

**Ministry of Ecology and Natural Resources of the Republic of Moldova**

**Approved**

Minister of Ecology and Natural Resources  
of the Republic of Moldova

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“ ” may 2006

**The Third National Report  
on implementation the provisions  
of the United Nations Convention to Combat Desertification**

**Chisinau 2006**

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# **The Third National Report on implementation the provisions of the United Nations Convention to Combat Desertification in the Republic of Moldova**

## **Introduction**

The Republic of Moldova joined the UN Convention to Combat Desertification in 1998. The purpose of the present Report is to delineate outcomes achieved in the framework of UNCCD implementation and National Action Plan to Combat Desertification fulfillment in the RM for the period starting with 2002.

The RM 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 at West and with Ukraine at North, East and South. Moldova covers a special geographical position, being situated at the intersection of three natural areas. The climatic conditions are characterized by instability – after periods of drought follow periods with intensive heavy rains. The showering character of rains and complex relief in conditions of limited infiltration of soil cover determine intensive erosion. Washed soils, ravines and landslides essentially decrease the productivity of land fund.

The main natural treasure of our country is the soil, the weight of food industry complex representing 35-40% from GDP. In the rural area activate around 54% of the country's population. Thus, effective and rational use of land is an indispensable condition for a prosperous economy and for assuring population's wellbeing.

According to the Land Survey of the Republic of Moldova, on 1 January 2003 the total surface of land represented 3 million 843 thousand ha. Agricultural land cover 2 million 543 thousand ha or 75%, including arable land – 1 mln 843 thousand ha or 54.4%, orchard and vineyard plantations – 301 thousand ha or 9%, grasslands – 380 thousands or 10.7%. At the moment, around 0.51 ha of arable land and orchard/vineyard plantations, including 0.43 arable lands has been given to each citizen.

The surface of state forest fund constitutes 354 thousand ha (10.7%), the optimal one being 20-25% (mean afforestation in the European countries represents 36%). It is represented by forest vegetation areas found under the supervision of state forest bodies, also part of the forest fund (under mayoralty administration), agricultural associations and other owners (30 thousand ha), and also by wind protection stripes, tree and bush plantations that are not in the forest fund.

Overexploitation of agricultural fields and utilization of environment unfriendly technologies have lead to substantial decrease of productivity and had a negative impact on the soil. The soil state is essential for the development of a productive agriculture and food industry, oriented towards export. Currently, however, the productivity of agricultural lands is declining and this threatens agro-industrial sector development and affects the national economy on the whole.

Eroded lands cover a surface of 858 564 ha or 33.9% from agricultural lands. Each year this surface increases on average by 0.9%, and the annual losses of fertile soil are estimated at 26 mln tons.

The prejudice caused to national economy by production loss through soil degradation sums around 3.1 billion lei (\$ 251 million USD) annually. Erosion also has social implications as it strongly affects families that practice subsistence agriculture. These families belong to the poorest group of population and therefore they do not have financial resources to deal with this issue.

Soil degradation has at its base many causes that are linked together. Lack of information and modern technologies, especially limited access of rural population to information on effective land use, leads to incorrect farming technology use and to neglectation of crop rotation. Reduced mineral or organic fertilizer application has caused a negative balance of humus and nutrients in the soil. Use of mineral fertilizers has decreased from 191 000 tons in 1991 to 72 700 tons in 2003. Other factors like

reduced application of pesticides, land salinization, deep ploughing and illicit cutting of forest protection bands have lead to erosion.

Moldova possesses few underground water resources. Total assimilation reserves represent 1.5 million km<sup>3</sup>. On average each inhabitant receives 100 l/day and in Chisinau 350 l/day, the necessity being of 1000 l/day, according to UN standards. The poorest in water resources are the Southern districts where in some regions each person receives only 17-18 l/day.

Predominance of agricultural sector make Moldova's economy highly dependent of meteorological-climatic conditions. Analysis of data provided by State Hydro-meteorological Service of Moldova from the study period of 115 years (1890-2004) shows that massive drought occurrence in Moldova is a common phenomenon.

During last decades droughts occur with a frequency of 6 -7 years in the northern and central part and 3-4 years in the Southern part of the country.

Drought outcomes hold a social-economic character and highly influence the surrounding environment. Some of these outcomes are: soil degradation, reduced harvest of agricultural crops, decrease of water and forest resources, breach of rhythmicity in the industrial activity, worsened population health and death increase.

Adhering to the Convention to Combat Desertification, the Republic of Moldova shall:

- 1) Give priority to combating desertification and reducing drought effects by earmarking necessary resources;
- 2) Elaborate strategies and priorities in the framework of sustainable development plans and/or policies, aimed at combating desertification and reducing drought effects;
- 3) Address the desertification issue and give special attention to social-economical factors that generate desertification processes;
- 4) Stimulate increase of public awareness and facilitate local population contribution to efforts aimed at combating desertification and reducing drought effects;
- 5) Create a favorable framework through legislation consolidation, and where it does not exist – to adopt necessary laws and to establish long-term policies and action plans.

## **1. Strategies and Priorities**

### **1.1 National plans and strategies in other socio-economical fields**

In the last few years, in the Republic of Moldova have been elaborated a large number of strategic documents aimed at development of all social-economic fields.

Among the most important ones are:

- Government Decision nr. 1313 from 07.10.2002 on approval of Viticulture and Vinification Restoration and Development Programme for the years 2002-2020;
- Republic of Moldova Law nr. 398-XV from 02.12.2004 on approval of Economic Growth and Poverty Reduction Strategy (2004-2006);
- Government Decision nr. 790 on approval of Government Activity Programme for the years 2005-2009 - "Country modernization – people's welfare";
- Governmental Decision nr. 356 from April, 22 2005 on approving of the Action Plan "The Republic of Moldova – European Union"
- Government Decision nr. 242 from 2005 on approval of "Moldavian Village" National Programme;
- Government Decision nr.636 from 26.05.2003 on approval of New Land Capitalization and Soil Fertility Increase Programme;
- Government Decision nr. 841 from 26.07.2004 on approval of New Land Capitalization and Soil Fertility Increase Programme (IInd part Soil Fertility Increase)

- Government Decision nr.1234 from 10.11.2004 on approval of Country Telephonization Programme for the years 2005-2010;
- Government Decision nr. 255 from 09.03.2005 on National Strategy for edification of an informational society – “Electronic Moldova”;
- Government Decision from 24.02.2005 on approval of Regulation on earmarking production risk assurance in agriculture and Regulation of the contest for accrediting assurance organizations that would perform subventional assurance of production risks in agriculture;
- Government Decision nr. 302 from 21.03.2005 on Technical Assistance National Programme for the years 2005-2006;
- Government Decision nr. 288 from 15.03.2005 on approval of Millennium Development Goals in the Republic of Moldova till 2015 and of The First National Report on “Millennium Development Goals in the Republic of Moldova”.

Therefore the Government of the Republic of Moldova has engaged itself into a massive effort of *Economic Growth and Poverty Reduction Strategy*. This engagement aims at establishing country development strategy for the immediate period and for the long-term period.

Thus for example, Economic Growth and Poverty Reduction Strategy approved through Parliament Decision nr. 398-XV from 02.12.2004 represents the supreme political framework for sustainable development of the Republic of Moldova in the medium-term.

The necessity of a strategic addressing for assuring economic growth and poverty reduction is dictated by the experience of ten years that have preceded economy relaunching starting with the year 2000.

In the strategy are also planned a series of measures for reducing the rhythms of soil degradation:

- Elaboration and implementation of pilot projects on rational use and irrigation of soils, including humid zones protection;
- Planting forest stripes for agricultural land protection;
- Elaboration and implementation of soil anti-erosion protection measures and degraded land rehabilitation;
- Instructing land owners and farmers on issues related to soil exploitation, and fertilizers and pesticides application;
- Rehabilitation, improvement of communal grassland management.

The *State Programme “Moldovan Village”* (2005) represents a political frame for sustainable rural development of Moldova for the years 2005-2015, elaborated for the implementation of Economic Growth and Poverty Reduction Strategy (EGPRS) and will serve as basis for fulfilling its prioritizing objectives in the rural areas. The programme will assure coordination among all existing programmes and also future ones in the field of agricultural and rural area development, assuring in this way their efficiency.

Population from rural areas has to beneficiate not only from agricultural activity outcomes but also from a perfect infrastructure, good roads, modern communication services, favorable social and ecological environment, financial support etc. Business environment from rural area has to guarantee population’s income as well as necessary financial instruments in order to cover public expenditures.

Based on rural development a land organization plan has to be established. Following land privatization such plans have not been elaborated or have been elaborated with mistakes, and those elaborated prior to this have not been revised.

