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COMMITTEE FOR THE REVIEW OF THE IMPLEMENTATION OF THE CONVENTION  
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### REVIEW OF THE IMPLEMENTATION OF THE CONVENTION, PURSUANT TO ARTICLE 22, PARAGRAPH 2(A) AND (B), AND ARTICLE 26 OF THE CONVENTION

REVIEW OF REPORTS ON IMPLEMENTATION BY AFFECTED NORTHERN MEDITERRANEAN,  
CENTRAL AND EASTERN EUROPEAN AND OTHER COUNTRY PARTIES, INCLUDING ON THE  
PARTICIPATORY PROCESS, AND ON EXPERIENCE GAINED AND RESULTS ACHIEVED IN THE  
PREPARATION AND IMPLEMENTATION OF ACTION PROGRAMMES

#### Addendum

COMPILATION OF SUMMARIES OF REPORTS SUBMITTED BY NORTHERN MEDITERRANEAN,  
CENTRAL AND EASTERN EUROPEAN AND OTHER COUNTRY PARTIES<sup>1</sup>

#### Note by the secretariat

1. By its decision 1/COP.5, the Conference of the Parties (COP) decided to establish a committee for the review of the implementation of the Convention (CRIC). It decided also that the first session of the CRIC, to be held in November 2002, shall review updates to reports already available and/or new reports from all regions.

2. Furthermore, pursuant to decision 11/COP.1, the secretariat was requested to compile the summaries of reports submitted by affected country Parties and any group of affected country Parties that makes a joint communication, directly or through a competent subregional or regional organization. The same decision also defined the format and content of reports and required, in particular, a summary of the national report not to exceed six pages.

3. The present document contains the summaries of reports submitted by 17 country Parties and one subregional organization from the Northern Mediterranean, Central and Eastern Europe and other country Parties before 15 August 2002. The secretariat has also made these reports available on its Web site (<http://www.unccd.int>).

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## I. SUMMARIES OF NATIONAL REPORTS

### ALBANIA

In the summary of the report that reflects measures taken in our country for the implementation of the UN Convention to Combat Desertification, the core of the problems dealt with in each chapter will be presented.

Considering this first presentation of the situation related to desertification in our country important, the description goes beyond the date when Albania adhered to the Convention (April 2000).

Some requirements that could take place at the end of each chapter are not included there, as they have been expressed in the planned projects and activities enclosed in the report.

#### Strategies and the priorities identified in the framework of plans and/or policies of sustainable development

There have been reviewed strategies and plans of areas.

After studying the strategies and plans undertaken in different areas related with issues of land protection and control over degradation and desertification, the following statements can be made:

These strategies and plans incorporate the concern on land protection and project different actions, but the place this problem occupies and the steps/actions that are planned are different from one strategy/plan to the other.

There are no detailed plans for actions that need to be undertaken for the future and there is no detailed strategy or action plan.

The facts/information drawn from the study materials will be used for the preparation of an efficient national action programme (NAP) avoiding unnecessary duplication and overlapping.

The changes that have taken place after the 1990s have brought about the need of choosing and adaptation of the knowledge/data related to land protection and desertification so far accumulated, and what is more important, the drafting of new strategies and action plans, introduction of new concepts (public awareness, participation etc.).

A NAP has been adopted for the implementation of the Convention. The planned technical/scientific activities aim at raising society's awareness of Convention principles as well as in undertaking concrete actions for land protection and desertification processes control.

In the Institute of Earth Studies, there has been developed a pilot project on land use. Albanian specialists trained in Switzerland have been involved in this project and foreign technical assistance was provided through a well-

known specialist for Geographic Information Systems (GIS). The pilot project has used contemporary programmes and methods.

One of the components of the project was erosions coefficient change through identifying a structure of agricultural and forest plants that help in protecting the active layers of the earth and its productivity. On the basis of the recommendations of the pilot project (2002) this year a big project will be implemented for land use.

#### Institutional measures taken to implement the Convention

The Coordinating Board is being established to coordinate central and local level activities in order to control land desertification. The Board will have an inter-ministerial composition with representatives from the Ministry of the Environment (ME), Ministry of Agriculture and Food (MAF), Ministry of Industry and Energy (MIE), Ministry of Local Governance and Decentralization (MLGD), Agriculture University of Tirana (AUT), NGOs, as well as representatives from district and prefecture levels, under the chairmanship of the Minister of the Environment.

Other Ministries including ME, as well as several structures that operate in national level such as the Territory Regulation Council of the Republic of Albania, National Water Council etc., directly or indirectly act and extend their control on desertification as a part of the activity, having it as a component of their work.

To summarize, it can be said that in this period the legal framework on land reform is being completed. At the same time, the law on public properties is being approved and the transfer of the ownership to local governments (2001) has taken place. The legal framework on forestry and pastures is being completed and work has started for the decentralization of forests and pastures (2001). During 2002 the law on soil protection is to be elaborated, as well as some by-laws on administration.

#### Participatory process in support of preparation and implementation of action programmes

For the awareness-raising process on land protection from degradation and desertification and for the preparation and implementation of the action programme, the participation of as many groups of actors as possible (central and local authorities, NGOs, local communities etc.) is considered as very important. Thus already established contacts will continue to intensify in the future.

It has been operated in three main directions in order to withdraw the opinion of the above-mentioned actors, as follows:

- through bilateral and multilateral contacts and consultations undertaken with representatives of different institutions/organizations;
- through meetings organized at local level, with representatives of different public administration bodies, to withdraw their opinion on issues related to desertification and effective ways of solutions:

- through a questionnaire that was distributed to some actors (local authorities, NGOs), in order to get an answer on some important issues on actual and prospective work on land desertification.

Most of the time, the knowledge and awareness of farmers and local communities on land protection issues and desertification phenomena, have been a function of the activities of the structures that operate at central or local level. The same thing can be said for publications.

Main messages sent out during the meetings and contacts with different actors have been nearly the same, reflecting a general worry expressed by all local communities every time the issues of land degradation is raised.

There are plans to include all of the above-mentioned actors (public administration bodies, foreign organizations and civil society) in the NAP implementation process.

Consultative process in support of the preparation and implementation of national action programmes and partnership agreements with developed country parties and other interested entities

Aiming to ensure a contribution from different partners in the elaboration and later implementation processes of the national action programme, consultations have been organized with interested entities considered as fruitful collaborators during the process of the implementation of the action programme. To be mentioned are United Nations Development Programme (UNDP), International Fund for Agricultural Development (IFAD), the World Bank and the Global Environment Facility (GEF).

Representatives of these organizations intend to assist in preparation and implementation of the national action programmes. International representatives, knowing the situation of land degradation in the country, regard the elaboration and implementation of the NAP in Albania as imperative and have expressed their commitment to take part in the implementing process. Those partners are seen from our part as a factor that can generate funds to help the implementation of the NAP. Moreover, two of them, the World Bank and IFAD, have carried out and are running projects that serve land protection and control desertification.

Currently assistance has been assured from IFAD, for the implementation of awareness-raising campaigns. In towns where their third project has just started being implemented, in the framework of the awareness-raising campaigns of the project, messages on land protection and desertification control will be sent out. These messages are currently being elaborated by ME staff and IFAD project staff. Such cooperation is ensured by the forestry project of the World Bank as well.

The UNEP Priority Actions Programme Regional Activity Centre (PAPRAC) is seen from our part as a potential partner to contribute to the implementation of the NAP. It operates at Mediterranean level and has contributed in our country by carrying out a mission on erosion (January 2000).

Measures taken or planned within the framework of national action programmes, including measures to improve the economic environment, to conserve natural resources and promote their sustainable use, to improve institutional organization, to improve knowledge on desertification and its control, and to monitor and assess desertification and drought

Land degradation and desertification in our country have been considered potentially high as the result of climatic and terrestrial factors. But, this kind of degradation becomes more evident from the influence of socio-economic factors. A high scale of land erosion is observed that is the consequence above all, of indiscriminate deforestation and destruction of natural meadows and pastures to get soil for agriculture; the cultivation of inclined and very inclined soils with vegetation; indiscriminate cutting of forests for fuel wood; overgrazing of meadows and pastures up to the extinction of the existing plants; filling and/or getting out of function of ditches of high waters; application of ground irrigation, uncontrolled urbanization, abandonment of land etc.

Using the Universal Soil Loss Equation (USLE) values of soil loss from erosion vary between 20-40 tons/hectare/year.

The state of natural resources and the scale of desertification, evaluated up to the moment of NAP compilation, helped in the elaboration of the NAP to give recommendations on desertification factors, on priorities that will be followed, as well as measures and investments to be undertaken to combat desertification.

Projects on land protection and desertification control will be implemented in specific regions.

In Albania there are some ongoing projects financially supported by the World Bank, the United States Agency for International Development (USAID), the European Union (EU) etc., that in one way or another are related with the natural resources management. To be mentioned are: the Project of Irrigation and Drainage Rehabilitation, the Project of Real Estate Registration, the Project of Private Forestry, the Pilot Project for the preparation of GIS in the Institute of Soil Science (ISS) and the Programme of Small Grants in the framework of GEF of UNDP, three IFAD Projects, the Project of Agricultural Services. All the above-mentioned projects have elements that contribute to combating desertification and are elaborated and developed based on principles such as participation and partnership, thus being in line with the principles on which the UNCCD is set up.

The preservation of national natural resources is a priority of elaborated action programmes that are to be implemented in our country (Albania) in the framework of the Green Strategy, NEAP 2001, Biodiversity Strategy and Action Plan, National Strategy of Waters, Energy Action Plan, Growth and Poverty Reduction Strategy (GPRS) etc. In these programmes respective measures related to sustainable management of natural resources are defined as well.

A direction that is getting the attention of public administration bodies responsible for natural resource management is decentralization. Actually it

is going towards the decentralization of power and delegation of duties to local actors, in a process that has just started.

An increased autonomy of local governance is in process. Competencies are being delegated for the governance of forests and pastures that have passed to the use of local authority units, and awareness-raising campaigns related to community participation in the governance of forests and pastures in communal use are being organized. Associations of water usage setup at community level are managing irrigation problems related to the community included on them.

The contribution of Albanian and foreign partners in the elaboration process of the NAP has been present. (In this context meetings and working tables to exchange opinions and contribute to the preparation of the NAP have been organized, with representatives from the ministries of agriculture, environment, energy, local governance, scientific agricultural institutions, universities, environmental NGOs, as well as representatives of international organizations that operate in Albania (World Bank, UNDP, IFAD, USAID)).

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

Funds given for land protection from degradation and desertification are generally made up by donations that the government give through MAF, as well as those coming out from ongoing programmes with support/funds mainly from international organizations, mentioned in the previous chapters. These comprise the existing recourses of financing.

Funds at the disposition of local governments from the state budget are generally scarce. The same can be said for incomes from taxation and other resources that do not go to protect land from desertification. In this framework, it is understandable to admit that local funds used on issues related to land protection are little and negligible in comparison with the need that area has to be protected or rehabilitated.

As the first step the request for the next year's state budget, to allocate more funds that will go on soil protection from degradation and desertification, is foreseen. (Main possibilities for bigger and direct funds for land protection and rehabilitation are from three big projects underway: two funded by the World Bank and one by IFAD).

The financing of NAP from the state budget for the moment seems to be difficult (nevertheless plans are drawn up for the financing of two activities that will be undertaken).

In such regard, funds coming from abroad would be an enormous contribution for the NAP. To this aim, financial assistance is required from GEF, the World Bank, UNDP, IFAD, as well as PAP/RAC (as a structure that supports projects and activities in the regional framework).

Even though the above-mentioned donors have expressed their readiness and financing possibilities are being examined, there are no concrete plans for projects to be implemented.

With IFAD, common awareness-raising campaigns are planned to be carried out in the framework of the NAP (third ongoing project of IFAD).

Review of benchmarks and indicators utilized to measure progress and assessment thereof

The Committee of Environment Protection, established in the early 1990s, which was transformed in September 2001 in the Ministry of the Environment, got the task of observation, management and monitoring of the environment, as well as setup of the national capacity for the elaboration and distribution of the gathered information. Environmental observation and monitoring in Albania is carried out using all national capacities that have environmental issues or specific environmental components as the focus of their activity.

Actually, data gathered from information systems in all the fields (agriculture, environment, energy, pollution and their treatment, climate changes, biodiversity, etc.) are coordinated and harmonized by the ME, which does the information elaboration, summarizing them in the State of the Environment National Report (published every other year). Work is underway for the data included in this report to be standardized based on the requirements of the European Environment Agency on this issue.

**ARMENIA**

According to article 26 of the UNCCD and decisions of the Conference of Parties (11/COP.1 and 1/COP.5) Armenia submits its Second National Report on measures undertaken in the Republic to implement the Convention. The report has been prepared according to the "Explanatory Note and Help Guide" (ICCD/CRIC(1)/INF.7).

A number of national experts and members of the Coordinating Committee were involved into national report preparation.

Armenia expresses its sincere gratitude to the secretariat of the UNCCD for financial and methodical support during national report preparation.

After submitting the first national report to the secretariat of the UNCCD (2000) Armenia has undertaken activities to combat desertification. To implement articles of the Convention the following priority national plans and strategies were identified.

A law on complex and annual measures on Sevan Lake ecosystems rehabilitation, conservation, renovation and use was adopted in 2001. An inventory of the land of different use, functional zoning of the Lake Sevan water basin, identifying the borders of reserve zones and land use schemes, revision of the land cadastre cost in the region, rehabilitation of damaged land and

landscapes is provided in the framework to combat desertification, prevent land degradation and land rehabilitation.

In 2001, on the decision of the Government, an "Interim strategy for poverty reduction" was approved. A project "Natural resources management and poverty reduction" for two marzes is under development.

In 1999, following decision N246 of the Government, a project and work plan for solving the priority problems of transboundary and mountainous settlements of the Republic, including the improvement for land resources, were approved.

A "Strategy on biodiversity conservation and national action plan" project was developed, providing efforts to combat desertification and land degradation.

The "Rehabilitation of Lake Gilli" project was initiated in 2000. The aim is rehabilitation of the wetland biodiversity of the Republic and ecological balance of ecosystems.

In 2001, following a decision of the Government, a national report "Sustainable development of settlements" was approved.

In 2001, the Government approved the concept of development for melioration measures by decision "On agricultural melioration development measures" and the "Melioration measures development programme (2002-2005)" is under development.

Implementation of project "Dyke safety" has been initiated, which will ensure safety of population and increase welfare, by involving new irrigating lands into the agricultural cycle.

In 2001-2005 a project "Development of Irrigation Systems" is to be implemented, aimed mainly to increase the water supply for irrigating territories, ensuring sustainable production of agricultural goods by increasing the harvesting and benefits from the agricultural production, decreasing the exploration expenses.

"Project on Agricultural Services", started in 2001, provides increasing living conditions for rural population in eight marzes by developing small rural enterprises, income generation for poor households and food provision.

The NAP conducted revision of scientific-technical activities and identified priorities to combat desertification and land degradation, mainly:

- Identifying dynamics of landscapes qualitative and quantitative data
- Development of a strategy for regulating the anthropogenic pressure on the environment
- Development of methodologies for ecological monitoring on biogenocenous condition
- Improving the farming system
- Development of and implementing agro-forest melioration measures

- Biodiversity conservation and sustainable use

Special attention is to be paid to the problems of ecological modelling, analysing and forecasting of the desertification processes, as well as developing criteria for desertification. The role of Government in establishing and coordinating local and international level cooperation and involving financial, human, managerial and technical resources, strengthening national scientific centres and procurement of modern technologies.

"Self-assessment of national capacity needs in Armenia" has been initiated, to develop complex management of environmental protection.

Implementing a global governmental nature protection and nature use policy and improving the governmental management system should be addressed in order to systematize and coordinate activities of the nature protection implementing structures, their activities and enlarging the liabilities of territorial and local governance.

In 2001, following the Prime Minister's decisions on establishing an interdepartmental committee on coordinating temporary land use schemes and on establishing an interdepartmental committee on RA mountainous settlements development problems issues, appropriate committees were formulated and are operating on the issues of land use and socio-economic development of mountainous settlements.

Following a government decision of 09.02.2001 on structural changes in water management, the concept of water resources and water management reconstruction was approved and a State Committee on Water management was established.

Mechanisms on coordinating the measures to combat land degradation have been reviewed in the framework of the NAP, and a number of recommendations on improvement of the institutional and administrative structures developed.

For the purpose of capacity strengthening on the local level, an appropriate policy has been undertaken, addressed to improve the local communities, to enable responsibilities of local authorities in decision-making on nature protection and to globally improve land use.

A thorough analysis was conducted in the NAP and the main gaps of desertification in Armenia identified, on the matters and factors of land degradation. Complex efforts addressed to improve the socio-economic conditions of population in the Republic will help to eliminate them.

The main strategic activities to combat desertification, developed in the NAP, will encourage addressing financial resources to implement nature protection policies, both on the country and marz levels.

A number of issues and actions have been identified for different ministries, territorial governance units, local authorities, and scientific, educational and other organizations of the Republic.

The NAP is to be implemented in the frames of annual and perspective projects of socio-economical development of the Republic (on the local and national levels), reflected in the annual state budget of the Republic, community budgets, as well as in the agreements to the donor countries and international organizations.

An essential attention in the NAP is paid to multilateral measures to prevent creation of new deserts.

Armenia is currently a member of a number of international conventions; the joint project in this framework will prevent duplications in the areas of legislation improvement, monitoring, early notification systems, impact assessment, public awareness and training.

We have reviewed the correlation between desertification and climate change, biodiversity, water ecosystems and industry. Mitigation of exogenous geological processes is reviewed in the NAP from the viewpoint of combating land degradation.

The Government officially approved the NAP by the decision of 28.03.2002. The country's annual socio-economic development programmes provide involving a number of NAP measures and budget financing in appropriate areas for the forthcoming years.

Legislation in ecological and other relevant areas is reviewed in NAP. Currently the ecological legislation is being improved.

Since 2000 the following nature protection laws have been developed and adopted: Land code of RA (2001), on Sevan Lake, on rates for nature protection payments (2000), on eco-education (2001), on energy (2001), where the nature protection and land use issues are considered.

The National Assembly of the Republic of Armenia on the first reading adopted the draft Law on local self-governance. The drafts of Laws on the underground resources and on the concessions have been approved by the Government and submitted to National Assembly. The drafts of new Water code, Urban code, on administrative offences, on territorial governance and on waste are under development.

A new draft of the Criminal Code with a number of articles on land protection has been submitted to the National Assembly.

By means of UNCCD secretariat grants to non-governmental organizations of the Republic, some measures on information dissemination and awareness raising were conducted, aimed to combat desertification.

The main issues of NAP were explained in workshops, held by the Ministry of Nature Protection in two most badly affected regions of the Republic.

In June 2001, a nationwide workshop was conducted to discuss the NAP draft, with participation of a great number of stakeholders, including ministries,

departments, members of the diplomatic corps and international organizations, scientists and mass media.

A number of popular scientific booklets, manuals, analysing the articles of the Convention and a booklet on specially protected areas of Armenia have been published in the national language.

In 2000 the UNCCD was translated into Armenian and published (with facts and annexes); document presentation and dissemination amongst the stakeholders and population was conducted.

Ratification of the Aarhus Convention (2001) on Access to Information, and Public Participation in Decision-Making and Access to Justice in Environmental Matters contributes to promoting access and information dissemination on desertification and encourages global participation of stakeholders in decision-making process. Thirteen women (31 per cent of total participants) participated in development of the NAP.

