during *Kremti* (June-September), organised by the Ministry of Education (MoE) with the Ministry of Agriculture. Well over 60 % of the work goes into combating desertification through participation in environmental conservation and development activities.

As an integral part of the country development plan, the first round of a National Development Campaign was organised on May 1998 with wide participation and financing by the Eritrean population. In this Campaign, 25,893 people from the National Service were deployed on 10 degraded catchments for three weeks. The work accomplished during the Campaign was both astonishing and impressive. Thus, 400 ha of hillside terraces, 167 km of check-dams, and 20 ha of micro-basins were constructed, and 439,408 pits for planting seedlings were prepared.

3. Mobilization of technical cooperation

Fostering bilateral partnerships with countries that have had successful experiences in combating land degradation is essential. International bilateral and multilateral

partnership agreements with developed countries is also very essential for implementing UNCCD.

Eritrea acceded to the 1973 Convention on International Trade in Endangered Species of Wild Fauna & Flora [UNTS 14537] (CITES) on 22 January 1995 and approved the 1992 Convention on Biological Diversity [UNTS 30619] (CBD) in March 1996, it also acceded the United Nations frame work convention on climate change in 1996 and it ratified the UNCCD in 1996. It also hopes to establish relations with other nature conservation agencies. With Eritrea's natural resource situation being as it is, that is to say, desperate, international co-operation with respect to technical assistance, scientific research, and financial support is essential.

To tackle the problems of soil degradation, of the fuel wood and construction-wood crisis, and of protecting the natural heritage and terrestrial biological diversity at an acceptable level, Eritrea will have to work in collaboration with regional and international organisations. Some of the international governmental and nongovernmental organisations (NGOs) that could actively participate in Eritrea's afforestation and soil-conservation efforts, or continue to do so, include: FAO, EU, DANIDA, SOS Sahel International (London), World Vision International (Monrovia, California, USA), and Grassroots International (Boston). The MoA Forestry Research sector is also working in collaboration with international organisations such as CSIRO, the International Centre for Research in Agro-forestry (ICRAF), and the Danish Forest Seed Centre (DFSC).

Since desertification is a global problem, monitoring and the exchange of information and data should be carried out regularly on a worldwide basis. This could be achieved through direct linkages with international offices and organisations, *e.g.*, with the Regional Office for Mapping & Remote Sensing (RMRS) in Nairobi, which serves central, eastern, and southern African countries. Among other services, RMRS provides member states with satellite maps. Both RMRS and IGAD could provide satellite information on the changes in plant cover, soil type, and water conditions of the regional dry land ecosystems. However, the information obtained from satellite maps should be checked on the ground.

IX Review of benchmarks and indicators utilized to measure progress and an assessment thereof.

Benchmarks and indicators, which were indicated in the first rational report, remain unchanged and listed below as they were before.

1. Benchmarks

- to reduce rain-fed crop land loss,
- to reduce irrigated crop land loss,
- to reduce range land loss,
- to reduce forest and wood land loss,
- to reduce soil erosion by wind and water particularly erosion from crop land,

- to reduce deterioration of soil, and
- to reduce loss of natural vegetation.

2. Indicators

Established indicators for the benchmarks or targets:

- the rate of reduction of rain-fed cropland loss,
- the rate of reduction of irrigated crop land loss,
- the rate of reduction of range land loss,
- the rate of reduction of forest and wood land loss,
- the rate of reduction of soil erosion from crop land, and
- the rate of reduction of natural vegetation loss.

3. Access by affected country parties, particularly affected developing country parties, to appropriate technology, knowledge and know how

Several measures have been taken to improve the knowledge and skill of staffs of MoA and other concerned ministries through experience exchange visit to other country and through short term training programmes locally and in countries with similar agro-ecological, social and economic condition.

In addition, the national research institutes specially the research department of MoA and the training and research department of ministry of energy and mining put a lot of efforts in developing and disseminating improved production techniques and improved energy saving stoves, respectively.

Human resource deficiency has been the greatest bottleneck in Eritrea's development efforts. The Government is taking the problem by importing foreign experts on temporary basis but the long-term solution lies in a concerted national effort aimed at increasing educational and skill development opportunities. Accordingly, the government through its World Bank funded Human Resource Development (HRD) project executing short term and long-term undergraduate and postgraduate training programmes since 1998. At present more than 2000 students are doing their studies locally and abroad mainly in South African universities. Already a lot of them have already completed their education and came back home.

Apart from this, based on south-to-south cooperation agreement that is funded by FAO, a lot of experts from southern countries mainly India, are working with MoA experts in different fields of agriculture since 1999.

ANNEX 1

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ANNEX 2

LIST OF ABBREVIATIONS

ASSP:	Agricultural Sector Support Programme
COP:	Conference of the Parties
GEF:	Global Environmental Facility
GIS:	Geographic Information System
MoA:	Ministry of Agriculture.
MoLWE:	Ministry of Land, Water and Environment
NAP:	National Action Program
NCB:	National Coordination Body
NBSAP:	National Biodiversity Strategy and Action Plan
NCEW:	National Confederation of Eritrean Workers
NEMP-E:	National Environmental Management Plan - Eritrea
NFP:	National Focal Point
NGO:	Non-Governmental Organization
NUEYS:	National Union of Eritrean Youth and Students
NUEW:	National Union of Eritrean Women
PRS:	Poverty Reduction Strategy
UNCCD:	United Nations Convention to Combat Desertification