*Moldova EU-Action Plan (2005)*. EU expansion in 2004 offered Moldova the opportunity to develop closer relationships with neighboring countries. Republic of Moldova – European Union Action Plan is a document laying out the strategic objectives and concrete actions for their

implementation. Its implementation will help fulfill the provisions in the Partnership and Cooperation Agreement (PCA) and will lead to political, economical and planned institutional reform finalization. Implementation of the Action Plan will significantly advance the approximation of Moldovan legislation, norms and standards to those of the EU, and the fulfillment of goals and actions included in the plan will create circumstances for reaching a higher level of relationships with EU. Further integration into Europe also presupposes availability to accept the political reforms suggested by EU, in particular solving the Transnistrian issue. RM – EU Action Plan has been approved by the European Union in December 2004 and has been ratified by the Parliament of the Republic of Moldova in February 2005. The Plan is foreseen for an initial period of three years (2005-2008); outcome assessment will coincide with PCA expiration. In order to assure an integral implementation of the Action Plan, the Government entrusted to the Ministry of Foreign Affairs and European Integration the task to set up a National Plan that would transform plan's provisions into concrete actions that could be implemented by the involved authorities. This National Plan, in which have been stipulated actions, terms, responsible authorities and needed assistance, was sent to the European Union for feedback regarding technical assistance and financial support possibilities in the field of soil protection and combating of drought and desertification effects.

## **1.2 National plans and strategies, related to activities to combat desertification**

A number of national and regional programmes dealing with desertification were developed and partially implemented in Moldova in the period after the presentation to the UNCCD Secretariat (2002) of The Second National Report.

According to Art.10 of UNCCD, the Republic of Moldova will elaborate and implement National Action Programmes that will include the following steps:

- Identification of factors that cause desertification and elaboration of practical measures needed for fight with desertification and reduction of drought effects;
- Delimitation of government attributions to the local communities and agricultural land owners;
- Application of preventive measures for lands that are not degraded or are weakly degraded;
- Consolidation of national capacities for combating soil degradation and land desertification;
- Facilitating people's access to information on usage of environment friendly practices.

Among the most important Programmes and Plans, aimed at environment protection, including combating desertification, that were adopted in Moldova during the period 2000-2005 should be mentioned:

- Government Decision nr. 367 from 13.04.2000 on approval of National Action Plan to Combat Desertification;
- Government Decision nr. 636 from 26.05.2003 on approval of New Land Capitalization and Soil Fertility Increase Programme, part I "Improvement of Degraded Soils";
- Government Decision nr. 189 from 20.02.2003 on approval of Republic of Moldova Environment Policy Conception;
- Parliament Decision nr. 325-XV from 18.07.2003 on approval of National Policy Conception in the field of water resources;
- Government Decision nr. 739 from 17.06.2003 on implementation of sustainable development strategy of the national forest sector;
- Government Decision nr. 447 from 17.04.2003 on approval of Ecological Security Assurance National Programme;
- Government Decision nr. 737 from 17.06.2003 on approval of State Programme for regeneration and afforestation of forest fund lands for the years 2003-2020;

- Government Decision nr. 841 from 26.07.2004 on approval of New Land Capitalization and Soil Fertility Increase Programme, part II “Soil Fertility Increase”.

Soil erosion represents a major economic and social problem for the Republic of Moldova: 33.9% of its agricultural land is affected by this flagellum, surface that increases annually with 0.9%, causing a prejudice of about 3.1 billion lei (\$ 251.3 million USD) annually.

Our country ratified the UN Convention to Combat Desertification in 1998. With the support of international community, during the period of 1998-2000, a systematization of information on degraded lands was conducted.

Based on this assessment, there were published maps of degraded/eroded areas and exposed to drought areas. In the University course curricula for agricultural science there were introduced aspects on sustainable land management and combating desertification. Also, the country benefited from technical and financial assistance for the elaboration of National Action Plan to Combat Desertification and National Report on Implementation of the Convention, both of them appeared in 2000. The Action Program stipulates duties for each involved ministry, and also specifies the responsibilities of economic entities in this field. Instruments for solving issues related to land use are distributed among different ministries and economic entities. There is also no special preoccupation for land degradation issue. Experts have mentioned that as a consequence of land privatization, the issues related to land degradation have worsened. This happens mainly due to lack of knowledge and desire to apply sustainable practices for land use. All these factors, as a whole, make observing of Convention provisions a very difficult task.

Government of the Republic of Moldova, being worried about the current state of Land Fund, low level of soil fertility, through Decision nr. 636 from 26.05.2003 approved Degraded Land Capitalization and Soil Fertility Increase Programme. In the Programme are determined the complex of measures on degraded soil amelioration, work volume, surfaces and costs. According to calculations presented in the Programme, the cost of land improvement works for degraded land capitalization and soil fertility increase for a period of 15 years, represents about \$ 925 million USD. Mentioned strategies, conceptions, programmes and plans, as a whole, stipulate the following major groups of measures to combat soil degradation, land desertification and agricultural production increase:

- Improvement of institutional framework;
- Improvement of judicial basis for regulating land relationships that would contribute to sustainable use of land fund, combating of soil degradation and land desertification;
- Implementation of an integrated system of actions and measures to combat soil degradation, land desertification and permanent agricultural production growth;
- Scientific assurance of the actions aimed at combating soil degradation and land desertification.

These large groups of actions result from the strategy goals to combat desertification and are aimed at creation of premises for promotion of an effective policy in this field and at successful realization of sectorial activities oriented towards restoring the ecological balance, anti-erosion land planning based on landscape principles, erosion and landslides prevention and combating, amelioration of saturated and anthropically degraded soils, elimination of inadequate social activities by implementing the system of sustainable agriculture etc.

Objectives of combating soil degradation and land desertification can be achieved only by legal, administrative and financial measures. First of all it is necessary to elaborate and implement the political and economical mechanisms that would facilitate a better cycling of matter in agriculture. A premise for fundamental reorganization of production system in agriculture and protection of degraded soil cover is the change in market and price policy that would be sustained by the entire society. Only a profitable agriculture can financially assure performance of actions needed to combat soil degradation and land desertification.

The National Priorities in this field foresee the following goals:

- Improvement of national strategies and policies on combating soil degradation and sustainable use of agricultural lands;
- Improvement of the legislative framework, including: finalization and adoption of “Land Law” and elaboration of “Law on rational use of grasslands”;
- Compliance with the legislation on Land Fund and Aquatic Resources protection and rational use, which is currently neglected.

## **2. Institutional measures undertaken in order to implement the UNCCD**

### **2.1 National Coordination Body.**

Implementation of provisions of the UN Convention to Combat Desertification is coordinated by the WG established within the State Hydro-meteorological Service, a subdivision of the Ministry of Ecology and Natural Resources that is authorized to deal with environmental protection activities on behalf of the Government of the Republic of Moldova. Activity of the WG is coordinated by the MENR.

The WG members are nominated by appropriate institutions based on knowledge and experience to work in field to combat decertification as follows: Ministry of Ecology and Natural Resources, Ministry of Agriculture and Food Industry, Academy of Science of Moldova, State Forestry Agency “Moldsilva”, NGOs representatives. WG activates based on its working plan established for a period of one year, approved by the National Focal Point of convention. This Working Plan foresees tools and terms for implementation of the planed work. The WG is organizing its own meetings not more then ones in three month where are discussed all problems related to implementation of the WP.

Members of the WG has access to information that is referring to land degradation issues which is stored in different institutions and that contains data on droughts frequency and intensification, distribution of agrometeorological parameters, information of the vegetal land cover, soils, ground and underground waters, other.

On implementation the provisions of the UN CCD, UNFCCC, BDC there are established good collaboration relations between all three WGs. Thus with common effort there are elaborated project proposals to be presented to the international donor organizations that are dealing with environmental protection issues.

### **2.2 The institutional frame of combating desertification**

The efficiency of the institutional framework that refers to environmental protection including work to combat droughts and desertification is insured through the implementation of existing legislative acts in this field. Implementation of stipulations of legislative acts is done thanks to a good cooperative process established between different ministries and the central administrative body.

Regarding management activities within the UNCC we have to mention the following institutions: MENR and its subdivisions (National Institute of Ecology and Geography, State Environmental Inspectorate, State Hydro-meteorological Service, AGEOM), MAFI, Ministry of Economy and Trade, Ministry of Health and Social Protection, Ministry of Transport and Roads Administration, Ministry of Industry and Infrastructure, Ministry of Education, Youth and Sports, Ministry of Foreign Affairs and European Integration, National Agency for Regional Development, Standards and Metrology Service, Customs Service, National Bureau on Statistics, Agency for Land and Cadastre, State Agency for Forestry “Moldsilva”. The scientific institutions involved in the implementation of the UNCCD provisions are the following: Botanical Gardens, Institute of Zoology, Institute of Microbiology, Institute of Physiology and Sanocreatology, Institute of Genetics, Center for



Vegetal Genetic Resources, National Institute for Veterinary and Livestock Breeding, Institute for Scientific Research for Corn and Sorghum “Porumbeni,” Institute for Scientific Research for Field Crops of “Selectia” Association, Institute for Scientific Research, Selection and Fruit Growing technologies “Codru,” National Institute of Grape and Wine and N.Dimo Institute of Research in Pedology and Agro chemistry.