Experts involved in NAP preparation provide permanent scientific services on UNCCD issues. They closely cooperate with national coordinating body and national coordinator, but any mechanism ensuring permanent consulting process has not been created yet, due to lack of finances. The system for information exchange and dissemination is not appropriately developed, as modern communications (Internet, e-mail, post, etc.) are not available at the local levels. Today the telephone is the main tool for information exchange.

The level of understanding of the local problems on land degradation on the national level is high and this is reflected in structural and legal changes. A number of new normative acts regulating land use and land protection on all levels have been and are being adopted.

Preliminary consultations with the UNCCD secretariat are being conducted on further cooperation in the area of NAP implementation in Armenia and to involve international partners.

Development of the project on NAP detailed implementation at the national and local levels has been initiated, where the mechanism on cooperation between the project implementators will be provided.

Multilateral analysis to consolidate and assess measures to combat desertification is conducted in NAP. According to existing data, about 81.9 per cent of territory of the Republic are in danger of different levels of desertification. The territory of profound impact covers 26.8 per cent, from which 26.4 per cent - hard, 19.8 per cent - middle and 8.8 per cent - poor.

In the NAP framework a number of local projects are being elaborated, committed to reconstruction and exploring the irrigation systems, preventing erosion and mud-stream, geological issues on landslide and other exogenous processes.

For the purpose of preparation and increasing the potential a number of workshops, conferences and meetings are being held in the Republic of Armenia.

A number of strategic trends are being elaborated in the NAP on soil, water, land, and biological resources. Measures are envisaged to assess consequences of desertification and monitoring, improving economic situation in the Republic, level of linkages to regional and subregional action plans. Regional and subregional cooperation includes the following trends: structural, informational, transboundary natural resources management.

So far no exact mechanism for improving the financing to combat desertification has been elaborated. The socio-economic and nature protection projects being implemented in the Republic, including components to combat desertification, are being financed both from the national budget and so by international investments.

Desertification and efforts to combat it are extremely topical, as Armenia is located in the dry part of the subtropical climate range and has all the characteristics of an arid zone.

The main criteria for desertification in Armenia are considered in the NAP:

- Tendency towards reducing humidity and increasing daily air and land temperature fluctuations
- Amplitudes and absolute temperatures increasing
- Precipitation reducing
- Soil formation changes
- Biodiversity reduction
- Increasing mud-stream and erosion
- Reducing the productivity of cultivated areas, etc.

During NAP preparation appropriate information was assembled and systemized, and based on this the database on land degradation factors and degraded land of the Republic was created. Computer maps of damaged lands, territories polluted with heavy metals, seismographic zones, cultivated lands, natural pastures, landslide and mud-stream zones; saline soils of Ararat valley; eroding, as well as soil map of the Republic have been created. Computer maps of territory at risk of desertification were created.

An important database has been created, promoting monitoring of the desertification process in Armenia.

**AZERBAIJAN**

Strategies and priorities set within the frame of plans and/or sustainable development policy

Azerbaijan is rich with mineral resources and raw materials. They are oil, gas, non-ferrous and precious metals, construction materials and other mineral resources.

Also, the agricultural sector is well developed in the country. The industrial sector is basically represented by oil production, refinery, petrochemical and chemical industries, mining, metallurgy and other industries.

After Azerbaijan acquired its independence, it has inherited a lot of negative economic, environmental and social problems from the former USSR. One such complex problem is the degradation of soil, loss of fertility, i.e. desertification.

In such conditions it was necessary to undertake urgent measures to prevent the above-mentioned adverse developments.

Throughout last 8-9 years special measures have been taken on legislative, economic, international and social levels to prevent this situation.

In 1998, with the assistance from the World Bank, the first stage of further actions on National Environmental Protection Plan was completed and approved by the Government in the Azerbaijan Republic.

In this situation a very important milestone in the solution of the mentioned challenges was the Azerbaijan Republic's accession to the United Nations Convention Combat Desertification. In accordance with this, the development of the National Environmental Protection Plan will serve as an important impetus in solving a number of environmental, economic and social problems.

Moreover, again with the help of relevant international organizations in Azerbaijan, a special work on national strategy to develop actions plan on keeping biodiversity has started.

This year forest-recovering work has been started and new forest planting project on 200 hectares area on specially allocated area was developed. The practical implementation of the project from budget means has already started.

The development of a Unique Ecology Conception in Azerbaijan has commenced.

To date, one of the priority problems is developing a NAP to combat desertification and its coordination with other relevant government plans and programmes of relative profile in order to achieve synergy and maximum payback and effectiveness.

Institutional, legislative and organizational activities

We have inherited a very huge environmental management system and control of mineral resources. Different authorities were responsible for relevant resources.

With the help of the World Bank since end of 1990s and till today the Government of the Azerbaijan Republic has been providing reorganization of the whole administrative structure of the country.

By the relevant decree of the President of the Republic one of the first steps was the improvement of the environmental protection system.

In May 2001, by the decree of the President of the Republic, and on the base of State Ecology Committee and State Geology and Mineral Resources Committee, one Ministry of Ecology and Nature Resources was created.

Nowadays a huge amount of organizational work is being undertaken on setting up a management administration, personnel staff, structural subdivisions, and the development of tactics, strategy and policy of the Ministry.

In recent years, some very important legislation clauses have been adopted in the Republic. They are the Land, Water and Forest Codes, and the Law on Land Reform, which has political, economic and social significance.

The research into existing legislation in the ecology sphere has shown that some laws do not meet the requirements since they are already old. That is why in 1999 a series of new laws were adopted, including the Environmental Protection Law and the Ecology Safety Law.

In 2000 a law on soil fertility preservation was adopted and this law is of considerable importance in the context of the UNCCD. On April 24, the President of the Azerbaijan Republic issued decree No 487-1G of the Azerbaijan Republic on Ratification of the United Nations Convention on Combat Desertification.

Nowadays, the Ministry of Ecology and Nature Resources of the Azerbaijan Republic is deemed to be the National Coordinating Body (NCB) responsible for implementation of all conventions connected with environment protection, including the UNCCD.

It has to be noted that the work of NGOs with the NCB was considerably activated after Azerbaijan acceded to the Convention. Their bilateral work became stronger and advisory activity on Convention regulations fulfillment became more frequent. In particular, the explanation of the Convention's aims and challenges to women and the young generation was activated.

Last time a work on agreed actions on fulfilment of such Conventions as: UNCCD, the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) has been strengthened to achieve synergy results. It has to be mentioned that in 2000 NPD development started in Azerbaijan. At present the information acquisition and accumulation of

data for real situation modelling has completed. Also, the first stage of the NAP has been prepared. However due to finance shortage and organizational and structural changes, no forums have been held, although these forums could find out mistakes or identify main priorities.

#### Participation in support of action programme

After Azerbaijan acceded to the UNCCD, the aims and challenges of the Convention were widely reflected by different mass media.

Interest has been shown by different levels of society, from ministry's representative departments and students to different NGOs.

All the important decisions adopted by the Conference of the Parties, the Conference results and the very text of the Convention and other important documents have been translated and brought to the notice of general public.

During preparation of NAP a wide range of participants have been determined. They are government institutions, representatives of academia, different environmental, women and non-governmental organizations.

It should be noted that timely financial support from the secretariat of the UNCCD enabled four regional seminars to be held in 2000 to explain the aims and challenges of the Republic in combating desertification and land degradation. It was also decided to prepare, issue and disseminate different booklets about negative consequences of desertification, to deliver lectures and seminars in three schools, describing the desertification problems in the Republic, and the aims and challenges of the UNCCD; also the lectures reflected new challenges for the young generation.

Articles and interviews have been published in the mass media; also there have been some TV reports telling about the consequences of unpractical usage of lands in the UNCCD purpose. A conference on the subject of women's role in the struggle with desertification, in which more than 100 women took part from different NGOs, was held in association with the independent "Women's Rights Protection" organization.

Also, with assistance and support to NCB from Rusgar, a non-governmental organization, proper information was collected and a brochure entitled "Desertification in Azerbaijan, reasons and consequences, arranging of public movement on combating desertification" was issued.

In 2000, planned meetings were held on identification of the priorities on NAP preparation. There were also consultations with some representatives of NGOs on further cooperation in NAP preparation and implementation of the UNCCD in Azerbaijan.

Consultation process to support development of UNCCD implementation and partnership agreements with developed country Parties to the Convention and other stakeholders

Considering that the most part of economic potential is agro-industrial sector, the Government of the Republic always paid much attention to the conditions of lands and that is why it developed contacts with other international organizations and developed countries to make partnership with them. At the meantime there is not enough activity and support from partners to prepare the UNCCD. Such a situation is caused by both objective and subjective reasons.

It should be noted that earlier NCB cooperated with different international organizations. In particular, this work was active within the period of work on the UNCCD, where some problems directly related to desertification process.

The role of NGOs at this stage is not big, as they basically consist of urban representatives, scientists, intellectuals and so on. But, better understanding of the desertification problem results in increased activity of these people. The experience of local people living in suburbs or countries is of big importance while working on the UNCCD.

The work with the UNCCD gave a push for closer cooperation with different international organizations and developed countries as for example consultations, some programmes realization, sharing of skills and experience on combating desertification, and training of specialist in this sphere. Actually, NCB gained experience of such cooperation while preparing other projects and programmes.

Measures undertaken or planned within the framework of national action programmes including measures to improve economic situation, conserve nature resources, improve organizational mechanisms, and dissemination of knowledge on desertification and monitoring and assessment of drought consequences

Nature on the territory of Azerbaijan - which is one of the most ancient places of emergence and development of humanity and the emergence of agriculture - has been impacted by human activity. In relation to this, the desertification process, accompanied by erosion and land degradation, has been going on for ages and has intensified in the twentieth century.

To prevent the spread of desertification in Azerbaijan within many years many planned scientific research works have been made and lots of measures taken. In spite of measures taken, it has proved impossible to stop the desertification process, as it arose first of all from a steady increase of man's impact and extensive methods of agriculture methods. The situation got worse in the early 1990s due to sharp worsening of socio-economic and political (aggression from Armenia) situation, which has been recovering not easily today. Within last 8-9 years the relation between environment protection and problems caused by poor economy and social situation considerably changed, as they have become more serious.

In the last 4-5 years Azerbaijan has acceded to a series of very important conventions. This is why while preparing the UNCCD we considered the fact and necessity of interlinking already developed action programmes with specific plans and projects to the NAP to combat desertification in order to achieve synergy.

It is necessary to identify the following priorities in the framework of the development and further implementation of the NAP:

- To establish the National Database to Combat Desertification;
- To establish an information system, including a geographical information system to combat desertification;
- To do the inventory of all territories subject to desertification processes, assess those processes, perform qualitative and quantitative analysis of the existing situation;
- To establish and perform monitoring of zones subject to desertification;
- To organize and implement stationary control methods over the processes of desertification;
- To organize and implement remote control methods of research of processes leading to desertification;
- To organize and implement control over rational utilization on the basis of the Environmental Impact Assessment (EIA) under the condition of transition to private land ownership and establishment of many small farms;
- To develop state and regional plans, programmes to undertake anti-erosion, melioration, irrigation, forest rehabilitation measures;
- To develop systems of social and economic mechanisms and measures to encourage rational nature utilization;
- To develop national programmes to rehabilitate occupied territories, as well as territories subject to negative environmental pressure as a result of temporary location of refugees and displaced persons;
- To improve and develop necessary legislation and normative acts;
- Public awareness raising in matters of desertification;
- To involve NGOs in activities to fight NGOs;
- To cooperate closer with international organizations and use the experience of developed countries in the process to fight desertification;
- To train qualified specialists who will continue the process to fight desertification in the future under the conditions of more negative pressure on the environment.

Financing from national budgets to support implementation, as well as  
financial and technical assistance received, with the statement of  
requirements and their priorities

In the former Soviet Union throughout many years the Government annually approved the plans of economic and social development of Republic, which contained environmental measures. Many of them were directed to combat desertification. These actions were funded from the budget. There were no attempts of fund raising or resource mobilization at the international level. At present the Government does not have enough financial resources to solve ecological problems.

Under such circumstances, the assistance of donors, both international organizations and developed countries, would be invaluable.

At present, Azerbaijan has many requirements in terms of technical cooperation from donors in the following areas:

- Awareness raising in the area of modern technologies to combat desertification;
- Training of specialists of needed qualifications;
- Obtaining modem equipment to establish a database and Geographic Information System;
- Obtaining necessary information in the Russian language.

#### Consideration of criteria and indicators used to analyse and assess results

For many years, academic institutions and government bodies have been conducting research into desertification processes and factors causing them.

The National Monitoring Body of the Ministry of Ecology and Natural Resources has just began creating a unique system of environment monitoring.

Under these conditions, the aforementioned normative act enables one to unify the system of monitoring in general, and in particular relating to combating desertification.

Azerbaijan has not completed formulation of NAP, but there have already been meetings and consultations concerning these matters with relevant ministries and organizations, as well as NGOs. For this reason there are no difficulties in information exchange.

The UNCCD implementation process has been running for four years in Azerbaijan, but combating erosion, soil salination, chemical contamination has never stopped, although it has been conducted on a small scale. However, we understand that it is not sufficient for the practical solution of desertification problems. It has to be also considered that most of last year was spent on creating a new Ministry of Ecology and Natural Resources.

Despite the above-mentioned, we hope that we will be able to direct our efforts to the right way thanks to the UNCCD secretariat.

Finally, we would like to express our gratitude to the Executive Secretary of the UNCCD, Mr. Hama Arba Diallo, for his assistance and support to the Azerbaijan Republic in the implementation of the Convention.

#### **BELARUS**

The Republic of Belarus is located in the central part of Europe. Its area is 207,600 sq. km, and its population is about 10 million people. The country has plain relief, and the average altitude above sea level is around 160 m. These are positive prerequisites for proliferation of human dwellings and use of land for agriculture, construction of industries and highways. The

geographic position of the country, its diverse natural heritage makes Belarus one of the key elements of the European Ecological Network (EECONET).

Over the recent decades, the country's soil cover has been affected by a number of negative processes (decreased fertility, increased water and wind erosion, chemical pollution and radioactive contamination, humus destruction, etc.). These were brought about both by natural, as well as technogenic factors.

Eroded and erosion-prone soils in Belarus cover about 4.0 million ha (19 per cent of the territory of the country), including 2.3 million ha of arable lands. Eighty-four per cent of all soil-destruction processes are caused by water erosion. Deflation makes up the remaining 16 per cent. The per capita share of agricultural lands in Belarus is about twice as much as in other European countries - 0.92 ha per person, including 0.58 ha of arable lands.

Agricultural and forested lands contaminated with radiation as a result of Chernobyl accident in April 1986 make up a special group of lands. About 70 per cent of all radionuclides descended on Belarus. Currently, about 23 per cent of the country's area is contaminated with radiation, including 1.3 million ha of agricultural and 1.6 million ha of forestlands. These lands present an additional risk of secondary contaminant transfer, which can be caused by soil deflation, especially intense during droughts and fires.

One of the causes of land degradation in Belarus is the large-scale drainage campaign carried out in 1960s-1980s. More than 3.4 million ha were drained, which is 16.4 per cent of the country's area. Of this, about 1 million ha were wetlands, which brought about a number of negative ecological problems, such as peat mineralization, augmented land degradation, more frequent droughts and early frosts, disruptions in the hydrological regime, etc.). Especially critical was the situation in the Belarusian Polesie, where more than 40 per cent of wetlands were drained.

Therefore, Belarus' accession to the UNCCD in 2001 is a timely action and will activate international cooperation and experience exchange in the area of land degradation, as well as stimulate investment and donor support to implementation of measures to combat land degradation and minimize the consequences of droughts on the territory of Belarus. Accession to the UNCCD will in parallel contribute to better coordination of efforts between governmental and non-governmental organizations on national, regional and local levels, in the field of awareness-raising, informing of the public, elaboration and implementation of the action programme to combat land degradation.

Strategic goals, tasks, basic principles, and main priorities for development of Belarus in the first decade of the new century, have been defined in: the National Strategy of Sustainable Development of the Republic of Belarus passed by the Government in March 1997; the Main Directions for Social and Economic Development of the Republic of Belarus up to 2010; and the Programme of Social and Economic Development of the Republic of Belarus for 2001-2005, approved by the President of the Republic of Belarus.

The utmost priority for the Republic of Belarus is a transition to sustainable development ensuring a balanced resolution of social-economic and ecological problems on the basis of rational use of nature resources in order to meet the demands of the present and future generations.

This goal can be attained through implementation of a number of national objectives, such as maintenance of life quality and quality of environment, overcoming the economic crisis, introduction of rational nature use into industry and agriculture, elimination of the consequences of the Chernobyl accident, improvement of the system of environmental education, more active involvement of the general public into environmental conservation activities, increased international cooperation in the area.

Practical activities to implement the strategic directions in the area of nature conservation for sustainable development of Belarus are listed in the National Action Plan on Rational Use of Natural Resources and Environmental Protection of the Republic of Belarus for 2001-2005, passed by the Government in June 2001. Alongside priority conservation activities, this document defines organizational, economic, legal, and other mechanisms to prevent and/or reduce the negative impacts on natural environment, including on land resources. In particular, the following priority steps were defined: introduction of an integrated approach to land use planning; establishment of legal, economic, organizational and technological mechanisms for introduction of ecologically safe landscape-adaptive models of farming under changing climate and continued land degradation. Optimization of the land composition is a key element in the area of soil protection, i.e. withdrawal of low-production and ecologically unstable lands from agriculture and changing their functional role; revision of farming and melioration methods for peat soils; compulsory anti-erosion slope protection, rehabilitation of degraded lands. In order to contribute to conservation of biological and landscape diversity in Belarus the Government is planning to increase forest plantations on those lands that can no longer be used in agriculture, as well as on low-production lands. The plan is also to expand the practice of protective forest plantations.

Establishment of new protected areas, their linking into an ecological network and its subsequent integration into the all-European ecological network is an important national objective, alongside conservation of typical and unique landscapes, as well as operationalization of the National Red Data Book of Belarus.

The Republic of Belarus has a well-developed legal system in the area of land conservation and rational use. This is made up of the Land Code of the Republic of Belarus (1999), Earth Riches Code (1997), Water Code (1998), Forest Code (2000), the Law of the Republic of Belarus on Legal Status of Areas which Suffered from Radioactive Contamination as a Result of Chernobyl Accident (1999), the Law of the Republic of Belarus on Special Protected Natural Areas (1994, 2000), the Law of the Republic of Belarus on State Ecological Examination (2000), the Law of the Republic of Belarus on Protection of the Ozone Layer (2001), etc. Conservation of lands and soils is listed in the national and sectoral programmes, strategies and action plans (National Strategy of Sustainable Development, National Action Plan for

Rational Use of Natural Resources and Environment Protection in the Republic of Belarus for 2001-2005, National Programme for Conservation and Use of Drained Areas for 2000-2005, National Strategy and Action Plan for Conservation and Sustainable Use of Biological Diversity, Strategic Action Plan for Forestry Development in 1997-2015 in the Republic of Belarus, etc.). The efficiency of their implementation is barred by limited and disproportionately allocated funding, as well as lack of coordination between various programmes, strategies, action plans.

The State Programme on Conservation and Rational Use of Lands, which was a key national programme relevant to the implementation of the UNCCD, was limited in timeframe to 1995-2000, and as of 2002 was completed. Therefore, elaboration and implementation of a National Action Programme to Combat Land Degradation will become one of the key elements of sustainable development of the Republic of Belarus. It will strengthen the efforts of national and local authorities, as well as NGOs, to combat land degradation. So far, elaboration of the Programme has been fully supported by the public, authorities, and the non-governmental sector.

