

Republic of Lebanon
Ministry of Agriculture

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

BEIRUT, APRIL 2000

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PREAMBLE

This report was prepared by the National Focal Point and a team of national experts with a technical assistance from ACSAD and UNDP-Beirut, and a financial assistance from the UNCCD Secretariat.

A series of events has interfered in the process of implementing the UNCCD in Lebanon. This has delayed the preparation of the NAP and its activities. However, the main reason for the delay has just been overcome, at the time of submitting this report. The preparation and implementation of the NAP would therefore be starting soon.

In the absence of a NAP this report is on the state of combating desertification at the different levels in the country. Ongoing projects and activities and legislation in relation to assessing, monitoring or combating desertification and rationally managing the natural resources are included in the report.

SUMMARY

- 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 Beqaa 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 montane 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 Beqaa 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.
- 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.
- Lebanon has to face the new challenges and policies of the third millenium, with new markets to deal with. The Ministry of Agriculture has therefore prepared a strategy for the development of the agricultural sector. This strategy aims mainly at the improvement of the quality of the crops produced, at the production of new crops and the utilisation of better and more efficient irrigation techniques. The strategy has not been implemented yet. It includes training, reforestation, information gathering and database management, agricultural infrastructure and economic and social plans.
- After several years of total 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 are 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, answered the call. The CCD was signed in September 1995 and ratified in December 1995.
- The Ministry of Agriculture is in charge of the implementation of the UNCCD in Lebanon and hosts the National Focal Point.
- An Umbrella Project document was prepared with the assistance of UNDP and FAO. It led to the preparation of a project document with the assistance of UNDP aiming at the preparation and implementation of the NAP and its activities. It was pending till now because of the lack of funding from the Government. At the time of submitting this report, the decree authorising the transfer of the Government contribution to the project is in its final stages of signature. The project will therefore be starting soon.
- Another project will be providing a support to the preparation of the NAP through remote sensing and GIS techniques. It will be implemented with the German development agency, the GTZ, the Arab Centre for Scientific and Agricultural Development, ACSAD, the National Centre for Remote Sensing and the Ministry of Agriculture, Rural Development and Natural Resources Directorate. It is financed by the German Government with an in-kind contribution from Lebanon.
- Although the Ministry of Agriculture 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.
- 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. International organisations are assisting this process by providing technical and financial support to specific projects.
- Before the institution of the Ministry of Environment, the Ministry of Agriculture 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 Ministry of Agriculture 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 Ministry of Environment took over the preparation and implementation of legislation on many of the issues related to the natural

resources. In the mean time, the Ministry of Agriculture is still in charge of many other aspects.

- 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.
- Several international organisation are bringing a financial support to assist in the rehabilitation of the natural resources sectors of the country, through capacity building, project implementation and technical assistance. These organisations are: World Bank; FAO; GTZ; UNDP; French Government; US Loans for Livestock; IFAD; EU; GEF. Other organisations are also involved.
- Despite the fact that it was one of the first countries in the region to have signed and ratified the CCD, and despite the leading role it played on the regional and sub-regional level, Lebanon did not start preparing the NAP yet. However, as soon as the necessary budget is allocated and both UNDP and GTZ projects are initiated, the process will be moving forward smoothly.
- In the absence of a NAP, the Umbrella Project, the UNDP and the GTZ projects are briefly described.
- Through the participatory approach, the projects will co-ordinate with all the ongoing projects in order to avoid any redundancy. None of the ongoing projects deals directly with the issues and components proposed by this project, however as combating desertification is a broad and wide spread subject, it will have to draw information and eventually ask for some co-operation from those projects.
- The Government of Lebanon within the capacity of the Ministry of Agriculture will provide the necessary space, equipment and facilities for the implementation of project activities. It will make available whenever necessary, personnel, national consultants and experts.
- 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.

1 CONTEXT

Desertification is defined as the reversible process of natural resources degradation through a combination of effects of climatic variations and human activities. It is caused by complex interactions among physical, biological, political, social, cultural and economic factors. It is therefore concerned with reforestation as much as with soil conservation, sustainable agriculture, food security and integrated rural development.