At the institutional level there are many problems due to the fact that many institutions are involved directly or indirectly in environmental management. This leads to problems and solving these is not the responsibility of these institutions. The experience of Central and Western European States shows that success of environmental protection policies could be ensured only through Government responsibility, its collaboration with the field sectors, transparency of the voting process and establishment of priorities.

The national institutions involved in solving of the above mentioned problems could draw more attention to coordinate the cross-sectorial policies by creating the working groups (WG) that would examine priority problems in concrete areas. This manner of work would contribute to essentially increase the contribution of different institutions that have the tendency toward environmental management.

The success of the WG depends on the professional capacity of each member and on the responsibility of the entire WG.

### **2.3 Process of participation in implementation of the Action Plan**

The acute necessity to combat desertification in the Republic of Moldova through specific activities was noticed during the last 20 years. During the last few years decision making bodies including local public authorities have come to realize that it is important to undertake urgent actions in this field. Due to the efforts of governmental, NGO and scientific field representatives it was possible to provide this kind of information to the public.

With the support of the MENR, the 17<sup>th</sup> of June, International Day to Combat Desertification is widely celebrated in Moldova. This involves representatives of Government, NGOs, mass-media and specialists. At the round tables that are organized on these occasions, representatives of the coordinating organization for the implementation of the UN Convention on Climate Change, Biodiversity, Ozon and other conventions participate.

The governmental institutions organize local and regional meetings and forums through the mass-media and inform the public about governmental positions and show the official information on the implementation of the UN Convention to Combat Desertification. They also inform the public on how NGOs participate in this field and how they take part in all social events trying to find the best solutions in order to implement this Convention. For example, the NGOs such as Comrat, Bios, Agroeco and others are involved in implementing the regional program, “Raising the Informational Level of Local Organization,” by organizing meetings, seminars, discussions and spreading information through mass media. The Republic of Moldova by ratifying the Aarhus Convention also contributes to increasing access and spreading information on desertification, activities that stimulate the involved organizations to participate in the decision making process.

After each Conference of the Parties the National Focal Point organizes press conferences and disseminates Convention related information to the public. The objectives of public information and education are being implemented in the following:

- Ecological lessons in educational institutions (schools, colleges, universities) where specialists of environmental protection institutions (MENR and its subdivisions) participated. During these lessons the ecological situation in the country, environmental problems and ways to solve them and improve the environmental quality were discussed.

- Ecological competitions at regional and national levels organized together with the Moldo-Turkish lyceum
- The national scientific/practical conference “Health in Relation to Environment”
- Scientific/practical conference “Moldova Precious Stone”
- Conference to identify the winner of the Republican competition. “The Greenest, Cleanest, and Most Developed Locality” that is organized annually
- Press conference dedicated to the international Day of Water Protection
- The Republican competition “The Best Environmental Publication Dedicated to Environmental Day”

## **2.4 Legislative Acts**

### **2.4.1 Analysis of Laws in the field of ecology**

The legal framework represents implementation of national policies, strategic plans in the field of environmental protection and contributes directly or indirectly to the implementation of the real Conventions on the environment.

In spite of specific geographical and climatic conditions national legislation was developed in the direction of protection and increasing soil fertility, protection of water resources, conservation of biodiversity, rehabilitation of the ecosystem and to combat the negative effects of natural disasters (droughts, floods, landslides).

The legislative process of environmental protection activities and their components could be characterized in general as positive ones. The integrated system of actions to combat land depletion and desertification and increasing agricultural productivity is described in the National Action Program to Combat Desertification approved by Government Decision nr. 367 on April 13, 2000, and in the Program on Land Valorification and increasing of soil fertility approved by Government Decision nr. 636 on May 26, 2003. The last one foresees the implementation of crop rotation, the value of which has been scientifically confirmed depending on the pedo-chemical zone, soil anti-erosion work, minimalizing losses of fertile soil and nutritive elements by combating soil erosion, chemical amendment of steppe solonetz soils.

### **2.4.2 Economic mechanisms**

Fifty seven percent (57%) of the population lives in the rural area and is able to work and 44.5% are wage earners. Almost half of the employed people from the rural area are working on their own (46%). In the agriculture economy just over 70 percent (70.6%) are involved in agriculture, forestry, hunting and fishing; in public administration, education, health and social assistance - 14.5%; industry - 5.6%; trade hotels, restaurants - 4.4%. In general only fifty four percent (54%) are officially employed and the rest are unofficially employed.

The average duration of the working week of persons employed in agriculture is 78-81% compared with others working in the economy.

In general in the economy the unemployment rate is 7.9% but in rural areas it is 4.5%. The statistical data shows that unemployment in agriculture has a seasonal character with extreme values on the 1<sup>st</sup> and 4<sup>th</sup> quarters.. The activity rate in the rural area is 49.3%, employment rate is 47.1%.

In rural localities there are 4.1 times as many people of age 60 and over employed than in urban areas. Among all these people more than 78% are involved in agriculture. This phenomenon is explained by the following – in actual conditions for old persons this is a modality to increase their income.

The budgets of people 60 years of age or more have been examined during 2004. Among these households 66.9% lived in a rural area and 33.1% in cities. Most of them are single person families (64.2%), and for 55.0% the leader of the household is considered the woman.

Involving more people in the rural areas contributes to the improvement and development of cooperative activities. Thanks to the fact that the cooperation has been supported by state leaders, local and central administration during the last two years sales have increased by 69.3%, industrial production has increased by 88.5% and the acquisition of agricultural products by 8%. The number of those employed in consumer associations is more than 9,300 persons.

One of the problems is lack of knowledge on the part of many farmers and leaders of new agricultural organizations, as well as a low level of education in the field of economy, agronomy, animal breeding, and law. Emigration to towns and cities of the rural population is estimated in some villages at 40% of the working population. The number of inactive population is increasing. Over half of the rural population lives under the poverty line. Four of ten children ten years old, live in extremely poor conditions. In this context we have to mention that 68% of the poorest population lives in rural areas. Almost 40% of emigrated people are less than 30 years old, 50% of emigrated people have professional qualifications obtained in colleges or universities, 23% have graduated from high-schools. People leave in order to gain more money for children's education, improvement of living, health conditions and other reasons. Emigration of people is a result of sudden decrease of living conditions, especially in rural areas.

## **2.5 Public participation in the decision making process in the field of the environment**

The legislation of the Republic of Moldova has the general provisions to insure public participation in the decision making processes in the field of the environment. This refers especially to elaboration of laws, regulations, standards, plans and programs related to the environment.

In 2004, MENR adopted instructions regarding public involvement in the elaboration and decision taking processes during development of drafts of new laws or regulations in the field of the environment. The NGO community took an active part in implementing this regulation. Registering at the Ministry of Justice is required before entering into this process.

In general, the public is invited to take part in the decision making process regarding policies, plans and programs of environmental importance. Public participation has been involved in developing the concept of the Environmental Policy of the Republic of Moldova, Program on water supply and sanitation in various localities of the Republic, and the Strategy of Economic Growth and Poverty Reduction. In 2004, the Ministry of Ecology and Natural Resources asked for public participation in discussing the issue of the placement of petrol stations, flood protection and earthquake protection plans. One NGO representative is a member of the Administrative Council of the National Ecology Fund. On the other hand civil society is not represented in the Inter-ministerial Committee for Ecological Policy (the last one being inactive since being established in 2002). At the local level some experience on public involvement in decision making processes exists. MENR in common with MAFI elaborated the Guide on Good Agricultural Practices, the main purpose of which is getting information to farmers on agricultural ecology by involving the local public authorities in this activity. This guide foresees not only integration possibilities of economic and environmental problems but on a long term basis will lead to promotion of our products to new markets.

Ecological agricultural practices are in developing processes in our country. This activity is supported by the MENR in common with MAFI, international donor organizations and represents one of the domains that show good results of the collaboration between two Ministries.