The Republic of Belarus became a Party to the UNCCD on 27 November 2001. The Decree of the Council of Ministers of Belarus #1230 dated 16 August 2001 designates the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus as the national focal point coordinating implementation of the UNCCD. Scientific backup for the Convention shall be rendered by the National Academy of Sciences of Belarus.

A regular interagency task force was established in December 2001 under the Ministry of Natural Resources and Environmental Protection to consider various aspects of implementation of the UNCCD in a timely and coordinated manner. The task force includes representatives of government agencies, non-governmental and scientific organizations, which are involved in various aspects, related to the UNCCD.

The UNCCD obligations in Belarus will be implemented through a Plan of activities developed in consultations with relevant state and non-governmental agencies. Plan of activities includes 44 paragraphs and consists of five sections: institutional measures; scientific support; departmental measures; information resources and monitoring; public relations. It was approved by the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus. When the Plan of activities was discussed, all stakeholders were unanimous about the need for elaboration of a National Action Programme (NAP) to Combat Land Degradation, and this was reflected accordingly in the first point on the list of activities. By now we have already embarked on elaboration of similar region plans.

The following measures were identified by the government and non-governmental stakeholders as priority actions to be implemented under the future National Action Programme to Combat Land Degradation:

- Improvement of legislation in the area of land ownership and use, as well as in the area of land conservation;
- Elaboration and implementation of economic and financial mechanisms to

stimulate rational use and conservation of land resources;

- Setting up a data bank and an information system on land degradation issues;
- Implementation of a remote control system over natural and anthropogenic factors and processes impacting land degradation;
- Elaboration of national and regional sectoral action plans for anti-erosion and forest plantation activities;
- Involvement of general public, and specifically youth NGOs and local people in initiatives to combat land degradation;
- Increasing the level of public awareness of land degradation;
- Coordination of activities under UN environmental conventions to achieve increasing synergies;
- Establishment of specialized monitoring on degraded lands;
- More active cooperation with international agencies and developed country Parties to the UNCCD to obtain increasing technical, methodological and financial support;
- Wide presentation of the issues in media.

The Republic of Belarus has just started elaboration of the NAP, for which a number of workshops have been planned, as well as a national forum for priority setting for NAP, and a number of other activities. Technical, methodological, and financial support to these activities from the UNCCD secretariat, other international organizations and developed country Parties to the UNCCD would contribute substantially to the efficiency and pace of these activities in Belarus.

The main internal sources of funding in Belarus are national and local budgets, extra-budgetary funds, equity capital of enterprises and agencies, and people's savings. The main external sources are loans from international agencies, bilateral loans and credit lines, direct foreign investment, transfers in the form of humanitarian aid, etc.

The key role in funding for sustainable development in Belarus is played by the state budget. In 1996-2001, environmental expenditures (including nature conservation fund) were 0.6 per cent of GDP. At the same time the amount of resources allocated for the elimination of the consequences of the Chernobyl disaster has been decreasing: in 1990 this was about 25 per cent of the credit (expenditure) account of the state budget, while in 1995 - 7.3 per cent, in 2001 - 5.3 per cent. A special "emergency tax" was introduced in 1992 specifically to collect funding for this purpose. Over the last several years, it was lowered several times: enterprises suffer from the extremely high cumulative tax deductions, which leads to their lower competitiveness, while the load of funding for recuperation of the Chernobyl-affected areas every year becomes an ever heavier burden for Belarus, which today is almost the only one to bear all of the Chernobyl costs.

The Government of Belarus attaches large importance to the international cooperation and participation of foreign partners in implementation of projects in the area of environment conservation and rational nature-use. Belarus feels high responsibility for construction of international partnerships in the field of environment conservation, particularly after the

country was elected to the Governing Council of the United Nations Environment Programme (UNEP) at the fifty-second session of the UN General Assembly, for the period 1998-2002. Belarus is a Party to 10 environmental conventions, of which the Convention on Biological Diversity and the UN Framework Convention on Climate Change are the most relevant to implementation of the UNCCD.

Very urgent and of practical importance for Belarus is the objective of ecological rehabilitation of peatlands which degraded as a result of drainage of peat soils. This can take the form of re-waterlogging of the degraded areas in order to decrease greenhouse gas emissions, restore the organic layer, conserve biological and landscape diversity.

Elaboration of the NAP will promote closer cooperation with various international organizations and developed country Parties to the UNCCD, in the area of consultations, sharing of knowledge and experience on combating land degradation, as well as training of national experts in this field.

Signing of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters by Belarus has opened new prospects for wider involvement of the general public into the planning and implementation of the country's environmental policies. The non-governmental sector and local people play an extremely important role in making decisions on the process of implementation of the UNCCD.

In July 2001, after preliminary consultations with NGOs, a Public Coordination Council was established under the National Coordinating Body as a step towards implementation of the Aarhus Convention and improved coordination between the Ministry of Natural Resources and Environmental Protection and the NGO sector. The Council is made up of representatives of 16 organizations, including Ecoline, Ecopravo, Ecodom, Belarusian Nature Conservation Society, Belarusian Association of Children and Youth, Belarusian Social-Ecological Union "Chernobyl", Belarusian Ecological Green Party, etc. In March 2002, the Ministry was presented as a National Coordinating Body for the UNCCD in front of the Public Coordination Council. Ways for wider participation of NGOs in current and planned activities under the UNCCD in Belarus were discussed.

All information resources on nature use and conservation available in Belarus will be used for implementation of the UNCCD. This is more than 25 information systems, databases and banks, as well as 10 cadasters of natural resources.

A web-site of the National Coordinating Body is planned to be established in order to better provide information to stakeholders. The site will be dedicated to land resources, their condition, ongoing and planned national and regional activities, as well as investment projects and project proposals in the related fields.

**BULGARIA**

On 12.01.2001, through adoption of a law, the National Assembly of the Republic of Bulgaria ratified the UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (prom. SG, Vol. 7 dd. 23.01.2001).

The Ministry of Environment and Water is the institution, which performed the act of ratification of the Convention, and has undertaken the responsibilities for its implementation as well as the functions of the national coordinating body.

The national focal point is Mrs. Tatyana Dimitrova, expert in the "National Nature Protection Service" Directorate with the Ministry of Environment and Water. Address: 67, "William Gladstone" St. Sofia 1000, Bulgaria, Tel.: (359 2) 940 65 32; E-mail: urbansoil@moew.government.bg.

The Ministry of Environment and Water, jointly with its divisions and regional bodies, is also the principal state institution responsible for the environmental protection policy.

The Ministry of Environment and Water is a juridical person with state budget financing, having its seat in the City of Sofia.

Pursuant to Ordinance No. 214/1999 of the Council of Ministers for approval of Internal Regulation of the Ministry of Environment and Water, the organizational structure of the Ministry is as follows:

- Minister - directs, coordinates and controls development and implementation of the state policy in the field of environmental protection, conservation and use of water and mineral resources;
- Political cabinet - includes all Deputy ministers, a Head of the Cabinet of the Minister, a Parliamentary Secretary and a Head of Public Relations Unit;
- Inspectorate
- General administration - organized within "Legal Counsel, Financial and Economic Activities, Property Management, Defense and Mobilization Preparation and Public Relations" Directorate;
- Specialized administration - organized within six Directorates: "Coordination of the Regional Inspectorates of Environment and Water", "National Nature Protection Service", "Strategy, European Integration and International Cooperation", "Preventive Measures, Ambient Air Purity Protection and Waste Management", "Water Resources", "Geology and Mineral Resources Protection".

Under the direction of the Ministry of Environment and Water are 15 Regional Inspectorates of Environment and Water and the Executive Agency of Environment and Water, which is a specialized body of the Ministry and the authorized centre in Bulgaria within the range of activities of the European Environmental Agency.

The total number of employees within the system of the Ministry of Environment and Water is 1002 persons, incl. 509 women, which represents 50.8 per cent of the total employees number. The administrative personnel in the head office is 200 persons, incl. 111 women, which represents 55.5 per cent of the total employees number. The address is 67, "William Gladstone" St., Sofia 1000, Bulgaria, Web-site: [www.moew.government.bg](http://www.moew.government.bg).

Bulgaria is a country where, as result of the global warming, climate changes have been observed, expressed mainly in warming and aridity and increase of the continental character of the climate.

The constant warming and aridity phenomena have occurred within the territory of our country during the last two decades and the adverse analogous trends for the first decades of the last century showed that as a result of the climate change, weather conditions caused the onset of degradation of the phyto-ecosystems and soils in Bulgaria and outline a trend to desertification.

Nevertheless Bulgaria is a comparatively new Party to the Convention and a National Action Programme to Combat Desertification is not developed yet. Most of the documents of national importance developed in recent years cover these issues to some extent, based on the point of view of the sustainable development.

#### National Economic Development Plan for 2000 - 2006 period

The National Economic Development Plan was adopted by a Decision of the Council of Ministers and was developed in accordance with the National Strategy for Accession to the European Union, the Government Programme Bulgaria 2001, the updated National Programme for the Adoption of the Acquis (NPAA) and the Programme "Accession Partnership". The legal ground for its development is the Law for Regional Development, which determines that the plan represents "a summary of sectoral and regional programmes, based on analysis of the integral development of the country and general strategy for its development". The National Economic Development Plan outlines the vision for the development of Bulgaria and determines the national priorities. In accordance with the above Decision of the Council of Ministers, all institutions responsible for the implementation of the Action Plan, should include in their sectoral programmes the policies and measures provided therein.

The strategic objective of the plan is "achievement of sustainable low-inflation economic growth, as a prerequisite for income increase and improvement of the living conditions in relation to the future integration in European economic and social area."

#### National Development Plan until the year 2006 (Sectoral programme "Environment")

Programme objective: Preserving the quality of the environment in the ecologically clean areas of the country and improving the state of the environment in the polluted and damaged areas.

Expected results from the implementation of the programme: To prevent and decrease the risk for human health, flora and fauna; to improve the conditions for the development of key sectors of the economy - tourism and agriculture; to build up an effective ecological infrastructure to facilitate increasing economic activity; to improve the quality and quantity of the range of services for the population in the respective region; to create new employment opportunities - temporary and permanent; to facilitate the process of accession of the country to the European Union; to stimulate the local and regional development.

Scope: Territorial - the entire country; Sectoral - water, air, waste, nature conservation, noise pollution reduction, protection from landslides and abrasion; Timing - 2000 - 2006.

#### National Environment Strategy

In 1991-1992, the Government of the Republic of Bulgaria undertook wide-scale studies on the Draft Environment Strategy for Bulgaria, conducted with the support of the World Bank. The Government adopted an Environment Strategy and its updating in 1994 resulted in the elaboration of a ministerial programme, which determined the basic priorities of the country for the period until the year 2000. The Environment Strategy and Action Plan until the year 2000 aimed to achieve two main objectives: firstly, introducing of new approaches and development of a modern steady system for environmental management, and secondly - performing of actions for solving of critical ecological issues. The objectives of this Strategy were achieved as a result of the efforts of the Bulgarian institutions in the last years, and significant progress has been made with the support of some European and other international programmes.

In 2001 the Government adopted by Decision No. 455 a new National Environment Strategy and Action Plan for the 2000 - 2006 period.

As opposed to the previous one, the new Strategy is oriented mainly towards the net results, i.e. towards actions and measures for practical implementation of the adopted legislation aiming at the improvement of the quality of life of the people and nature conservation. Or strictly speaking, towards the preservation and enlargement of the large clean areas and the rich nature of Bulgaria in parallel with the expected economic growth, while overcoming the existing local ecological problems.

Other documents for strategies in the field of environment: National and Local Agendas 21

In the Republic of Bulgaria, by a Decision of the Council for Regional Development, a National Commission on Sustainable Development was established, with the Minister of Environment and Water as its Chairperson.

The main functions and tasks of the Commission include: support of the constructive national dialogue for achieving consensus on key issues of the Sustainable Development of Bulgaria, determination of ways and means for integration of the national and local initiatives on Sustainable Development,

and evaluation and recommendations to the National Economic Development Plan, with the aim of its evolution into a Strategy on Sustainable Development.

Other existing plans or strategies in relation to the environment

Sectoral Plans and Strategies:

- National Strategy for Energy Development for the period up to 2010;
- National Action Plan on Environment and Health;
- National Plan for Regional Development within 2000-2006 period;
- The National Agricultural and Rural Development Plan for 2000-2006 period under the EU Special Accession Programme for Agricultural and Rural Development (SAPARD);
- National Programme for the Adoption of the Acquis (NPAA);
- Strategy on the Instrument for Structural Policy for Pre-Accession (ISPA), sector "Environment" etc.

In the case of Bulgaria, a comparatively new Party to the Convention to Combat Desertification, facing now a preparation process for elaboration of documents, such as National Strategy on Soils, National Action Programme to Combat Desertification, etc., the implementation of the synergism principles will be extremely useful. Bulgaria, as a Party to two other UN conventions - the UN Framework Convention on Climate Change and the Convention on Biological Diversity, will be able to use already gained experience and accumulated database thereunder. Approved strategies and programmes could be used, with clearly outlined direction towards climate change and drought and measures planned for decrease of its consequences, some already at the stage of implementation, such as:

- Strategy for Integrated Water Management in the Republic of Bulgaria-1997, Council of Ministers;
- General Schemes for Water Resources Utilization - 2000;
- National Programme for Phasing Out the Distribution and Use of Leaded Petrol - Council of Ministers, 1998;
- Programme for necessary measures in the existing conditions of trend to aridity within 2001-2010 period - Council of Ministers, 2001;
- National Programme for Reducing the Impact of Aridity and Increasing of adaptive possibilities of forests for survival in extreme conditions;
- National Biological Diversity Conservation Strategy - Council of Ministers, 1998;
- National Biological Diversity Conservation Plan - Council of Ministers, 2000;
- National Programme for Phasing Out the Use of Ozone-Depleting Substances, the implementation of which was completed successfully in 2000;
- National Action Plan on Climate Change for fulfilment of obligations of Bulgaria under the UN Framework Convention on Climate Change and Kyoto Protocol (1997). One of the major commitments for the 21<sup>st</sup> Century, set forth in it is the afforestation of uncultivated lands, unsuitable for agriculture, covering an area of 250,000 ha - Council of Ministers, 2000;

- National Programme for Combating the consequences of Fires through afforestation, which envisages hiring of persons from the risk group "long-term unemployed" in the activities on reclamation of forests, which are destroyed by fire or drying up - cleaning and preparation of burned down areas, afforestation, crops cultivation and seeds collection;
- The National Agricultural and Rural Development Plan funded under SAPARD and Guidelines on Forests - Measure 1.4. "Forestry, afforestation of agricultural lands, investments in forestry, processing and marketing of forestry products;
- National Implementation Programme for Enforcement of the Acquis in the field of Environment - Council of Ministers, 2000;

Programmes:

- Bulgarian-Swiss Programme on Biological Diversity Conservation;
- National Programme for Bio-monitoring in Bulgaria (1999);
- Bulgarian-Swiss Programme on Forests and its two projects (Environmentally Sound and Sustainable Use of Forests; Monitoring of Forest Ecosystems).

National Project "Encouraging the possibilities of the governmental and non-governmental organizations in Bulgaria for implementation of afforestation projects aiming at the mitigation of the consequences of the climate change" (1995). In this relation, two new forest-oriented projects were proposed. There is envisaged afforestation aiming at the stabilization of the soil, agro-afforestation, production of bio-energy, reclamation of the environment, better protection of the forests from natural and anthropogenic impact - fires, pests, diseases, deforestation.

In order to achieve better progress in the activities for the implementation of the Convention it has to acquire a wider popularization. Society has to be informed, to engage the central government, local authorities, non-governmental organizations, the citizens and companies. For this purpose:

- In May 1998, thanks to financial and expert assistance from the UNCCD interim secretariat, a national seminar was held on issues of land degradation and combating desertification, aiming at raising national awareness. This seminar was attended by representatives of concerned bodies and institutions, NGOs, soil-protection societies, etc.
- The Convention was translated into the Bulgarian language;
- A special seminar for specialists, working within the system of Ministry of Environment and Water on the problems of the soil protection was held;
- The Convention was published in a paperback print edition by a non-governmental organization - Association "Green Balkans", uniting a number of nature protection associations;
- We envisaged to promulgate the Convention in the State Gazette - May 2002 as a timetable;
- In May 2002 we are planning to organize a regular national seminar on the problems of land degradation and combating desertification, outlined in the Convention, as well as
- Its popularization through mass information media.

In order to encourage wide public support towards ensuring adequate actions and conditions for sustainable and optimal functioning of natural resources, for institutional strengthening of the protected areas system aiming at the protection of biodiversity, the following events were organized:

- Round table within the programme of the Conference, "90 years of organized combating soil erosion in Bulgaria";
- Theory and Practice Seminar "Nature-friendly Management of the highland coniferous forests" - forestry systems of woodcutting and afforestation, biodiversity and measures for its preservation;
- Theory and Practice Seminar "Forestry and biodiversity in the plain forests of north-eastern Bulgaria";
- Seminar - "The process of forest certification in Bulgaria";
- Seminar - on implementation of the pilot project under the Plan for Multifunctional Forests Management;
- Round table - "Afforestation after forest fires - problems and solutions";
- Seminar "Fires and Forest Ecosystems";
- Workshop on issues of the afforestation - "Actual problems of afforestation" and "Condition and perspectives for development of the production of forest reproductive materials, afforestation and combating erosion".

The transparency of actions is a goal-oriented policy of the Government in accordance with its "Programme 2001". Especially in the field of the environment where sensitivity is greater, special measures are envisaged for involving the population and the non-governmental organizations as important partners for policy implementation. In the short-term timetable it is planned to adopt of legislation in the field of public information on the problems of the environment and access to this information, and the development of a plan for its implementation. A national programme for involving society in resolving environmental problems by training and increasing of the social culture and conscience in the concerned field is to be developed in the near future.

Together with their offices and branches in Bulgaria, there are around 115 non-governmental organizations (NGOs) for preservation of the environment (Catalogue of NGOs for preservation of the environment in Bulgaria, 1993). The membership of such organizations ranges from 5,000 to 10,000 people. Members are nature-lovers, nature-defenders, experts, scientists, pupils, students, teachers, and people with different social status united by the idea for preservation of nature. These organizations perform activities on elaboration of expert assessments and expertise on particular ecological situations and practical activities concerning ecological training and education and public control.

Other state institutions, having responsibility for different environmental protection aspects are: Ministry of Public Health, Ministry of Agriculture and Forests, Ministry of Regional Development and Public Works, Ministry of Transport, Ministry of Industry, Ministry of Energy, etc.

Other organizations supporting environmental protection: National Agency on the Use of Atomic Energy for Peaceful Purposes, National Agency on Energy Efficiency, National Agency of Standardization and Metrology, National Soil Resources Agency, National Agency of Agricultural Sciences, National Plant Protection Service, National Institute of Meteorology and Hydrology, Scientific Research Institute "N. Pushkarov", Agricultural University - City of Plovdiv, etc.

One of the main leading principles of the sustainable husbandry of nature resources is the realization of training programmes aiming to engage the local public with the problems of the soils, forests and biodiversity, its preservation and reclamation, increase of the ecological culture and forming the right attitude to nature. For institutional strengthening of the divisions of the institutions and aiming at the improvement of its positive image from the point of view of nature protection, periodical campaigns are held, mutual work and enlargement of the relations and interaction with other state and public bodies and non-governmental organizations, scientific institutions and all kinds of media (radio, television, magazines, newspapers) are also performed.

In the universities and other state and private establishments of higher education in our country a considerable number of young people receive every year very good academic education in different sectors of the environment and nature protection.

