

Republic of Lebanon

Ministry of Agriculture

الجمهورية اللبنانية

مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

Republic of Lebanon

Office of the Minister of State for Administrative Reform

Center for Public Sector Projects and Studies

(C.P.S.P.S.)

NATIONAL REPORT

on

THE IMPLEMENTATION OF THE UNCCD IN LEBANON

**A Report Prepared in Preparation for the First Session of the Committee
for the Review of the Implementation of the Convention in November 2002**

Second UNCCD Report

Beirut, May 2002

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PREAMBLE

This report was prepared by the National Focal Point and the Management Team assigned by the MOA with the collaboration of the different public and private institutions, and related ongoing projects with respect to providing the necessary information on natural resources conservation and land. This report serves in providing the UNCCD to review the implementation of the CCD. It was prepared with a financial assistance provided by the UNCCD secretariat.

Lebanon is in the phase of preparing its NAP with the support of GTZ and UNDP through two ongoing projects. The completion of the first draft of the NAP will soon be out by December 2002. Consequently, the activities taken within these two projects and the approach followed in the preparation of the NAP will be discussed.

Ongoing projects and activities in relation to assessing, monitoring or combating desertification and rationally managing the natural resources are also included in this report.

The report will follow the general guidelines provided by the UNCCD regional implementation annex for Asia, as much as possible, taking into account the particularities of the Lebanese national context.

Finally it is to be noted that the Government of Lebanon is committed to the UNCCD. It will not spare any effort to move forward towards the implementation of the NAP and the activities it is proposing.

SUMMARY

The different ecosystems in Lebanon are mainly threatened by deforestation, over-grazing, urban development, road development, bad agricultural techniques, excessive use of chemical products, over-hunting and industrial development.

The soils are new, friable and easily eroded, most of the country being on slope terrain. Relief, rainfall intensity and runoff contribute to the severe water erosion and soil loss, especially where the vegetation cover is reduced or lost.

Many aquatic and terrestrial species have either disappeared or are endangered because of the different threats on their habitats. Agricultural habitats could contain wild ancestors and relatives of several cultivated species. These habitats and their precious species are threatened by mismanagement of modern agricultural techniques.

Forest fires add to the problems the ecosystems are facing. The frequency and intensity of these fires are a real threat on the sustainability of the forest ecosystems. They usually occur at the end of the summers and are followed a few weeks later, by the heavy showers of rain, which cause severe soil losses.

Rural exodus has had impacts on land degradation, as abandoned agricultural lands are easily eroded. The war situation, which prevailed in the country during several years, has enhanced poverty, mainly in some remote rural areas.

The requirements of the urban development and the rehabilitation and reconstruction operations after the long years of war have lead to a particular threat, that of the quarries. In addition to the degradation they are causing, their anarchic development has caused severe scars in the landscape throughout the country.

After several years of lack of control imposed by the war situation in the country, the Government of Lebanon has realised the importance of linking the environment to the overall development process. Initiatives were launched to save the natural patrimony and promote protection and proper management of natural resources.

As soon as the countries affected by drought and desertification were called for the signature and ratification of the Convention to Combat Desertification, the Government of Lebanon, through the Ministry of Agriculture, signed the CCD in September 1995 and ratified it in December 1995. Consequently, the Ministry of Agriculture is in charge of the implementation of the UNCCD in Lebanon and hosts the National Focal Point. Since then, Lebanon is actively participating in most of the sub-regional, regional and international meetings related to the Convention

After having signed and ratified the UNCCD, Lebanon was expected to work on the implementation of this convention through the elaboration of a NAP. One way to facilitate it was the establishment of an Umbrella Project that aimed at identifying the necessary support and assistance during the preparatory phase of the National Action Programme. An Umbrella Project document was, therefore, prepared with the assistance of UNDP and FAO. The project was then submitted to different potential donors. This document was then submitted to GTZ and UNDP and led to two projects to assist Lebanon in the preparation and implementation of its NAP.

The preparation of the NAP in Lebanon, is therefore supported by two complementary projects (GTZ-MOA and UNDP-MOA), treated as one initiative with two components and managed by a multi-disciplinary team from the MOA led by the National Focal Point.

Based on the UNCCD recommendations, the NAP elaboration process in Lebanon is being carried out in a participatory way taking into consideration the needs of local communities in affected areas. The process has benefited and made use of the results and recommendations of previously conducted consultations with local communities. Additionally, consultation under focused group meetings was and is still being organised. Participants were selected based on their experience in the sector and in working in the field together with local communities. Conduction of sectorial focused group meetings bringing scientists, decision makers and NGOs with solid field experience together to discuss the causes and effects of land degradation and to formulate proper mitigation measures. Meetings are focused on the following sectors: Water management; Forest management; Sustainable agriculture; Soil conservation; Rangeland management; Socio-economic conditions; Land use planning; and Legislation framework condition. The first draft of the NAP is expected to be out by December 2002.