According to Regulation of the MENR, adopted by Governmental Decision nr. 679, one of the specific attributes of this Ministry is disseminating public information on the environmental situation and the utilization of natural resources within the country. It ensures public access to environmental

information and public participation at the decision making process. The Ministry of Ecology and Natural Resources which is responsible for this activity also includes the Division of Environmental Policy and European Integration. Thus, one of the main strategic environmental goals of this division is “increasing the level of ecological knowledge of the population, providing public access to environmental information and public participation at the decision making process on the management of natural resources.” With kind support from the Danish Government (Danish Agency for Environmental Protection within the project “Assistance provided to Moldova in Implementation of the Aarhus Convention), in the Republic of Moldova the Environmental Information Center was established. The Information Center has the following responsibilities: public and specialists information on environmental issues, proactively spreading information, establishment of the electronic data base, management of the ministry library, and other responsibilities.

## **2.6. Reforms in agricultural sector**

In the period 2001-2004, 117 enterprises for processing primary agricultural products have been established in rural areas. In 20 of the 33 raions no enterprises have been established. In the same period in rural areas 150 zoo veterinary complexes, 97 centers for the acquisition of agricultural products, 64 stations for car technologies, 633 enterprises of a non-agricultural nature were created. At the same time, today we have some 24 of the 33 industrial enterprises that are not dealing with agricultural products/problems. In 9 raions such enterprises are missing, in 3 raions production volume of these enterprises is less than 1.0 million lei, and in another 10 raions it varies between 1.0 and 10.0 million lei. In rural areas about 70,000 persons are involved in this industry that forms 6% of the economically active population of the area.

### *The character of property in agriculture (privatization, fragmentation, consolidation)*

More than one million rural inhabitants became land owners after reorganization of collective agricultural enterprises and the privatization process that took place in 1996. This fact hasn't led to decreasing of the production in the agricultural sector. This is explained by intensive development of renting practices. The official statistical data shows an increase in this activity in 2001 with 6.4%, 2002 with 3.0% and in 2004 with 21%. Today, according to statistical data, the number of persons who got land in property as based on land quota equivalent principles (according to article 12 of the Land Code of the Republic of Moldova), is 655.7 thousand persons. Total surface of distributed territories is 862.6 thousand ha, an average of about 1.32 ha per person.

The land consolidation process began in 2004. In only one year, the surface of the territories cultivated by the enterprises that rented land increased 5%. Nevertheless, the small households that have an average surface of 1.4 ha that is divided into 3 or 4 parcels, forms 45.5% of all agricultural land.

### *Identification of barriers and gaps in rural development*

Surfaces planted with cereals have recently increased (in households and farms it is more than 70.1%), at the same time surfaces planted with multi-annual crops have decreased. Processes of consolidation of rented agricultural land have increased. We have to mention that financial sources that support concrete activities in this field are provided from grants and credits from abroad. In the period of 2001-2004 the Government of the Republic of Moldova was the beneficiary of external grants and credits in the amount of \$142 million USD, from which \$109.8 million USD (79%) were intended for investment projects. One method of horizontal cooperation, as an extension of agricultural services, is based practically only on financial assistance provided by foreign donors. The active assistance to the agricultural sector has been reduced by 3 compared with data from the year 1999. Although the energy

consumed in agriculture decreased 2.3 times compared with 1996, in the period of 1999-2004 it decreased only 1.4 times, thus being 2.7 times lower than the industry sector.

Practices of providing consultation and information services are insufficiently developed. In the period of 2001-2004 in the rural areas only 70 consultancy and 28 informational centers were established. In 5 raions these kinds of centers are missing completely. A similar situation is noticed with centers for the collection of agricultural products (only 97 centers in 1,600 rural localities, 745,000 persons are involved in agricultural activities), technological stations (64 existing stations got in average 24,000 ha of seeded land each), complexes for providing animals care services (one center has to provide its services to 3,747 animals). While moving to a market economy principles and implementing the reform of the agricultural sector, accompanied by land privatization, in rural area is more acute. There is an absence of non-agricultural structures that create links between producers and markets, for production realization and between producers and sectors of industry that provide support that is needed for agricultural activity.

### *The political objectives and agricultural management*

The policy in the agricultural and rural development sectors is not always coordinated with environmental policy. Nevertheless, the importance of good land management and soil protection is mentioned in many political documents. The strategic objectives of agricultural policy are the following:

- Promotion of production processing and efficient advertising of agricultural products in a way that would increase the income and welfare of farmers,
- Competitive insurance of Moldovan agricultural and food products on international markets,
- Contribution to economic growth,
- Protection of natural resources and insuring the availability of an adequate food supply.

Three political documents are extremely important for agricultural policy and rural development: Strategy for Economic Growth and Poverty Reduction, Action Plan for the Republic of Moldova-European Union, Program "Moldova Village." The land and agricultural products consolidation objective is very well expressed in the policy of the Ministry of Agriculture and Food Industry. Until now farmers were the driving force of the consolidation process, now actions to promote a consolidation policy through administrative bodies have been undertaken. According SCERS provisions the country has to promote a liberal agricultural policy through land property consolidation and establishment of a free land market.

## **2.7. Desentralization of the obligation of central organizations**

Problems related to this issue could be characterized by the following: public administration has not adapted to new rules resulting by market economy principles, low level of reimbursement for work (this negatively influences motivation to work), over regulation and insufficiency of specialists with analytical skills. Financial resources should be administered at three levels – state, raion and local levels. Administration at those levels would correspond to the law on the promotion of state land policy. According to Government Decision nr.689 from 10.07.03 "on employment of persons in raion councils, divisions, sections, other subdivisions of raion administration," division on land relations and survey within the raion administration has been completed with a total of 99 units of land being distributed in 1-2 unit parcels depending on the number of raion inhabitants. In 7 raions 2 specialists have been employed, in other 4 raions – only 1 specialist. In some raions specialists from other fields of activity have been employed to perform similar kinds of functions. This creates many difficulties in land management. The main responsibility of these services is to coordinate administration of land regime, control rational use of land and perform survey monitoring. Due to insufficiency of specialists in this field, land owners do not respect the land regime and as result we have the economical value of

one of the most important natural resources decreasing. If speaking about the relation between the potential capacities of natural resources of Moldova (especially soil that is one of the most valuable in Europe) and the low level of its efficient utilization we should underline that in the agricultural sector, balance between exploitation of small land parcels from all agricultural land is almost 45.5%, a fact that is not making application of modern technologies in this field possible.

We should mention that 87% of agricultural lands are in private property, 79.3% of them belonging either to societies with limited responsibilities (37.9%), or farmers (41.4%). This means that only 38% of private agricultural lands are organized in agricultural exploitations with the average surface of 537 ha, the rest of them are small agricultural exploitations of 1.25 ha. From this point of view the structure of seeded territories is directed mainly towards reduced added crop value (wheat, corn) because these crops don't need major investments and could be stored without many problems. On the other hand it is obvious that one or two persons that work in the land and survey divisions within raion administration are not managing to instruct land owners how to observe the land regime. Local public authorities are not capable to undertake concrete actions in order to increase the efficiency of land relation reglementation in the territory as well as to improve the anti-erosion plans of households. In this context, a good example to confirm the above mentioned are grasslands that constitute 374.2 thousand ha of the public property found in the territorial administrative unit and that is being added to the reserve fund. From all grasslands only 26 thousand are ameliorated. Lack of regulation activities from local public authorities lead to overexploitation and degradation of grasslands.

Communities, according to mass media data are not willing to transfer heavy degraded territories to the forest fund for afforestation. An example in this aspect is protection forest bands that have been distributed for local public authority management and which are practically disappearing (from 28 thousand ha mentioned in Land Survey only 15 thousand ha are in satisfactory state, 7 thousand ha are spaced out and 6 thousand ha are completely destroyed). Incapacity and lack of knowledge of local public authorities and of entire community lead to degradation of public and private territories. The financial estimation of this phenomenon is more than 7% from GDP.

#### *Contribution to local budget income*

The capacity to maintain the assurance and social assistance services in general, especially at local level, depends on incomes accumulated in this area and local economic potential. At accumulations of local incomes contribute local taxes – compulsory taxes made to the budget of territorial administrative unit, especially for territorial development, auction and lottery organization, publicity, usage of local logos for commercial structures or/and offering services, dog owners, others. All mentioned taxes are applied by the local public authorities. We have to mention that beside this in the Budget Law are established payments from the general state incomes to raion budget and to the central budget of Autonomous Territorial Unit Gagauzia in sum of 100% from income taxes from business activities and 50% from taxes paid for road utilization gathered from car owners that are registered in Moldova. At the same time in rural area in the last four years have been established 117 processing enterprises of raw agricultural products in 12 raions. Also in 24 from 33 territorial administrative units are found industrial enterprises that are not dealing with processing of agricultural materials. From all new created working places in the period 2002-2003 only 6.7-8.2% have agricultural destination. Only 32% of rural population is employed. Average monthly salary of one employee in agriculture is 56.71-58.2% from the nominal monthly salary paid for one employee in economical sector and 33.3-42.8% in industry. Beside this families in rural areas get 40.7% of their income as natural products. In rural area 94.4% of the population has monthly income under minimum of existence, and in urban area - 62.4%, thus almost all rural population live in poor conditions.