The Ministry of Environment and Water disposes of a well-developed information system. The database related to desertification can be used not only by the specialized bodies relating directly to the problems of the land degradation and desertification, but also by the wide public.

- Ministry of Environment and Water maintains an information system by components and factors of the environment - air quality, quality of surface and ground waters, soils, protected areas and biological diversity, condition of wastes, non-ionizing radiation and aviation and transport sound pollution;
- The information system, including the collection and submitting of information on the environment in Bulgaria, is regulated by the general Act and its normative regulations, rules and the Constitution of the Republic of Bulgaria. These are Environment Protection Act, State Administration Act. Pursuant to Art. 17 of the Environment Protection Act everyone is entitled of access to the available information on the environment without proving a particular interest;
- Available and edited information is disseminated;
- The available information is disseminated by means of bulletins, yearbooks, legislation, and other print editions;
- In most cases it is maintained by the web-site of the Ministry of the Environment and Water or the one of the Executive Environmental Agency - [www.moew.government.bg](http://www.moew.government.bg) or [www.nfp-bg.eionet.eu.int](http://www.nfp-bg.eionet.eu.int).

Other state institutions, submitting information on the environment are:

- The Ministry of Agriculture and Forests - monthly and information bulletins - print editions;
- Ministry of Health - monthly specialized editions;
- National Institute of Meteorology and Hydrology with the Bulgarian Academy of Sciences - monthly and annual bulletins.

Bulgaria has a well-developed communications infrastructure, allowing comparative mass utilization of Internet services. In particular, on the territory of Sofia, the state administration disposes of its own communication network using optical cable and servicing the state institutions. It provides easy and qualitative access to the Internet, a possibility for supporting of own web-pages, provides a wide range of useful information on the environment, like legislation, planned, actual and completed projects, initiatives, web-links in the form of USER-groups and other Internet activities within the CIRCLE environment of the European Environment Information and Observation Network (EIONET).

A Catalogue of Data Sources (CDS) is forthcoming. The joint print edition of the Ministry of Environment and Water and the Regional Environmental Centre - "Who is doing what for the environment in Bulgaria" is at the present in the process of being updated and it will be published on the web-site together with the contact address list of the institutions which generate information for the environment.

The above outlines the efforts of the Ministry of Environment and Water for making the information available to different users, in the form of:

- Printing publications;
- Brochures;
- Specialized rubrics in mass media (television and radio);
- Press conferences;
- Web sites;
- Establishment of information centres.

#### **CYPRUS**

Desertification is one of the main problems that threaten the world's ecosystems and social structures. The Mediterranean region, in particular, has suffered from the fragility of its ecosystems, and, specifically, of its coastal areas, where most of the population is concentrated.

Cyprus has long realized the need for controlling and managing the phenomenon of desertification, with its short-term and longer-term impacts on the natural environment and society as a whole.

Cyprus signed and followed the necessary procedures in order to ratify the United Nations Convention to Combat Desertification, which were finally concluded in December 2000. The competent authority for implementing the

Convention is the Ministry of Agriculture, Natural Resources and Environment. Cyprus has not yet prepared a National Action Programme according to the Convention, but after participating in COP 5, set up a National Committee to Combat Desertification with all the related departments giving initial information.

Despite the lack of a national action programme and the gaps in legislation, as well as in the organizational structure to control and manage desertification in a holistic way, there is a serious effort by the different departments to establish an integrated approach to combat the problems encountered. There are already ongoing programmes aiming to control desertification.

The Cyprus government is making serious efforts in order to combat the impacts caused by desertification with existing programmes. The need for a comprehensive national action programme that will guide efforts towards a common goal - the fight against desertification, has been recognized. It is the Government's goal to establish such a programme and integrate all efforts.

#### GEORGIA

Georgia, a small mountainous country<sup>2</sup> on the eastern coast of the Black Sea, signed the United Nations Convention to Combat Desertification (UNCCD) in 1994. In 1999, the Parliament of Georgia ratified the Convention, and on 21 October 1999, Georgia became a Party to the UNCCD.

From an economic point of view, currently Georgia represents a typical country with an economy in transition and a set of associated problems. Difficulties are exacerbated by the political disturbances; these plagued the country in the early 1990s, shortly after it had restored independence, and the catastrophic results have not passed away so far.

The country is still at the stage of developing its legislation. Despite the fact that after adoption of the new Constitution in 1995 and several hundreds of new laws of which approximately 50 are directly related to the environmental and relevant fields (environmental protection, natural resources management, land use and agricultural practices) - today Georgia's environmental legislation is a confusing mixture of laws and especially regulations (sub-laws) and technical standards based on heterogeneous legislative and judicial provisions adopted on the one hand from the legislation of the western countries - especially that of European Union, and on the other hand from former Soviet legislation. This is one of the main obstacles on the way to integrated sustainable strategy and policy development, implementation and enforcement in Georgia.

Presently, the economy of the country is in such a state that it is not realistic to expect comprehensive problem solving environmental national investment programmes. At the same time, the environmental problems are so huge that foreign support, as well as domestic investment possibilities, can

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<sup>2</sup> Population - 4.5 millions (census 2002), area - 69700 km<sup>2</sup>.

only stimulate and facilitate a process of economic and institutional reforms. In connection with this it is very important to identify priority directions of the environmental (including desertification issues) institutional and legal system at the early stage of the development. These priorities will be directly related to the sectors of national economy and environment.

At present, the state is poor and the environment is not as valued as it should be. It is difficult to get funds from the state budget for environmental and sustainable natural resources management purposes. There are no central environmental or nature conservation funds, neither on the national nor on the regional and municipal levels. Complete perception of the specific situation in Georgia is necessary in order to work out and implement realistic policies that warrant sustainable development strategy of the country.

"The Programme for Social-Economic Recovery and Economic Growth of Georgia" was approved by Decree N 89 (10.03.2001) of the President of Georgia. "The Indicative Plan for Social and Economic Development for the years 2001-2005" was approved recently by Order N 513 (25.05.2001) of the President of Georgia. These documents embrace other sector plans and programmes already existing, and include implementation of projects on "Protecting the Soil from Erosion" and "Improving the Soil Fertility" as parts of agricultural sector development programme, as well as some measures envisaged by National Environmental Action Plan (approved in the year 2000). However, as practice shows, implementation of such major plans depends on many factors and is not always realistic.

The main environmental policy document in Georgia (that should address also problems of desertification) is the National Environmental Action Programme (NEAP), with the five-year span. The first NEAP, prepared under the auspices of the Ministry of the Environment and Natural Resources Protection (MENRP), was approved by a Decree of the President of Georgia in May 2000. It identifies priority environmental problems in the country and proposes short and medium term institutional and regulatory changes and investment actions to address the problems. Numerous ministries, departments, scientific institutions, non-governmental organizations, local and foreign environmental experts have contributed to the process of the NEAP development.

Desertification problems are addressed in the section of NEAP devoted to Agricultural Land Use. According to the NEAP, the main environmental problem associated with Georgian agriculture is soil erosion. Soil erosion is caused mainly by poor agricultural practice, such as development of steep slopes; deforestation of mountains; overgrazing; irrigation leading to washing away of topsoil. In recent years practically no means for fighting soil erosion have been deployed since no funds have been available.

Desertification in the eastern part of Georgia has intensified due to overgrazing and climatic changes (reduction of rainfall) in the region. About 3000 ha has been eroded including Shiraki, Eldari, Iori, Taribana, Natbeuri, Naomari, Ole and Jeiran-chel valleys, the ridges, plateau and the major part of the south slope of Kakheti ridge.

Vast areas are salinated. In particular, 59,200 ha are strongly salinated, while for 54,340 ha salination is moderate. About 15,000 ha of humus-sulfate soils need reclamation.

To alleviate the problems related to soil erosion and desertification the NEAP proposes to enable investment projects and institutional changes. However, these proposals are of a rather general nature.

Since 1998, Georgia has developed environmental sector-specific strategies such as "Initial National Communication under UNFCCC" (includes also draft adaptation strategies for expected changes in climate. Adopted in 1999), "Biodiversity Strategy" (development started in 1997), "Forestry Strategy" (development started in 1998). Yet, sector-specific strategy or action plan for combating desertification has been developed so far in Georgia. With the support of the UNCCD secretariat, the country is to finalize its first NAP in 2002.

In 1999, MENRP formulated a draft proposal for the establishment of the UNCCD National Coordinating Body. After consultations with relevant agencies, the President of Georgia issued Decree N 282 (15.07.2001) "On the Establishment of the Permanent State Commission on the Implementation of the United Nations Convention to Combat Desertification" (PSC). The Commission is to consist of representatives of relevant governmental agencies and academic institutions. PSC doesn't include non-governmental representatives due to some limitations imposed by legislative provisions for such commissions. The Charter of PSC envisages a leading role for MENRP within the State Coordinating Commission. At present, the National Focal Point (NFP) to the UNCCD is the staff member of the Ministry of Environment and Natural Resources Protection, working as the Head of the Division of Environmental Policy.

The Scientific Advisory Board (SAB) was created under the aegis of PSC. SAB has 24 members, among them 15 doctors of science. SAB's constitution and regulation are approved through the order of the Minister of Environment and Natural Resources Protection.

Due to the overall problems in the country's economy and governmental budget the MENRP funding is quite limited. Material resources and means for communication are not adequate either.

In cooperation with governmental as well as scientific establishments and NGOs, with the support of the UNCCD secretariat, MENRP and NFP in 2000-2002 undertook several activities on the UNCCD. In 2000, a first awareness-raising meeting on the upcoming preparation of the NAP was held at MENRP at the initiative of the national focal point. About 20 state agencies and scientific institutions attended the meeting. The awareness campaign on desertification issues was first launched also in 2000, under the programme "Institutional Capacity Building of NFP" through the assistance of the UNCCD secretariat. The text of the Convention and many informational materials were translated into Georgian. To identify the level of public awareness and possible ways for informational campaign, a local NGO was contracted to carry out the sociological survey of 300 local residents from the territories

affected/threatened by desertification, with some interesting results mentioned below:

- Local population awareness of the desertification threats proved to be medium;
- Correlation between the awareness and education level of respondents was high;
- Water resources deficiency, forest logging, climate changes and weak administration/management were named among the reasons for desertification;
- Public expectations were pessimistic, with the "extinction and ecological catastrophe" anticipated unless the government (sic!) intervenes to improve agricultural water availability, forest protection, availability of energy (natural gas and electric power), and state of eroded soil;
- Social activity of women was found high (also due to the high rate of male unemployment).

Another NGO launched a public awareness campaign, including:

- Series of articles in central/local newspapers;
- Documentary film "Desertification" shot locally and shown on central (under the Channel I programme "Equilibrium"; repeated three times) and local TV stations;
- Leaflet on desertification, focusing on local problems and distributed in more than 20 communities through 3-day informational campaign.

The preparation of the first NAP of Georgia started in 2000. Its draft was developed through active involvement of all the stakeholders dealing with the problems of desertification including governmental departments, academic institutions, NGOs, local governmental bodies of the regions threatened or affected by desertification. At the final stage, NAP will be submitted to the President of Georgia for final approval.

In Georgia draft laws and regulations in the field of environmental protection are routinely published and publicly debated. The new Administrative Code of Georgia (1999) boosted the right of the public to have access to any information (except the information containing state or commercial secrets) that is possessed by any governmental institution. The ratification of the United Nations Economic Commission for Europe (ECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters by the Georgian Parliament (11.02.2000) was a step further in this direction.

NGOs have been actively involved in the development of various environmental documents (including also draft NAP, with its final version prepared by the NGO "Noah's Ark Centre for Recovery of Endangered Species (NACRES)"). However, the participation of the local population is often facing difficulties; local NGOs still lack the necessary expertise as well as funding to facilitate the process, while national NGOs mostly did not manage to develop operational branches outside big towns.

NGOs have already built the practice of networking on specific sector problems, as well as the mechanisms of nominating and authorizing representatives to certain institutions. These mechanisms were enacted also in the NAP development process and will be maintained afterwards.

Local government can be involved through routine governmental channels, as well as through newly emerged (however, still weak) organizations with horizontal linkages (e.g. the Association of Sakrebulo<sup>3</sup>).

It will take significant efforts to keep the level of information exchange with local communities high. Still, measures to raise awareness and educate local populations and authorities are presently limited to short-term (mostly NGO) campaigns with narrow tasks. Mass media opportunities are downgraded due to the failures of power supply to remote regions and inability of locals to pay for relatively expensive newspapers.

First of all, the real understanding of and interest in to the problem has to be developed locally; practical and pragmatic approaches like, for instance, pilot projects on agricultural practices improvement, could serve as good stimuli for the dissemination of interest in population groups. Activities targeting specific categories are various; e.g. scientific and academic circles were routinely informed and addressed during the draft NAP preparation process; mass media and individual journalists played key role in awareness campaigns. Despite some concerns, gender issues in general still are not perceived as a problem in Georgia, e.g. women representation in PSC is one-third; however, both PSC Chair and NFP are presently women.

There was no commitment taken so far by governments of international partners in regard to involvement in the process of NAP preparation and implementation. Nevertheless, the activities of foreign partners in interrelated sectors of the Georgian economy (such as biodiversity conservation, land resources management, forestry management, agricultural practice improvement, etc.) indicate the possibility for future expansion of these activities into desertification-related areas as well. There is a significant potential for establishment of efficient linkages to the desertification issue within the framework of some ongoing and planned bi- and multilateral projects.

Activities in the field of combating desertification definitely took place in past, including Soviet-time measures designed to combat land degradation and erosion. These measures usually targeted quite narrow objectives (e.g. to comply with certain standards on structural development of certain types of arable lands); their implementation was considered the responsibility of single governmental structure alone (e.g. Ministry of Agriculture) and, for this reason, only regulatory instruments were usually employed. Not surprisingly, the results of such a policy seemed to be at least mixed and their positive effects (if any), being not supported locally, disappeared as soon as the regulatory framework changed in line with fundamental restructuring of the governance system in the 1990s.

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<sup>3</sup> "Sakrebulo" (literally - "the assembly") - elective board with local governance power in Georgia.

Of course, new approaches should be taken in collecting and evaluation of that experience, in light of the principles of sustainability.

In the international context, bilateral agreements of Georgia with neighbouring Armenia and Azerbaijan on the protection of the environment include clear provisions on cooperation in regard to "sensitive transboundary ecosystems". Both agreements emphasize the importance of regional collaboration in combining efforts to solve regional and global environmental problems. Some projects have already addressed transboundary cooperation. For instance, a UNDP-GEF project "Conservation of Arid and Semi-Arid Ecosystems in the Caucasus" was implemented by the NGO "NACRES" in the south-east part of country and some transboundary areas too. The project objective was to protect arid and semi-arid ecosystems from degradation through sustainable management of natural resources. To achieve this objective the project looked at: identification of the agricultural practices that favour the protection of the ecosystems and key species; management of transboundary ecosystems with active participation of land users; increasing public awareness and information. Valuable material and data acquired through these project activities were utilized fully while preparing the draft NAP.

It should be mentioned also that following the decision of its Advisory Council, desertification was declared as a major priority area for the activities of the New Regional Environmental Centre for the Caucasus (NREC Caucasus<sup>4</sup>) for the year 2002.

Therefore, local capacity building complemented by transboundary cooperation whenever feasible, should be considered as a vital element of the NAP. With the privatization and land tenure reform approaching the final stage, local governments and populations possess more power in natural resources management; unfortunately, this not always implies that the responsibilities are also recognized and acknowledged.

The process of NAP development can considerably benefit from "overlapping" activities in bordering sectors of environment protection. Nevertheless, consultation and coordination processes between the three conventions (UNCCD, UNFCCC and Convention on Biological Diversity) are not formalized and takes place only occasionally.

As for financing, Georgia has very limited sources of internal funding and - unfortunately - even worse lack of adequate management. Revenues from so-called "ecological" taxes that are imposed on the harmful substance emissions/discharges, fuel retail and natural resources used, should be spent on environment protection; in practice, it never happens. The government has not determined specific mechanisms to ensure financing for combating desertification. Moreover, it would be naïve to expect that government will allocate sufficient funds from internal resources to combat desertification, even if it had included these funds in the budget (e.g., earmarking the

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<sup>4</sup> Established in 2000 through the agreement between Georgia and the European Commission. Located in Tbilisi, Georgia. Serves all three south Caucasian countries, with all Parties having signed its charter. USA supported NREC Caucasus establishment through separate agreement with Georgia. Several activities, especially small grant programmes, launched in 2001 via the support of TACIS and bilateral donors - USA, Switzerland, Denmark, etc.

revenues from "ecological taxes") - too often in Georgia budget promises fail to turn into something real.

The use of private funds is problematic for several reasons, including the limited capacity of internal private financial institutions, as well as the issue of an important competitor - nation-wide social priorities (salaries and pensions arrears are very high in the state-owned sector).

Local offices of UNDP, the World Bank, "TACIS" programme of the European Union, USAID, etc, as well as bilateral donors (governments of France, Germany, the Netherlands, Norway, UK, Denmark, others) provide a very important source of external special funding for the environment; yet their availability for local communities (outside big towns) is still low, and requirements for project design are higher than the local capacity in most areas and districts.

The UNCCD secretariat assisted financially the process of the preparation of the first Georgian NAP. Internal sources of the MENRP and other institutions have added in-kind contributions (space, facilities, etc.), as budgetary funds are extremely limited.

Although information systems on desertification at the national level do not exist, several agencies (e.g. Ministry of Agriculture and Food, State department of Statistics, etc.) collect data that could be used for relevant indicators, if these indicators in turn existed. The problem is that even the data that was gathered is not properly used. Raw data is of no use for decision-making, and there is no mechanism for data processing to transform it into useful information. Access to information is also troublesome for the main actors, as the data is dispersed and often not communicated to other agencies at all, or subjected to "payments for services".

Again, it is the NAP to combat desertification that should address these issues for the first time in Georgia. With the assistance of the UNCCD secretariat and partner countries, and with the motivation and commitment from the NCB and NFP along with other actors, the NAP is expected not to fail expectations.

#### **GREECE**

During this reporting period, Greece continued implementing the UNCCD through the acceptance of the National Action Programme (NAP) for combating desertification by the Government and the publication in the Government's Gazette of the Common Ministerial Decision (CMD), which instructs the public services and the stakeholders to implement it. The CMD contains guidelines for the creation of the required agencies and the application of policies and measures described in the NAP.

Due to the multi-sectoral nature of desertification, the actors and the action taken are not assigned to a specific programme under the title of "desertification", but they are distributed to the relevant central and local agencies in the frame of national and regional development projects.

The Greek National Committee for Combating Desertification (GNCCD) has officially published the National Action Programme (NAP) in its final form. The NAP was distributed to stakeholders, relevant governmental, non-governmental and local agencies and authorities.

The Common Ministerial Decision (CMD) instructs all the related governmental and non-governmental agencies to:

- apply the measures described in the Action Programme,
- incorporate the policies and measures into the local development plans,
- apply the programme through coordinated and integrated local projects securing the consent and participation of the involved stakeholders
- develop local agencies which will undertake the application and coordination of all the policies and measures at local level
- develop and apply projects, studies and strategies required additionally to those described in the NAP for combating desertification at local level
- apply the NAP starting from six pilot areas, where the main targets are set for sectors: of the operations of responsible agencies, agriculture, forests, pastures, wild life, water resources and socio-economics.

The relevant ministries are planning the following tasks:

#### Agricultural sector

In the agricultural sector, the Agro-Environmental Measure of Rural Development Planning for the period 2000-2006, has been approved and is being implemented. The measures includes the following actions:

- Biological agriculture
- Biological animal production
- Long period set-aside of agricultural lands
- Reduction of ground water pollution by nitrogen of agricultural origin
- Conservation and reconstruction of terraces on inclined lands for protection from erosion
- Formulation of Codes of Good Agricultural Practice, which constitutes the regulatory frame in which agricultural activities will be applied.