A. INTRODUCTION

1. Country Background

The Republic of Lebanon is situated on the eastern shores of the Mediterranean. It covers a total area of 10,452 Km² most of it being mountainous. The Mount-Lebanon and the Anti-Lebanon chains run parallel to the sea, separated from each other by the Bekaa plain. The population of Lebanon is estimated to be around 4 million, of which around 1 million are foreigners.

Lebanon's climatic conditions are determined by its geography and physiography. They vary from Mediterranean climate along the coastal plain and in the middle mountain range, to reach the sub-alpine or mountain Mediterranean climate on the highest slopes, covered by snow during most of the year; they become sub-desertic and almost too dry for agriculture in some of the northern plains.

As in most countries submitted to the Mediterranean climate, most of the rainfall falls between November and March, in the form of heavy showers. The mean annual rainfall on the coast, ranges between 700 and 1,000mm; it peaks in the central mountains at 1,600mm; it ranges in the Bekaa plain from 200mm in the north-eastern part to 800mm in the southern part; while on the Anti-Lebanon chain it ranges from 600mm to 1,000mm in the Hermon.

The different ecosystems in the country are mainly threatened by deforestation, over-grazing, urban development, road development, bad agricultural techniques, excessive use of chemical products, over-hunting and industrial development.

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ancestors and relatives of several cultivated species. These habitats and their precious species are threatened by mismanagement of modern agricultural techniques.

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Rural exodus has had impacts on land degradation, as abandoned agricultural lands are easily eroded. The war situation, which prevailed in the country during several years, has enhanced poverty, mainly in some remote rural areas.

The requirements of the urban development and the rehabilitation and reconstruction operations after the long years of war have lead to a particular threat, that of the quarries. In addition to the degradation they are causing, their anarchic development has caused severe scars in the landscape throughout the country.

As it was further explored within the model developed by the GTZ supported project (CoDeL), regions severely affected by desertification are the plains and valleys of areas in Hermel and Baalbeck which area all agricultural regions (map is available on the website of this project : www.codel-lb.org)

Regions partially affected by desertification are Akkar, Tripoli, Zgharta, Koura, Kesrouan, Beirut, Saida, Nabatieh, Mary Ayoun, Sour, Bint Jbeil, Rachaya and West-Bekaa areas. Baalbeck and El-Hermel are the areas mainly affected by dryland degradation and desertification. These are part of the Bekaa Valley and North Lebanon. Other areas of Lebanon are affected by the various forms of land degradation described above. For Lebanon as a whole, 31 % is made up of sparse grass-lands, mountainous and desert areas.

2. Lebanon and the National Action Programme

After several years of lack of control imposed by the war situation in the country, the Government of Lebanon has realised the importance of linking the environment to

the overall development process. Initiatives were launched to save the natural patrimony and promote protection and proper management of natural resources.

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In 1997, and with the assistance and support of FAO and UNDP, a National Secretary for the CCD was recruited. Then a National Committee was constituted. This Committee was formed of representatives of NGO's, representatives of the Ministry of Agriculture and the Ministry of Environment, scientists and experts, and representatives of FAO and UNDP. The National Secretary was later assigned as the National Focal Point for the Convention. As for the committee, it is now inactive and will be replaced by NCB (described in a later section).

A first National Awareness Seminar (NAS) was organised in February 1997, with the support of the Interim Secretariat of the CCD. Representatives of several NGO's, universities, concerned ministries and official institutions, scientists and experts attended this seminar.

After having signed and ratified the UNCCD, Lebanon was expected to work on the implementation of this convention through the elaboration of a NAP. One way to facilitate it was the establishment of an Umbrella Project which aimed at identifying the necessary support and assistance during the preparatory phase of the National Action Programme. An Umbrella Project document was, therefore, prepared with the assistance of UNDP and FAO. This document was then submitted to GTZ and UNDP and led to two projects to assist Lebanon in the preparation and implementation of its NAP.

The current UNDP project aims at the preparation and implementation of the NAP and its activities. It is built on a cost sharing principle with the Government of Lebanon, UNSO and UNDP. It was signed in December 1997. This project, which is expected to last till the year 2003, will bring its support to the NAP process through:

- Capacity building at the different levels of the concerned stakeholders.
- Advocacy, legislation and institutional support.
- Natural resources management and socio-economic development.
- Resource mobilization

Commissioned by the German Government, GTZ is actually supporting Lebanon to elaborate its NAP. **The project (CoDeL)** outputs include:

Establishment of an information system for combating desertification (CODIS), Capacity building including training on GIS and RS, Awareness-raising, Identification of priority areas and needed interventions and Writing up of the NAP.

