



Convention to Combat  
Desertification

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SUMMARIES OF REPORTS SUBMITTED BY SELECTED ASIAN COUNTRY PARTIES<sup>1,2</sup>

	<u>Page</u>
Uzbekistan . . . . .	2
Mongolia . . . . .	6
Turkmenistan . . . . .	9
Lao People's Democratic Republic . . . . .	16
China . . . . .	17
Tajikistan . . . . .	22

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<sup>1</sup> Summaries are reproduced without formal editing by the UNCCD secretariat.

<sup>2</sup> Country Parties are listed by date of ratification of the Convention.

**UZBEKISTAN****1. The profile of the country, strategies and priorities established within the framework of sustainable development plans and/or policies**

The issues of desertification and drought control hold top priority in securing sustainable development in the Republic of Uzbekistan, where deserts and semi-deserts occupy 80 per cent of the territory.

About 10 million hectares of rangelands require radical improvement. Overgrazing and cutting of forests for firewood and other purposes led to a considerable reduction in the arboreal-shrub vegetation in the desert zone. Since 1965 the area of woodlands has decreased by half.

Shifting sands occupy approximately one million hectares in the Republic of Uzbekistan. Only recently they spread out to the area of 200,000 hectares along the margins of irrigated lands, thus creating a serious threat of intensification of desertification processes.

Land degradation is also taking place on irrigated lands involved in agricultural production. Over 50 percent of irrigated lands are subject to secondary salinization. Water erosion has affected over one million hectares of ploughlands.

The past quarter of a century has witnessed an unprecedented degradation of the Aral Sea, one of the world's largest land-locked water bodies. Its water level has dropped by 17 metres, and its water surface has shrunk by more than half. The dried-out seabed has become the arena of a new sand and salt desert with an area of over 30,000 square kilometres. Change of climate, landscape, fauna and flora, as well as increasing salt and dust transport in the Aral Sea littoral area and the surrounding territories have intensified desertification processes in that region. The deterioration of the environmental situation has both direct and indirect impact on the quality of life and health of 35 million people living in the Aral Sea basin.

This explains the active participation of the Republic of Uzbekistan in the preparation and implementation of the United Nations Convention to Combat Desertification. The Republic of Uzbekistan was the first country in Asia and the CIS to ratify the Convention. It participated actively in all phases of its preparation.

UNEP has given the Republic of Uzbekistan both financial and technical support in designing the National Action Plan to Combat Desertification in the country. A wide range of prominent Uzbekistani scientists and professionals were involved in drafting the text of the National Action Plan. A number of workshops were held in the city of Tashkent and the areas most severely affected by desertification, namely, Bukhara, Samarkand, Urgench and Karakalpakstan.

The workshops have permitted the involvement of local communities, NGOs, students of institutes of higher education (soil specialists, land surveyors, hydraulic engineers, etc.) in implementing the Convention at the national level. The Government of Uzbekistan has already launched a number of projects aiming to combat desertification. They are related to the provision of rural population with clean drinking water and gas, and development of small-scale power engineering using alternative energy sources. A lot is being done in changing

farm crop patterns, reducing the cotton mono-culture, and increasing the area of land under cereals, vegetables and forage grasses.

However, difficulties of the transition period do not permit to implement all measures required for preventing land degradation resulting from human-induced impact in full measure. One of these problems is secondary land salinization caused by a deficit of water resources. It is necessary to develop desert monitoring based on modern geographic information systems and intensify control over a wise use of land.

## **2. The institutional measures taken to implement the Convention**

In 1995 the Oliy Majlis (Parliament) of the Republic of Uzbekistan ratified the United Nations Convention to Combat Desertification. A steering committee for designing the National Action Plan to combat desertification and drought was formed, and the text of the NAP was prepared. Glavgidromet was identified as the national focal point. On behalf of the Government of the Republic of Uzbekistan, it takes an active part in implementing the CCD at the national and local levels. The legislative regulation of environmental relations is based on the Constitution of the Republic of Uzbekistan, as well as the laws, edicts and regulatory acts of the President and the Government, international commitments and departmental acts.

## **3. Participatory process**

The Steering Committee for designing the National Action Plan included representatives of Glavgidromet, the State Committee for Science and Technology, the State Committee for the Protection of Nature, the State Forestry Committee, the Chairman of the Council of Ministers of the Republic of Karakalpakstan, the Ministry of Agriculture and Water Resources and institutes of the Academy of Sciences of Uzbekistan. Scholars, professionals from ministries and departments, university professors and NGO representatives participated in drafting the text of the NAP. Regional workshops were conducted, which involved a wide range of stakeholders in designing the NAP.

Financial support of the Government of Finland and logistical assistance of the UNSO and the UNDP Office in Uzbekistan permitted to implement a project promoting actions aimed at desertification control. Workshops were held under the project in the areas most affected by desertification. The workshops were held at the state universities of the cities of Bukhara, Samarkand, Urgench and Nukus, which permitted to place the desertification problem in the focus of the attention of professionals, researchers, professors and, what is most important, students. Graduate students will constitute the main labour force that will tackle the implementation of the programme to combat desertification at the local level. Reports on regional desertification problems were presented at the workshops. The workshops nominated representatives to attend the National Forum held in Tashkent. Representatives of the CCD secretariat, UNDP, ministries, universities and NGOs took part in the Forum. The mass media gave extensive coverage to the Forum. The participants also stressed the need for international assistance in implementing the Convention at the national level.

#### **4. The consultative process in support of the preparation and implementation of the National Action Plan and the partnership agreement**

Active support is given by the CCD secretariat, permitting representatives of Uzbekistan to attend international meetings which help them identify priority areas for action. Uzbekistan participates actively in thematic networking, preparing materials and transmitting information at the request of TPN centres. Representatives of various countries provide their materials and participate in workshops on desertification problems and wise use of water resources.

Uzbekistan is conducting targeted work to address the repercussions of the Aral Sea disaster. International agreements have been concluded to this effect. Projects supported by international organizations are underway. However, the Aral Sea crisis has affected not only its littoral area but also the entire Central Asian region, the main reason being the water resources deficit.

The NAP includes priority projects requiring financial support from international agencies and donors. Implementation of these projects will permit to gain new experience in controlling land degradation and apply it at both the national and international levels.

#### **5. The measures taken or planned within the framework of the National Action Plan**

Considering the importance of land as a natural resource, the land surveillance service and land-use inspection have been separated from the Ministry of Agriculture and Water Resources. They provided a basis for establishing the State Committee of the Republic of Uzbekistan for Land Resources, subordinated directly to the Cabinet of Ministers.

Active participation of independent Uzbekistan in major international environmental conventions and nature protective activity of international governmental and non-governmental organizations is largely determined by the extent to which the provisions of these conventions and agreements are taken into consideration in national laws and regulatory acts.

Nature protection programmes have been designed and are being implemented in Uzbekistan. They are closely related to desertification control and they are:

National Programme to Stop the Use of Ozone-Depleting Substances  
(ODS)

The aim of the National Programme is to meet the commitments stemming from the Vienna Convention and the Montreal Protocol on Ozone-Depleting Substances.

National Strategy and Action Plan to Preserve Biological Diversity

The main priorities of the National Strategy and the Action Plan are as follows:

- S Establishment of a National Commission on biological diversity;
- S Assessment of the current state of biological diversity;
- S Reorganization and development of a network of specially protected territories;

- S Division of responsibilities in managing biological resources;
- S Public awareness and participation in preservation and non-destructive use of biological diversity;
- S Specific interventions and mechanisms of non-destructive use;
- S Calendar plan, funds and their sources.