#### Forest sector

- The Forest Functional Plan
- Plans financed by the EU
- Research projects financed by the Greek Government and realized by the National Agriculture Research Foundation (N.AG.RE.F.) and the University of Thessaloniki (Forestry Department)
- Clarification of the land ownership status in forests has continued, according to the national cadastral plan
- Soil classification
- Mapping of forest lands
- Forest protection
- Forest management

- Forest plant nurseries
- Protection of mountain watersheds

#### Water resources

In the field of water resources the relevant governmental agencies are planning:

- Institutional measures for the implementation of EU Directive 2000/60/EC
- Preparation of integrated water resource management plans for every water district
- The provision of institutional tools for better coordination of water resource management
- Extension of water storage facilities (dams, reservoirs and artificial water recharging)
- Development of coastal and inland karstic water resources

#### Socio-economic sector

The Plans approved and applied by the Ministry of Agriculture in this sector aim to keep the population in the agrarian areas, and to provide technical support and information for the rural population. They include plans of early retirement for farmers of advanced age and the promotion of agro-tourism in mountainous and other marginal lands. The plans are implemented giving priority to areas with demographic problems, many of which are located in areas threatened by desertification.

National plans and strategies in other social and economic areas are applied in the following fields:

#### Infrastructure

A network of major public works like motorways, bridges, schools and hospitals are being constructed and/or planned, which are targeted towards the improvement of the economical basis of the country and the population, and which will improve the capacity and the efficiency of the government and the public in combating desertification.

#### Countryside development

The main aims of the general countryside development for the period 2000-2006 are:

- The improvement of the competitiveness of the Greek agriculture
- The viable and integrated development of the countryside
- Ensuring social cohesion and security for the entire agrarian population
- The subsidizing of young farmers
- The encouragement of biological farming
- The provision of medical assistance to the population of agricultural areas

Research relating to desertification

The Greek National Committee for Combating Desertification (GNNCD) and the Agricultural University of Athens have recently developed systems for small and large-scale mapping of desertification-sensitive areas and produced respective maps. The systems are empirical and they have been incorporated in the National Action Programme to Combat Desertification.

The GNNCCD and the Agricultural University of Athens are cooperating in as EU-supported multinational project, PESERA, for the development of a regional diagnostic tool for predicting soil erosion rates under various types of land use, soil, and landscape characteristics.

Ground water aquifers subjected to seawater intrusion due to their geological structure or to their over-pumping have been investigated and mapped by P. Pergialiotis and Sp. Papadakos.

The National Agricultural Research Foundation (N.AG.RE.F) is conducting research on several themes directly or indirectly related to desertification.

A list of benchmarks and indicators used in evaluating the degree of implementation of the UNCCD in Greece are reported.

Institutional measures taken to implement the Convention include the establishing of the GNCCD as a national coordinating body by decision of the Minister of Agriculture. The national action programme provides that the central coordination and monitoring of its implementation is undertaken by the National Committee. It also provides that local committees for combating desertification should be created and function according to NAP and CMD in each region and prefecture. These committees have not yet been created.

The NAP is implemented through the general development plans at national and regional level included in the budgets of all these services. On the regional level, the local authorities may refer to the GNCCD for scientific guidance and information. Their programmes are financed by their own budgets.

In the field of awareness raising, a satisfactory campaign has been conducted through the mass media, and meetings, conferences and workshops have been organized. Copies of the NAP have been sent to all competent departments of universities in order to include the principles and measure suggestions in the courses taught to the students.

Within the frame of cooperation with international partners, Greece is participating in all actions of the UNCCD Annex IV group, by being in close collaboration with members. The Subgroup of the Annex, apart from Greece, includes Italy, Spain, Portugal and Turkey. For the period 2001-2002, Greece has the Presidency of the Annex.

Codes of Good Agricultural Practice have been prepared and started being applied to desertification sensitive areas. They include: strip rotation along contour lines (with legumes alternating with other annual crops), minimum ploughing, ploughing along contour lines, alternating cultivated and

fallow strips, use of non-soil-eroding irrigation systems on sloping land and the prohibition of the burning of crop residues in soils with slope over six per cent. Subsidies to those practicing biological agriculture are given on the condition they apply the above measures.

A plan approved for the recovery and reconstruction of terraces on sloping lands is targeted towards soil erosion control, enhanced rainwater storage, promotion of traditional farming and reducing tendencies of population desertion.

Clarification of forest-land ownership by the cadastral plan, which is being prepared, is a basic target of the NAP, since it contributes to preservation of natural vegetation and pre-fire land use in areas highly sensitive to desertification.

Reforestation on burned forest lands, the management of forest ecosystems to prevent forest fires, forest thinning and maintenance of the appropriate forest structure, pre-fire land use management procedures, rapid fire detection, control and fire damage limitation are planned and applied according to the Forest Functional Plan.

The implementation of the plans for developing water resources at all levels, the establishment and operation of the regional water management services, the issue of regulation decisions by prefectures to protect water resources per water basin and the exertion of effective checking on infringement of the law and infliction of the respective penalties are ensured by the respective laws. A water database is being prepared.

Local agencies were engaged in repairing and renovating the irrigation networks and in developing integrated irrigation systems. Water recycling and re-usage is implemented through the plans of the Land Reclamation Directorate for facing drought as well as the local land reclamation organizations.

The actions for combating drought are being realized by the construction of dams and water deposits. The Ministry of Agriculture has continued an activity initiated in 1994 for facing the drought problem, by funding works like drilling (where the ground water table permits), harvesting of spring waters, repairing the irrigation networks and other land reclamation projects. The refilling of artificially drained lakes and the planned diversion of the Acheloos River will contribute toward the recovery of the desertification-threatened plains of Central Greece.

Financial support has not been explicitly allocated for combating desertification. Funds allocated as well as measures taken are incorporated into the development programmes of the respective ministries and of the local government agencies. Thus is not easy to exactly separate and estimate the budget available for the implementation of the Convention in the country. The total amount spent in 2001 is estimated to be EUR 695,200,000.

## HUNGARY

### Background

Hungary, situated in Central Europe, belongs to the continental climatic zone. However, the country's weather conditions are influenced by Atlantic and Mediterranean streams. Despite the fact that natural-geographic conditions are favourable for agricultural production and that around 70 per cent of the total area of the country is cultivated, drought is a serious risk factor, especially on the Great Plain. The biggest and most significant area for agriculture is the Great Plain in Hungary, an area that can be declared as dry sub-humid under the terms of the United Nations Convention to Combat Desertification (UNCCD). The Great Plain has been hit by severe drought events.

Moreover, large parts of Hungary belong to the sub-humid and semi-arid climatic belt. The country has suffered serious droughts, and drought events have become more intensive and more frequent during the past decades. As far as drought damage is concerned, the agricultural sector is the most directly exposed to the harmful impacts of extremely dry conditions. Besides, natural habitats and all sectors of the economy and a significant part of the society suffer from the effects of drought.

The epistemic community described that the years between 1984 and 1993 constituted the driest period in Hungary since 1881. There is a dangerous decrease identified in the series of the ratio of annual precipitation to potential evapotranspiration (P/PE), according to which Hungary can be identified as an "affected country" under the terms of the UNCCD.

As far as future tendencies are concerned, analyses of climatic data on long-term observations in Hungary demonstrate that a significant decreasing tendency in precipitation and average soil moisture content is anticipated.

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

The draft version of the National Drought Strategy provides for the establishment of the National Drought Commission, which should serve as an interdisciplinary and inter-ministerial organization for coordinating the implementation of the Strategy. The Commission should operate in tight cooperation with the National Focal Point, and should include representatives of different research institutions and agencies, corresponding to the complex and interdisciplinary nature of drought and its diverse impacts.

In line with the provisions of the Aarhus Convention, of which Hungary became a Party in 2001, Hungary promotes public involvement and access to information, also in connection with the UNCCD.

The UNCCD was translated into Hungarian and made available to the public, and on the recent occasion of the World Day to Combat Desertification and Drought, research institutions organized an expert meeting supported by the

Ministry for Environment and Water with the aim of focusing on the complex issue of land degradation.

Legislative and institutional frameworks or arrangements

Taking into account that drought impacts not only agriculture and plant production, but also all living organisms, including human beings, and that damage can occur not only in cultivated fields but also in non-cultivated and nature protected areas as well as in human society, there is a global need to search for policies and measures to prevent and mitigate the harmful effects of drought, and to improve the preparedness of the whole society. Therefore, Hungary is interested in taking national and international drought mitigation actions. Consequently, the Hungarian Parliament decided upon Hungary's accession to the UNCCD in 1999 (Parliamentary Resolution No. 47/1999 (VI. 3.)). The country's accession to the Convention entered into force on 11 October 1999.

In Hungary, the responsible national coordinating body for the implementation of the UNCCD is the Ministry for Environment and Water, and the national focal point is a representative of the Ministry. One of the leading Hungarian experts was nominated and accepted to the UNCCD Roster of Independent Experts. The Act on Environmental Protection and the Act on Nature Conservation address the objectives of the Convention.

The establishment of the National Drought Commission is underway. It should serve as an interdisciplinary and inter-ministerial organization for coordinating the implementation of the forthcoming National Drought Strategy in Hungary. The Commission should include representatives of the most relevant research institutions and agencies, in line with the complex and interdisciplinary nature of drought and its diverse impacts. It is desirable that within the framework of the Commission, at least three sub-committees are created, each focusing on primary needs as follows: a) monitoring, b) impact and vulnerability assessment, and c) mitigation and response.

During the initial phase, the Commission should make an inventory of all forms of assistance that are available from local, state and/or regional authorities in the time of severe drought, and evaluate drought mitigation programmes for their ability to address short-term emergency situations and long-term mitigation actions. Assistance should be defined in a broad sense in order to include all forms of available technical and relief programmes. The Commission could act based on information and recommendations provided by the sub-committees, and response options must be determined for each of the principal impact sectors identified by sub-committees; and evaluate programmes at the national and regional levels to assist agricultural producers, municipalities and other stakeholders in the event of emergency.

Hungary has been in contact with the International Drought Information Center of the University of Nebraska (Lincoln, USA). Hungarian scientists and experts have participated in several international organizations aiming at mitigating the effects of drought, most actively in the working groups of the International Commission on Irrigation and Drainage (ICID), where a Hungarian expert functions as the chairman of the European Regional Work Team on

Drought. This particular international work team prepared and organized several workshops and conferences on drought mitigation, and compiled a guide for the member countries of ICID entitled How to Work Out a Drought Mitigation Strategy (1998). When preparing the National Drought Strategy of Hungary, these guidelines are given full consideration.

Resource mobilization and coordination, both domestic and international,  
including conclusions of partnership agreements

According to the information submitted by Hungary to the UNCCD Financial Information Engine on Land Degradation (FIELD) database, Hungary is determined to continue preventing and mitigating the effects of drought, in cooperation with relevant institutions such as the ICID European Regional Work Team on Drought, the Hungarian National Committee of ICID (mainly technical and scientific support); providing financial resources from the annual budget of the Ministry for Environment and Water and the Ministry of Agriculture and Rural Development.

In Hungary, there are completed and ongoing projects concerning drought analysis and the elaboration of the National Drought Strategy. Additional financial resources are needed from different sources to work out the National Action Programme for Drought Mitigation and to operate the National Drought Committee.

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

In the international context, the UNCCD can be declared as one of the conventions of the Rio process. This means that it has significant synergies with the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity. Consequently, the national coordinating bodies for the national level implementation of all three above conventions is the Ministry for Environment and Water, and therefore the national focal points of the conventions can work in tight cooperation with each other.

The principles and provisions of the Aarhus Convention are fully taken into consideration in Hungary, as the country is a Party to the Convention.

Hungary is committed to fulfilling its obligations under the UNCCD, and certain provisions of the Convention are specifically important for the country. Hungary promotes the adoption of an integrated approach when addressing the different aspects of the process of desertification and drought. Besides, within the framework of sustainable development policy, the country has incorporated drought mitigation concerns into national policies and measures. At the national level, the National Environmental Programme for 1997-2002 and the concept of mat for 2003-2008 incorporate drought mitigation issues to be addressed and tasks to be fulfilled in the long term. Furthermore, land degradation and drought are identified as issues of key importance that require different measures for mitigation in the National Agri-environmental Programme. Hungary as an Accession Country to the European Union is preparing its National Development Plan within the framework of the accession process, which determines a frame for future activities, inter

alia, for drought mitigation actions. All these programmes are in harmony with each other, and serve the overall purpose of sustainable development.

Measures for the rehabilitation of degraded land and for early warning systems for mitigating the effects of drought

The National Drought Strategy, which builds upon national results and international experiences, is in the final stage of preparation as of June 2002, under the guidance of the Ministry of Agriculture and Rural Development. The Strategy will summarize the underlying concepts, methods, steps and sources for preventing and mitigating drought damage in the country, and provide a basis for further actions in this field. The Strategy is being elaborated taking into account the relevant national development strategies, policies and environmental programmes. National Action Programmes on Drought Mitigation will be prepared and elaborated on the basis of the National Drought Strategy, following its future approval by the Hungarian Government.

Until the present day, there have been several measures taken by both governmental and non-governmental organizations to mitigate the harmful impacts of drought in Hungary. However, in most cases, those measures have been sporadic and inadequately consolidated. Most of the measures have been reactive rather preventive, and the actions have had partial effects. In order to learn as much as possible from the past experiences of drought mitigating measures, it is essential to carefully analyse those measures, and to draw the conclusions of their evaluation as precisely as possible. Attitudes towards drought mitigation actions should shift from the crisis management type of actions to risk management, where a proactive approach is taken well in advance of drought events, so that mitigation can really reduce drought impacts.

There are several indices used for drought estimation and forecasting in Hungary, serving the primary purpose of early warning. The most widely used indices are the following in Hungary.

At the Hungarian Meteorological Service, an operational statistical (analogue) technique for long-range forecasting was developed and has been used for 20 years. Programmes are under preparation targeting automatic data-reading from the forecasted fields, and automatic data processing and verification.

As for drought severity, the Palmer Drought Severity Index (PDSI) is applied. On a countrywide scale both the index values and their spatial extent are important. In certain cases, the Standardized Precipitation Index (SPI) series of 3-, 6-, 9- and 18-month time scales are calculated. The shorter time scales of SPI can characterize water supply changes in short time periods in the year.

Hydrologists and water authorities prefer to use the Palfai Aridity Index (PAI) for drought prediction and evaluation. The main aim of this method, which has been designed for the specific features and conditions of the country, is to calculate the possible situation until the end of the year

based on the given spring conditions. The index can be used for making comparison between the wet and/or dry situations of different periods as well as of different areas, and it is also appropriate for some predicting purposes if calculations of PAI values are made continuously.

Agro-Hydro Potential (AHP) is used mainly by agronomists. This index describes the water demand satisfying ability of a certain area for a concrete plant stand existing there by the ratio of the effective water consumption and the water demand. This index can show to what extent and how long a certain area of agricultural land is able to satisfy the water demand of a given crop stand living on it, and it is appropriate for expressing drought occurrence and the different levels of water scarcity.

Although a separate drought early warning system has not been established yet in Hungary, early warning activities are based on the above indices. With the objective of providing a more comprehensive framework for improving early warning and drought monitoring and mitigation techniques, the creation of a Regional Drought Preparedness Network for Central and Eastern Europe is initiated, in which Hungary would take a leading role.

#### Drought and desertification monitoring and assessment

The above-mentioned indicators constitute a solid base not only for establishing an early-warning system, but also for constructing a nationwide monitoring system for drought analysis and forecasting. Based on the use of the Palfai Aridity Index, a partial drought monitoring system is operating in water management and provides information first of all to the experts of the local water authorities dealing with drought mitigation. It is planned that this system will be extended, and a general drought monitoring and forecasting system to be established in cooperation with the Hungarian Meteorological Service, and a special database for drought analysis is due to be created.

One of the main tasks is to find out common methods and indices for expressing the severity of drought events, and for forecasting more precisely the occurrence of drought not only at the national, but also at the international level. Another important task is to draw a national and a European drought severity map to show the spatial distribution of drought in the countries of the region and in the whole of Europe. In order to be able to make these plans a reality, concerted actions and tight international cooperation among the countries involved are necessary. Therefore, a project proposal is under elaboration aiming at the creation of an international (European) research team or consortium dealing with the above mentioned problems methodologically and technically. This proposal will be submitted to the European Union's Sixth Framework Program for Research, Technological Development and Demonstration for some financial support with the help of which these problems could be solved. Hungary is one of the proposing countries of these initiatives and ready to take a leading role in such international cooperation.

Access by affected country Parties, particularly affected developing country Parties, to appropriate technology, knowledge and know-how

In Hungary, most of the advanced technologies both in agricultural and industrial processing, in the different services, and in the research and development activities are well-known and used. Although cleaner technologies are used in certain areas of production, their utilization is not widespread. Capital and investment possibilities of farmers and industrial producers are limited, therefore they tend to use conventional methods and technologies. The agricultural sector is still in transition, export markets have been re-orientated, the qualitative dimension of agricultural production has come to the fore as opposed to the quantitative emphasis of the past.

Therefore, greater dissemination of best available techniques in the drought mitigation practices is a major task for the future in Hungary.

**ISRAEL**

This report covers the years 2000 and 2001. It presents the current status of efforts to combat against desertification in Israel, as an affected country.

Israel is dry land country, with dry sub-humid, semi-arid, arid and hyper-arid dry lands covering its area successively along north-south and west-east descending precipitation gradients. Its dry sub-humid areas are of an eastern Mediterranean eco-climatic nature; the semi-arid area has a strong Asian biotic component, its arid region has a mixture of Mediterranean, Asian and African desert biota and its hyper-arid areas are of Saharo-Arabian desert conditions. In Israel, the sensitivity to desertification increases with aridity, whereas the exposure to human impact decreases with aridity.

The arid regions of Israel suffered natural soil erosion due to climate change during early historical times, and ancient Negev populations invested commendable terracing efforts to halt this erosion and to develop run-off agriculture there. From the dawn of history nearly all parts of the country have been under intensive land use by humans, including pastoralism and cropping, though evidence for desertification or the lack of it during historical times is not conclusive. At the turn of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century exploitation of woody and herbaceous vegetation especially in the dry sub-humid areas, for firewood and due to grazing, caused severe soil erosion and significant degradation of vegetation. Many lowland regions have become waterlogged and salinized. It is not known whether or not semi-arid dry lands suffered desertification at that time.

Measures to combat dry sub-humid desertification (afforestation and drainage) and develop semi-arid lands (water resource development) were initiated by Jewish settlers and the British Government prior to the establishment of the State of Israel in 1948. During its first decades, Israeli agriculture development, water resource development, water conservation policies, and afforestation projects seemed to have rehabilitated many previously desertified areas and to have prevented further desertification. However, in

recent decades signs of emerging desertification and of future potential risks have been detected. In the dry sub-humid areas there is soil salinization due to irrigation in dry sub-humid valleys, and increasing impenetrability of dry sub-humid woodland and "bush encroachment" leading to degraded range quality on the one hand, and woodland fires leading to soil erosion on the other hand. In the semi-arid areas there are indications of sheet soil erosion on irrigated agricultural land, and of highly intensified gully erosion, both in regions of agricultural activity and of grazing activity. Risk of soil salinization of a large scale may become high due to expanding areas of agriculture irrigated with treated wastewater, which is not desalinated. Similar risk is imminent in arid drylands that are due for further agricultural development to be irrigated with brackish fossil water, though at a smaller scale. Gully erosion is evident also in the arid region, and risk of salinization is imminent in the intensive though patchy agriculture in the hyper-arid areas. Both the arid and the hyper-arid areas suffer from excessive road construction and use, leading to loss of vegetation, soil erosion and loss of water.