Project partners include the Ministry of Agriculture, the National Center for Remote Sensing and ACSAD. It is implemented through a multilateral fund provided by the German Government with an in-kind contribution from Lebanon. CoDeL which is expected to end its activities by December 2002, will bring its support to the NAP process through:

- The analysis and documentation of the extent and causes of desertification and degradation processes.
- The production of maps.
- The initiation of measures to combat desertification in a model area through a participatory approach.
- The conduction of public awareness at the different levels

The CoDeL project has already achieved the production of relevant maps, based on the existing data in the country. As mentioned before, a model was developed to determine the areas subject for degradation and desertification; it is the Desertification Prone Areas Map. All maps are available on the following web site: [www. codei-lb.org](http://www.codei-lb.org)

The preparation of the NAP in Lebanon, is therefore supported by two complementary projects (GTZ-MOA and UNDP-MOA), treated as one initiative with two components and managed by a multi-disciplinary team from the MOA led by the National Focal Point. The situation expected at the end of both projects is as follows:

- All on-going projects co-ordinated and co-operating among each other;
- Public awareness raised on desertification issues;
- Improved integrated approach to desertification problems solutions, to sustainable development and to rural development;
- Effective participation of all stakeholders at the different possible levels;
- A National Action Programme ready to be implemented.

Through its regional office based in Beirut, UNSO (or UNDP Program for Dry Land Management) is providing substantive backstopping and technical support to the process of elaboration of the NAP.

Parallel to the implementation of the NAP, Lebanon is participating in the implementation of the Sub-Regional Action Programme (SRAP). With a financial assistance of the Global Mechanism and the technical support of ACSAD and ICARDA, a pilot project on Mountain Agriculture will soon be implemented.

As focus is given on the preparation of the NAP, Lebanon is not yet an active part of all the Thematic Program Networks of the Regional Action Programme. However it is planned to adhere to the relevant TPRs as soon as possible.

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

1. Key Actors

Since the end of the war in 1990, Lebanon's principle challenge has been to rebuild its economy. The country suffers from a severe debt burden, economic stagnation and unemployment. The Government is working on the rehabilitation of

several sectors affected by the war and its consequences and on stopping the degradation of natural resources. Several line-ministries and public bodies are contributing to natural resource conservation and combating land degradation. This is through proposing and implementing the necessary strategies, policies, programs and specific projects within the framework of sustainable development. Both the Ministry of Agriculture and the Ministry of Environment are launching initiatives to save the natural patrimony and promote protection and proper management of natural resources. Laws prohibiting wood cutting and protecting forests from fires, grazing and mismanagement have been issued.

Of these public bodies we mention: the Parliament Committee on Environment, the Ministry of Environment (MOE), the Ministry of Power and Hydraulic Resources, the Council for Reconstruction and Development (CDR), the National Centre for Remote Sensing (NCRS), the Ministry of Agriculture (MOA), and its affiliated institutions namely the Green Plan (GP) and the Lebanese Agricultural Research Institute (LARI)...

On the other hand, the private sector, NGOs' and International Organisations are assisting this process by providing technical and financial support to specific projects.

Ministry of Environment

The State Ministry for Environmental Affairs was first created in May 1981. It aimed at controlling all forms of pollution, the use of pesticides, deforestation and forest fires, solid waste disposal, protection of fauna and flora, and urbanisation.

There was no comprehensive environmental law, but specific issues were addressed in sector laws and regulations. These laws included the protection of natural sites, forestry, archaeological and touristic sites, drinking water, sewage, marine pollution, air pollution, industry, hunting, fishing, urban development, mining, food control, housing and toxic waste disposal. In April 1993, the MOE was established, marking a significant step forward in the management of environmental affairs.

National Center for Remote Sensing

The center is a part of the Engineering and Technology Division of the National Council for Scientific Research. The center main role involves contributing to scientific needs of the country, notably in securing data and structured information for redevelopment projects and environmental concerns. The center also helps decision makers on actions and policies of relevance for use of space, remote sensing and GIS emphasizing environmental concerns. The center through its mother organization has cooperative relationships with local, regional and international agencies. Locally it works with several ministries and public agencies and private research institutions.

The NCRS is currently undertaking several projects relating to availing databases notably on environmental through remote sensing and GIS. The projects cover different themes affecting the community's quality of living including natural resources, geo-environmental hazards, land use and impacts.

The NCRS is working on several issues related to monitoring and combating desertification; it is also working on the mapping of all water springs, erosion processes, forest fires and all the coastal area showing all water run-off into the sea, as well as other related activities.

Ministry of Agriculture

The MOA's mandate is to develop the agricultural sector, at both plant and animal level, to protect natural resources and manage them.

Before the institution of MOE, MOA was in charge of the preparation and implementation of all the laws and legislation related to the natural resources. The first forest legislation was written in 1949. Decrees and laws were added. Legally, the MOA can develop laws subject to Government approval as well as Ministerial Decrees and decisions (such as the deployment and training of forest guards).

After its institution, the MOE was responsible for the preparation and implementation of legislation on many of the issues related to the natural resources.