Uzbekistan: Study of Climate Change in the Country

This national project of capacity-building to enable Uzbekistan meet its commitments under the Framework Convention on Climate Change conforms to its goals.

Aral Sea Basin Programme (ASBP)

Design of the Programme started in 1994 following a donor meeting in Paris under the World Bank auspices, and is coordinated by the International Fund for the Aral Sea.

Phase I of the Programme attached priority to the design of the *Strategy of Rational Water Use and Protection of Water Resources in the Aral Sea Basin* as well as to the interstate projects 'Clean Water' and 'Sanitation'. Implementation of these projects has started in Uzbekistan, Kazakhstan and Turkmenistan. Phase II of the GEF Project, within the framework of the Aral Sea Basin Programme, began in July 1998.

The National Environmental Action Plan for the Republic of Uzbekistan

The Action Plan is primarily intended for the public health and the environmental sectors that act as the main forces in planning and implementing national actions in this area, in collaboration with other sectors and social groups.

Creating Favourable Conditions for People's Life

The economic reforms launched in the country attach great importance to the improvement of living conditions of the rural population and its provision with clean drinking water and natural gas. The following programmes have been prepared and are under implementation: the Rural Infrastructure Development Programme, the Programme of Providing Rural Population with Drinking Water and Natural Gas and others.

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

The national budget stipulates for funding interventions to combat desertification in the form of targeted programmes to be implemented by relevant national ministries and departments. Scientific research is conducted by research institutions with the support of the State Committee for Science and

Technology. The submitted report has been prepared with the support of the CCD secretariat (\$4,000).

The National Action Plan to Combat Desertification was designed with UNEP financial and technical support in the amount of \$60,000.

Regional workshops and the National Forum in Tashkent were held with the financial assistance from the Government of Finland and UNSO technical support (\$50,000).

Representatives of Uzbekistan attend international workshops and meetings thanks to the support of the CCD secretariat.

Difficulties of the transition period prevent Uzbekistan from implementing a number of projects to combat desertification; therefore, to implement priority projects, the NAP requires financial assistance from international donors.

Assistance from the international community is especially required for designing and implementing regional programmes and projects.

## **7. Review of indicators**

A comprehensive paper was prepared, presented and discussed on the need for and role of a national environmental information system in combating desertification in Uzbekistan. It identified many facets and sets of data that are needed for the diagnosis and effective control of desertification. These sets of data are scattered in many organizations, in government, and international organizations. All are of different forms and formats and of varying qualities. It was proposed to strengthen the important and crucial institutions so as to improve their data sets and have the capacities to network and facilitate the exchange of data and information.

## **MONGOLIA**

Mongolia started to develop its National Action Plan to Combat Desertification (NAPCD) in 1992. The Action Plan defined environmental and anthropogenic impacts causing desertification and assessed environmental, social and economical factors to combat desertification.

NAPCD was planned to be implemented in three stages. In the first stage, the actions as consolidation linkages between central and local governmental organizations, NGOs and other participants, decentralization and creation of legal framework to combat desertification and land management issues were planned as basics.

In the middle stage, it was planned completion of capacity of monitoring on desertification, definition of areas severely affected by desertification and neutralization of the strength of desertification. In the final stage, NAPCD will be consolidated as nation-wide capacity.

It is carrying out activities on developing and implementation of measures to Combat Desertification in relation to the Mongolian Action Programme for the 21<sup>st</sup> Century and other social- economical and environmental programmes.

The Mongolian State Great Hural adopted the United Nations Convention to Combat Desertification on 22 August 1996, then it entered into force in 26 December 1996 and Mongolia was the 42<sup>nd</sup> country which joined the UNCCD.

The Ministry for Nature and Environment and the National Committee to Combat Desertification (NCCD) within the structure of the Ministry are National Coordinating Bodies for activities targeted to Combat Desertification.

NCCD was established by National Seminar, which represented Governmental and non-governmental organizations, research and private organizations and the public. The national coordinator of UNCCD was elected by the seminar.

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National seminar meetings were organized in 1995 and 1997 to implement UNCCD and to develop NAPCD. During the seminars it was made assessment to the state of droughts and desertification in Mongolia.

41.3 per cent of Mongolian total territory is Gobi desert and arid zone. 78.2 per cent of the territory is under potential danger of desertification and 59.4 per cent of above territory is having extremely fragile ecosystems. Only 8.3 per cent of all territory is covered by forest. The main reasons which caused desertification are considered as natural and anthropogenic (related with human activity) impacts.

To Combat Desertification, NAPCD was developed first of all, and actions were carried out to implement and to finance NAPCD.

NAPCD consists of 20 projects, planned for short-, medium- and long-term.

The NAPCD is under implementation with contributions and support from internal resources and external contributors.

Especially purposes of the first stage as consolidation linkages between participants and decentralization are successfully under implementation. Within the framework of implementation activities of UNCCD and NAPCD, restructuring was carried out with the establishment of the Land management Agency and it has started monitoring on desertification and degradation.

Over 20 laws and 200 legal regulations/acts were adopted and brought in force for Land tenure reform, Environment protection and Sustainable use of natural resource strictly related with development of land management, neutralization of land degradation and combating desertification.

Programmes were developed also which covered topics as forestry, water resources, protected areas, biodiversity, reduction of natural disaster, environmental public awareness and protection of air to be implemented in interrelation with NAPCD. NAPCD was developed and under the implementation in tight relation with Strategies on national development, State Policy on Ecology and Environmental Action Plan.

It made progress in mobilization of and collaboration with governmental organizations (for Agriculture, Forestry, land management, water, health care, social insurance, education, science and infrastructure development), NGOs, women and youth organizations during meetings, seminars and symposiums for developing and implementation of NAPCD (in 1995,1997, 1998 and 1999).

International organizations and donors such as UNDP, UNEP, UNSO, the secretariat of UNCCD, GTZ from Germany, DANIDA, JICA of Japan and ADB are collaborating for the implementation of UNCCD and NAPCD.

NCCD is the national coordinating body for coordinating and supervision on implementation of UNCCD and NAPCD, with joint representation of Governmental and non-governmental organizations, consisting from specialists in different fields. However, NCCD has no financial source but it has an authority to make suggestions and undertake consultancy using sources as budget, international projects and other financial mechanisms.

NCCD as national coordinating body is monitoring the state of desertification through a network of stations for hydrometeorology and environmental monitoring, specialists of land management, researchers from Academy of Sciences and remote sensing unit in ICC, under MNE.

NCCD can assess desertification process and predict the tendency of desertification using environmental information centre and database branches.

A database was created consisting of contacts as address, telephone, fax or Web sites on related fields of participants and members of NCCD during the implementation of UNCCD and NAPCD.

Under NCCD was established comprehensive database and GIS on management, environmental and desertification status.

It was established on Land management Agency and its branches in rural areas to improve the land management making progress in land registration, cadaster, and land allocation.

Carrying out land tenure reform, initial results were reached in land possession (renting till 100 years), decentralization on decision-making on land management and in improvement of land management.

**TURKMENISTAN**



Turkmenistan, a new State on the political map of the world, proclaimed its independence on 27 October 1991. Turkmenistan is situated in the western part of Central Asia between latitude 38E08' and 42E48' north and longitude 52E27' and 66E41 east. The occupied area is 491,200 square km. Its population is 5.2 million.

The territory of Turkmenistan fully lies in the zone of Central Asian deserts and its nature conditions are characterized by extreme climate. Its northern territory is a part of the Aral Sea ecological disaster. In this connection, the country is actually under the pressure of desertification processes and this situation imprints on the whole economy and social sphere of Turkmenistan. Therefore, Turkmenistan pays great attention to the protection of environment for the purpose of preservation of health and the prosperity of people.