Salary debts in rural area constitute 48.6% from the total sum although the weight of employees in agriculture is only 20% from total employees from the rural area. All these substantially influence local income accumulation in the territory. Local expenditures are covered by local global incomes on

average of 67-70%, the rest of the sum is transferred from the state budget in which is stipulated a special fund for financial support of territories (in 2005 – a total of 883.8 million lei).

Contribution of local budget incomes to GDP is 6-7%, state budget transfers 2-3% and income of consolidated budget is 26.8% from GDP.

Budgets of all administrative territorial units with exception of Chisinau are covered by the state budget. That is why resources of local budgets are used for financing current expenditures but not for development investments. Until 2004 in the structure of local budget expenditures, 63% establishes education and health care expenditures. Towards investments go only 10% of the budget. After 2004 covering of medical institution expenditures moved to obligatory medical insurance fund which increased the investment quota to local budget by 15%. A major importance for the development of rural area has the transfers with processing purposes (for agricultural sector support, fixing and maintainance of public roads, subventioning of some cultural institutions and for territorial development). In 2001-2003 the value of transfers with processing purposes represented 1.4-1.6% of GDP but in 2004-2005 almost 2%.

Starting with 2006 will be canceled the facilities established on tax payments, possibly for import and distribution of pesticides, mineral fertilizers as well as technical equipments within the country. This happens due to the fact that from these facilities beneficiate intermediars and not producers or final consumers. At the same time, upon delivering of raw materials on the territory of the country an additional tax quota of 20% is being introduced instead of a reduced quota of 5%. We should mention the impact that money transfers of Moldovan citizens working abroad have on national economy. In 2003 these incomes formed 20% of GDP. In the period of 2000-2004 the amount of currency transfer increased with 269%. But large money transfers are still made through unofficial ways. Based on analysis estimation data for the period of 2003, transfers constituted 30% from GDP. Taking into consideration that abroad workers are mostly rural inhabitants, these incomes make life conditions in rural area being almost satisfactory.

## **2.8. Non-Governmental environmental organizations**

Among governmental organizations an important role in the implementation of the NAP on UNCCD has NGOs, local communities, and other people. In the period of 2002-2006, NGOs involved in activities related to combating desertification organized the following activities:

- Research activities on water quality (Terra Nostra, Bios, Environmental Movement Chisinau, Environmental Movement Comrat, Environmental Movement Soroca);
- Research activities on land degradation – Environmental Movement Comrat, Bios, Biotica
- Biodiversity research activity – Biotica, NGO Silvic Progress, NGO “Biodiversity protection”.

*Training and education activities* – SNSS, Environmental Movement of Moldova, Ave Natura, Bios, Terra Noastra, Gutta, Silvic Progress, Association of Environmental Journalists and Ecological Tourism, Biodiversity Protection, Association of Preventive Medicine Specialists, EcoTerra, Ecoteora, FAGUS, National League of Preuniversity Debate, Mostenitorii, Teriological Society of the Republic of Moldova, ECOU, BIOM, GEO, Mediu-scop, Eco-Tur, Ecological Center for Assistance and Instruction, Environment Science Academy, Bineva, P.P. Natura, Center of Environmental Consultancy, Cahul Scouts, Singerei Scouts, National Center for Ecological Tourism, Ecodisign, Eco-Protectum, Unda Verde Chisinau, Unda Verde Ialoveni, Noe’s Arch, Ecological Field, ECO Rezeni, Eurobiont, Eco-Arta, Ecet-Aspiration and others.

*Activities for combating desertification in the Republic of Moldova held in 2006 (“Desertification Year”) are:*

- *National Workshop* Relevant Aspects of desertification in the year of combating desertification, organized by BIOS, REC/Moldova and UNCCD Focal Point, financed by REC/Moldova.

- *Regional and local workshops*, organized by Bios, National Farmers Federation in Edinet, Criuleni, Calarasi, Causeni, Cahul, Hincesti, Soroca, Balabanu, Taraclia, Ecological College Chisinau, Ceadir-Lunga

- *Student scientific-practical conference* at Agricultural State University of Moldova – “The beauty of deserts, complexity of combating desertification”, organized by BIOS and Agricultural University;

- *Regional seminar*, organized by BIOS and National Farmers Federation from Moldova – in Orhei and Glodeni;

- *Seminar for validation* of the national report that will be presented at Buenos Aires this year, Argentina, organized by UNCCD National Focal Point;

## **2.9 Public Awareness on Environmental Issues**

In the Republic of Moldova ecological education is promoted at all stages of education process: preschool, primary school, high-school, college and university. The Ministry of Education, Youth and Sports plays an active role in this process by elaborating and implementing an AP for elaboration of an educational strategy in the environmental field. The Ministry of Ecology and Natural Resources also holds the responsibility for the educational process in the environment field. Both these ministries cooperate in the elaboration of study books, organizing extra-curricula activities in the field of environment protection in schools. In order to enable the capacities for Convention objective implementation are necessary actions on education and public awareness which cover:

- establishment of environment training at all levels of the educational system;
- public education and awareness on environmental protection issues, rational use of natural resources and implementation of environmental convention provisions;
- promotion of adequate knowledge for realization of environmental convention objectives;
- organization of exhibitions, seminars, conferences, symposiums related to implementation of environmental convention objectives;
- improvement of educational programmes on planning of ecological law and management in educational institutions with specialists in environmental protection;
- collaboration with mass media and active involvement of environmental NGOs in the implementation of environmental convention provisions;
- permanent public information on the environment state and usage of existent natural resources in the context of convention implementation.

### *Gymnasium, lyceum and university education*

Responsible for gymnasium, lyceum and university education process are the Ministry of Education, Youth and Sports, the Municipal Education Department, Regional General Directions for Education and educational institutions.

Environmental education of pupils is done at different levels depending on child age. Ecological education in school starts at lessons where teachers systematically discuss issues related to environment. Starting with the second grade of the primary cycle pupils study The Sciences, where are taught in a simple form the global and national environmental issues, at the same time is taught love for nature.

Biodiversity issues are discussed in V-IX grades and comprise elements from Botany, Zoology, General Biology and Ecology. More detailed information on conventions could be offered in lyceum education cycle, within the disciplines – Geography (X-XII), General Biology (XII), Physics (X-XI). For all these disciplines, with the financial support from Soros-Moldova, within the project “Elaboration of lyceum curricula”, a new program was elaborated.



For the discipline “General physical geography” (X grade) within the project on obligation reform of the general education in RM, cofinanced by WB, was elaborated and edited an manual. Books for other disciplines are in process of elaboration, the most important and necessary one being “Geography of the environment”(XII form), that have to conclude the following topics: components and changes of the environment, pollution sources of environment components, environment protection at regional and global level, ecologic systems, auto-epuration, environmental changes, natural disasters.

Training courses for specialists are organized at state universities. These courses, usually, are organized sporadically, in dependence of requirements or within some international projects, as those supported by TACIS.

MENR and its subdivisions elaborated and published literature in the field of environment protection, including annual reports, abstracts of scientific and practical conference materials, informational bulletins, other materials with analytical character. In 2002, Science Academy of Moldova and INECO launched a scientific magazine on information and ecological education “Mediul Ambiant”. Many important materials on environment protection are gathered in the Informational Environment Center (IEC) and INECO library.

A considerable importance in ecological education lays on IEC, that is open to the large public and offers a wide variety of materials in this field, access to Internet, maintains the Web page and spreads electronic informational bulletins that comprise information on: Science Academy of Moldova activity; on-going environment projects within the ministry; draft laws; NGO activity; ecological digest from Moldova.

Conferences, seminars and workshops on environment protection topics, organized at national and regional level play a special role in ecological education.

Many environmental NGOs and governmental organizations proved to be active. They undertook a lot of actions such as: publication of information materials (booklets, leaflets, magazines, and books), conference and workshop organization on ecological topics and establishment of informational centers in the environmental field. Among the developed activities by NGOs could be mentioned establishment, publication, maintenance of web sites designed to offer exchange of experience, promote environmental education of population, especially of young generation. In cooperation with REC Moldova have been organized meetings with NGOs on actual environmental issues: environment, role of NGOs in ecological education, NGOs, public participation at the decision-making process, green patrimonium of the Republic of Moldova and others. Up till now have been organized four National NGO Environmental Forums, where have been discussed problems of environmental NGO sector development in accordance to national and international requirements.