The MOA has the mandate to undertake reforestation projects; to protect, supervise and manage the natural resources and to provide assistance whenever necessary.

Furthermore, the **GP**, an independent authority under the auspices of the MOA, has the mandate to study and execute land rehabilitation and land development projects. All civil works in the GP activities are mostly designed and always executed by local consultants/contractors. The GP operates on a demand-driven basis, which does not always imply equity in providing services. However, the priority is given to the most needy farmers and deprived areas.

NGO's, Research Institutions and International Organisations

Several **NGOs** are concerned with issues related to combating desertification. The two main associations or forums for NGOs are the Lebanese Environmental Forum and the Green Forum. The forums provide a co-ordination framework for Lebanese NGOs acting in various social, health, natural resources and educational sectors and create dialogue with governmental institutions within the framework of complementarity between governmental and non-governmental sectors. As organised segments of the civil community these forums focus on playing the role of a constructive and efficient partner for promoting interaction among the citizens and the government.

Several NGO's are involved at different levels. This involvement falls under the umbrella of combating desertification. Of all the activities we mention:

- The afforestation of the Mount Mekmel, the mountains surrounding the Cedars of God, in Becharre. A local NGO (the Friends of the Cedar of God) has initiated this project and called it "To each Cedar a Friend". It is built on a personal sponsorship of seedlings to be planted. In this way, the project is sustainable, since its functioning budget is ensured through the contributions.
- The implementation of sustainable agricultural practices and the plantation of drought tolerant crops in one of the most affected regions by desertification. The NGO who has initiated this project (Green Line) is also working on several other

issues, like encouragement of organic farming, forest trees nurseries in schools, extension services...

- The building of a "Mediterranean Forest Centre" which purpose is the organisation and hosting of training activities for other NGOs, local community groups...The centre is equipped to host several participants. The NGO in charge of this project (the Association for Forest Development and Conservation) has a very rich portfolio in natural resources conservation. It organises reforestation activities, forest fire fighting campaigns, training and extension.
- Another active NGO (MECTAT) had implemented a project aiming at awareness raising about the problem of desertification, its possible solutions and on-going activities. Target groups included children and school level, communities of affected areas, politicians and the general public.
- A Greek NGO (INARE) has initiated a project with a local NGO (the Makhzoumi Foundation) and a Belgian NGO for the promotion of reforestation, agro-forestry and natural resources management. This project is financed by the Greek Government with an in kind contribution of the local NGO. The co-operation is planned to be extended towards other NGO's.
- A research project is initiated with the Tree Ring Laboratory of the Arizona University in Tuscon-USA and the MOA. The project aims at the study of climate changes and water shortage through the analysis of the growth increment of resinous trees. This study will help in the drought preparedness efforts.
- Many other NGOs are involved with highly interesting activities in terms of natural resources conservation and reforestation activities.

Research institutions (like the American University of Beirut, the University of Saint Joseph, the Balamand University, the Holy Spirit University, and the Lebanese University...) and the private sector are very active in Lebanon. They are involved in projects dealing with monitoring, managing and assessing the natural resources, the

erosion mechanisms and the socio-economic aspects in relation with land use and land degradation.

Several **international organisations** are bringing financial support to assist in the rehabilitation of the natural resources of the country, through capacity building, project implementation and technical assistance. These organisations are: World Bank; FAO; GTZ; UNDP; USAID; IFAD; EU; GEF. Some **countries** are also bringing their support through bilateral arrangements.

2. Strategies, Plans and Projects Implemented Within the Framework of Sustainable Development

Lebanon is considered to be in an actual phase of revising and Up-dating its Agriculture and Natural Resource Policies and Strategies. In fact, a project is now implemented by the Ministry of Agriculture with the assistance of FAO, and the participation of the private sector. The strategy is to be prepared based on the findings of the agricultural survey done in 1998-1999. In parallel, a project "Agricultural Policy and Planning Preparation" with the European Technical assistance is in place. This project aims at bringing a support for the economic and social recovery and development. It also aims at contributing to the protection of environment and natural resources.

The MOE is also proposing strategies and hosting several projects working on the conservation and management of natural resources. The MOE is considering initiating the preparation of a National Environment Plan.

Of particular interest to the NAP on CCD is the Parliament committee of the environment. This parliamentary commission is in charge of all the issues related to the environment, in terms of planning and legislation. This committee being one of the target group at the top decision making level is contacted and sensitized on the issue of natural resource conservation and combating land degradation. In fact a general meeting for presentation of the first draft of the NAP is expected to take place by next December.