Due to the vast territory and the small number of the population, processes of desertification do not constitute a serious menace. Nevertheless, nature fragility and its extreme sensitiveness to man's activity set the territory of Turkmenistan into the zone of great environmental risk.

Taking into consideration the need for studying and working out techniques for complex development of dry lands, in 1961 an Institute of Deserts was established in the system of the Academy of Sciences of Turkmenistan. Its tasks included not only research work but coordination of working out the techniques on a scale of the USSR. Beginning from 1967 up to the present moment, an international scientific journal "Problems of Desert Development" has been published at the Institute of Deserts. From 1980, an English version of the journal has been published in the USA. Consequently, Turkmenistan has already obtained considerable and scientific experience before 1977 when a "World Plan to Combat Desertification" was passed at the international conference in Nairobi. Therefore, Turkmenistan joined the implementation of the Plan as an active member. From 1979 till 1991, International Scientific Training Courses functioned in Turkmenistan for improvement of knowledge in the sphere of desertification control for representatives of developing countries of Asia, Africa and Latin America. During 12 years (before the collapse of the USSR) 600 specialists from 62 countries had studied at the courses.

In 1995 Turkmenistan signed the United Nations Convention to Combat Desertification, and in 1966 the Parliament of the country ratified it. In the same year a Governmental Commission for preparing the National Programme to Combat Desertification in Turkmenistan was established. On the whole, appropriate ministerial structures, departments, scientific institutions, institutes, NGOs and rural communes were involved in the successful implementation of the Convention on the national level.

#### **1. Strategy and priorities determined within the plans of sustainable development**

Analysis of the land structure in Turkmenistan shows that 90 per cent of the territory is characterized by desert landscape, which serves as round-year pastures for sheep and camels. About 2 mln ha fall to the share of irrigated lands concentrated in oasis. Pasture farming in the country is one of the most profitable and least labor-intensive industries of the economy. However, pastures on the significant territory were deserted and have low fodder capacity. So, out of 39.5 mln ha of pastures, 69 per cent are degraded, 37 per cent are

not flooded and 5 per cent have been transformed into bare moving sands. If now about 10 mln heads of cattle are being pastured, the appropriate phyto-ameliorative measures probably will allow to 2-3 times increase their productivity and bring up a cattle head up to 20 mln heads.

One of the key issues of sustainable development is the problem of water supply and irrigation. 100-150 mm of precipitation falls in Turkmenistan during a year mainly as rain, and evaporation more than 20 times exceeds precipitation. Hence, Turkmenistan suffers a great deficit of fresh water. Rivers have unstable run-off and do not meet the country's requirement in water. Therefore, search for additional resources of water supply for the growing economy and the population of the country is of great urgency.

Almost the whole plain territory of Turkmenistan belongs to sandy deserts formed by ancient deposits of the river run-offs, which are exposed to deflation. Dune sands formed during this process are of big harm to different valuable establishments. Railways and highways, irrigated land, canals, reservoirs, populated areas, pipelines, etc., suffer from sand drifts and deflation. Control of sand deflation and erosion give the possibility to preserve productivity of hundreds of thousand of hectares of land and run trouble free the important engineering constructions and people's life support establishments.

In regions of irrigated farming, a great disaster is the land salinization, an important factor of desertification. Currently 30 per cent of irrigated land is at the stage of high salinization, and 50 per cent of moderate salinization. Only 20 per cent of land are in more or less favorable ameliorative state. As a result of land salinization, agricultural crops capacity drops by 50 per cent and sometimes even lower. That means that a complex of measures should be performed in this direction including construction of a ramified drainage network.

The ecological situation in the Aral Sea basin has a negative impact on the sustainable social-economic development of the country. In this region the Dashoguz velayat of Turkmenistan is situated, in which the population suffers from drinking and irrigation water of poor quality, with which the development of different diseases is connected. The country pays a great attention to this region, provides a large financial and technical support. In 1998 the National Programme of Environment Protection in Turkmenistan was developed on the Governmental level in cooperation with the UNDP, in which measures for desertification control were defined, and now it is at the stage of implementation. Issues of desertification control are reflected in plans of the Ecological Fund of Turkmenistan, Nature Protection Society, NGO "Catena", Turkmen Geographical Society, etc.

In 1996 the State Fund for Nature Protection of Turkmenistan was established, which, within the limits of its possibilities, provides financial assistance to organizations for their nature protective activities. All these strategic trends and priorities are clearly determined in the Programme of the President of Turkmenistan - "Strategy of Social-Economic Reforms in Turkmenistan for the period up to the year 2010".

The main state executive body in the sphere of environment protection is the Ministry of Nature Protection of Turkmenistan.

## **2. Institutional, organizational and legislative measures for implementation of the National Action Programme to Combat Desertification**

Protection and rational management of nature is one of the fundamental principles of the state policy of Turkmenistan. The Law "On Nature Protection", passed in 1991, underlies activities of all industries and aims at ensuring the priority of environmental interests of the society with regard to a scientifically grounded combination of social-economic and environmental problems. The Law stipulates actions of the State in extreme environmental situations, control in the sphere of nature protection, responsibility for violation of the nature protective legislation.

Laws "On state of especially protected territories" (1992), "On flora protection and rational management" (1993), "On fauna protection and rational management" (1997) were also passed.

The Law "On hydrocarbon resources" (1996) is aimed at ensuring rational and efficient management of oil and gas resources. On 6 June 1997, a Competent Body for Exploration of Hydrocarbon Resources at the President of Turkmenistan was established, which is a body of the State Government conferred with exclusive powers.

In 1996 the Law of Turkmenistan "On protection of atmospheric air" was passed, and in 1993 - a Forest Code of Turkmenistan aimed at creation of conditions for rational management of forests, their reproduction and protection.

The Law of Turkmenistan "On state ecological expertise", being passed in 1995, is aimed at ensuring environmental protection from disturbances.

There are a number of legal acts regulating nature protective activities: "On development of horticulture and planting of greenery in Turkmenistan" (1992), "On creation of park zone in the Kopetdag piedmont" (1998).

The Ministry of Nature Protection of Turkmenistan is entrusted with control and intersectorial management in the sphere of nature protection and rational usage of nature resources.

Turkmenistan has joined, and its Parliament ratified, a number of international Conventions on environmental protection: UNCCD, "On Biological Diversity", "Basle Convention of Transborder Transportation of Dangerous Waste Products", "Framework Convention on Climate Change", "Vienna Convention and Montreal Protocol on Ozone Layer Protection". For the purpose of the efficient meeting of Turkmenistan's commitments on the implementation of provisions of Conventions and United Nations programmes on environment protection, in March 1999 a State Commission was established with seven working groups.

In April 1999, Heads of State of Central Asia at the sitting of the International Fund of the Aral Sea arrived at a decision on accelerating stabilization of the ecological situation in the Aral Sea basin.

In the framework of the Caspian Environmental Programme (CEP), in May 1998 a Regional Thematic Center to Combat Desertification was established in Turkmenistan (Ashkhabad).

Among especially protected territories there are reserves, sanctuaries, national, historic-nature and memorial parks, nature monuments, botanic and zoological gardens, arboreta, natural territories for health improvement.

Protected territories do not yet cover all the main landscapes of Turkmenistan, but they concentrate the largest species diversity of flora and fauna of the State.

Protected territories represent the most unique landscapes of the country, where the monitoring of environment is executed.