The UN Convention to Combat Desertification acknowledges that development must be human-oriented if it is to be sustainable. It breaks new ground and embraces a “bottom-up” approach, insisting that local people must be fully involved in deciding how to tackle the problem of desertification and that their poverty should be addressed. It thus simultaneously offers hope that desertification can be halted and rolled back and that the incomes and self-respect of some of the poorest people can be improved, encouraging them to remain on their land. It offers the best, and possibly the last, chance of effectively addressing the multiple, interlocking crises of desertification.

2 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 Beqaa 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 montane 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 Beqaa 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 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.

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.

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.

Rural exodus has added to the problem of 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 contribution of agriculture to the GNP was considerably decreased. Bad agriculture practices have led to environmental problems and to a reduction in the quality of the products.

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.

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.

The population of Lebanon is unevenly distributed among the six administrative mohafazats (governorates) that form the Lebanese Republic. About 50 percent of the total population live in the two mohafazats of Beirut and Mount Lebanon (especially in the Greater Beirut area); whereas the share of the Mohafazat of North Lebanon is 21.6 percent, the Bekaa 12.9.

The Mohafazat of the North has the second lowest standing with respect to the satisfaction of needs, with 43.8 percent of its households, and 48.9 of individuals, living below the threshold of the Living Conditions Index, followed by the Mohafazats of Bekaa (40.6 percent of households and 43.8 percent of individuals).

Lebanon is witnessing a severe depletion of its natural resources, after being known for its dense and rich forests in the ancient times. Land degradation and deforestation are not problems of the last decades only; they started more than a century ago and kept going on. The total lack of control and appropriate legislation in the last few years, the increasing needs of the population and the ignorance of

the negative impacts of un-proper natural resources management, resulted in the actual alarming situation.

Regions severely affected by desertification are the plains and valleys of areas in el-Hermel, Baalbeck and Zahle which area all agricultural regions

Regions partially affected by desertification are Akkar, Tripol, Zgharta, Koura, Kesrouan, Beirut, Saida, Nabatieh, Mary Ayoun, Sour, Bint Jbeil, Rachaya and West-Bekaa areas. These areas require further agro-climatic research to properly delineate the types of degradation being faced here.

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 grasslands, mountainous and desert areas.

The land uses and practices in the affected areas vary from intensive forms of agriculture to open grazing. Anarchic urbanisation and quarrying are again forms of un-proper land use, increasing the severity of degradation in the affected areas.

Many of these lands were abandoned during the war. They are often colonised by a certain form of natural vegetation that does not always evolve progressively into climax. They are frequently grazed, and because of their vulnerability, they quickly move back to sterile and unproductive forms of land.

With its different microclimates and its particular topography, Lebanon can offer a wide range of agricultural products. These range from the tropical or sub-tropical products that can be grown along the coast, to the pome fruits grown in the upper mountain orchards. Several crops are grown in the Bekaa Valley, like potatoes, wheat, sugar beets, table and wine grapes...development projects aiming at the replacement of illicit crops are being implemented. The main agriculture activities are distributed as follows:

Horticulture	0.2% of Land
Field Crops (irrigated)	21.5% of Land
Olives	4 %
Vineyards	1.3 %
Deciduous Fruit Trees	3 %
Citrus / Bananas	1.8 %

Lebanon has to face the new challenges and policies of the third millenium, with new markets to deal with. The Ministry of Agriculture has therefore prepared a strategy for the development of the agricultural sector. This strategy aims mainly at the improvement of the quality of the crops produced, at the production of new

crops and the utilisation of better and more efficient irrigation techniques. The strategy has not been implemented yet. It includes training, reforestation, information gathering and database management, agricultural infrastructure and economic and social plans.

With its topography and physiography, along with its edaphic conditions, Lebanon constitutes a good water reservoir. However, the degradation of the soil and vegetation cover, cause most of the rainfall to be lost through surface runoff. Despite this fact, Lebanon is one of the richest countries in the area in water.

Most water sources used in Lebanon are springs and wells. In addition, catchment wells and reservoirs used for harvesting rain represent major supplementary sources of water used, especially in the dry season due to increased water demands.

After several years of total 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. 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 are issued. Bird hunting is forbidden awaiting for the improvement of the law on hunting. The production capacity of the forest nurseries of the Ministry of Agriculture is increased; reforestation activities are being undertaken. New forest guards are recruited and trained. Cedar, fir, juniper and cypress forests are declared forest reserves, along with specific fragile and interesting ecosystems that need to be protected.