## **2.10. Training of specialists**

Training of specialists in the field of ecology in the Republic of Moldova is done in universities and colleges. This process is coordinated by the Ministry of Education, Youth and Sport with the support of the Ministry of Ecology and Natural Resources.

### *University and Post-university Education, Activities of Professional Re-training.*

University education in the academic year 2004/2005 was done in 45 universities, academies and institutions, with about 95,000 students, representing about 262 students to 10 thousand people. The university education as well as research in the field of environmental protection and management is mainly done in the following institutions:

- The State University of Moldova (SUM): Department of Biology and Pedology, Chemistry (Industrial and Ecological Chemistry), Department of Law (environmental legislation);
- The State University of Tiraspol (SUT) (located in Chisinau): Department of Biology and Chemistry and Department of Geography;

- The State Agricultural University of Moldova (SAUM): Department of Agronomy, Department of Pedology and Agrochemistry, Department of Plant Protection, Cadastral Department and Environmental Engineering.
- The State Technical University (STU): Department of Urbanization and Architecture, Specialization in Environmental Protection, Engineering and Management;
- The State University of Medicine and Pharmaceuticals Department of Hygiene and Epidemiology;
- The Ion Creanga State Pedagogical University;
- The State University in Balti.

In many of the above mentioned universities (for example SUM, STU and SAUM) Environmental Protection courses have been developed for students from departments with courses in ecology as well as for students from other departments. The introduction of these courses was possible as a result of university professors participating in different international scientific projects and gaining experience in this field, including European universities.

In this context, it is our opinion that courses introduced in universities relating specifically to environmental protection and energy conservation are more advanced than actual strategies and action programs of central and local public administrative authorities. We would also like to mention the lack of collaboration on the part of university professors in relation to teaching information related to new environmental legislation as approved by the legislature.

Insuring that forestry institutions maintain highly qualified staff with respect to training is difficult for the State Agricultural University is the only university which trains specialists in this field. Within the Department of Horticulture, at the same university, future specialists in the field of forestry specialize in Forestry and Public Gardens. It would be better to train specialists in the field of ecological planning, management and legislation at the State University of Moldova, Department of Ecology within a specialization of Ecology. The next step would be to introduce the theme of “the process of soil depletion, land desertification and methods of control” in a Pedology course within the specialization of Pedology and Agrochemistry. In general, it would be better to introduce some lectures devoted to objectives of international environmental conventions and their implementation in the Republic of Moldova in all university courses related to environmental protection.

*Ecological Post-university Education* is insured by specialized institutions from our country and outside the Republic. In the Republic of Moldova there are: the Academy of Science of Moldova with specialized institutions (Institute of Botany, Institute of Zoology, Institute of Microbiology, Institute of Ecology and Geography, Institute of Chemistry) as well as above-mentioned state universities (SUM, STU, SAUM). Thus masters and doctoral degree programs in the field of environmental protection is at an initial phase and students who want to continue studies in this field in many cases are obligated to adopt themes of their research to existing specializations or to continue studies in institutes outside the Republic. Fellowships are offered for youth from our country to study in universities in Romania, Ukraine, Russia, Poland, Bulgaria, Turkey as well as other countries through Agreements of Collaboration between the Government of the Republic of Moldova and Governments of the other countries.

Training for doctoral level students in the field of forestry and plant protection in the Republic of Moldova is available at the State Agricultural University and the Botanical Gardens; in the field of energy and the conservation of renewable energy– at the State Technical University and in the field of environmental protection – at the State University of Moldova and the State Technical University.

Professional retraining in the field of environmental protection is done systematically depending on the range of activity in specialized centers within respective ministries as follows:

- Academy of Public Administration – for specialists from Centre and Local Public Administrations;
- The National Institute for Retraining of Didactic Staff – for staff from gymnasium and lyceum education;
- The Forestry Technology and Design Centre – for specialists from the forestry sector;
- The State Medicine and Pharmaceutics University – for specialists from hygienic and epidemiological centers;
- The Republican Centre of Veterinary Diagnostics within the MAFI – for specialists from veterinary laboratories.

### **3. Consulting process**

#### **3.1 Technical-scientific activities on combating desertification**

Experts who took part in the development of the National Report established the fact that the desertification processes and its research have a permanent place in our Republic. The research is performed under the auspices of the Academy of Science of Moldova, in the Institute of Pedology and Agrochemistry, in some universities and in the Ministry of Ecology and Natural Resources as well as the Ministry of Agriculture and Food Industry. Currently 34 scientific themes related to combating desertification are being carried out.

The most important among them are the following:

- Elaboration of the territory's anti-erosion management system at the settlement level and combating landslides in the Central and South Moldova areas;
- Elaboration of better systems of measures for soil depletion and the restoration of soil quality;
- Perfecting methods of assessment of nutritive systems and expanding the improvement of soil fertility and conservation measures through improving biological indices and using mineral fertilizers in field crop rotation;
- Perfecting systems and technologies in the evaluation of organic materials and nutritive substances from local resources originating from pyrotechnical sources, animal breeding and communal husbandry related to improving soil fertility and vegetal production;
- Elaboration of measures of biodiversity restoration and the activities of invertebrates in soils that are being eroded to improve their fertility and for environmental protection;
- Evaluation of possible use of waste water resulting from processing industries for utilization in agriculture as a source of fertility and irrigation, depending on the chemical composition and properties.

#### **3.2 Implementation of Scientific and Technical Committee recommendations**

The following is the major research in process:

- The study of desertification and drought processes, development of measures and technologies to adopt that will diminish and eventually combat drought with its devastating consequences;
- The study of soil and the processes of biodiversity degradation; elaboration of measures to minimize and eventually eliminate the processes of degradation;
- Elaboration of the system of absolute and relative soil standards for regional soils in the Republic, examined in different hydrothermal conditions (the hydrothermal coefficient is from 0.5 to 0.9); map-drawing of land experiencing drought, based on the standard-land criteria as well as the elaboration of projects combating desertification;

- Determination of optimal and critical levels of physical, chemical and biological soil indexes and acceptable ecological standards of the chemical balance of soil;
- Determine the ecologically safe balance of mineral substances in soil and ecologically safe use of soil fertilizer;
- Setting up of the scientific base of sustainable agriculture which can provide ecologically sound agricultural products and exclude soil desertification as well as water and soil pollution;
- Study of water resources and the perfection of technologies for the sustainable use of irrigation and other needs in the context of combating droughts;
- Elaboration of ecologically based systems to improve soil quality; restoration of the hydrological system and the fertility of depleted soils; study of economic, political and demographic factors resulting in desertification and poverty; elaboration of mechanisms and regional and local policies on sustainable development;
- During the implementation of the National Action Program there are a number of conferences, seminars and workshops held with the participation of stakeholders and representatives of farms.

It is a known fact that a research development system can only exist in cases where the financial support isn't lower than the critical level of 0.4% of GDP. In the Republic of Moldova this figure hasn't increased more than 0.18-0.2% in the last decade. But for a positive influence on the economy of the country it is necessary for investment to be over 1% of GDP. Thus the Government of Moldova will have to enforce some measures in order to increase the financial support in the area of research development within 3-4 years from 70 mln lei (current level) to 350-400 mln lei.

Certainly some measures are needed related to acquiring extra budgetary resources, especially from the private sector but also external investment. An obligatory condition in the improvement of research development activities is the elaboration within the new legislative framework. Currently favorable conditions for these activities exist through the Code on Science and Innovation approved by the Parliament of the Republic of Moldova (the Parliament Decision nr. 259-XV from July 15, 2004). Enforcement of capacity building in the implementation of research results can't be realized without setting up the respective infrastructure which is absent in our Republic at the present time.

Thus setting up of the National Agency of Innovation and Technology Transfer creates the necessary foundation for the initiation of these activities. In the future we should set up the infrastructure for technological innovation and transfer parks and centers, business incubators, etc. Implementation of policy in the fields of innovation and transfer of technology is based on the creation of a system which can utilize the results of intellectual and technical scientific potential in limited terms and with high efficiency. This should be related to climate change, conservation of biodiversity and combating desertification in our Republic.

International practice demonstrates that a more rational plan is to create innovation firms or to reshape existing ones which, in a short time and with minimum expense, can produce reliable and competitive production. In developed countries such firms insure the implementation of about half of the innovations and project the use of a third of the innovations of big ones. The support offered to the management of the environment by the development of research can be improved and enlarged only with a substantial increase of the scientific level. But in actual conditions when investigations are made, with a narrow focus by only 2-3 researchers using primitive equipment, implementation of these objectives are problematic.