### **3. Process of participation of State, non-governmental organizations and rural communes in the implementation of the National Action Programme to Combat Desertification**

The National Action Programme to Combat Desertification in Turkmenistan was developed in 1996 with the support of UNEP and ESCATO and discussed at the National Conference. It was published in the journal "Problems of Desert Development" (# 1, 2000). In late 1996 it was approved by the State Commission on working out the National Action Programme to Combat Desertification and submitted to the Government of Turkmenistan for consideration, then submitted to the UNDP, the World Bank, the secretariat of CCD, UNEP, ESCATO and embassies of the USA, Germany, the UK, China and Iran.

In March 1999 a State Commission on ensuring the implementation of commitments of Turkmenistan, arising from the Convention and the United Nations programmes on the environment was established. The National Action Programme to Combat Desertification is tightly connected with the Presidential programmes "10 Year of Stability", "New village", "On planting greenery and horticulture". A project for creation of a shelterbelt around Ashkhabad, 140 km in length, was prepared and submitted to the Khyakimlik (Municipality) for its implementation. In October 1998 more than 2.5 mln trees were planted. Stabilization and afforestation of sands along highways of the Balkan and Akhal velayats is being performed.

An application was submitted to the World Bank for USD 219,000 credit for mini plant producing drinking water purifying devices.

Within the framework of the National Action Programme to Combat Desertification, two projects on problems of natural resources management in the central Karakum are being implemented with the support of the German Agency for Technical Cooperation (GTZ) and with the participation of the local population.

For decentralization of decisions on sustainable development of villages, the position of a head of the daikhans' association and elected position of archyn were united in Turkmenistan. He is at the same time a head of Gengeshi, which consists of population-elected aksakals (elders) and women – active and respected people – for solving all problems of village development.

In order to activate the local population for participation in planning of primary project tasks and optimum ways of their solving, the investigations, PRA surveys, workshops and competitions were held. Non-governmental organizations (NGOs) have been established in villages for different target groups with regard to gender policy. This work is done within the framework of the Memorandum of Understanding between the Government of Turkmenistan and the

UNDP/UNSO. For the period 1999-2000, USD 50,000 have been allocated by sponsors to support the National Action Programme to Combat Desertification implementation. On 2-5 March 1999 an international seminar "Implementation of Convention to Combat Desertification and Convention on Biodiversity: a new approach" was held for solving regional desertification problems.

On 17 June 2000, a Conference is scheduled, devoted to the World Day to Combat Desertification, as well as the National forum before COP 4 starts.

Foreign partners mean to further provide organizational, technical and financial support for the National Action Programme to Combat Desertification implementation in Turkmenistan. In particular, under the initiative of the Secretariat of UNCU and under the financial assistance of the German Agency for Technical Cooperation (GTZ), in early 2000 a seminar was held, in which an issue was raised about the necessity of working out the most priority regional projects for the Central Asian region (CAR).

On 18-21 July 2000, a meeting of CAR representatives will be held in Bishkek. In its work the highest officials, national coordinators and representatives of non-governmental organizations will take part. The German Agency for Technical Cooperation (GTZ) could commit itself to be an intermediary between governments of the CAR countries and international financial institutions.

#### **4. Consultation process to support the National Action Programme to Combat Desertification implementation**

Having joined almost all conventions and agreements in the sphere of nature protection, Turkmenistan actively supports the deepening of international cooperation for implementation of the National Action Programme to Combat Desertification and obtaining effective practical results. Its participation in this cooperation on a bilateral or multilateral basis is founded on principles and conceptions resulting from national tasks.

Economic, scientific and cultural agreements of Turkmenistan with Germany, India, China, Russia and other countries stipulate the usage of the positive nature protection experience, joint issuing of books, posters, and information sheets in the sphere of desertification control.

In the implementation of the National Action Programme to Combat Desertification, Turkmenistan closely collaborates with GTZ, the UNCCD secretariat, UNDP/UNSO, with the Tacis on desertification problem within the Caspian Environmental Programme, and with the World Bank on water supply and health protection. With the financial support of the German Government, the Publishing House "Springer" has published, in English, a book "Problems of arid lands and desertification control in Central Asia" of 18 printer's sheets. In accordance with the agreement between the Institute of Deserts of Turkmenistan and Research Institute of Arid Land of India, a book "The Karakum Desert and the Tar Desert" was published in English and Russian. The National Institute of Deserts is planning to prepare an Atlas of Desertification of Asia with participation of scientists of China, Mongolia, Iran, India, Kazakhstan and Uzbekistan.

During consultations and the implementation of an agreement on partnership in the sphere of desertification control, a new national approach in the

preparation and planning of actions is used. It is a "bottom-up" approach. This means that people from rural communes have a full right to participate in the implementation of the programmes connected with the nature protection and sustainable development. Favorable relations developed between Turkmenistan and international organizations such as UNEP, ESCATO, the World Bank, USAID, UNICEF, etc. Due to financial assistance of the UNEP, in 1996 a book of Professor A. Babaev, "Problems of Arid Land Development" of 21 printer's sheets was published in English. Publishing House "Alerton-Press" in New-York regularly publishes an international scientific journal "Problems of Desert Development", six issues per year.

##### **5. Measures planned or undertaken within the framework of the National Action Programme to Combat Desertification in Turkmenistan**

To analyze the past experience in the sphere of desertification control, in 1994-1999 several books were prepared and published as follows: "International cooperation in desertification problem solving" (1994) in Russian and Turkmen, "Problems of arid land reclamation - National aspects" (1995-1996) in Russian and English, "Problems of deserts and desertification control in Central Asia" (1999) in English. In cooperation with GTZ, a project "Activation of the local population participation in desertification control and in sustainable development of a farm", is being implemented beginning from 1998 in the cattle-breeding farm "Erbent" situated in the Central Karakum. At the National Institute of Deserts, a Consulting Center to Combat Desertification was established which was equipped with modern computers, telecommunication facilities and software for operation of the Geographic Information Systems (GIS). Beginning from the year 2000, such work is being executed in the Sakarchaga etrap of the Mary velayat, in mountain settlements Nokhur of the Bakharden etrap of the Akhal velayat and in the Tagta etrap of the Dashoguz velayat.

The project UNDP/UNSO "Implementation of the National Action Programme to Combat Desertification in Turkmenistan" is at its final stage. UNDP project "Development of potential of countries of the Aral Sea basin" is being implemented.

For the purpose of intensifying a role of the local population in the implementation of projects and programmes in the sphere of nature protection, including the National Action Programme to Combat Desertification, seminars were organized in several farms of the Sakarchaga, Gyaurs, Bakharden and Tagta etraps, with the participation of labor veterans (aksakals), teachers, doctors, shepherds and farmers, women, schoolchildren, and representatives of the local authority.

In 1999 a Joint-stock Society "Gyok Gushak" (Green Belt) was established, which started a wide front of work for planting greenery and afforestation around all cities and populated areas. A six-row shelterbelt around Ashkhabad of conifers, deciduous trees, and fruit trees has been already planted. In general, during two years more than 6 mln trees have been planted in the country, which are carefully cared for. Nearly all ministries and departments, industrial and agricultural associations, research institutions, students, pupils, citizens and countrymen take part in this activity. All expenditures for forest plantations are covered by the State. Forest planting is performed along linear objects - irrigating canals and highways. In early 2000 new railways and motor highways of 550 km of length, which will cross the Karakum Desert, have been built. The

National Institute of Deserts, Flora and Fauna is entrusted with the scientific-methodological provision of ameliorative work.

The state commission has been established for the control of planting greenery work.