However, despite the efforts of the Ministry of Agriculture and the increase in the production of forest seedlings, the afforestation efforts are not highly successful. This is mainly due to the fact that there is not a set forest policy or National Forest Plan. The Rural Development and Natural Resources Directorate at the Ministry of Agriculture is planning to start working on this National Forest Plan whenever the necessary resources and assistance become available.

The drastic reaction of the Government through issuing new laws and legislation prohibiting and severely punishing certain activities, can only be transitional. The real solution resides in planning and management.

3 LEBANON AND THE UNCCD

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, answered the call. The CCD was signed in September 1995 and ratified in December 1995.

The Ministry of Agriculture is in charge of the implementation of the UNCCD in Lebanon and hosts the National Focal Point.

The Government of Lebanon has shown its commitment towards the Convention, so much that Lebanon was among the first countries to proceed in the signature and ratification of the CCD. Since then, Lebanon is actively participating in most of the sub-regional, regional and international meetings related to the Convention

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 committee is now latent waiting to be reactivated as soon as the preparation of the NAP is initiated.

The National Secretary was later assigned as the National Focal Point for the Convention.

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 this is the establishment of an Umbrella Project which aims 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. It led to the preparation of a project document with the assistance of UNDP. This new project aims at the preparation and implementation of the NAP and its activities. It was built on a cost sharing principle with the Government of Lebanon and was signed in December 1997, to be implemented in January 1998. It was pending till now and was only signed and approved by the Council of Minister in April 2000. The reason for this long delay was the lack of funding. At the time of submitting this report, the decree authorising the transfer of the Government contribution to the project is in its final stages of signature. This being a Presidential Decree, it has to be signed by the President of the Republic, after the signature of the Minister of Finance, the Minister of Agriculture and the Prime Minister.

Another project was prepared with the German Government. This project will be providing a support to the preparation of the NAP through remote sensing and GIS techniques. It will be implemented with the German development agency, the GTZ, the Arab Centre for Scientific and Agricultural Development, ACSAD, the National Centre for Remote Sensing and the Ministry of Agriculture, Rural Development and Natural Resources Directorate. It is financed by the German Government with an in-kind contribution from Lebanon. This project is in the pipeline and will hopefully be starting soon.

Collecting and updating relevant sources of data and projects provides the backbone for continuity and informed decision making in combating desertification and for outsourcing other relevant projects. As soon as one of these projects is launched, it will have to start by undertaking a survey to identify all the scientific work dealing with desertification, its causes and results, achieved in research centres and universities. Another survey will have to be carried to identify the needs of the NGO's, stakeholders, grassroots organisations and community based groups. The results of these surveys will be included in the NAP.

Although the Ministry of Agriculture 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.

3.1 The Ministry of Agriculture:

The Ministry of Agriculture's mandate is to develop the agricultural sector, at both plant and animal level, to protect natural resources and manage them. All of this within the very limited financial facilities available. This Ministry has prepared a strategy to guide agricultural development in Lebanon. The strategy mainly includes issues on:

- ◀ Increasing the income of agricultural labours 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.

3.2 The Green Plan:

Its mandate is 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. The GP is an independent authority under the auspices of the Ministry of Agriculture.

3.3 The 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 global 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 Ministry of Environment was established, marking a significant step forward in the management of environmental affairs.

3.4 The Ministry of Hydraulics and Electrical Resources:

This Ministry deals with all issues related to water resources management, watershed management, aquifer recharge, irrigation schemes modernisation and rehabilitation, irrigation dams, rivers...The Ministry is working on the elaboration of a national policy for water resources management

3.5 NGOs:

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 private sector is very active in Lebanon. NGO's are playing an important role in both the protection of natural resources and in the reforestation. In most of the projects supported by international organisations, the role of NGO's in the development process is highly considered. The government is counting on NGO's, on grass root organisations and on community based groups in several sectors. The Ministry of Agriculture provides forest trees seedlings to those groups for reforestation activities.

The forums provide a co-ordinating 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. Some of the activities are:

- ◀ The afforestation of the Mount Mekmel, the mountains surrounding the Cedars of God, in Becharre. A local NGO 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 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 has a very rich portfolio in natural resources conservation. It organises reforestation activities, forest fire fighting campaigns, training and extension.
- ◀ Many other NGOs are involved with highly interesting activities In terms of natural resources conservation and reforestation activities. Many are working on the social level, for rural women development, for handicapped, for drug addict... They will not be mentioned in this report.