Israel has not produced a National Action Programme (NAP) to Combat Desertification. In recent years it has initiated and completed a National Master-plan for the dry sub-humid and part of the semi-arid parts of Israel, and a process of exploring, together with stakeholders and experts, the country's options for sustainable development and modalities for synergizing the joint implementation of the Rio conventions. A planning workshop carried out in 1999 within the framework of regional cooperation to combat desertification in the Middle East and utilizing a participatory approach, established a preliminary template for a NAP, with emphasis on research.

An intra-governmental Steering Committee on Desertification has been set to coordinate the activities of government departments relating to combating desertification, and an advisory professional committee advises the Steering Committee on budget allocation. A list of urgent activities that may constitute a framework for an Israeli NAP includes actions for assessing, combating and monitoring soil salinization, sheet and gully erosion, and for improving the management of rangeland, woodland fires and road construction and use. Above all it is necessary to increase the awareness of the public and decision-makers alike, to already occurring and future damages from desertification. It is also critical now to evaluate the feedback between desertification, loss of biodiversity and predicted future impacts of climate change, and to design an effective joint implementation of the UNCCD, the CBD (Convention on Biodiversity) and the UNFCCC (United Nations Framework Convention on Climate Change), such that it paves the path for Israel towards sustainable development.

#### **ITALY**

Italy ratified the Convention on June 4, 1997, and participates in the UNCCD activities both as a country affected by desertification and as a donor country. The National Committee was established on 26 September 1997, with the task of coordinating national and international activities to combat desertification, under the chairmanship of the Ministry of the Environment

and Territorial Protection (MATT). The regions and the river basin authorities are responsible for implementing territorial policies and for the programming necessary for combating desertification in Italy.

MATT's Office for the Conservation of the Territory and the Office for the International Protection of the Environment handle implementation at the national and international levels respectively of actions associated with the agreements, protocols, commitments and regulations undertaken as part of the UNCCD.

By decree of 8 March 2001, the President of the Council of Ministers restructured the National Committee to make it more incisive and increase its ability to identify the measures and actions necessary for implementing the National Action Programme.

Represented in the National Committee are the ministries responsible for implementing the UNCCD, other ministries with sectoral jurisdictions, the Office of the President of the Council of Ministers, the Conference for State-Region and Autonomous Provinces Relations, representatives of environmental associations and the assembly of non-governmental organizations.

The Committee also avails itself of a multidisciplinary technical-scientific commission made up of experts appointed by the national scientific bodies and open to contributions from universities and other entities.

In the absence of a specific legislative framework, the main legislative references are:

- Law n. 36/94, which governs the use of water resources and establishes that water use must be directed towards saving and resource renewal, so as not to harm available water resources, environmental livelihoods, agriculture, aquatic wildlife and flora, geomorphological processes and hydrogeological balances.
- Law n. 183/89, which led to the establishment of the river basin authorities and which calls for the drafting of hydrographic basin plans in order to implement a policy to prevent phenomena of hydrogeological instability, to protect soils, for water purification, and for the organization, use and management of water resources.
- Legislative Decree n. 152/1999, which generally reorganized the field of water pollution prevention by subdividing jurisdiction among the State (and within individual ministries), the regions and the local authorities.

The National Action Programme to Combat Drought and Desertification (NAP), approved by the Interministerial Committee for Economic Programming on 21 December 1999, identifies areas at the national level that are vulnerable to desertification and the criteria for implementing the fight against desertification; its purpose is to encourage regions and basin authorities to identify areas vulnerable to desertification and to identify mitigation and

adaptation measures that can be implemented within the context of the legislative framework.

Ten regions and nineteen basin authorities responded to the NAP, for coverage of 87% of the national territory. These programmes provided an initial framework for actions already scheduled and funded and those deemed necessary but still lacking funding. In preparing their action programmes, the regions identified certain desertification indicators. Regional desertification vulnerability maps were prepared by Puglia, Basilicata, Sicily and Sardinia. A summary framework of the proposals presented by the regions and basin authorities in response to the request of the national action programme (NAP) was presented and discussed at the State-Region Conference that approved the document. It was subsequently approved by the Interministerial Committee for Economic Programming (CIPE) in March 2001.

Law 93 of 23 March 2001 acknowledged the need to pursue the work taken up by the National Committee and the action programmes of the regions and basin authorities by allocating funding to pursue the National Committee's activities and for the regions' initial activities.

The NAP priorities and identified strategies were shared at meetings and conferences with administrators, citizens and representatives of the scientific and technical community and were presented and described at conferences, seminars and conventions. The topic of citizen participation was the subject of an international workshop among the Annex IV countries, where national experiences were described and the adoption of a joint methodology was proposed for consultative purposes. On that occasion, the UNCCD's Focal Points met with the National Monitors of the European Awareness Scenario Workshop (EASW). The meeting applied this methodology to the topic of combating desertification.

There were many experiments and projects associated with combating drought and desertification in Italy even before the Convention took effect. The most important of these involve the supply of water to Italy's southern regions. The Puglia aqueduct, Europe's widest, provides more than 300 million cubic meters of water per year to over six million people. Of special significance are the reclamation co-operatives in the southern regions, both for their accumulation of water resources in large reservoirs and for their distribution for agricultural purposes to rural aqueducts and to urban populations.

Reforestation efforts have been carried out in hilly and mountainous areas, greatly benefiting the protection of soil and water resources in the affected areas. Reforestation and fire-prevention efforts are still among the more effective measures for combating desertification in Italy.

Currently, no overall assessment is available of the costs and benefits of the measures carried out by various institutions and governments over the last fifty years that would allow us to provide a frame of reference for the current situation. The measures carried out certainly made possible the socio-economic development of the more depressed areas of Italy. But despite the heavy investments made, the southern and island regions remain highly

vulnerable to the phenomenon of desertification and still today present an appreciable backwardness in development compared to Italy's other regions.

Observation and monitoring of desertification processes are currently conducted by a nation-wide system consisting of the Regional Environmental Protection Agencies (which operate at the institutional, training and technical-operational level) and by the Regional Hydrographic Services.

Within this system, the political-decision-making level (Ministry of the Environment and Territorial Protection), the technical-scientific level (ANPA), and the technical-operational level (ARPA - APPA) interact with one another.

The main activities for which the scarce available financial resources have been used for purposes of implementing the Convention in Italy have to date been aimed at improving the cognitive framework and the implementation of a network for collaboration and comparison among national and international institutions, for managing plans and programmes and for scientific and technological research.

#### **MALTA**

The present report represents the first national report on the implementation of the UN Convention to Combat Desertification.

Soil erosion in the Maltese Islands has been recognized as a predominating desertification and land degradation process and a major threat to the sustainability of the agricultural sector. Malta's extensive terraces testify to an age-old practice of soil conservation. However, this has traditionally necessitated heavy investment in the maintenance of terraces. Despite this, there have been very few, if any attempts to appropriately address and mitigate this widespread problem on a national level.

In the framework of the Mediterranean Action Plan (MAP) and within its Coastal Area Management Programme (CAMP), a project for Malta was launched in November 1999. The project was oriented towards sustainable management of the coast of Malta (in particular the Northwest area). A soil erosion/desertification control management activity was implemented within the CAMP Malta Project.

The general objective of the activity consisted in contributing to the national efforts towards sustainable management and environmental protection in Malta, achieved through:

- undertaking and completing systematic erosion/desertification surveys and mapping activities at different levels;
- providing proposals for remedial measures and conservation/rehabilitation/ protection recommendations;
- contributing to the protection, rehabilitation and rational exploitation of the limited soil resources, scenic beauty and biodiversity, by applying

updated and adapted erosion/desertification control management strategies and techniques.

The project activity was implemented through the application of the new consolidated erosion mapping and assessing methodological procedure as defined in the "Guidelines for Erosion and Desertification Control Management with particular reference to Mediterranean Coastal Areas" (UNEP/MAP/PAP, 2000).

The mapping survey procedures mainly identified and assessed physical parameters and processes that were integrated during the synthesis phase with socio-economic factors such as land use, land tenure and urbanization.

During the implementation of the activity, there was a constant concern for participatory approaches, sustainability assessment and monitoring and integration of sectoral surveys. As the participatory approach was considered as a pre-requisite for proper determination of priority areas and elaboration of sustainable remedial options, special emphasis was placed on formal and informal contacts with the stakeholders.

A set of sustainability indicators was also drawn up as a tool for the development of trends on erosion/desertification processes and control management strategies. The development of these indicators involved several discussions with the main land users/stakeholders who also endorsed the indicators.

As a result of the various field surveys, predictive/descriptive mapping and the integration of the socio-economic parameters, priority areas for immediate intervention were identified and categorized. The diagnostic analysis of the results clearly indicated that soil erosion (as a desertification process) is a common phenomenon, which needs urgent attention, especially in the identified priority areas.

## **REPUBLIC OF MOLDOVA**

### Strategies and priorities

The Republic of Moldova is situated in the South Eastern part of Europe and occupies a substantial area of the territory between the Dniester and Prut rivers and a narrow strip on the Dniester river left bank. It has common borders with Romania in the West and with Ukraine in the North, East and South. The agricultural sector has a leading role in the national economy of the country, it being at the same time a destabilizing factor for the soil cover. Forest resources of the Republic of Moldova do not exceed 9.6 per cent of its area. Drought is a frequent phenomenon in the Republic and has a detrimental influence on the environment. The crossed relief of the landscape in a situation of an almost excessive use of the soil leads to intensive erosion. One third of agricultural land in the Republic is affected by erosion processes.

In view of the above-mentioned the Republic of Moldova in 1998 joined the UN Convention to Combat Desertification (UNCCD). In the year 2000 the Government approved the national action programme to combat desertification in the Republic.

The tasks set up in the Programme are the following:

- Identification of factors leading to desertification, and development and implementation of practical measures aimed to ensure desertification control and melioration of drought consequences;
- Setting up the tasks of the Government, local power administration bodies and land users in the context.

The ultimate goal of the governmental programme is preservation of soil quality and improvement of soil fertility in the drought-affected regions.

The following are the main actions ensuring desertification control in this context:

- Preservation of soil fertility in the desertification affected areas by the implementation of soil use ecological systems that are socially acceptable and economically feasible;
- Protection of still not degraded land or insignificantly degraded and/or its conservation for the purpose of its natural rehabilitation;
- Improvement of the population's living standards in the desertification-affected areas, including such measures as public health protection measures, improvement of sanitary conditions and family planning measures.

The programmes and activities approved between 2000 and 2002 listed below constitute the most important programmes and plans of action developed for the environment protection purpose, including the ones aimed to ensure desertification control:

"National Strategy of sustainable development "Moldova - 21" (2000). It incorporates all expertise accumulated so far about techniques and consequences of interaction between the social, economic and environment spheres.

"National Concept of the ecological policy" (2002). Special attention in the Concept is paid to protection and use of natural resources, as well as to measures ensuring soil preservation.

"National complex Programme of soil fertility improvement during 2001 - 2020 period of time" (2001). This programme determines the general strategy of soil policy within the concept of soil protection and improvement and rational use of soil resources.

"Comprehensive Plan of Actions and concrete measures ensuring its implementation aiming to diminish the consequences of humidity deficiency in the soil" (2001). Recommendations for the rational use and preservation of soil humidity have been developed within the Comprehensive Plan of Actions. Seminars were prepared and held.

"Comprehensive Programme for soil protection against erosion and for the improvement of soil fertility in the Gagauz Autonomous Territorial Unit" (2001). The Programme envisages implementation of soil protection projects on the territory of agricultural enterprises. They presuppose plantation of soil protecting forest crops on the degraded soils, plantation of soil protection crops and erosion controlling forest strips as well as plantation of forests along riverbanks and water reservoirs.

"Data base with information regarding soil quality in the Republic of Moldova" (2000). A database has been created including different characteristics of the erosion processes and soil fertility. Statistical parameters are given regarding composition and qualities of soils in the Republic of Moldova as well as data regarding losses caused by the soil degradation.

"Programme for the mitigation of disaster consequences from 2002-2008". This document envisages emergency disaster control measures, which are presupposed to be financed with the State Budget resources in the amount of 81 million lei (out of which 51 million lei are earmarked for trees plantation).

The following Programmes are under development at present:

"Programme for the rehabilitation of forest stocks and for the new forest plantations from 2002-2020", which presupposes implementation of works within a 600,000 lei budget (32,000 lei annually) for rehabilitation and forest plantation on a 96,000 ha area.

"Comprehensive Programme for the assimilation of new territories and increase of soil fertility over 15 years", envisaging implementation of measures to increase the forest stocks in the Republic of Moldova up to 523,000 ha, which will constitute 17 per cent of the forest covered territory (compared to the preset area of 9.6 per cent).

#### The National Coordination Centre

A working group created in 2002 within the Ministry of Ecology, Construction and Land Development coordinates the implementation of the UNCCD decisions in the Republic of Moldova. During the period of time following the development and presentation of the first National Report (April 2000) the UNCCD coordination centre undertook certain measures, among them the actions listed below:

- The national data base on drought, land degradation and water resources has been updated;
- Maps and charts illustrating soil degradation and drought status have been developed;
- A conference dedicated to "Higher levels of information dissemination among population concerning degradation of soil in the Republic of Moldova" was held, which was also attended by students, women and young people;
- A seminar on "Social economic development of regions affected by desertification processes" (Vadu-lui-Voda town, on 22-23 September, 2000) and other seminars were held; working meetings were held with

representatives of farmers and regions leadership in the most drought-affected areas of the Republic (Comrat, Kahul);

- A scientific publication for wide use "Degradation of soils in the Republic of Moldova" in Romanian and Russian languages was released;
- A video film was made with the title "Desertification problems in the Republic of Moldova";
- A number of communications were made in the mass media, including round table talks dedicated to the World Day to Combat Desertification (2000, 2001);
- Two booklets were prepared the titles of which were: "In attention to pupils" for use during ecology lessons and "Let's preserve our Land". Also a poster was developed with the title "Desertification in the Republic of Moldova".
- The Association of NGOs "ECO", was created with the aim of increasing the level of information dissemination among the population and to draw attention to desertification problems;
- Meetings were held with representatives of the Hungarian and Romanian Coordination Centres during which proposals were put forward to create a unique information network and to develop a subregional action programme (SRAP) within the context of the UNCCD implementation in the south-eastern part of Europe.

#### Institutional framework for combating desertification

During the period following the approval by the Government of the national action programme to combat desertification a number of measures were taken in the Republic to strengthen the institutional framework for combating desertification. The Coordination Centre has got wider decision-making powers. An intensive information exchange continued between ministries and departments. Legal documents were approved to encourage environment protection activities. Measures taken to strengthen the institutional framework are set out below.

Strengthening the environment protection capacity and cooperation among different agencies, which presupposes:

- Application of principles "economy through observation of ecology" and "expenditures - gains";
- Strengthening the institutional and organization capacities.

Control over impacts on the environment, environment pollution control and environment recovery, which presupposes:

- Environment protection management at enterprises, and ecological certificates to enterprises;
- Use of techniques and equipment during agricultural works as well as use of production methods ensuring minimum impact on the environment and introduction of organic agriculture methods;
- Development, with the assistance of other European countries experience, of the national map of degraded soils.

### Environment protection techniques

The following are the techniques used in the environment protection area:

Economic techniques:

- Use of natural resources against a payment; fine payment for environment pollution acts; damage compensation (including development of damage evaluation and damage compensation mechanisms), incentives;
- Use of such principles as "the polluter pays" and "the user of natural resources pays".

Ecological insurance:

- Development and efficient implementation of the ecological insurance system, which is supposed to improve environment management at enterprises and which is expected to contribute to the accumulation of additional resources that might be used to avoid pollution of environment;
- Implementation of a comprehensive system of activities to reduce the impact of damaging factors on the environment.

### Legal framework

The necessity to observe a single policy in the environment protection area and use of natural resources, and the necessity to meet the ecological requirements during the national economy reform and to accept a political orientation towards integration into Europe have determined the need to undertake a review and a development of a new ecological policy in the Republic of Moldova.

The Republic of Moldova has become a Party to many international treaties. It has signed 17, and ratified 15 conventions concerning the protection of the environment, a fact indicating that the Republic is actively involved in international cooperation. This was possible due to radical changes in society, the new development course towards a market economy undertaken by the country and the tendency to integrate into the European society and to extend cooperation within the region and within the Commonwealth of Independent States.

During the period under consideration, through the implementation of two projects, continuous work was done to achieve consistency of the legal framework of the country, these being: "Preparation work to achieve consistency of the legal framework of the Republic of Moldova with the legal framework of the European Commission in comprehensive pollution control and waste management areas" and "Assistance to the Republic of Moldova to implement the Aarhus Convention".

NGOs, along with public agencies, have an important role in the implementation of the Convention. One may mention that during 2000 - 2002 the NGOs of the Republic carried out many activities such as seminars for regional NGOs, soil surveys on a 3,000 ha area at South, Centre and North of the Republic of Moldova, development of software for soil erosion assessment

and control, development of plans of actions for erosion control in a number of farms in the south of the country, and other activities.

Actions planned or being undertaken within the national action programme to combat desertification

The National Action Programme to Combat Desertification (NPCD) is envisaged for a 10-year period of time (up to year 2010). Sector activities constitute the core actions of NPCD implementation, along with orientation towards rehabilitation of the ecological balance, especially in desertification-affected areas. Priority actions in this context are soil erosion combating measures and measures to achieve ecologically balanced land management. Additionally to this, within the context of market-economy relations, ecological techniques aimed to ensure incentives to combat desertification measures appear to be the most acceptable ones. Following the aim to support the agricultural sector, a programme envisaging credit facilities and subsidies for farmers (30 million lei in 2001 and 30 million lei in 2002) was passed by the Parliament of the country.

Criteria and indicators used to analyse the results of UNCCD implementation and their evaluation

The Ministry of Ecology, Construction and Territorial Development includes in its reports data regarding status of environment and its modification tendencies. These kinds of data are also found in the population health status and hygiene reports worked out by the Ministry of Health Protection and in other sources.

In addition to the main information sources, periodical reviews concerning the socio-economic status of the country are developed by the following agencies:

- TACIS Programme of the European Commission (Trends of social and economic development);
- World Bank (Status of the agricultural sector and the Strategy of water resources control);
- UNDP and International Monetary Fund (Status of financial system and macroeconomic review);
- UN Economic Commission for Europe for the ecological activity survey in the Republic of Moldova, etc.

**PORTUGAL**

Portugal ratified the Convention on 15 October 1996. The NAP elaboration process occurred between December 1997 and June 1998.

The NAP (National Action Programme) was approved by the Government on 17 June 1999, Cabinet Resolution number 69/99.

The National Coordinating Body of NAP, created by ministerial dispatch number 979/99 of 19 December 1999, took a year to be established and had its first

meeting on 19 June 2000. Nowadays it has regular meetings and has five Regional Sub-commissions.

Because it is impossible to cover the whole continental territory susceptible to desertification, "Pilot Areas" were established under the scope of four sub-commissions. The approach utilized to enhance local actors' participation was the EASW (European Awareness Scenario Workshops), developed and validated by the EU (DG XIII). The next step is the elaboration of an Activity Programme for each Pilot Area.

Portugal has several plans and sectoral strategies concerned with sustainable development. It is necessary to ensure coherence between them.