#### **6. Budget allocations to support the National Action Programme to Combat Desertification in Turkmenistan**

Turkmenistan, as a young State, continues suffering from the difficulties of the transition period. Therefore, the Government, for the time being, is not able to allocate the necessary budget means for the implementation of the nature protective measures, including desertification control. Nevertheless, a definite amount is envisaged in the national budget for implementation of the primary, extremely necessary, nature protective measures. In addition, the list of financial sources includes some ministries and departments (the Ministry of Agriculture and Water Management, the Ministry of Energy and Industry, the Ministry of Nature Protection, banks, companies, and khyakimliks) and foreign companies' investments in Turkmenistan.

An important role in nature protection has been played by a Decree of the President of Turkmenistan of 1993 on free natural gas, electricity and fresh water for the population. By the present time, almost 90 per cent of cities and populated areas are supplied with gas and 70 per cent are provided with water pipelines. All these measures allowed to sharply decrease the anthropogenic pressure on environment and to improve the ecological situation in the country.

Under bilateral and multilateral agreements signed between Turkmenistan and foreign partners, their executors are entrusted with nature protective measures that are also important for financial allocations (partners from the USA, Italy, Turkey, Iran, Israel, Germany, Japan and China).

In connection with the fact that the nature of the arid zone, even in natural conditions, is on the verge of degradation, larger budget allocations are necessary for successful implementation of the National Action Programme to Combat Desertification in Turkmenistan, mainly for purchasing technical equipment.

#### **7. Criteria and indices used for analyzing and estimating results of implementation of the National Action Programme to Combat Desertification in Turkmenistan**

Monitoring studies in Turkmenistan have a long history and started in 1912 when the Repetek sand-desert station was established. Later on the monitoring of environment was regularly performed in all eight reserves located in different landscapes of the country. Monitoring data allow scientists and specialists to determine the beginning and duration of desertification processes, to estimate their space-time dynamics and prove predicted conclusions on further development of environmental components. In the monitoring of desertification processes, in addition to the ground images, images obtained from artificial satellites "Meteor-Priroda" are widely used. These satellites are equipped with the facilities for survey in visible, infrared and microwave range of the spectrum.

For the analysis and estimation of results of the implementation of the National Action Programme to Combat Desertification in Turkmenistan, a database

was created at the National Institute of Deserts, Flora and Fauna, which is an informational-reference system. It contains a combination of information and computer programs, accumulated during a long time and necessary for scientific analysis, planning and implementation of the nature protective measures and for rational management of natural resources. The database uninterruptedly provides executors with necessary information or materials for environmental expertise and preparation of proposals for officials and for solving of forecast or management tasks.

The database on desert problems and desertification control contains information as follows: on topographic maps, on subject maps, on aerial and space images, on desertification processes analysis and estimation, on criteria and indices of current state and tendencies in desertification development, on world experience in desertification control, on international and partner cooperation and on bibliography.

The specialists of the National Institute of Deserts, Flora and Fauna have worked out techniques of monitoring and instructions for plotting maps of desertification, which were discussed and approved in appropriate departments of the UNEP, ESCATO and FAO.

On the basis of accumulated basis data, a chart of the current state of desertification on the territory of Turkmenistan on the scale 1:1,000,000 was prepared.

#### **LAO PEOPLE'S DEMOCRATIC REPUBLIC**

Lao PDR is considered among very few countries in the region to maintain a relatively rich endowment in natural resources, namely forests, biological diversity, water and minerals. These are true although the country's forest cover has decreased significantly in the last three to four decades, from 70 per cent in 1950, to about 47 per cent in 1989. The rapid depletion of the nation's natural resources is caused by the war in the 1970s, poorly planned and managed exploiting, shifting cultivation, forest fires and logging. This has mainly affected soil resources, but water resources remain almost untouched. Ecosystems are still quite intact due to the low population density and the rough terrain.

Approximately 85 per cent of the country is mountainous, which is a barrier to development of the economic infrastructure, agricultural production, transportation and communication. The altitude for two thirds of the country ranges from 200 to 2820m. Two seasons predominate: a monsoon season from May to September and a dry season. Annual rainfall varies from 1300-3000 mm, but often falls short of the level needed for paddy rice farming. Dry and rainy seasons are very pronounced - during the dry season, very often there is no rain at all for a period of up to five months and many rivers and streams completely dry out. The rainy season, however, starts with torrential rains, which often take away the dry soil when it's not covered by vegetation. Therefore, local drought and flooding create periodic crop failures, resulting in food shortages, often most severely hitting the pockets of heavy poverty.

Rural poverty in the uplands is directly linked to land degradation resulting from the management of the agricultural systems practised. The challenge of stabilizing shifting cultivation in upland areas cannot be met



unless the issues of poverty reduction, provision of alternative sources of livelihood, food security, and security of land tenure are addressed simultaneously. This needs to be accompanied by assistance in community-based natural resource management planning so that rural communities have a mix land uses, including conservation forests to protect soils, water resources, wildlife, and other biological resources of value to the community and the region. To address the great complexities of upland livelihood and socio-cultural systems, the Lao Government has devised a "Focal Site" approach to support sustainable decentralized forest land management in the uplands.

Since the early 1990s, the Lao Government implements a focal site approach to sustain natural resources management, namely forests, agriculture land and water resources, especially in the rural or upland areas where most of the country's deforestation is found and where the poorest segment of the population is also located. This approach strongly advocates people participation in natural resources management and protection, and socio-economic development to go hand in hand with sustainable use of forest lands and resources.

The aim of the Lao Government is to undertake the national socio-economic development with minimal impact to the environment, with the sustainable use of the natural resources and agricultural land while preserving its fine customs and traditions. This will have been reflected in all national socio-economic plans, in the constitution, in legislation, in the national Environment action plans as well as in the national priority programmes. It is a declared goal of the Government to lift the country out of poverty, so that by the year 2020 it would be among the developing countries (that is, no longer among the least developed countries).

The Government does recognize the need to strengthen the established institution in charge of overall environmental management and the necessity to define a legal and regulatory framework and to join other international activities of the global environment, namely the Convention to Combat Desertification (UNCCD) which ensure that environment concerns become an integral part of the eradication of poverty.

#### CHINA

China is one of the most severely affected countries suffering from desertification. The total area of desertification affected land is approximately 2,622,300 sq. km., occupying 27.32 per cent of the total land territory, or 79.1 per cent of the total areas of arid, semi-arid and dry sub-humid areas. Desertification affected lands are mainly distributed in the North-West, North and North-East of China. As a consequence, desertification worsens the ecological environment, accelerates further poverty and invades the survival space of Chinese people.

China does not only attach great importance to desertification rehabilitation and to the implementation of its NAP, but also pays serious attention to cooperation between country Parties, to the implementation of the UNCCD and to the global efforts to combat desertification.

#### DESERTIFICATION HAZARDS IN CHINA

The patterns of desertification affected land are complex with high variation of causes and formation, including: desertification affected lands caused by wind erosion, occupying 1,607,400 sq. km; desertification affected lands caused by water erosion, covering 204,600 sq. km; desertification affected lands caused by freezing and melting processes of cold plateau, representing 363,300 sq. km; desertification affected lands caused by salinization/alkalization, forming 233,200 sq.km. Human factors activate and accelerate processes of desertification as primary dynamics which cause desertification.

Land desertification develops as a rapid process of spreading and accelerating. The annual invading are of desertification process in 1950s was 1560 sq. km; desertification expanded with an annual rate of 2100 sq.km. Desertification threatens directly people's production and the environment.

It is estimated that there are 400 million people threatened by desertification and the annual direct economic loss caused by desertification is approximately 6.5 billion US dollars. Desertification causes further poverty in rural areas.

#### **SUSTAINABLE DEVELOPMENT PROGRAMME AND THE PRIORITY AREA**

As one of the major efforts to protect the environment and to realize sustainable development, desertification rehabilitation has been incorporated into the State Economic and Social Development Plan.