3.6 National Centre for Scientific Research:

This Centre is the highest official authority for research in the Country. Its mandate covers all scientific research issues, including natural resources and water management. Different departments are included within its structure, such as the National Centre for Remote Sensing (NCRS) and the National Centre for Marine Research. The NCRS is working on several issues related to monitoring and combating desertification; it is also working on the mapping of all water springs, on erosion processes, on forest fires mapping and on the mapping of all the coastal area showing all water run-off into the sea.

3.7 Universities:

Several universities are involved with 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.

4 PRIOR AND ONGOING ASSISTANCE.

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.

International organisations are assisting this process by providing technical and financial support to specific projects, such as Capacity 21, Climate Change, Biological Diversity, Assistance to the Protection of the Vegetation Cover, Forest Fires Prevention and Control, Protected Areas, the Lebanese Environment and Development Observatory, and others.

4.1 Rehabilitation of the Ministry of Agriculture: FAO/UNDP assisted in developing the capacity of the Ministry of Agriculture. One of its outcomes was the preparation of a report on issues related to natural resources in the country. Through this project a National Secretary for the CCD was assigned and the National Committee was formed. The project provided the necessary support for the secretariat during a limited time. The Umbrella Project was developed through this to provide guidelines for the development of the National Action Plan to Combat Desertification. The Umbrella Project took this support in charge and brought the necessary contributions for the initiation of the different activities required before the official launching of the NAP.

4.2 Strengthening of National Capacity and Grassroots In Situ for Sustainable Biodiversity Protection (Protected Areas): Executed by the Ministry of Environment (MOE). Planned Activities include Three functional Protected Areas: Arz El-Shouf, Horch Ehden, Palm Islands, Training on Management Plan Development for NGOs & Ministry of Environment, Completion of scientific studies on fauna & flora, GIS training on fauna & flora monitoring, Elaboration of awareness material (documentaries, posters...)

NGOs capacity is being strengthened to manage three pilot protected areas and to conduct public awareness campaigns on environmental issues and nature reserves. Much of the work conducted at the reserves related to reduction of land degradation and therefore in arresting the effects of desertification. Part of the programme involved forest management issues, soil erosion control as well as institutional strengthening at the Ministry of Environment as well as an increase in participatory processes and dialogue between the actors involved.

4.3 National Programme for Promoting Sustainable Development at the Institutional Level (Capacity 21): Capacity 21 in promoting sustainable development and increasing capacity of people at a variety of levels empower more concerted actions for future actions in dry-land management. Major activities includes:

- ↳ Establishing a National Environmental Awareness Plan
- ↳ Implementing pilot local Agenda 21 programmes for local authorities such as municipalities or conglomeration of municipalities
- ↳ Development of a legal framework for environmental management and work on specific application decrees related to the code of environment.

4.4 Assistance to the Protection of the Vegetation Cover: This European Union financed plan calls 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, the project provides demonstration at different levels including the production of seedlings, afforestation, grazing management, forest pruning and different managing tools as well as capacity building and training for engineers at the Ministry of Agriculture.

4.5 Forest Fires Prevention Programme: This project is co-financed by the French and Lebanese Governments. It is being executed by the French Forest Office and the Ministry of Agriculture, and will be terminated in May 2000. It aims 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.

4.6 Technical and Financial Support for the implementation of the NAP: A project aiming at the support of the NAP Process in Lebanon through the establishment of a GIS Unit and the provision of technical and financial assistance at different levels is in the pipeline. This project is financed by GTZ and will be implemented at the Ministry of Agriculture in collaboration with the NCSR and ACSAD.

4.7 Agricultural Research: The Lebanese Agricultural Research Institute prepared a strategy for agricultural scientific including integrated research projects on fruit trees, vegetables, floriculture field crops, animal and fishery production, protection and development of forests, use of natural resources taking into consideration the related social and economic aspects.

4.8 Irrigation Rehabilitation and Modernisation Project: This is an IFAD/World Bank project that involves institutional capacity building as well as water harvesting and small irrigation schemes. It aims at the rehabilitation of the existing five major irrigation schemes in the country. It includes several components like irrigation, hill lakes, rural woman, extension... Several actors are involved, like the Green Plan for the implementation of the hill lakes component. The Rural Woman component aims at the improvement of the economic situation of the rural women within the project area, through income generating activities, training and extension. The target groups are the poor and disabled families especially those headed by rural woman. It is implemented through the NGOs and local community groups in all the country. It will lead to the implementation of a Rural Woman Department within the Ministry of Agriculture.