It is necessary to introduce new forms of organization and management of science. One of these forms is the organization of scientific research in relation to national programs of research development. The state program allows the concentration of some considerable financial resources and

existing human potential in the Republic and outside of it for the solving of some cardinal problems, including environmental ones. Having a cross department and cross sectional character, the state program can more easily overcome narrow interests and change some institutions to more fully meet interests of the whole society. In the context of above-mentioned the Council for Science and Technology Development of the ASM will announce financing of some projects for scientific investigation in the field of environmental protection that will result in strategic directions in scientific development for the period of 2006-2010.

#### **4. Action steps to be planned and undertaken in relation to the National Action Plan**

##### **4.1. Technical programmes on combating desertification**

The combating of desertification is the main focus of the rational and complex use of soil resources in dry land regions for the development of a sustainable society.

*Drought monitoring.* Currently the function of the climate monitoring system in general and drought monitoring in particular is maintained for the most part by basic information created in the period of 1970-1980. Equipment and instruments acquired and used in that period don't correspond with present requirements; they require repair and upgrading.

In Moldova 2004, the first five automatic systems for weather parameter controls were settled. Automatic registration of weather parameters essentially increases the operability and quality of meteorological observations and facilitates the work of the involved staff.

However, it is necessary to automatize all monitoring process links of drought phenomena beginning with registration, operation and systematic information processing as well as assessment of conditions related to growth, development and formation of crop harvest.

In accordance with government decision nr. 728, June 2003, the N. Dimo Research Institute of Pedology and Agrochemistry together with the State Land Cadastre Agency and other education and research institutions developed a complex of technological measures which include:

- Using mineral fertilizers;
- Accumulation of biological nitrogen from vegetable crops;
- Implementing crop rotation;
- Enlarging large and small irrigation systems.

*In the Budget of the year 2004* – the agriculture, forestry, pisciculture and water sectors were allocated 151 million lei, including 25 million lei for education, 0.4 for research and development and 125 thousand lei for financing activities and services in this domain. This number represents 2.8% from the general budget of the state. A part of the allocations, 36 million lei or 24% represents support by the Agricultural Support Fund.

It is worth mentioning that subvention to the agricultural sector has increased considerably since the year 2005. For example, in 2002 the Subvention and Stimulation Credit Fund by commercial banks as well as economic and credit associations for economic agents producers of agricultural production constituted only 39 million lei. But in 2005, 180 million lei were allocated including 120 million lei, which were distributed among the territorial administrative units of the second level. In 2006, the Fund for Subvention of Agricultural Producers has already allocated the sum of about 190 million lei (about 2% of the total budget) for anticipated expenditures.

In 2004, the Fund for the Subvention of Agricultural Works Connected to Autumn Ploughing was created, in the sum of 15.3 million lei. 7.6 million lei were distributed for buying equipment for small irrigation projects and the reparation of irrigation systems. These funds were allocated through the European Commission Grand within the Food Security Program.

In 2004, investments in the agricultural sector constituted 6% of total investments in the economy, given the situation in 2000. Also we can observe the tendency to increase the ratio of

investments in agriculture – from 1.5% in 2000 to 5.3% in 2004. It is worth mentioning that in the period of 2000 – 2004, one lei of capital investments generated 3.7 lei of increasing VAB in the agricultural sector.

The principal sources of investment financing in the national economy are the industries own resources (61%), for state and local budget allocations have been reduced 8.6%.

During the period 2000-2004, in accordance with the National Action Program on Combating Desertification, approved in Governmental Decision nr. 470 on April 27, 2000, the Forestry Agency “Moldsilva” has done the following work:

1. Regeneration work within the boundaries of the State Forestry Fund on the surface of 13,427 ha, including planting 4,963 ha and through natural regeneration of 8,464 ha.

2. Enlargement of the surface covered by forestry vegetation – 22,515 ha, the lands transferred from local authorities affected by erosion and landslides – 7,702 ha and on local authorities’ lands through contracts – 14,813 ha.

In general, during 2000-2004, the young trees of the forests grew and about 192.8 million units of plant materials were sold in reforestation activities.

#### **4.2. Action Program determined by the priority directions of the ONCCD**

The following are the most important activities focusing on processes of combating desertification:

- Increasing soil fertility, introduction of organizational agro technical procedures, soil and phyto amelioration and hydro technical measures to combat erosion;
- Elaboration and introduction of pilot project phases in combating desertification, crop rotation and use of land at the settlements level;
- Ecological restoration of depleted soils;
- Ecological restoration of pasture vegetation;
- Scientific support of activities on combating desertification;
- Creation of public awareness informational systems on desertification issues;
- Organization of the monitoring of desertification.

A number of strategic directions for the protection of natural resources were described in relation to NAP. Their implementation will essentially allow increasing the economic and ecological situations in our country.

*Entrails using.* In the frame of NAP are foreseen a number of measures for softening and diminution of action of drought factors, especially: using of more effective, ecological and safety methods of entrails (minerals) extraction; entrails monitoring (current situation, dynamic of reserves, their lose and impoverishment); introduction of the economic mechanisms for the restoration and recuperation of the degraded lands.

*Utilization of Water Resources.* The first actions that would ameliorate further weakening and strain of the water balance in our Republic should be directed to the prevention of large loss of water resources: assisting in the repair of reservoirs, restoration of drainage networks, assisting in the restoration of irrigation networks and hydro technical installations, and building new water reservoirs (at a local level). The first goals for the protection of water resources in our country are also the timely clearing up of the sources of pollution, further prevention and eliminating the impact of pollution.

*Utilization of Land Resources.* The NAP proposed the following measures of protection and utilization of land resources: to ensure the land utilization in accordance with their zoning and designated use schemes, to set up the land market, to improve the state control of land protection and utilization by applying economic stimuli, to create extra budget funds for the restoration of

depleted lands, to prevent the impact of pollutants on land resources, to create favorable conditions for the enlargement of land lots of agricultural value, to ensure the common principle of pasture use.

*Utilization of Biological Resources.* Measures proposed in the NAP in relation to the protection and sustainable use of biological resources includes: revealing the biological resources reserves, carrying out monitoring of species and ecosystems, ensuring biosafety, improving the management of protected areas.

The measures on drought follow up assessment and monitoring in accordance with NAP include: the elaboration of the ecological monitoring concept in the Republic of Moldova, and improving the organizational structure of the Environmental Monitoring Center of the Ministry of Ecology and Natural Resources. The implementation of the abovementioned activities will allow organizing of the full value of the environmental monitoring system (including the drought process monitoring).

Improving the economic situation in our country in accordance with NAP demands carrying out of economic- farm activities in the base of the ecological-lawful relations, which regulate carrying out of ecological and hygienic demands and ensure the guarantees for environmental protection and human health saving measures.

The idea that environmental protection activity will be successful only when it becomes part of the general economic mechanism and brings profit to the private sector is the basis of the new relationship between the economy and the environment. Presented in detail in the NAP are the main directions which assert that the implementation of the plan will assist in the eradication of the things that are lacking in agriculture, urbanization, industry, energy and transport fields. These represent important values for the prevention of softening of the drought process.

### **4.3. Subregional Programs.**

In accordance with the NAP the regional and subregional collaboration include the following directions:

1. *Structural.* The creation of the Regional Center for Combating Drought. The main tasks and functions of this Center are: determination of the regional priorities in the drought combating sphere, the elaboration and implementation of common subregional action programs, assisting in carrying out national action programs, the systematization of gaining, analyzing and information exchange, training and re-training of specialists.

2. *Informational.* Creation of joint national informational centers as the basis for the common database. Creation of the regional and subregional informational network which will become a step for the creation of a common monitoring network and a system of early prevention.

3. The *management* of Transboundary natural resources, the elaboration of the measures of the rational use of natural resources, the creation of the transboundary protected territories, the protection and restoration of forests.

Recently the following regional and subregional projects have been developed for the implementation of the provisions of the Convention to Combat Desertification:

1. Development of a sub-regional Drought Management Center in South Eastern Europe

2. Development of Institutions of the Thematic Regional Network on Desertification, Institutions of Water Management (irrigation, drainage), the modernization of irrigation methods within the Action Program for East and Centre Europe, The Institute of Soil Restoration of the Academy of Science of Belarus.

3. Establishing a regional thematic network in CEE „Afforestation of degraded lands in drought affected temperature regions” (Romanian Forest Research and Management Institute):

- Information sharing, exchange of experience and obtained results;

- Training and capacity building in this compartment;
- Joint investigations and projects in the territory;
- Setting up of a network among national institutions;
- Technology transfer of methodological and technical skills.

Within the Convention on Cooperation for the Protection and Sustainable Use of the Danube River, the Republic of Moldova together with other countries from the Danube Basin carries out the monitoring of pollution of the water of the Danube. Also in accordance with the bilateral agreement between the Ukraine and the Republic of Moldova, our country participates in the informational sharing on water debits and quality of the Danube and Prut Rivers.