Taking into consideration the sustainable development strategy, "Forestry Action Plan for China Agenda 21" has been developed by SFA on the basis of China Agenda 21 that has been developed by the central Government.

Considering the reality of the ecological environment improvement of China, the State Council has ratified "China's Action Plan of Ecological Environment Improvement". The key locations and main projects of the priority areas of the plan include: the upper and middle reaches of the Yellow River, the upper and middle reaches of the Yangtze River, wind-sand impacted land areas and rangeland and steppe areas which are mainly desertification affected areas. The plan is included into the National Economic and Social Development Plan.

#### **CONCRETE ACTIVITIES FOR UNCCD IMPLEMENTING AND EFFECTS**

##### **Establishment of a coordination unit**

Since the accession at the UNCCD in June 1994, China has developed her NAP and determined the strategic objectives to combat desertification. In order to implement the UNCCD, the Chinese Government has established various management agencies at different levels to strengthen the institutional building for combating desertification. In 1994, the Chinese Government has set up China's National Coordinating Group to Combat Desertification and the China National Committee for the Implementation of the UNCCD (CCICCD) composed of 17 ministries, state commissions, and a liaison system. The secretariat of CCICCD is located in the State Forestry Administration. The secretariat is mainly responsible for guiding, coordinating and supervising the work in combating desertification. The financial resources of the secretariat come from the national allocation, which are mainly used for publicity, technology extension, training and staff salary.

The National Bureau to Combat Desertification was established in 1991. Its main role rests on the management of projects of combating desertification and ecology restoration. Coordinating or leading groups for combating desertification have also been set up in affected provinces. Therefore, the effective management system for combating desertification from central to local level is established. CCICCD has set up its subdivisions, such as Senior Expert Group, Liaison Office of China National Coordinating Group to Combat Desertification and Independent Expert Roster for Combating Desertification in China. They have provided a lot of valuable advises on the National Action Programme, China Country Paper to Combat Desertification, National Survey of Desertification Monitoring and provided consultation in the related field for combating desertification.

In 1995, the secretariat of CCICCD has instituted China National Research and Development Center of Combating Desertification, China National Training Center for Combating Desertification and China National Desertification Monitoring Center.

In 1997, UNDP has formulated and assisted CCICCD through a project on capacity-building and demonstration for combating desertification. The URL of <http://www.din.net.cn> and a County-level Desertification Information and Data Exchange Prototype in Yijinhuoluo County of Inner Mongolia have been established.

#### **Participating in the Implementation of the Regional Action Programme**

The Chinese Government hosted the First Meeting of the Asia-Africa Forum to Combat Desertification in May 1996 with the assistance of the secretariat of the UNCCD, UNSO and the Japanese Government. China also hosted the Beijing Ministerial Conference on Regional Cooperation to Implement the UNCCD in Asia and the meeting endorsed six priority thematic programme areas for regional cooperation in Asia.

China hosted the Asia-Africa Technical Workshop on Early Warning System, Second Asian Meeting of the UNCCD National Focal Points and the Launching Meeting for the Thematic Programme Network on Desertification Monitoring and Assessment (TPN1) in 1999. China is the host country of the Asian Thematic Programme Network on Desertification Monitoring and Assessment (TPN1) and is going to establish the Asia-Africa Research, Development and Training Center for Combating Desertification.

#### **Acceleration of International Cooperation**

The Chinese Government has built up close relationships with many international organizations and countries through various means, including bilateral and multilateral channels in the field of combating desertification. Within the spirit of UNCCD, the German Government has financed one project to combat desertification in Chifeng, Inner Mongolia in 1999. China is ready to establish new cooperation with Korea, Japan, and other country Parties.

#### **Strengthening Legal Guarantee System**

Up to the present, China has promulgated about 20 laws relating to environmental protection and a series of by-laws and regulations. The National People's Congress has begun since 1998 the legislative process of formulating a law of combating desertification to implement sustainable development strategy,

prevent land areas from desertification, bring desertified land under control and manage land wisely. The Chinese Government is striving to establish an effective legal system so as to address the key issues regarding combat of desertification and harmonize the Law of Combating Desertification in harmony with other related laws.

#### **Desertification Monitoring and Early-warning System**

A nationwide inventory on desertified land was carried out in China from 1994 to 1996. In accordance with the spirit of UNCCD, the China's Country Paper to Combat Desertification was compiled and it was accomplished China's desertified land area distribution map at a scale of 1:2.5 million. Starting from 1999 has been carried out the nationwide desertification monitoring with thousands of sampling plots. Dynamic Monitoring, Prediction, And Early-Warning System Of Desertification, Serving As Scientific Evidences For Decision-Making.

China attaches importance to the summarization of the traditional knowledge and practical techniques for combatting desertification. The Chinese Government strive their efforts for public awareness raising in combating desertification. Since the first World Day to Combat Desertification and Drought on 17 June 1995, China has carried out large-scale publicity and public awareness-raising activities to combat desertification in Beijing and other dozens of large cities.

#### **Review on Benchmark and Indicators of Desertification Monitoring and Assessment**

The Chinese Government has attached great importance to the establishment of desertification benchmark and indicators of desertification monitoring and assessment. The Commission, in 1996, listed a topic of "Indicators System for Sandy Desertification and Dynamic Evaluation" at the Ninth Five-year Plan (1996 - 2000) key project of "Desertification Combating Technology Study and Demonstration". In 1998, the National Natural Resources Committee approved and funded a research project of "Desertification Occurrence Mechanism and Optimistic Model for Combating Desertification" (1999-2002) that again includes the topic of "Indicators System of Desertification Classification and Expert System". In the meantime, China Desertification Monitoring Center drafted "the Master Plan of China's Desertification Monitoring Technology" and "the Regulations of the Fixed Location Monitoring Technology in the Typical Desertified Areas of China" and both of them were revised three times.

#### **COMPILATION AND IMPLEMENTATION OF NAP**

The Chinese Government has formulated the NAP in 1994. The compilation of the NAP was made in the light of the UNCCD, "China, Agenda 21", and on the basis of the existing large-scale, trans-regional, trans-watershed ecological improvement programme action plan established by the Chinese Government, such as the National Action Programme to Combat Desertification, "Three North Regions" Shelterbelts Development Programme, Plain Farmland Shelterbelts Development Programme.

In recent years, the State Forestry Administration organized an in-depth survey and analysis of the ongoing NAP to Combat Desertification, which commenced in 1991. This survey and analysis have played a critical role to secure the scientific and practical foundation of the new version of NAP. The Chinese Government has updated some components of the 1994 version of the NAP in the light of the new developments and the National Eco-environment Improvement Plan

which presents a blueprint, strategic policies for ecosystem and environmental protection and strategic objectives on combating desertification in China.

The National Action Programme has started to be implemented and its financial resources come from three sources, i.e. central government allocation, locally-raised funds and loans with negative interest of Bank. In addition, the Ministry of Finance also provided funds for desertification monitoring.

#### **THE FRAMEWORK OF NAP**

The special situation of the desertification in China determines the control measures adopted in the NAP to be dominated by biological measures, and the current strategy to combat desertification is from potential risk to severe situation.

#### **Strategic Objectives in Different Phases**

China's strategic objectives for combating desertification shall require first the implementation of the principle of prevention and integration of prevention, control and utilization, adopting the tactics of overall control and breakthrough in critical areas so as to check the expanding trend of desertification. To this end, three phases are designed: 1996-2000, 2001-2010 and 2011-2050, which are consistent with China's national economic and social development plan.