4.9 Agriculture Infrastructure Development Project: This project is implemented by the Green Plan. It involves several components that aim at

developing the agricultural infrastructure through out Lebanon, particularly in deprived areas in order to increase food production and farmer living standards.

4.10 Agriculture Census Project: This is a World Bank project, implemented by FAO and the Ministry of Agriculture. The project has worked on a general census of agriculture in the country along with a land use study.

4.11 Integrated Rural Development Programme - Baalbeck-Hermel: UNDP is supporting three schemes in Baalbeck and Hermel, in areas of Mount Lebanon where displacement took place, and in southern Lebanon with the aim of creating jobs and alleviating poverty.

4.12 Reintegration and Socio-Economic Rehabilitation of the Displaced: During the war in Lebanon, significant demographic changes resulted as people in rural areas moved out to escape the fighting. During this time, villages were destroyed, lands abandoned and municipal support non-existent. UNDP along with the Ministry for Displaced, UNESCO and Habitat setting up assessments for work to oversee the re-integration of people to these areas through a combination of infrastructural works, socio-economic assessments, loans and provision of amenities.

4.13 National Biodiversity Country Study: With 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.

4.14 National Biodiversity Strategy and Action Plan (NBSAP): This project executed by the Ministry of Environment, has resulted in the elaboration of the National Biodiversity Strategy and Action Plan which covers four ecosystems: freshwater, marine, terrestrial and agro-biodiversity.

4.15 Conservation and Sustainable Use of Dryland Agro-Biodiversity of the Near East: This project being executed by the Lebanese Agricultural Research Institute emphasises the prevention and control of land degradation through the development of sustainable use methods for biodiversity conservation as well as the demonstration and application of techniques, tools and methods to conserve traditional crops, and forest species.

4.16 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.

4.17 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 and networks all activities within the main communities, namely Dheil Ahmar and Aarsal.

4.18 Lebanese Environment & Development Observatory (LEDO) The LEDO Project is an EU funded project. Started in February 2000, planned activities include

- Assess existing environment & development information base
- Prepare report on indicators & data gaps
- Prepare a State of Environment report
- Monitor coastal zone environment & development
- Prepare work-plans to fill data gaps

4.19 Strengthening the Permitting & Auditing System: This is an European Union (EU) funded project with planned activities to support the Ministry of Environment in its role of translating environmental laws into action through the establishment of necessary decrees for industrial pollution and to develop capacity for an environmental monitoring and auditing system for industrial pollution in the Ministry among concerned parties. It also will finalise the EIA decree & manual for Lebanon and its consolidation at the national level.

The implementation of the NAP for combating desertification will allow for a better co-ordination and organisation of all the on-going activities at the different scales and levels. This co-ordination, by avoiding duplication of works, will increase the efficiency of each and every actor. The implementation of the NAP will also initiate the dialogue between the different parties concerned by and working on the issue of combating desertification.

4.20 Preparing and Up-dating the Agriculture Strategy: This project is implemented at the Ministry of Agriculture with the assistance of FAO, and the participation of the private sector.

Other projects are being implemented in the concerned ministries, with the assistance of international and regional organisations.

5 LEGISLATION

Before the institution of the Ministry of Environment, the Ministry of Agriculture 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 Ministry of Agriculture 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 Ministry of Environment took over the preparation and implementation of legislation on many of the issues related to the natural resources. In the mean time, the Ministry of Agriculture is still in charge of many other aspects.

On the other hand, the law enforcement is in the hands of the Ministry of Agriculture through the forest guards who are in charge of the implementation of the laws related to hunting, fishing and forest exploitation.

However, this enforcement is still deficient, since the forest guards are too few to cover all the country and all the problems encountered. Deficient enforcement results also from internal inconsistencies and from institutional weaknesses such as the fact that most enforcement power is with the Ministry of Interior.

The forest legislation became very obsolete, with inconsistent penalties. It is being amended and updated.