There is no specific financing fund for the application of the UNCCD. Public financing under the programmes for regional, rural and environment development might support the activities.

Nineteen indicators are under analysis covering parameters like: soil, climate/water, vegetation and land resources management, leading to further selection of the necessary indicators for the monitoring of the desertification process with updates every ten years.

#### **ROMANIA**

The main national strategy and action plans with components relevant to the objectives of the UN Convention to Combat Desertification, have been realized in 2000 and presented to the UNCCD secretariat in Bonn: "National strategy and action programme concerning desertification, land degradation and drought prevention and control".

Taking into account this state of things, in Romania all actions that try to reduce the effect of drought and aridization are part of the national strategy.

Chapter (iii) enumerates briefly the national strategy topics related to the objectives of the UNCCD.

The policies frame contains the following targets:

- Land use management
- Sustainable management of natural capital
- Biodiversity conservation
- Sustainable development in forestry and agriculture
- Sustainable water resources management
- Regional cooperation
- Socio-economic measures

Chapter (iv) presents (in addition to the 2000 National Report) the current legislation in Romania referring to aspects of protection and improvement of

water, soil and forest resources which are, implicitly connected to desertification and soil degradation. We mention:

Law No. 58/199 applying to the Convention on Biodiversity; Research Law No. 51/1996; Law on Hunting Fund No. 103/1996; Law on Recycling Waste No. 137/1996; Ministry Ordinance concerning the activities with environmental impact No 125/1996 and 168/1997, Ministry Ordinance No 647/2001 concerning the procedure for obtaining authorization for picking, capturing and acquiring wild plants and animals, their commercialization on national markets or for export and their import; Governmental Ordinance concerning the water cadastral survey of Romania, No 399/1997; Governmental Ordinance concerning the effects of natural calamities No 329/1997, Governmental Ordinance concerning the water development works protecting against floods, 615/1997, Ministry Ordinance concerning the attestation of the persons that may perform field studies and land reclamation works in forests 449/1998, Law for regulating the forestry regime and managing the national forestry fund, 141/1999, Ministry Ordinance concerning the approval of Forestry Technical Norms for the managing of forest vegetation that is not a part of the national forest fund 264/1999, Law for re-constitute the property rights on farming and forestry lands, No 1/2000, Law Concerning the Environmental Fund No 73/2000 modified and completed by the Governmental Ordinance no. 93/2001, Law for completing the Law of Environmental Protection No 159/2000, Law for juridical circulation of the forest lands, 66/2002, Law concerning regulating the forestry regime and managing the national forestry fund, No 75/2002.

In the chapter (v) are presented the main institutions involved in combating desertification and the up-dated names of the ministries (in addition to the 2000 National Report): Ministry of Agriculture, Food and Forests (the present name), Ministry of Water and Environmental Protection (the present name), Research institutes, Forestry manager's offices, National Society of Land Improvement, National Company Romanian Waters.

Civil society has also: 25 NGOs involved in these actions and Romanian Organization for Soil Tillage (ORCLS).

Regarding the consultative process (chapter vi), Romania has participated in the Consultative Meeting for the Implementation of the UN Convention to Combat Desertification in Central and Eastern Europe (Prague, 3-4 September 2001)

Cooperation exists at both European and regional level. To conserve and protect the soil resources. Thus, Romania is cooperating to build a database on European soils, having contributed a digital map representing Romanian soils at a 1:1,000,000 scale expressed in FAO legend, and to develop a database of soil profiles within European countries.

Regionally, Romania has cooperated in the following projects: SOVEUR project concerning the vulnerability to pollution classification of the soils within the Central and East-European countries; INCO-COPERNICUS project concerning the sub-soil compacting in the Central and East-European countries; FAO's project concerning the rehabilitation of polluted soils in Romania; INCO-COPERNICUS project concerning a simulation model with spatial distribution

for the physical and agro-physical state forecast of the soil, INCO-COPERNICUS project concerning water and soil management for agricultural output in urban areas.

Chapter (vii) describes the measures that have been taken or will be taken concerning desertification and monitoring of drought consequences.

There are four kinds of measures:

1. Prevent and control measures for desertification and drought

- Scenarios to determine possible areas with drought
- Environmental components protection under drought conditions
- Rehabilitation and development of irrigation systems
- Forest belts and passages
- Hydrological system improvement in dammed water areas
- Slope terracing
- The promotion of alternative and drought resistant crops and of the special soil management
- Ecological rebuilding of dry woods
- Water resources management in drought conditions (alternative solutions, improvement of supplementary water resources).

2. Measures for controlling land degradation

- Eroded soils
- Landslides
- Salt-affected soils
- Sand and sandy soils (sandy dunes)
- The afforestation of 7,000 ha of degraded lands was achieved under The Kyoto Protocol with the Prototype Carbon Fund administered by the World Bank. The location of this area is in the southeast and southwest part of Romania, on low quality agricultural lands on flying sands and eroded soils.
- Compacted soils
- Acid soils
- Soils with low organic matter and macro-nutrients content
- Polluted soils

3. Making the population aware and educating it

4. Scientific research and education development

Chapter (viii), presents the total costs for the application of the national strategy (4,460,288 thousand \$).

Chapter (ix) presents a review of the indicators utilized, such as:

1. Monitoring of zones affected by desertification and drought

- Climatic indicators
- Pedological indicators

- Hydric indicators (water)
  - Agricultural indicators
  - Forestry indicators
  - Biological indicators (of vegetation and biodiversity)
2. Monitoring of areas with degradation soils
- Monitoring of areas affected by water erosion
  - Monitoring of land-slides
  - Monitoring of wind erosion
  - Monitoring of salt-affected soils
  - Monitoring of polluted soils
  - Monitoring of soils vulnerable to compaction
3. Organization of desertification and drought monitoring
- Network type

#### **SPAIN**

El presente resumen se ha enfocado de acuerdo a las principales esferas temáticas propuestas para el proceso de examen de acuerdo a la decisión 1/COP.5.

#### Procesos de participación con la sociedad civil, las organizaciones no gubernamentales y las organizaciones comunitarias (Epígrafe 5)

El procedimiento de elaboración del Programa de Acción Nacional comprende distintas etapas, en las que se dan distintos grados de participación. El primer paso fue la presentación al Consejo Asesor de Medio Ambiente (órgano consultivo en el que están representados todos los sectores de la sociedad, incluidas las organizaciones no gubernamentales dedicadas a la conservación de la naturaleza) de un documento de principios para la redacción del PAN. Seguidamente se formó un grupo de trabajo para la elaboración de un primer documento de trabajo (Borrador del PAN). De este grupo forman parte representantes de distintos organismos de la Administración con competencia en las esferas relacionadas con la desertificación y expertos investigadores.

El paso siguiente, de acuerdo con los principios de la CLD, así como con la metodología participativa implantada por el Ministerio de Medio Ambiente en el proceso de elaboración de sus documentos estratégicos, ha sido someter el Borrador del PAN a un amplio proceso de consulta y debate en el que han participado los distintos estamentos implicados, tanto de la Administración General del Estado, Administraciones Autonómicas y Administración Local, como representantes de los sectores implicados de la sociedad civil. El proceso se ha estructurado con base en la organización de una serie de mesas de trabajo sectoriales, previo envío del documento Borrador del PAN a los convocados a participar en cada mesa y posterior apertura de plazo, tras la celebración de la mesa redonda, para remisión por escrito de aportaciones y sugerencias al documento.

Para participar en la "Mesa de Representantes de la Administración" se convocó a 51 organismos administrativos. Se celebró esta reunión en noviembre de 2000, con la asistencia de 80 representantes. En marzo de 2001 se celebró la segunda reunión en el marco del Proceso de Debate del PAN, que reunió al sector de investigación y docencia y colectivos de la sociedad. Para representar al sector de investigación y docencia, se convocó a 94 instituciones y/o personas: centros de investigación dependientes de la administración, profesores e investigadores vinculados a la Universidad y Sociedades Científicas. Es de destacar que muchos de los convocados están incluidos en la lista de expertos de la CLD. Para representar a la sociedad se convocó a un total de 66 colectivos sociales: Asociaciones agrarias, Asociaciones forestales, Asociaciones cívicas y empresariales, Asociaciones de Defensa de la Naturaleza, Colegios profesionales y Empresas de los sectores agrario, forestal y de gestión de aguas. En esta "Mesa Redonda de los Representantes de la Sociedad y Expertos en Desertificación" se obtuvo una alta participación, prueba del gran interés que esta cuestión suscita en la sociedad española, contándose con la presencia de 95 representantes.

Entre las líneas de acción que propone el PAN se incluye una estrategia de participación y sensibilización pública denominada "Incorporación de los sectores sociales afectados al desarrollo del PAN". Dentro de esta línea se han identificado tres acciones a realizar en una primera etapa: 1) la caracterización y promoción del sector español vinculado a la desertificación con el fin de proveer un marco para el desarrollo y proyección de las tecnologías existentes y su aplicación (se ha puesto ya en marcha la elaboración de un banco de datos de instituciones, empresas, asociaciones, etc., y la organización de Jornadas Técnicas sobre Desertificación); 2) el establecimiento de un Sistema de Información sobre la Desertificación en España, que realizará la identificación, revisión y actualización de diversos tipos de información científica y técnica relacionada con la desertificación, y establecerá los procedimientos y canales de difusión de la información para hacerlos disponibles a los distintos usuarios y facilitar la toma de decisiones sobre la gestión de recursos en zonas afectadas por riesgo de desertificación; y 3) acciones de concienciación y divulgación, para sensibilizar a la opinión pública sobre la importancia y magnitud de este problema y favorecer la difusión de información veraz y rigurosa sobre el proceso (se ha realizado ya una exposición, "Desertificación: La tierra que perdemos", con carácter itinerante, y la edición de folletos sobre la Lucha contra la Desertificación en España).

#### Marcos o arreglos legislativos e institucionales (Epígrafe 4)

La restauración de terrenos degradados en España empezó a plantearse en España desde la segunda mitad del siglo XIX, al mismo tiempo que se iba organizando la Administración forestal, promulgándose sucesivas disposiciones legales para establecer el marco institucional adecuado para acometer esta tarea de restauración en todo el territorio nacional. Han sido varias las planificaciones nacionales en este campo destacando entre ellas el "Plan General de Repoblación Forestal de España", de 1939. Se estima en 5 millones de hectáreas la superficie repoblada en los 150 años transcurridos desde el inicio de las actuaciones (un 10% del territorio nacional), el 75 % de las cuales han tenido un objetivo eminentemente protector. Las inquietudes

surgidas tras la Conferencia de las Naciones Unidas sobre la Desertificación de Nairobi (1977) se concretaron en España en la elaboración, en 1978, del documento "La problemática de la erosión: Programa de acciones en la Vertiente Mediterránea", que pretendía planificar las acciones que debían desarrollarse en aquellas zonas de nuestra geografía más afectadas por la erosión hídrica, al ser dicha erosión el principal mecanismo de la desertificación en el ámbito mediterráneo. Como paso siguiente y para atender las directrices del Plan de Acción contra la Desertificación de las Naciones Unidas (DESCON), establecido en Nairobi, se puso en marcha en 1981 el Proyecto de Lucha contra la Desertificación en el Mediterráneo, Proyecto LUCDEME, actualmente vigente y desarrollado por la Dirección General de Conservación de la Naturaleza del Ministerio de Medio Ambiente, siendo así España el primer país desarrollado en recoger las recomendaciones de las Naciones Unidas en esta materia.

La CLD fue firmada por España el 14 de octubre de 1994 y el instrumento de ratificación fue expedido en enero de 1996. La Convención entró en vigor en España el 26 de diciembre de 1996. El órgano de coordinación nacional (OCN) establecido para la aplicación de la Convención está compuesto por representantes del Ministerio de Asuntos Exteriores (a través de la Dirección General de Relaciones Culturales y Científicas, actualmente adscrita a la Agencia Española de Cooperación Internacional), del Ministerio de Ciencia y Tecnología (a través del Consejo Superior de Investigaciones Científicas) y del Ministerio de Medio Ambiente (a través de la Dirección General de Conservación de la Naturaleza). A la Dirección General de Conservación de la Naturaleza le corresponde la coordinación de la elaboración y desarrollo del PAN, en cooperación con las Comunidades Autónomas y los restantes Ministerios implicados, y con la participación de la sociedad. Por tanto es el órgano competente en el nivel nacional para la lucha contra la desertificación.

Aunque se había manejado la posibilidad de constituir un Comité nacional específicamente dedicado a la aplicación de la CLD, de acuerdo con el principio de eficacia y economía de medios y funciones, y dada la existencia de determinados órganos colegiados estrechamente vinculados a cuestiones fundamentales de la lucha contra la desertificación, la coordinación y tratamiento institucional en España para la aplicación de la CLD y del PAN se apoya en los foros y órganos de cooperación y acuerdo institucional existentes más adecuados para impulsar las distintas medidas que lo integran. Así, desde el punto de vista de su tratamiento institucional corresponde a la Conferencia Sectorial de Medio Ambiente la aprobación del PAN, tratamiento que ha sido otorgado a otras planificaciones como la Estrategia Española de Diversidad Biológica o la Estrategia Forestal Española. Esta Conferencia es un órgano compuesto por representantes del Ministerio de Medio Ambiente y de las Consejerías responsables del medio ambiente en las Comunidades Autónomas. Previamente, corresponde a la Comisión Nacional de Protección de la Naturaleza (presidida por el Director General de Conservación de la Naturaleza) la discusión previa de detalle sobre el PAN para su posterior elevación a la Conferencia Sectorial de Medio Ambiente. Estos órganos de coordinación institucional pueden remitir a otros órganos colegiados sectoriales (la Conferencia Sectorial de Agricultura, el Consejo Nacional del Agua o la Comisión Interministerial de Ciencia y Tecnología, entre otros) las cuestiones específicas que consideren que requieran un tratamiento

especializado. Para asegurar la participación directa en el nivel institucional de la sociedad en la aprobación y desarrollo del PAN, se cuenta con órganos de carácter consultivo como el Consejo Asesor de Medio Ambiente (CAMA) y el Consejo Nacional de Bosques, todo ello sin perjuicio del proceso de consulta en amplios foros de debate que ha tenido lugar en la etapa de elaboración del PAN.

Como paso previo al proceso de debate se elaboró un documento de "Directrices del Programa de Acción Nacional contra la Desertificación" que fue aprobado por el Ministerio de Medio Ambiente. El 17 de junio de 2000, y en el marco de los actos de celebración del Día Mundial de la lucha contra la desertificación, se realizó la presentación al público de dichas Directrices, en presencia de autoridades nacionales y regionales y del Secretario Ejecutivo de la UNCCD. El PAN se encuentra en la última fase de discusión después de un proceso de participación y debate muy amplio. En la actualidad existen dos cuestiones pendientes para proceder a la aprobación del PAN. La primera consiste en la definición de los aspectos presupuestarios, condicionados por procesos paralelos y sinérgicos de planificación, como son el Plan Forestal Español y el Plan Hidrológico Nacional. El segundo aspecto se refiere a la consecución de la máxima integración en el PAN de los aspectos relevantes de las políticas agrícolas que están pendientes de definición en el nivel regional, en particular los relativos a la programación de Desarrollo Rural por parte de las Comunidades Autónomas. No obstante, algunas líneas de trabajo específicas que el PAN propone han sido ya dotadas de presupuesto para su puesta en marcha.

Del análisis realizado de la legislación sobre medio ambiente y esferas conexas la conclusión más relevante es que, en la actualidad, se está trabajando en la elaboración o modificación de determinadas normativas existentes relacionadas con los sectores más estrechamente vinculados con la lucha contra la desertificación y que, en general, ofrecen aspectos muy positivos en el sentido de la integración en las distintas normativas de los principios de la CLD. En concreto nos referimos al sector agrícola (requisitos agroambientales obligatorios para recibir ayudas de la Política Agraria Común), al sector forestal (elaboración de una nueva Ley de Montes), al sector ligado a los recursos hídricos (obligatoriedad de planes de ordenación para recuperación de acuíferos sobreexplotados y planes de gestión de sequías) y, con un carácter más horizontal puesto que está muy relacionada con los sectores anteriores, a la política de desarrollo rural (códigos de buenas prácticas agrarias obligatorios para acogerse a las ayudas agroambientales, nueva líneas de ayudas en terrenos forestales de interés publico).

Coordinación y movilización de recursos, tanto nacionales como internacionales, incluida la concertación de acuerdos de asociación (Epígrafe 7)

A lo largo del informe se pone de manifiesto que la mayor parte de las acciones de lucha contra la desertificación en España son objeto de atención por parte de las diversas políticas sectoriales implicadas, situación que lleva a la lógica consecuencia de que no va a haber un "fondo especial presupuestario" sino que los fondos para la aplicación del PAN vendrán de las

muy diversas líneas abiertas de financiación para acciones que el PAN considera que forman parte de medidas de lucha contra la desertificación, promoviendo el incremento de financiación en aquellas medidas más interesantes o que los fondos disponibles se apliquen en aquellas áreas que el PAN considere que es más urgente actuar. Por su parte, la Dirección en General de Conservación de la Naturaleza debe adaptar los presupuestos dedicados a la lucha contra la desertificación a las necesidades identificadas por el PAN. Ello supone la modificación y refuerzo de determinadas líneas de inversión anteriores y la creación de nuevas líneas en determinados aspectos dotando a todas ellas de la continuidad necesaria. Este ejercicio de adaptación y refuerzo presupuestario deberá ser ejercido por los restantes elementos de la Administración General del Estado implicados y por las administraciones autonómicas y locales afectadas por el fenómeno de la desertificación.

Vínculos y sinergias con otras convenciones sobre medio ambiente y, en su caso, con estrategias nacionales de desarrollo (Epígrafe 4)

El PAN no puede desarrollarse de otra forma que como parte de la planificación nacional ambiental y de desarrollo económico y social puesto que se parte de una situación caracterizada por el hecho de que la mayor parte de los campos de acción integrados en la lucha contra la desertificación han sido, o están siendo en la actualidad, objeto de atención y planificación por parte tanto de las Administraciones Públicas como de los distintos estamentos de la sociedad. En el Informe se exponen las relaciones del PAN con los marcos estratégicos y de planificación más estrechamente vinculados con la lucha contra la desertificación, poniéndose de manifiesto el gran nivel de coherencia entre los principios y acciones que propugna el PAN con la planificación en el sector forestal (Estrategia Forestal Española, Plan Forestal Español y planificaciones forestales regionales), con determinados aspectos de la planificación en materia de aguas (Plan Hidrológico Nacional y Planes Hidrológicos de Cuenca) y con el sector agrario (Plan Nacional de Regadíos y estrategia de integración de las consideraciones ambientales en la agricultura de la Unión Europea) y de desarrollo rural (Programas de Desarrollo Regional y Rural de los Fondos Estructurales de la UE).

Además, en el año 2001 se ha puesto en marcha en España la preparación de la Estrategia Española de Desarrollo Sostenible (EEDS) para los próximos 25 años, que aspira a obtener el mayor respaldo político, social e institucional a las iniciativas nacionales puestas en marcha para un desarrollo más sostenible. La EEDS supone un garante de su continuidad en el tiempo. En concreto, promover el desarrollo y la aplicación del Programa de Acción Nacional contra la Desertificación constituye una de las acciones clave de la EEDS.