In the year 2000, the MOA has prepared a Five-Years-Plan including the following issues:

- Increasing the income of agricultural labourers to reach an income level equivalent to that reached in the other economic sectors. Provide social services for those working in the agricultural sector.
- Reforestation and natural resources conservation.
- Improvement of the level of equity between urban and rural communities.
- Ensuring sustainability of the natural ecosystems. Improving and preserving natural resources (land, water, forests and fisheries).
- Development of a sustainable agricultural production system in various Lebanese agricultural areas.
- Expanding the possibility of using land and water resources within acceptable and sustainable environmental, economic, and technical standards.
- Increasing job opportunities in rural areas.
- Conducting extension services as to the use of irrigation water, to increasing efficiency and to provision of information on crop.

Land Tenure system and **land zoning or land use planing** in Lebanon are two major issue hindering the proper management of natural Resources and contributing to land degradation. Consequently two projects of particular interest to this issue are being implemented:

- **Land Cover- Land Use Development Project**: This project is being implemented with the assistance of several partners (FAO, MOA, MOE, NCRS...). It is mainly concerned with the preparation of a land cover-land use maps and data-base for the country (scale 1/20,000). The project is expected to be completed by the end of June 2002.
- **Land Use Planning Project**: This project is implemented with the Council for Development and Reconstruction (CDR). It is using the data-base provided by the land cover-land use development project.

Other **ongoing projects** contribute directly to natural resource conservation and management of which are the following:

- **Conservation and Sustainable Use of Dry-land Agro-Biodiversity of the Near East:** This project is being executed by the Lebanese Agricultural Research Institute (LARI) and ICARDA, in co-operation with IPGRI and ACSAD. This project is implemented in partnership with local and National NGO's, the American University of Beirut and the NCRS. The project aims at promoting the conservation and preservation of important wild relatives and land races of agricultural species indigenous to Lebanon, Syria, Jordan and the Palestinian Authority by introducing and testing in Situ and on-farm mechanisms and techniques for the conservation and sustainable use of agro-biodiversity. This is specifically through, among others, the promotion of alternative land use practices for the conservation and sustainable use of agrobiodiversity; national awareness on the importance of indigenous crops and capacity building; and modification of legislation and land use rights to promote the conservation and sustainable use of agro-biodiversity.

- **Mashrek-Maghreb Project:** The Agricultural Research Institute (ARI) supported by IFAD and the Arab Fund with supervision by ICARDA has a project entering its second phase in the Baalbeck-Hermel area. Its objectives are related to livestock integration and improvement of feed. Activities include developing alternative feed sources and usage for agricultural by products, developing traditional feed sources such as barley and forest legumes, and rangeland improvement. The project also addresses socio-economic aspects of communities in the area namely Deir El Ahmar and Aarsal.

Many national action plans were prepared or are being prepared mainly relating to environment and natural resources conservation and management, namely:

- **National Biodiversity Strategy and Action Plan (NBSAP):** This project executed by the Ministry of Environment and funded by GEF (1998), has resulted in the elaboration of the National Biodiversity Strategy and Action Plan, within the framework of the Convention on Biological Diversity. The strategy covered four ecosystems: freshwater, marine, terrestrial and agro-biodiversity.

- **Methyl Bromide Alternatives:** Funded by Multilateral Fund (MLF) of the Montreal Protocol (MP) and managed by UNDP (1999-2001), and executed by MOE and in the Aim of phasing out Methyl Bromide in Lebanon by 2015, the project was initiated and administered by the Ozone office in Lebanon. The project aimed at demonstrating the technical and economic feasibility of non-chemical methods as alternatives to the use of Methyl Bromide in the production of certain horticultural crops. Training of farmers on the correct use of the alternatives and design national strategy for the replacement of methyl bromide for which a national workshop for the harmonisation of the strategy outlines for the complete phase out of methyl bromide in Lebanon was in place. Having ended on May 2001, the project started in 2002 the second phase for another 5 years.

- **The Convention on Biodiversity (CBD):** Prepared in 1999 has not been domesticated yet. A UNDP project hosted by LARI is preparing a proposal and the necessary legislation framework for this purpose.

- **Strengthening of National Capacity and Grassroots In Situ for Sustainable Biodiversity Protection (Protected Areas):** The project, funded by GEF, will put in place an effectively managed system of protected areas to safeguard endemic and endangered species of fauna and flora. It will also conserve their habitats and incorporate Biodiversity conservation as an integral part of sustainable human development. Planned Activities included 3 functional Protected Areas, Arz El-Shouf, Horch Ehden, Palm Islands. It also included training on Management Plan Development for NGOs and MOE, Completion of scientific studies on fauna & flora, GIS training on fauna and flora monitoring, and finally, elaboration of awareness material (documentaries, posters...) related to reduction of land degradation, forest management issues and soil erosion control. MOE, local non-governmental organisations and in-country scientific institutions will co-operate and co-ordinate their activities to promote both the long term ecological and the short term economic objectives of wildlife conservation. This project started in 1996 and lasted till end of the year 2001.