By 2000, the continuous expansion of desertification has been mitigated to some extent; the environmental conditions in some areas have been improved and people's living standards raised substantially.

By 2010, regional environmental conditions in desertification affected areas will be improved considerably and people's living standards greatly improved.

By 2050, the overwhelming majority of the desertification affected land, excluding areas with extremely adverse conditions, will be brought under effective control; total area of nature reserves will cover 91.35 million hectares and the local environment and economic development in the desertification affected areas will enter into a virtuous cycle.

#### **Priority Areas**

Priority areas of the NAP include the following four aspects: acceleration of revegetation in the affected region, capacity-building for desertification monitoring, prediction and early warning system, extension service and adaptation of advanced practical technology, creation of a network of public education for combating desertification.

#### **Task and Overall Arrangement of Backbone Projects of NAP**

The determined task of backbone projects is 17.867 million hectares, in light of the climatic and physical conditions, status and features of distribution of desertified land, the existing problems and similarity in control measures. The programme is subdivided into arid marginal and desert oasis zone; arid, semi-arid and dry sub-humid desertified land zone and arid cold plateau zone affected by desertification and land degradation. Eleven engineering

projects are needed to be accomplished in the above-mentioned three special zones.

#### **Guarantee System to Implement Projects**

The guarantee system for implementing projects should include the definition of responsibility of local governments for implementing the project. The establishment of a sound mechanism to implement projects, the adaptation of advanced practical technologies and research results, and promotion and optimization of management mechanism of the projects are the essential guarantees.

#### **Financial Support for NAP**

Despite very limited financial resources, the State has made the decision of giving priority to the national desertification-combating programme. Meanwhile, the Chinese Government warmly invites international contributions to the participation of the implementation of the NAP.

### **TAJIKISTAN**

After accession to the United Nations Convention to Combat Desertification (CCD) and its ratification, Tajikistan for the first time presents the National report on implementation of the Convention and on the work implemented regarding the problems of combating desertification according to the requirements of the CCD secretariat.

The process of preparation of the National report was going through several stages. At the first stage, the invitations for participation in the interdepartmental meeting for discussion the struggle against desertification were sent to all interested ministries and departments, scientific institutes and public organizations. At the meeting, the representatives of the Government, Majlisi Oli (Parliament), the Ministry of Nature Protection, the Ministry of Agriculture, the Ministry of Melioration and Water Management, the Ministry of Health, the Committee on Land Resources, the Tajik Forestry Association, the Academy of Sciences, the Tajik Academy of Agricultural Sciences and the Public Secretariat on the implementation of CCD have taken part. As a result of the discussion, the participants of the meeting have defined the basic aspects of the preparation of the National report.

At the second stage of preparation of the report, the experts prepared the technical terms of reference with the detailed descriptions and sequence of implementation of works. Then each expert according to its terms of reference has prepared the appropriate part of the National report. All remarks and proposals submitted by the experts were considered for final preparation of the report by the scientific adviser.

At the third stage of preparation of the National report, on 16 March, the second meeting of the experts was organized with participation of specialists for the approval of the final version of the National report, taking into account the remarks and proposals of the Almaty meeting for the countries of Central Asia and Eastern Europe on preparation of the National report which was held on 23-24 February 2000. It is necessary to note that the National report and its

resume were initially written in Tajik and then translated into Russian and English.

The experts have noted the necessity of conducting similar meetings for the approval of decisions on the implementation and dissemination of ideas and requirements of CCD among wide layers of the population by means of the implementation of the National Action Program (NAP) in Tajikistan.

#### **8. Strategy and priorities established within the framework of the plans and/or of policy of sustainable development**

Tajikistan is rich in mineral resources; at the same time its economic situation is being influenced by the following factors: irregular location of settlements, cities and industrial sites; mountains; the under-development of a transport network; the prevalence of agrarian and raw material branches; etc. These factors do not contribute to the well-being of people and a rational use of natural resources. During the last years, shortage of food products and fuel forced population to cultivate steep mountain slopes and to cut down mountain forests. As a result, intensity of the development of desertification in many areas of the Republic has intensified. It also demonstrates a low stability of natural mountain environment to various natural and anthropogenous influences.

The Republic of Tajikistan, understanding the importance of provisions of the basic documents of CCD, despite complexities in its own economy, has joined the Convention on 12 August 1997. Consequently, the country's prime task is the development of a NAP to combat desertification, definition of a long-term strategy and practical measures on implementation of the local and nation-wide programmes. Preparation and implementation of the NAP is supported by all layers of population.

At present, the problem of desertification in the Republic remains very urgent and the Government of the Republic of Tajikistan pays great attention to nature protection issues.

#### **9. Institutional, legislative and organizational measures**

In the Soviet period several ministries, departments and scientific establishments dealing with agriculture, water management, health, industry, power, forestry, trade, construction, geology, etc., were involved in the management and implementation of a nature protection policy and the strategy of action.

In conditions of diverse influence on an environment and absence of a uniform supervising body, the pressure on the environment at the end of the 1980s has increased by several times. Activities of many institutions have induced the state to establish a coordinating and supervising body. As a result, in 1988 the Ministry of Nature Protection was established whose structure includes regional and district committees on nature protection.

The scientific researches in the field of protection of the environment is being carried out by several research, design and survey organizations, such as: the Academy of Sciences, the Academy of Agricultural Sciences, the Ministry of Nature Protection, the Forestry and Industrial Association, the Ministry of Water Management, the Ministry of Health, Department of Geology, etc. Now almost all basic ministries, departments, scientific establishments and public

organizations implement plans and programmes related to the environment. In such a situation the most urgent problem becomes a question of coordination, which depends on all interested organizations and departments.

By decree of the President of the Republic of Tajikistan of 28 December 1998, No. 1144, the United Nations Convention to Combat Desertification was ratified, and the Ministry of Nature Protection was nominated as the National Coordination Body (NCB) on implementation of CCD. A coordinating body consists of representatives of interested ministries, scientific institutes, NGOs and other public organizations, including women's.

At a national seminar on implementation of the UNCCD, with the purposes of coordination of various bodies for preparation of the NAP, the Coordinator was appointed, who had experience of work in the field of rational use of natural resources. The Temporary Creative Group (TCG) was also established, comprising representatives of the Government, scientific, design, and public organizations.

#### **10. Participation in support of the process of implementation of the programme of actions**

After joining the CCD, awareness raising campaigns for the public were launched. In 1998 the national seminar was carried out which was the first step on the way of NAP preparation. The participants at this seminar came to a conclusion on the necessity of convening a series of regional conferences. The recommendations and conclusions of a seminar and regional conferences have formed the basis for NAP preparation. At the beginning the NCB has developed a strategy of information activity, taking into account the basic features of various layers of the population. Thanks to this strategy, the Public Secretariat on implementation of CCD for the representatives of NGOs was established.

To define a circle of the participants of NAP, the NCB, in cooperation with institutions, engaged in issues of desertification, and the Public Secretariat has organized four regional workshops. During these workshops, a number of issues and problems were defined which should have been taken into account at the First National Forum in preparation of the NAP. In April 1999 the First National Forum was held, at which the structure of the NAP was accepted.

Leading experts and scientists from scientific and industrial organizations and non-governmental organizations, both youth and women's, were involved in the preparation of reports for regional meetings and the First National Forum. The task of the regional meetings consisted in organizing effective consultations for regional and district organizations and local communities with a view to influence the decision-making process at various levels.

Apart from it, the Public Secretariat, with support from UNDP/UNSO, has carried out a number of republican conferences for women's, youth and other public organizations to provide information on the Convention to Combat Desertification. It has issued a series of leaflets and brochures about the value of CCD and on the causes of desertification and methods of struggle with dynamic processes.