Several laws and legislation exist in the country for the conservation and management of natural resources. The most relevant to the CCD are the following:

5.1 The Ministry of Agriculture:

Decision 171 - 10/3/1936: The allotment of common grounds

Law 9/11/1951: Reforest, conserve lands and protect from overgrazing.

Decision 1/12 – 18/1/1966: Establishment of a permit system for artificial reforestation.

Decree 15396 - 13/2/1964: Appropriation of common and abandoned lands as well as part of forests.

Decree 96 – 30/6/1977: Amendment of some of the laws on common and abandoned lands.

Decision 1/42 – 1/3/1993: Banning of tree cutting (all sorts).

Law 11/78 (1978): Regulations of production, sale and use of pesticides and fertilisers.

Decree 149 (1949): Forest Code.

- Decree 121-127(1991-92): The declaration by Law of three Nature Protection Reserves or Protected Areas, in collaboration with the Ministry of Environment.
- Law 85- 7/9/1991: Protection of the forests.
- Decision 1/108- 12/9/95: Forbidding import of Cedar trees, seedlings and seeds.
- Decision 1/92- 28/2/1996 and 1/340- 1/8/1996: Regulating the exploitation, harvest and export of some aromatic wild plants.
- Law 558- 24/7/1996: Protection of forests and declaration of all Cedar, Fir, Juniper, Cupressus and other as forest reserves.
- Decree 216 -1993: Establishment of the Ministry of Environment

5.2 The Ministry of Environment:

- Decision -1996 Promotion of standards for water, air and soil pollution but the decision has not been enforced.
- Decision 1/52- 29/7/96: Identifying well established specifics and measurements for the mitigation of water, soil, and air pollution
- Decision 1/34- 14/1/97: Considering "Nahr Ibrahim" as a natural and reserved site, protected by MOE aided by EU
- Decision 1/14- 6/10/95: Declaration of "Karm-Chbatt", Kobeiatte as nature reserves
- Decision 2/93- 20/5/93: Organising the activities of quarries, mining, and asphalt factories.
- Decision 15/B- 21/9/94: Prohibiting and stopping the work of all unlicensed quarries, and sand mining
- Decision 20/B- 2/11/94: Identification of well established and specific measurements for environment protection from pollution

The Code of the Environment was approved by the Council of Ministers, and is currently in the Lebanese Parliament waiting for approval.

Most laws are outdated, inconsistent and require updating and in many cases, enforcement. There is a general fragmentation and discontinuity in legislative

matters within Lebanon, which leads to distinct difficulties in applying and implementing existing laws. The ones outlined above have been adopted but not necessarily enforced.

6 FINANCIAL MECHANISM

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, after the finalisation of the Umbrella Project, a project was prepared with UNDP for the implementation of the NAP in Lebanon. The project was based on a cost sharing principle with 75,000\$ from UNDP/UNSO 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 is reactivated and the final approval is imminent.

A project, based on the Umbrella Project, was developed with the German Development Agency, GTZ. It aims at bringing the necessary technical and financial support for the NAP preparation. It is financed by the German Government, with an allocated budget of 1M Deutsche Marks. The Lebanese contribution will be 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 organisation are bringing a financial support to assist in the rehabilitation of the natural resources sectors of the country, through capacity building, project implementation and technical assistance. These organisations are: World Bank; FAO; GTZ; UNDP; French Government; US Loans for Livestock; IFAD; EU; GEF. Other organisations are also involved.

7 PREPARATION OF THE NATIONAL ACTION PROGRAMME (NAP)

Upon ratification of the UNCCD, all affected country parties are expected to implement the Convention through the preparation of a NAP. Despite the fact that it was one of the first countries in the region to have signed and ratified the CCD, and despite the leading role it played on the regional and sub-regional level, Lebanon did not start preparing the NAP yet. The reason for this delay is discussed above. However, as soon as the necessary budget is allocated and both UNDP and GTZ projects are initiated, the process will be moving forward smoothly.

A National Steering Committee was formed in 1997. It was very active and met on a regular basis. This committee will be reactivated upon initiation of the projects. It might be subject to certain modifications and amendments.

In the absence of a NAP, the Umbrella Project, NAP preparation projects are briefly described:

7.1 Umbrella Project (National Framework to Initiate the Implementation in Lebanon of the United Nations Convention to Combat Desertification).

The objective of the Umbrella Project is to provide support and assistance for the preparation and the initiation of the National Action Programme.