- **Conservation of Wetlands and Coastal Zones in the Mediterranean:** This project is executed by the MOE and implemented by UNDP, and is expected to end

by 2003. The project aims at conserving globally endangered species and their habitats, recognising nature conservation as an integral part of sustainable human development while improving the capacity of governmental and non-governmental agencies to address bio-diversity conservation issues in two main sites: the Coastal Protected Area of Tyre and the Wetlands of Ammiq. In terms of policy issues the project aims specifically at the promotion and capacity building for the development of national policies and tools to address the policy-related root causes of loss of wetlands and coastal bio-diversity.

Several executed projects have contributed to the purpose of our discussion. Of these projects we mention the following:

- **Assistance to the Protection of the Vegetation Cover:** It was a European Union financed plan calling for the sustainable management of forests in Lebanon through the establishment of 3 separate pilot projects in Bekaa, Northern Lebanon and Mount Lebanon. Executed by the French National Office for Forestry, (between the years 1996 and 1998), the project provided demonstration at different levels including the production of seedlings, reforestation, grazing management, forest management and different managing tools as well as capacity building and training for engineers at MOA.
- **Forest Fires Prevention Program:** This project was co-financed by the French and Lebanese Governments and executed by the French Forest Office and the Ministry of Agriculture. The project was executed between the years 1997 and 1999. It aimed at providing equipment for forest fire control and primary interventions as well as capacity building on the levels of both engineers, forest guards, through training in France and Lebanon. This has included training programmes for personnel at the Ministry of Agriculture in France and investing in forest fire prevention equipment, and the construction of water reservoirs in areas exposed to fire incidence.
- **Climate Change Enabling Activity Project:** Several of the proposed activities have a direct bearing on land management and subsequently desertification. These include improving the management of natural resources, as well as to

study the effects of deforestation on climate change. It also calls for mitigation analysis where the Ministry of Agriculture's knowledge of Green House Gases relevant to farming practices as well as creating Carbon sinks through reforestation programmes are looked into.

- **National Biodiversity Country Study**: In 1997, and with the assistance from UNEP and GEF, the Ministry of Agriculture executed a national study on the flora and fauna in Lebanon, the socio-economic factors affecting bio-diversity and other issues related to the management and conservation of bio-diversity.

- **National Program for Promoting Sustainable Development at the Institutional Level (Capacity 21)**: The project was through two phases and was completed within the years 1995 and 1999. The funding source was the UNDP and the Lebanese government. Phase one of the project aimed at integrating environmental concerns in theoretical, policy and legal terms to the Ministry of Environment, while in parallel practising such concepts during real project implementation of the National Emergency Rehabilitation Programme (NERP). And strengthen key government and non-government institutions to carry out environmental assessment work. Major activities included: establishing a National Environmental Awareness Plan; implementing pilot local Agenda 21 programmes for local authorities such as municipalities or conglomeration of municipalities; and development of a legal framework for environmental management and work on specific application decrees related to the code of environment. Phase two of the project aimed at assisting in building national capacity for sustainable development for various stakeholder groups, and to help the Government in instituting a mechanism for co-ordination among all groups in the field of environment.

- **LEDO Project**: With the assistance of UNDP, MOE hosted and executed a project named Lebanese Environment and Development Observatory (LEDO) that ended very recently. The scope of LEDO activities varied from simple collection and publication of existing environmental information to gathering, collecting, analysing and publishing of well defined environmental-related development data and indicators. Consequently LEDO worked with other ministries, agencies, and academic institutions to agree on a limited number of environment and development

indicators, finding out who's collecting what type of information necessary to estimate those indicators, and agree on what was collecting the missing information to evaluate all selected indicators. LEDO finalised the calculation of 60 indicators out of the 90 specified for Lebanon. The project produced a handbook on developed indicators, their significance and interpretation, and followed up on the preparation of the State of the Environment Report.

A request was recently addressed to FAO for the provision of an assistance for the assessment of the forest resources and for the preparation of a Forest Action Program. Lebanon has adopted the Criteria and Indicators of Sustainable Forest Management.

C. THE INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION

The UNDP and CoDeL projects are under the close supervision of the Minister of Agriculture. A multi-disciplinary management team was assigned at the MOA to ensure the proper conduction of the work. This team may become part of a permanent desertification unit at the Ministry of Agriculture. This shows political will and the long-term commitment of the Lebanese government to combat desertification beyond the lifetime of the project.

In the early days of implementation of the UNCCD in Lebanon, a National Steering Committee was formed. It was composed of representatives from all the concerned stakeholders, public authorities... Meetings were organized on a regular basis. The activities of the committee remained pending for some time, because of all the constraints the process was suffering of. Now that things are moving on properly, the committee will resume its activities. However some changes were brought on its constitution and its mandate. It is now called The National Coordination Body. It will be constituted of a core body composed of high-level representatives from line ministries, public research centers, the Lebanese University (the only public university in Lebanon) and concerned authorities. The core body would meet one or twice a year, or upon emergence of a need. Along with the core body sub-committees will be formed. They will be

composed of the concerned stakeholders, NGO's, CBO's, research centers, universities and line ministries...These sub-committees will meet on a regular basis to discuss all the issues related to the implementation of the convention. Decisions, suggestions, projects and ideas will be transmitted to the core body. The first meeting of the NCB is planned to be held in June 2002.