Now in Tajikistan the first variant of the NAP is prepared. For approval of the programme, in the first half of the current year the Second National Forum will be organized.



**11. The consultative process in support of the preparation and implementation of the National Action Programme and the partnership agreement with developed countries, Parties and other interested entities**

Taking into account the seriousness of land degradation in Tajikistan, processes of desertification are of paramount importance for the Government of the Republic of Tajikistan. Consequently, now it is necessary to establish close relations with various international organizations and developed countries, with a view to conclude partnership agreements and to continue close contacts with other appropriate entities.

However, degree of support and activity of international organizations and developed countries in preparation of the NAP in the context of CCD in Tajikistan remains very low. Probably it is explained by some political developments in the country after the events of 1992 and economic instability. Therefore, implementation of the programmes of the NAP to combat desertification according to CCD should be supported, approved and carried out by the various parties.

Despite numerous problems of various character, which complicate the preparation and implementation of the NAP, the Coordinator of this programme and the Ministry of Nature Protection of the Republic of Tajikistan make efforts to attract the donors. Proposals on financing the NAP were circulated. The representatives of numerous international organizations, and a number of diplomatic agencies accredited in Tajikistan, were invited to take part in the First National Forum. But only a few international organizations participated in the National Forum and took an active part in the preparation of the NAP. One of them is UNDP, which takes an active part at all stages of process of NAP preparation.

The UNDP Office in Tajikistan coordinates the activity of donors. With the support of UNDP, a number of meetings on problems of desertification were organized with participation of all layers of the population and various regional, local and international organizations. All of the above-mentioned measures gave a push for development of the NAP. It should be underlined that it became possible due to the funds received from the Government of Finland through UNDP/UNSO and the secretariat of CCD. During preparatory work on development of the NAP, the constant advisory support was provided by the CCD secretariat, UNDP/UNSO, and also by neighbouring countries, which had the necessary experience.

In addition, financial and technical assistance in preparation of the NAP was provided by the Government of the country.

Taking into account previous experiences in combating desertification, effectiveness of anti-erosion and anti-deflation measures will depend mainly on active participation of the local population. The role of NGOs in the conditions of Tajikistan is very low, as the majority of them have no experience in combating desertification and until recently had no complete idea about desertification. The majority of NGOs were organized after Tajikistan became independent and their members were far from the problems of desertification.

However, after Tajikistan's accession to the Convention, the majority of non-governmental organizations of various types, such as women's, youth, professional, etc., began to participate actively in tackling various problems of desertification. In order to use more rationally public potential, the Public

Secretariat, on realization of provisions of the UNCCD, united more than 30 ecological NGOs which started actively participating in implementation of ideas of the CCD.

Moreover, in preparation of the NAP, the experience of the local population was taken into account, which was revealed at the regional working meetings carried out throughout the country with the purpose of finding out the opinion of the population on the various issues of desertification.

**12. The measures taken or planned within the framework of the National Action Programme, including measures to improve the economic environment, to conserve natural resources, to improve institutional organization, to improve knowledge of desertification and to monitor and assess the effects of drought**

The active combat against various types of desertification in Tajikistan began in 30-40 years of the 20<sup>th</sup> century, when development of salted, swamped and deflated lands has been started. In 50-60th the State gave a special attention to the problems of desertification. During this period numerous research, planning and prospecting, building organizations were established with the purpose to study land-water resources of the Republic, to develop additional lands, to research various aspects of desertification. The work on combating water and wind erosion had begun.

But in the 1990s, in connection with the disintegration of the Soviet Union, instability in the Republic in 1992-1993 and economic recession, the work on combating desertification was almost stopped. In many regions the process of desertification has increased and became of a catastrophic character.

Therefore, it is necessary to include within the framework of implementation of the NAP, the following measures on the preservation and improvement of natural resources, and also on dissemination of knowledge about desertification:

- S Creation of an information system on the problems of desertification;
- S Organization of monitoring;
- S Definition of the area, spreading, types, degree and rating of various categories of desertification;
- S Drawing up a series of maps on desertification;
- S Raising a role of the local population, NGOs, including women's organizations, through organizing practical seminars, round tables with the purpose of combining efforts for joint actions directed at combating desertification;
- S Organization of stationary methods of desertification monitoring;
- S Remote methods of desertification analysis;
- S Zoning the territory of Tajikistan according to a degree of land degradation. It is necessary to establish creative collectives, with the purpose of improvement of a technique of drawing up zoning

with the obligatory indication of complexes of anti-erosion and deflation measures of struggle;

- S Development of recommendations and proposals on rational land tenure;
- S Measures on rational nature use (soil cover, flora and fauna, forest resources, water resources, especially protected territories, energy);
- S Improvement of anti-erosion and anti-deflation methods of struggle (forest melioration, agro-technical, hydraulic engineering);
- S Development of methods of socio-economic mechanisms of combating desertification;
- S Raising a role of international cooperation in the struggle against desertification;
- S Improvement of nature protecting normative acts, etc.

The information received during the definition of priority directions of the NAP, assessment of the needs of NGOs, alongside with experience accumulated in the process of combating desertification, demonstrate numerous lacks in management and ability of mobilization of possibilities of NGOs, especially women's and various other NGOs unifying different layers of the population. To eliminate the above-mentioned lacks and to insure effective work with various layers of population, during the second stage of the implementation of the NAP special attention will be given to activating the work of NGOs, especially women's and youth. Especially since the Convention promotes such partnership, it is high time to strengthen work among the local population, suffered most of all from desertification.

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

During many years, the Government, while planning allocations for nature protection activities, paid special attention to combating land degradation. The activities on combating desertification were carried out basically by state. The Government allocated financial resources from the national budget, and at the international level, the activities on mobilization of financial resources were not carried out, as the NAP was not yet developed. During the first stage of NAP preparation, financing was carried out within the framework of joint efforts of the Government, UNDP/UNSO, the secretariat of UNCCD and country-donors (Finland, Switzerland).

With the purpose of the implementation of the approved programme on improvement melioration of irrigated lands in 1998-2003, the Government of the Republic will allocate the funds of 12 billion rubles (75 million US dollars).

The major factor for the improvement of the situation would be financial support from donors, both from the international organizations and developed countries, which should allow to put in action the planned Fund for combating desertification. It is necessary to note that the participants of the First

National Forum supported the creation of the Fund for combating desertification in Tajikistan.

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

Preparation of an analysis of various types of desertification in Tajikistan was started in the 1930s and many results of research development, in particular, on the struggle against the salinization of land, have come in the world literature. However, at the present stage neither sectoral, nor academic institutions and organizations engaged in the collection and processing of information on an environment, and especially on desertification, can fully carry out its role. These organizations possess vast information on desertification, but it is not standardized. Each organization carried out the research by various methods taking into account its own aims. The available limited resources and personnel are divided between various services; use of their potential in many respects is limited. That's why there is a need for the creation of temporary creative groups.

Taking into account all the above-mentioned factors, it is proposed to establish a system of an exchange of the ecological information, thanks to which it would be possible to implement effectively the National Action Programme.

At present for the implementation of the provisions of the Convention in Tajikistan the first steps were made: popular /scientific articles, brochures, booklets, leaflet about the United Nations Convention to Combat Desertification are issued, and the NAP is being prepared.

Though the process of implementation of CCD in Tajikistan is being carried out with some delay, nevertheless, measures on combating land degradation, in particular, the struggle against water erosion, deflation and soil salinization, were being taken rather actively, and it seems that this work in the near future will rise to a new stage and by common efforts we would overcome numerous difficulties related to the "evil of the 21st century".

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