The Umbrella Project identifies the components that would contribute in reaching this objective:

- The process of elaboration of the NAP.
- The identification and implementation of all the preparatory activities such as social and scientific surveys, necessary consultations and organisation of National Forums.
- The identification of the causes and processes that lead to the present situation and the possible consequences of further degradation and mismanagement.
- The launching of the different activities aiming at the information, education and sensitisation of the public.
- The strategy of resources mobilisation and the identification and assessment of needs in the different fields.
- The identification of priority actions and activities in the context of the NAP.

The Umbrella Project would aim at:

- Transmitting the vision of the Government in the implementation of the CCD.
- Harmonising contributions and activities initiated prior to the implementation of the Convention in Lebanon and supporting the process.
- Allowing for the co-ordination of all the on-going activities related to the implementation of the NAP.

This would be achieved through:

- The approval of the process by the Government.
- The establishment of a partnership among all the actors.
- The integration of this process to all the existing and on-going activities.
- The provision of the necessary assistance allowing Lebanon to initiate and apply the CCD efficiently.

Based on the Umbrella Project, two projects were prepared. The first one was prepared with the assistance of UNDP, while the second was prepared by the GTZ.

7.2 NAP Implementation Projects

A- Establishing and Implementing a National Action Programme to Combat Desertification in Lebanon (UNDP-Ministry of Agriculture)

B- Assistance for the Preparation and Implementation of a NAP (GTZ-ACSAD-NCRS-MOA)

The main objective of this project is to assist the Government of Lebanon to prepare a National Action Programme within the framework of the UN Convention to Combat Desertification. The NAP will define the actual state of desertification and land degradation, the reasons for this degradation, the strategy to be adopted and the priority actions to be undertaken at all the possible levels of intervention. The National Action Programme is proposed by the Convention as a tool to combat desertification and drought, to reduce their effects and impacts on the environment and to overcome the problems of poverty in rural areas.

As desertification cannot be confined within socio-political boundaries, co-operation at the national, sub-regional and regional levels will allow for the establishment of regional action programmes. The implementation of the NAP will help in bringing people together and create new openings for co-operation, collaboration and co-existence.

Through a participatory and a multidisciplinary approach, the NAP will enhance public awareness among all stakeholders, from ministries and governmental institutions, NGO's, private sector, local community groups, grass root organisations, universities and research institutes about the importance of combating desertification, mitigating the effects of drought and the proper tools to do so.

The project will assess the present situation at all the possible levels and identify the gaps in knowledge and the actions to be undertaken. The project is proposed to carry on the following activities:

- The process of elaboration of the NAP.
- The identification and implementation of all the preparatory activities such as social and scientific surveys, necessary consultations and organisation of National Forums.
- The identification of the causes and processes that led to the present situation and the possible consequences of further degradation and mismanagement.
- The launching of the different activities aiming at the information, education and sensitisation of the public.
- The strategy of resources mobilisation and the identification and assessment of needs in the different fields.
- The identification of priority actions and activities in the context of the NAP.
- The harmonisation of contributions and activities initiated prior to the implementation of the Convention in Lebanon and supporting the process.
- The enhancement of the co-ordination of all the on-going activities related to the implementation of the NAP.

One of the priority actions to be taken is a general survey and inventory of what is available. Remote sensing techniques and GIS would be of a precious help to have an accurate idea of the actual situation. They would also provide the necessary information on the most severely affected and on the most susceptible sites. Several research centres and institutions have undertaken studies on the assessment of desertification in Lebanon and on the different subjects related to drought, erosion and desertification. These studies were the result of private initiatives, before the CCD was in the process of being implemented in Lebanon. The identification of all these studies and their compilation are essential for the preparation of the NAP.

On the other hand, NGO's are very active in the country. They felt the importance of the role they could play and took the private initiative to interfere wherever possible. These NGO's are so motivated that their contribution is essential. However, their efficiency would be increased if activities were co-ordinated and oriented within a National Action Programme.

International Organisations (FAO/ UNDP/ GEF/ EEC...) are providing assistance and support for the Lebanese Government through several projects. The co-ordination of all the projects, the activities undertaken by the concerned ministries and those undertaken on the private level would avoid overlapping and increase the efficiency of all the actors.