D. THE PARTICIPATORY AND LOCAL CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF THE ACTION PROGRAM

Based on the UNCCD recommendations, the NAP elaboration process in Lebanon has been carried out in a participatory way taking into consideration the needs of local communities in affected areas. The process has benefited and made use of the results and recommendations of previously conducted consultations with local communities. Additionally, consultation through focused group meetings was and is still being organised. Participants are selected based on their experience in the sector and in working in the field together with local communities. Conduction of sectorial focused group meetings bringing scientists, decision makers and NGOs with solid field experience together to discuss the causes and effects of land degradation and to formulate proper mitigation measures. Meetings are focused on of the sectors below:

- Water management
- Forest management
- Sustainable agriculture
- Soil conservation
- Rangeland management
- Socio-economic conditions
- Land use planning
- National legislation framework

These meetings will ensure that the recommendations reached were based on the needs of the local communities in the different affected areas.

In addition, consultations are undertaken with national decision makers (Line ministries, Council for Development and Reconstruction) and other governmental bodies (Lebanese Agricultural Research Institute, Green Plan, Litani River Authority).

Public hearings or workshops are conducted in affected areas with the local agricultural cooperatives namely Baalbak, West Bekaa, Hermel and Zahle.

Field visits to affected areas and discussions with stakeholders (individuals, cooperatives, NGO's, Quaem-makam, Mouhafez) are ongoing to understand the socio-economic dimension of the problem and get local community perception with respect to causes and possible remedial measures.

In addition, site pilot projects will be implemented in affected areas with the local community in question and will be executed by professional or known NGO's in the field. This has already been implemented within CoDeL (Arsal Area in Bekaa), and will be further elaborated and implemented next year within the UNDP component of project.

Natural Resource management platform has been initiated within CoDeL. The platform brings together actors active in the field of natural resource management. The objective of the platform is to improve coordination and cooperation. Various meetings have already been conducted. Meetings with various active actors have been organized for information exchange and possible cooperation and complementarity of activities. This is especially true for the UNDP component mainly in pilot projects selection on measures to mitigate the degradation of land and for the natural resources conservation, and awareness raising and capacity building (intended to be implemented next year), and for the regional SRAP activities.

In addition, various measures are being implemented. Consultation with natural resource experts from universities like the the American University of Beirut and the local community of Bekaa area (Aarsal, a semi-arid marginal village most affected by desertification, covering around 5% of the total Lebanese area) were initiated for 2 pilot projects on range protection and rehabilitation and the Regional Agrobiodiversity project, mentioned earlier.

In the field of public awareness and sensitization, the following was undertaken:

- A Web-site for CoDeL was created. Articles about CoDeL and the problem of desertification in general have appeared in 4 main newspapers (L'Orient le Jour, Al-Nahar, Al-Safir and the Daily Star). An article about the problem of desertification and project CoDeL appeared in Environment and Development, a monthly magazine published by MECTAT and distributed in 22 countries. Several issues of CoDeL newsletter were developed and were distributed by e-mail to all identified stakeholders. A mailing list of all identified stakeholders has been created and is being used as a platform for communication and discussion of project activities.
- A meeting with the head of the environmental committee was organized and a presentation for the convention and its activities including CoDeL team and approach was allowed. This will be further complemented with a presentation of the first draft of the NAP in December, as was mentioned before, at a meeting with these committee and concerned members of Deputies council.
- For the first time, the Lebanese Minister of Agriculture attended COP 5. This helped to enhance the Minister awareness of the UNCCD and consequently facilitates the preparation of the NAP and its implementation.
- School garden approach was conducted in awareness raising efforts at school level including the technical agricultural schools of the MOA and planned and implemented by two NGOs' (MECTAT and Green Line). In addition, a package of awareness-raising material was sent to 50 schools on June 17, the world day to combat desertification.

With the UNDP project a comprehensive national awareness strategy will be elaborated by August 2002. This strategy is planned to be implemented with the identified active NGO's and other ongoing related projects making use of the NCB and the extension services within MOA.