En la actualidad, es en el sector de investigación donde con mayor intensidad se está tratando de establecer los vínculos y sinergias entre las convenciones sobre medio ambiente. En el Plan Nacional de Investigación, Desarrollo e Innovación Tecnológica (I+D+i) se están realizando investigaciones dirigidas al conocimiento de los efectos de la variabilidad climática y de los cambios de usos del suelo sobre la disponibilidad de

recursos hídricos, la conservación de funciones ecológicas y de la biodiversidad, la erosión y degradación del suelo y los riesgos de avenidas. También se está trabajando en sistemas de apoyo a la decisión para adaptar la gestión de recursos a condiciones climáticas o económicas. La información generada permitirá desarrollar paquetes tecnológicos dirigidos a varios niveles de decisión, desde el local al europeo, que serán de utilidad para el desarrollo de los compromisos españoles en lo que concierne a los convenios internacionales de cambio climático, biodiversidad y lucha contra la desertificación y la sequía.

La Estrategia Española para la Conservación y el Uso Sostenible de la Diversidad Biológica (EEDB) se aprobó en 1998. Su estrecha relación con el PAN se pone de manifiesto en el hecho de que la mayoría de los procesos que afectan negativamente a la conservación de la diversidad biológica son los mismos que se señalan como causantes de la desertificación. Es evidente entonces que los esfuerzos desplegados para luchar contra la desertificación complementan las medidas destinadas a proteger la diversidad biológica y viceversa. Entre los ámbitos en que es más clara una actuación conjunta entre la EEDB y el PAN se pueden señalar las medidas relacionadas con la ordenación de recursos naturales y planificación territorial, especialmente en aquellas áreas con ecosistemas desérticos, semidesérticos o esteparios, resultado de una situación climática y geológica natural, que presentan singulares valores naturales. El PAN pretende hacer compatible la lucha contra la degradación del suelo y de la vegetación con el reconocimiento, protección y puesta en valor de las zonas áridas o esteparias, a través de la promoción del uso y de la apreciación de los valores naturales y paisajísticos que albergan. Para ello, es imprescindible una política activa hacia las zonas áridas, hasta ahora simplemente abandonadas al no existir una cultura que favoreciera su apreciación. En el PAN se ha considerado que para alcanzar el conveniente grado de coordinación entre la EEDB y el PAN en aquellas facetas que así lo requieran resultan especialmente útiles las recomendaciones contenidas en el "Programa sobre la diversidad biológica de las zonas secas", elaborado por la CDB y la CLD.

Medidas para la rehabilitación de las tierras degradadas y los sistemas de alerta temprana con el fin de mitigar los efectos de la sequía (Epígrafe 6)

A lo largo del epígrafe 6 del informe se exponen las medidas que integran el PAN, que se engloban en la determinación de las áreas de actuación, la coordinación de políticas y la identificación de una serie de líneas de acción específicas de lucha contra la desertificación.

La coordinación de políticas se presenta como una pieza clave del Programa de Acción Nacional. Por tratarse la desertificación de un fenómeno de carácter multisectorial y multidisciplinar, que demanda soluciones integradas, dicha coordinación es un requisito esencial para obtener el éxito en la formulación de dichas soluciones, vinculadas a la armonización de intereses, es decir, a la resolución de los conflictos que se plantean en el territorio. El análisis de los distintos sectores implicados y de sus estrategias y planificaciones ha llevado a la identificación de un conjunto de medidas a desarrollar que constituyen la estrategia nacional de lucha contra la desertificación. El objetivo del PAN en lo que se refiere a la coordinación de políticas es

promover la modificación o refuerzo de ciertas medidas contempladas en dichos planes en virtud de los objetivos de lucha contra la desertificación.

En este conjunto de medidas, las medidas de rehabilitación de las tierras degradadas por los distintos procesos de desertificación adquieren una dimensión importante, sin olvidar la importancia de la prevención de la degradación. Sin ánimo de ser exhaustivos se pueden citar algunas de las más importantes medidas de restauración de tierras contempladas en ese "catálogo" o conjunto de acciones: Prácticas agrícolas sostenibles (aplicación de las técnicas de agricultura de conservación, tratamiento adecuado de los restos de cosecha, diseño racional de rotaciones y alternativas, utilización racional de fertilizantes y productos fitosanitarios, prácticas de conservación de suelos agrícolas), recuperación y mantenimiento de estructuras de conservación de suelos y de la red de drenaje de los terrenos agrícolas, mejora de pastizales degradados y planificación de la ganadería extensiva en zonas áridas y semiáridas, reforestación de terrenos agrícolas marginales y/o abandonados sometidos a procesos de degradación, recuperación de suelos salinizados, fomento de la aplicación de técnicas de rehabilitación de suelos (aplicación de residuos orgánicos de origen urbano, industrial, agrario,...), repoblación forestal (con especial atención a la instauración de una cubierta vegetal protectora y fijadora de suelos, tolerante a condiciones de aridez extrema), tratamientos silvícolas para la mejora de cubiertas vegetales degradadas, obras de corrección hidrológica, fomento de la investigación y experimentación de técnicas de restauración de la vegetación en zonas áridas, reestructuración de regadíos mal planificados o ineficientes o abastecidos por recursos hídricos sobreexplotados, etc.

Muchas de estas medidas están integradas en las siguientes líneas de acción específicas que se proponen en el PAN: Análisis, divulgación y explotación de resultados de programas de I+D. Ordenación y Restauración de cuencas en zonas áridas o semiáridas degradadas. Red de proyectos demostrativos de restauración y gestión de áreas afectadas por desertificación.

El diseño de sistemas de alerta temprana frente a las sequías está contemplado tanto por el Plan Nacional de I+D+i como por los organismos competentes de la administración hidrológica, siendo las principales líneas de trabajo: desarrollo de indicadores para la identificación temprana de situaciones de sequía; sistemas de ayuda a la decisión para la gestión del agua en situaciones de sequía y estrategias adaptativas frente a las mismas.

#### Vigilancia y evaluación de la sequía y la desertificación

(Epígrafes 3, 6 y 8)

El PAN propone el establecimiento de un Sistema Integrado de Vigilancia de la Desertificación con objeto de disponer de mediciones, datos e indicadores que nos permitan diagnosticar los procesos de desertificación en España y conocer el estado de su desarrollo en las zonas afectadas y la respuesta de las mismas ante los remedios aplicados. El sistema está constituido por los siguientes elementos: 1) Inventario, evaluación y seguimiento de áreas afectadas por desertificación (Inventario Nacional de Erosión de Suelos, Mapas de Suelos de las áreas áridas, semiáridas y subhúmedas secas, programa de seguimiento mediante teledetección para la evaluación dinámica de

indicadores de la desertificación, programa de seguimiento de áreas afectadas por incendios forestales, programa de seguimiento de la salinización de los suelos). 2) Desarrollo de un sistema de indicadores y alerta de riesgos, en el marco de las numerosas líneas de trabajo abiertas, tanto a nivel nacional como internacional. 3) Evaluación y seguimiento por medición directa en el terreno mediante la continuación y ampliación de la Red de Estaciones Experimentales de Seguimiento y Evaluación de la Erosión y la Desertificación (Red RESEL) del Proyecto Lucdeme.

En el desarrollo de estas líneas de trabajo se integrarán las actividades en marcha en estos campos para coordinar esfuerzos y obtener sinergias en los resultados de los distintos grupos de trabajo. Algunas de estas actividades son: el proyecto HISPAMED (Evaluación de la desertificación en España), que ha pretendido contribuir al PAN mediante dos objetivos: la identificación de las zonas amenazadas de forma objetiva y el desarrollo de procedimientos de vigilancia a largo plazo; el proyecto HISPASED, dedicado al desarrollo de sistemas de alerta de riesgos mediante indicadores biofísicos y socioeconómicos integrados en modelos y sistemas de soporte a la decisión; y SURMODES (A Surveillance System for Assessing and Monitoring of Desertification), que integra y amplía los dos anteriores.

Acceso de las Partes que son países afectados, en particular las Partes que son países en desarrollo afectados, a las tecnologías y los conocimientos técnicos y especializados adecuados

Dentro de las actividades desarrolladas en el Programa Araucaria, la Agencia Española de Cooperación Internacional (AECI) promueve diferentes actuaciones en el ámbito de la formación científica y técnica. En colaboración con la Dirección General de Conservación de la Naturaleza del Ministerio de Medio Ambiente, se han realizado ya ocho ediciones del "Curso Internacional de Restauración Hidrológico-Forestal, Control de la Erosión y Defensa contra la Desertificación". El curso, impartido en España y en el que participan una media de 20 asistentes becados, está dirigido a profesionales de América Latina que ejerzan actividades relacionadas con la ordenación y restauración hidrológico-forestal de cuencas. Se promueve con la finalidad de proporcionar a los participantes la información y los conocimientos obtenidos desde la experiencia española, fundamentada por los trabajos efectuados en este campo durante más de un siglo, incorporando las innovaciones metodológicas surgidas como respuesta a las múltiples y crecientes demandas, así como los avanzados instrumentos tecnológicos de aplicación en este campo. Complementariamente, como una forma de intercambio entre todos los participantes, tanto asistentes como organizadores, se pretende avanzar en el conocimiento mutuo de la situación y de los trabajos desarrollados en los países de América Latina.

De los propios asistentes y organizadores de este curso surgió la iniciativa de organizarlos también en Latinoamérica, habiéndose celebrado ya en octubre de 2001 el "I Curso Superior Interactivo sobre Lucha contra la Desertificación" en el Centro Iberoamericano de Formación de la AECI en Santa Cruz de la Sierra (Bolivia). Como indica el propio título del curso, se ha querido fomentar una línea de trabajo que permita aunar esfuerzos para transmitir e intercambiar sobre el terreno experiencias, conocimientos y opiniones en el tratamiento y control de los procesos de desertificación.

## TURKEY

The United Nations Convention to Combat Desertification was adopted in Paris on 17 June 1994 and opened for signature on 14-15 October 1994. The Convention was signed in 1994 in Paris by the Minister of the Environment on behalf of the Turkish Government and approved in November 1996 by the Environment Commission in the Turkish Parliament. The Convention was ratified by the Grand National Assembly of Turkey with law number 4340 on 11 February 1998. The stated objective of the Convention is "to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas".

Within this framework, many initiatives have been launched and undertaken for the implementation of the Convention and combating drought, at both governmental and institutional levels. After Turkey became Party to the Convention, a "National Seminar on Enhancing Awareness on the Convention" was held in Izmir on 20-22 of May 1998 with broad participation of technical and senior staff and scientists from public and private research institutions, universities and NGOs. Additionally, a meeting was held in Bolu-Gölköy from 8 - 9 July 1999 in order to determine an outline of the National Action Programme of Turkey. The representatives of all relevant ministries, institutions, universities and NGOs were convened together in this meeting to discuss specific problems related to desertification and drought in affected areas and particularly local communities in these areas. It was made clear that there is a need to develop an effective and integrated soil-water management approach to combat desertification at both local and national levels. As a result of the two-day meeting, an outline for a National Action Programme to Combat Desertification and Drought in Turkey was formulated.

In accordance with the provisions of the Convention, a National Coordinating Body (NCB), composed of technical and administrative staff of key institutions directly responsible for combating drought and desertification, was established in May 2000 for preparing the NAP pursuant to article 5 of the UNCCD, in a consensus with the high level representatives of the Ministry of the Environment (MOE), Ministry of Agriculture (MARA), Ministry of Finance (MOF), General Directorate of Rural Services (GNRS), General Directorate of State Hydraulics Works (GDSHW), General Directorate of State Meteorological Services (GDSMS) and the Ministry of Foreign Affairs. In addition to the establishment of the NCB, the Head of the Plant Protection and Combating Erosion Department of MOE is designated as national focal point.

Pursuant to article 9 of the UNCCD, affected developing country Parties shall prepare a national action programme. Turkey gives great importance to implementation of the UNCCD at all levels and is aware that NAP is the key operational tool for translating the provisions of the Convention into concrete actions and measures to combat desertification. As mentioned above, the outline of the National Action Programme was formulated in a short time and a draft document which identifies the existing situation of Turkey

relevant to erosion, drought and poverty, and compiles all the relevant information, was prepared at the end of 2001 and sent to approximately 20,000 people by e-mail inviting them to contribute their views by the end of March 2002. Now, it is under revision. On the other hand, Turkey has been involved actively in RAP studies, undertaken within the Regional Implementation Annex of the Northern Mediterranean Countries (RIANMC) (Spain, Greece, Portugal, Italy and Turkey).

The Programme, entitled "National Programme on Environment and Development", was launched in 1999 by MOE with the financial and technical support of the United Nations Development Programme (UNDP), in order to cooperate with the Government of Turkey for the integration of environmental concerns in development policies/programmes/plans in two cross-sectoral areas: sustainable energy and atmospheric protection and combating desertification, which are two of the priority action areas identified in the NEAP and in line with Turkey's national follow-up commitments within the framework of the regional and international agreements. The programme is designed in two consecutive phases. Phase I aims at:

- establishing of the Programme Coordination Unit (PCU). It was designated by UNDP in close cooperation with MoE in 2001;
- initiating a consultation process among national stakeholders with a view to ensuring their participation and contributions to the programme activities as per the Programme Support Objectives (PSOs). PSOs of the National Initiative for Combating Desertification are to develop a NAP and to formulate and implement small-scale demonstration projects for implementation of the NAP, particularly in rural and least developed regions of the country;
- conducting a comprehensive needs analysis in the selected programme thematic areas;
- subsequent formulation of the subprojects;
- implementation of a selected number of sub-projects which are of priority as determined by the Programme Steering Committee (PSC); and
- resource mobilization for Phase II of the programme.

On the basis of Phase I, Phase II will aim to realize all the programme objectives through an increased number of subprojects and implementing agencies. Programme activities under Phase I will be initiated with UNDP/Target for Resources Assignment from the Core (TRAC) resources of US\$ 200,000 and cost sharing by the Ministry of Environment in the amount of US\$ 200,000. It will be finalized at the end of 2002.

In Turkey, activities to combat erosion were initiated in 1955 by the MoF for the first time in order to protect Tokat Province from flood. Activities related to the prediction of drought, erosion control, improving the productivity of the land, rehabilitation, conservation and sustainable management of land and water resources are listed below:

- Construct check dams in the gullies to prevent further cutting;
- Construct soil saving dams at such intervals of heights to fill up and restore themselves;

- Construct cross-check in channel to prevent bed erosion;
- Construct training walls;
- Planting the eroded area with some form of vegetation;
- Cover planted with mulch, brush, straw or other suitable material to hold the loose soil in place, and help to keep soil moist;
- Construct a system of terraces with protected outlets and drops;
- Afforestation with terraces on devastated hillside;
- Establish meteorological stations and facilities to make meteorological observations and prepare weather forecasting and data;
- Establish a radar and automated weather station network for the demand for now-casting of severe weather and early warning of other climatic-related natural hazards;
- All kinds of forestation and precautions to prevent floods, landslides, soil corrosion and erosion, and to rehabilitate rivers and their sources within the borders of national forests;
- Zero tillage, proper seed bed preparation and contour ploughing in sloped lands;
- Prevent burning of post-harvest mulches,
- Use environmental-protective models during the arrangement and rehabilitation of grasslands and making seasonal arrangements, where possible;
- Conserve biodiversity;
- Minimize chemical use, promote new techniques that help sustainability of environment;
- Encourage organic agriculture;
- Form wind-breaker structures;
- Rehabilitate and restore salinated lands;
- Apply proper and efficient watering methods, and improve drainage conditions;
- Monitor all agricultural activities by using Geographic Information Systems (GIS);
- Formulate and carry out rural development projects;
- Realize arrangements for providing means of settlement for the refugees, migrants and for those whose land have been expropriated, both within and outside agricultural areas;
- Provide credits to farmers for the purpose of developing soil and water resources and to prepare technical aid projects;
- Provide soil protection services and other services related to the construction of facilities such as ponds, pumping stations, reservoirs and channels for the purpose of supplying water for irrigation and potable water for animals;
- Realize the collection of lands, render in-field development services and construct individual drainage systems,
- Make research for development soil and water resources.

All those activities have been carried out through past years in Turkey.

Our benefits from being Party to the Convention will be to establish coherence by bringing together all key actors to support anti-desertification

activities, to promote policies and strengthen institutional frameworks that will enhance cooperation and coordination at national level, lastly and more important, to put bottom-up approach into the agenda to mitigate drought effects and combat erosion.

Legal and regulatory framework on erosion and desertification in Turkey are listed below:

- Law on Establishment and Duties of Ministry of Forestry
- Law on Forestry
- Law on Mobilization for Afforestation and Erosion Control
- Law on Support of Forest Villagers for Their Development
- Decree Law on Establishment and Duties of Ministry of Agriculture
- Law on Grazeland
- Law on the Aid to Farmers Affected By Natural Disasters
- Law on the Aid to Farmers Affected By Natural Disasters
- Law on Establishment and Duties of General Directorate of Rural Services
- Law on Establishment and Duties of General Directorate of State Meteorological Service
- Law on Establishment and Duties of General Directorate of State Hydraulics Works
- Law on Environment
- Law on Establishment and Duties of Ministry of Environment
- Directive on Utilization of Agricultural Lands for non-agricultural Purposes
- Notice for Prevention of Burning of Post-harvest Mulches

## II. SUMMARIES OF REPORTS SUBMITTED BY SUBREGIONAL ORGANIZATIONS

### GROUP OF ANNEX IV COUNTRY PARTIES

During this reporting period the five members of the Annex IV Subregion (Greece, Italy, Portugal, Spain and Turkey) focused their common activities mainly on planning the mode and areas of subregional cooperation and on the acquisition of pertinent information. The target of these activities was the preparation of the Subregional Action Programme (SRAP), which would be the basis of cooperation among them and with other countries.

With respect to the preparation of the SRAP, the members have continued to elaborate the terms of references (TOR), which had been prepared by the Italian Presidency and approved by the members of the Subregion.

According to the priorities set on the thematic areas of the TOR, the five Focal Points and Israel prepared and submitted to the EU the CLEMEDES (Clearing House Mechanism on Desertification for the Northern Mediterranean Region) proposal. The proposal has been approved for financing.

The Subgroup members are participating in the EU-financed Concerted Action Programme to support the Northern Mediterranean Regional Action Programme for Combating Desertification (MEDRAP). The programme involves a series of workshops, where scientists, administrators, NGOs and representatives of stakeholders exchange views, experience and develop approaches for combating desertification, which could be used as a basis for the elaboration of the Regional and National Action Programmes.

The first Workshop on Sustainable Soil and Water Management was held in Athens on 15-17 December 2001, organized by the "Nucleo Ricerca Desertificazione" of the University of Sassari and the Greek National Committee for Combating Desertification. Preliminary conclusions and recommendations are presented in this report.

Also, the Focal Points of the Annex IV Subgroup have participated in the UNCCD secretariat's Initiative on the Desertification Information System to support National Action Programmes in the Mediterranean (DIS/MED). A technical Workshop was held in Florence on 20-22 June 2001, where principles were elaborated for the implementation of DIS/MED.

Greece, Portugal and Turkey have selected pilot areas for implementing the NAPs, multinational cooperation and demonstrations.

The Greek Presidency of the Annex IV Subgroup organized the joint celebration of World Day to Combat Desertification in Athens on 17 June 2001. The celebration was attended by the UNCCD Executive Secretary, Mr. H. A. Diallo, all the Focal Points of the subgroup, observers from France, Israel and MEDFORUM and a large audience of governmental dignitaries, scientists, local government officials, NGOs and stakeholders. The celebration was widely publicized by the media.

The Greek presidency organized during 2001 two official focal point meetings. One in Athens on 19 June on the occasion of the celebration of World Day to Combat Desertification and one in Geneva on 10 October on the occasion of the fifth session of the Conference of the Parties (COP 5). Decisions reached in these two meetings are presented in the text of this report.

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