The implementation of the NAP and its related activities would certainly bring a great contribution to the overall plan of rehabilitation of all the sectors in the country. The CCD focuses on the co-ordination aspect between all the concerned parties and the different authorities.

The situation expected at the end of the project is:

- 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.

The NAP and the implementation of the UNCCD in Lebanon, will benefit the whole population of Lebanon, the Government and its respective institutions, local NGO's, Research Scientists, Resource Managers and the Private Sector. The project will also contribute to the overall regional and global efforts to mitigate the effects of drought, monitor desertification and undertake actions to stop it. It will also contribute to the international efforts to promote sustainable development, provide food security and eradicate poverty. The target beneficiaries are therefore seen in a national, regional and global context.

One of the special considerations related to this project is the need by the Government of Lebanon to develop detailed maps through remote sensing and GIS techniques. 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 used by several institutions or organisms for monitoring of desertification and planing activities and interventions.

The Government of Lebanon is fully committed to the objectives of the project and those of the CCD as a priority for combating desertification. This is reflected in the signature and ratification of the UNCCD and in the request from UNDP and GTZ for assistance to develop a NAP and implement the CCD in Lebanon. Therefore, the Government of Lebanon has assigned the Ministry of Agriculture to implement the Convention and to host the focal point for combating desertification. The Ministry of Agriculture provides the space and some facilities required by the project. It is also contributing in the funding mechanism of this project, both in cash and in kind.

The implementation of the NAP and its related activities would certainly bring a great contribution to the overall plan of rehabilitation of all the sectors in the country. The CCD focuses on the co-ordination aspect between all the concerned parties and the different authorities.

The project would bring in the necessary tools for by-passing and overcoming the different risks and challenges that could occur and interfere along the process of preparation and installation of the NAP. These risks and challenges could be the following:

- The identification of potential partners for efficient partnerships.
- The sustainability of actions and activities undertaken at the different levels.
- The integration and co-ordination of all activities since different actors are working at different levels: scientists, experts, NGO's, municipalities, ministries.
- The involvement of all concerned ministries and institutions.
- The involvement and commitment of the Government at the highest possible level.
- The effective implication of International Organisations through the provision of necessary technical and financial support in the longest possible terms, assuring a certain sustainability for the project.
- The adoption of the integrated approach system.
- The effective participation of the local populations both in diagnosing problems and in implementing projects.
- The identification of the most appropriate approaches likely to guarantee dialogue, negotiation and discussion in order to reach a consensus among all actors on the priority issues the NAP should tackle.
- The guarantee that financial mechanisms used to bring resources to the local level are flexible enough to ensure the interactive approach necessary to adapt programmes to the local needs as they emerge.

The obligations involved for an effective partnership are:

a. for Lebanon:

- Striving to combat desertification and eradicate poverty.
- Promoting co-operation and solidarity among all concerned parties.
- Strengthening institutions involved in desertification issues.
- promoting a decentralisation policy ensuring genuine participation of all actors.
- Ensuring the mobilisation of national financial resources.
- Co-ordinating the elaboration, negotiation and implementation of the Convention.

b. for potential partners:

- Ensuring long-term financial resources.
- Promoting and facilitating access to appropriate technology and know-how.
- Promoting the exchange of techniques, information and the mobilisation of financial resources

The Government of Lebanon has signed the CCD in September 95, and ratified it in December 95. While putting in-kind and in-cash contributions to the projects, it has requested financial and technical assistance for the elaboration of a National Action Programme and the implementation of the UN Convention to Combat Desertification.

Through its participatory approach, the project will co-ordinate with all the ongoing projects in order to avoid any redundancy. None of the ongoing projects deals directly with the issues and components proposed by this project, however as combating desertification is a broad and wide spread subject, it will have to draw information and eventually ask for some co-operation from those projects.

The Government of Lebanon within the capacity of the Ministry of Agriculture will provide the necessary space, equipment and facilities for the implementation of project activities. It will make available whenever necessary, personnel, national consultants and experts. The Government will further facilitate the acquisition of data by the project managing team. The Government will also ensure the implementation of the project individual activities within the assigned time frame.

Despite all the delays that occurred on the preparation of the NAP, Lebanon is fully committed to the UNCCD and will spare no effort to implement this Convention. It will encourage the participation of all the concerned stakeholders at all possible levels.

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. 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. In the mean time, Lebanon would hopefully have pursued its recovery and rehabilitation process.