E. THE MEASURES TAKEN OR PLANNED WITHIN THE FRAMEWORK OF THE NATIONAL ACTION PROGRAM, INCLUDING MEASURES TO IMPROVE THE ECONOMIC ENVIRONMENT, TO CONSERVE NATURAL RESOURCES, TO IMPROVE INSTITUTIONAL ORGANIZATION, TO IMPROVE KNOWLEDGE OF DESERTIFICATION AND TO MONITOR AND ASSESS THE EFFECTS OF DROUGHT

Below are the various steps undertaken during the NAP elaboration process:

1. Compilation of available data in Lebanon
2. Collection of available literature including reports and studies by development actors, research institutions and government organizations.
3. Establishment of CODIS “**Combating Desertification Information System**” within CoDeL
4. Preparation of maps using the following indicators: Climate, Soil, Vegetation, Land use and Demography
5. Preparation of Desertification Prone Areas (DPA) map
6. Consultations with national decision makers (Line ministries, Council for Development and Reconstruction) and other governmental bodies (Lebanese Agricultural Research Institute, Green Plan, Litani River Authority)
7. Conduction of Public hearings in affected areas
8. Consultations with co-operatives and other Community-Based Organisations
9. Consultations with regional decision-makers such as the Kaem-makam and Mouhafez.
10. Participation in regional co-ordination meetings between different development actors
11. Conduction of Sectorial Focused Group Meetings

With CoDeL component, a Table of Content of the NAP is developed and adopted after close consultations with all identified stakeholders. With the support of the NCRS and ACSAD , the Lebanese Ministry of Agriculture was enabled to identify, and document the extent and the causes of desertification and degradation processes by

CoDeL component. This is achieved through a model and Desertification Prone Areas (DPA) map using different climatic, topographic, soil indexing, socio-economic, vegetative cover and land use factors (the map is available on the website of CoDEL).

These maps will help in the preparation of the NAP as they will allow for the identification of sites of priority of action. The maps could be and are actually used by several institutions or organisms for monitoring of desertification and planing activities and interventions.

Staff of NCRS and MOA were trained on this model through. Together with the NCRS, a training module on GIS/RS was conducted for engineers from the Ministry of Agriculture and other participants from the meteo station and the Green Plan. In addition, a 5-day training workshop has been conducted at ACSAD for technicians from the Lebanese NCRS (National Center for Remote Sensing). A weekly on-the-job training was carried out for 5 engineers from the Ministry of Agriculture.

The NAP for Lebanon will certainly be achieved soon with the assistance of UNDP, GTZ, the Secretariat of the CCD and the sub-regional, regional and international organisations. A first draft of the NAP will be ready by December 2002. This will open the ground for donors and partners to assist the country in implementing activities and projects aiming at combating desertification and mitigating the effects of drought.

As for the measures taken or planned within the framework of the national action program, this is still in the process, based on CoDeL model and the identified prone areas to desertification. This will be further elaborated after the completion of the various focused group meetings, which will present development strategies for each sector. These activities will lead to identification of preventive measures along with the present status on the various causes and effects of the different factors contributing to desertification in the affected areas. It will support the identification of rehabilitation and development measures.

Furthermore, this will be soon tackled, identified and elaborated within the NCB and its various members representing the different concerned stakeholders.

This is especially true for although the MOA is the authority assigned for the implementation of the UNCCD in Lebanon, several stakeholders involved in the management of natural resources have an important role to play in this issue.

F. THE PARTNERSHIP AGREEMENT WITH DEVELOPED COUNTRY PARTIES AND OTHER INTERESTED ENTITIES AND FINANCIAL ALLOCATIONS FROM NATIONAL BUDGET IN SUPPORT OF IMPLEMENTATION AS WELL AS FINANCIAL ASSISTANCE AND TECHNICAL COOPERATION RECEIVED AND NEEDED, IDENTIFYING AND PRIORITIZING REQUIREMENTS

One of the main problems in the implementation of the UNCCD in Lebanon is the financial aspect. The Government support to the Ministry of Agriculture constitutes less than 0.5% of the total Government budget. This financial problem has delayed the implementation of the UNDP-Ministry of Agriculture Project for three years.

As a matter of fact, the UNDP project was based on a cost sharing principle with US\$ 80,000\$ from UNSO and US\$ 5000 from UNDP and 200,000\$ from the Lebanese Government. The project was signed by UNDP, the Government Authority in charge and the Ministry of Agriculture. However, because of financial constraints, the money was not allocated. It is only in April 2000 that the project was reactivated and the project is currently under execution.

CoDeL project is financed by the German Government, with an allocated budget of 1M Deutsche Marks. The Lebanese contribution is in kind. The project is based on a multi-lateral funding involving the ACSAD, the National Centre for Remote Sensing and the Ministry of Agriculture.

On the other hand, several international organisations are bringing a financial support to assist in the rehabilitation of the natural resources sectors of the country.

Donor meetings will be held for resource mobilisation and consequently a resource mobilisation strategy will be explored and elaborated.

Furthermore, a list of active NGO's in affected areas was prepared and bilateral consultations are on-going.

G. A REVIEW OF THE BENCHMARKS AND INDICATORS UTILIZED TO MEASURE PROGRESS AND AN ASSESSMENT THEREOF

As the NAP is still under preparation, benchmarks and indicators are not defined yet. They will be included in the NAP when ready.

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