Within the partnership and collaboration agreement with the Ukraine, Moldova suggests the following priority problems:

- Protection and sustainable management of the natural resources of the Dniester River Basin;
- Environment quality in the Dniester River Basin in relation to the health of people;
- Improvement of the National Monitoring System according to International Standards requirements.

Fruitful collaboration in the Dniester River catchment area between Moldova and the Ukraine can also begin in the field of air quality monitoring in relation to transboundary issues. In 2005, the new automatic point of monitoring air pollution in the Dniester River basin, near from the Ukraine border was established. It was settled by the French Company Lafarge and will facilitate operative information sharing with the Ukraine in the case of exceptional pollution within the aspect of transboundary issues.

The solution to the problem of impact neutralization and decrease can be used as an efficient model of Moldova-Ukraine collaboration. The challenge was the water thermal stratification as a result of construction of the power station and dam in the Novodnestrovsc Lake, situated on the Dniester River.

This new form of collaboration between the Republic of Moldova and the Ukraine can also serve in solving problems related to the fishing limitation at the mouth of the Dniester River. In this place in accordance with the dates of both Piscicultural Services the reproduction of a fish number.

The implementation of a program on debit measurement and system of drawing water specimens from the Dniester River together with Ukrainian specialists will further bilateral informational sharing on water quality. It will soon serve as a new theme for bilateral agreements of collaboration between the Republic of Moldova and the Ukraine.

Currently in the Republic of Moldova the ecological monitoring system is in the process of being upgraded. Significant activity is focusing on the Ecological Integrated Monitoring concept, methodology and program, using the database structure. It concerns the complex scheme of the monitoring station and placing posts correctly.

Unfortunately the absence of these modern monitoring stations and posts in the entire Republic results in the fragmented character of observations and reduced level of complexity in the realization of ecological monitoring.

For the normal and complex function of the monitoring system and surface water quality supervision in the entire Republic, in 2001 the State Hydro meteorological Service received four stations of the automatic control and surface water quality supervision with the following indexes: pH, temperature, water level, conductivity, turbidity and dissolved oxygen. It was thanks to the successful implementation of the NATO SFP 971948, Nistru/Prut "Real Time Monitoring and Decision Support System for International Rivers, Application to the Dniester and Prut River" Project.

In accordance with local specialists and NATO experts' findings the conclusion was to set up these stations on the transboundary rivers in the following settlements:

1. On the Prut River:
  - In Sireuti village in the north part of our Republic;



- In Valea Mare village in the centre part of the Republic near the confluence with Jijia River;
- 2. On the Dniester River:
  - In Naslavcea village in the north part of our Republic;
  - In Tudora village in the south part of the Republic.

The drawing of specimens at these stations is done automatically with the results and observation dates printed in technical reports and stored in the Informational Centre. The Centre will share the formation with centers in Romania and Ukraine, as well as central and local authorities in Moldova.

Based on the above information, it is necessary as soon as possible to efficiently apply some measures related to surface water protection issues, maintaining its quality to ensure human health, perpetuate biodiversity and the welfare of future generations.

#### **4.4 Causes and barriers in carrying out NAP priorities:**

The *causes of land degradation* in Moldova are the result of: (a) unsustainable agricultural practices, (b) deforestation; and (c) overgrazing.

*Unsustainable agricultural practices* are due mainly to the overexploitation of land resources as well as due to farming on highly fragmented agricultural areas, using very intensive inappropriate agricultural practices that ignore sustainable land management principles. The adoption of a market economy has not been able to reinstate the old crop rotation system, implementation of conservation tillage practices, strip cropping, soil nutrient management and other soil conservation measures that would prevent further land deterioration.

*Deforestation.* During the last decades land deterioration was been exacerbated also by illegal cutting and destroying of forest belts for land protection, deforestation of meadow woods and cutting for heating of multi-annual plantations (orchards, vineyards and fruit-bushes). While the state forests were affected by illegal cutting to a very limited extent, almost 80% of the field protection forest belts (some 20,000 ha) along with about 5,000 ha of community forests (about 40,000 ha) were almost fully destroyed. All these contribute to accelerated soil erosion and the development of landslides during last decade.

*Overgrazing* also became a very important factor contributing to further soil deterioration. In order to survive the conditions of the declining rural economy, many farmers and households increased their livestock, mainly sheep and dairy cattle. This process affects land in two major ways. It leads to the loss of the vegetative cover of rangeland or pasture in areas where livestock density is beyond the carrying capacity. High livestock density also results in soil compaction because of trampling. In both cases the soil becomes more vulnerable to water or wind erosion.

Among the most important *barriers of land deterioration* are the following: (a) poverty and overexploitation of natural resources; (b) lack of local and national capacity to address land and environmental deterioration; and (c) the lack of public awareness and involvement in decision making processes.

*Poverty and overexploitation of natural resources.* As was mentioned above, the current economic difficulties have resulted in increased rural poverty and the radical reduction of state support to the local population. Average monthly income per household is \$120 USD. Due to the existing economical difficulties the country has limited technical and financial resources for proper implementation of SLM activities. The impoverished because of the shortage of income and food and the lack of alternative heating energy sources, the rural population has turned to the land and are using it more intensively and in unsustainable ways. The process of *National Capacity Self-Assessment for improved global environmental management (NCSA)*, developed through the UNDP GEF project highlighted the negative impact of human pressure and overuse of natural resources and indicated as main factors affecting biodiversity in Moldova in the following way: “most land is used for

agricultural purposes and, as a result, disturbing the ecological balance of landscapes; pollution of natural habitats; intense exploitation of vegetal and fauna resources; etc.” According to the *NCSA Report* one of the main problems in Moldova referring to soil degradation is “ecological lack of balance among the natural (forests, hay fields, aquatic resources, swamps and wetlands) and anthropoid (arable land, pastures, perennial plantations) ecosystems.” There is an increased use of natural resources with anthropogenic pressure associated with the applied unsustainable agricultural practices and worsening environmental and socioeconomic conditions.

*Lack of access to experience and information as well as weak local and national capacity* results in the lack of knowledge and relevant information provided to land users; limited dissemination of SLM and sound agricultural practices (including environmentally friendly technologies) to relevant authorities, civil society organizations, farmers and other land users. The country also faces policy and legal constraints, lack of coherent policies as well as the lack of regulations that would create conditions for implementing SLM practices. The capacity of farmers to address current soil depletion problems is weak due to the lack of training. Among the main causes are also the lack of institutional capacity to facilitate integrated and cross-sectoral SLM and limited availability of financing. These factors provoke an uncoordinated approach in decision making processes; disrupted inter-sectoral and uncoordinated stakeholders’ actions.

*Inadequate legal and economic incentives for sustainable land management.* Currently farmers do not have incentives for sustainable land use. The fragmented land use is an important factor that does not stimulate them to implement sustainable land management techniques and limits the incentives for soil conservation and investments in land productivity. Also limiting is rural poverty and lack of access to financing for the implementation of SLM technologies.

*Lack of public awareness and participation.* Among important factors contributing to slow mitigation of these root causes of land deterioration is limited public awareness and involvement in soil conservation activities. Public awareness is at a low level, and there is limited involvement of local communities in promoting sustainable land management practices and soil conservation activities.

These barriers indicate that threats to soil deterioration are predictable and will increase under the current circumstances. The GEF project would provide the chance for addressing these threats and to implement activities, which will contribute to overcoming these barriers and to essentially improving land resources in the project area.

## **5. Assigning financial in support of NAP implementation**

The Ministry of Ecology and Natural Resources is the responsible authority for the elaboration and implementation of the environmental protection financial policy. It supports the elaboration of programs and strategies in the field of environmental protection and contributes to the elaboration of sectoral strategies and programs of other ministries. The identification of financial resources is an important component of this process.

The Ministry of Ecology and Natural Resources sent to the Ministry of Finance inquiry nr. 01-07/771 on May 25, 2005, related to the implementation of the measures described in the National Action Program for Combating Desertification which was approved by government decision nr. 367, April 13, 2000. The Ministry of Finance responded to the Ministry of Ecology and Natural Resources with the following information:

Related to the simplification of the tax system – it is important to mention that modification and completion in fiscal legislation has been done through the elaboration of Laws for the modification and completion of some legislative acts that approve amendments for Titles I, II, III, IV, V, VI and VII, of the Fiscal Code. Included are the laws for applying them and other laws related to taxes, which are a result of the objectives of the fiscal policy for the medium term.

Title VIII “Taxes for Natural Resources” of Fiscal Code nr. 67-XVI, May 5, 2005, was implemented on June, 02 2005 through the Decree of the President of the Republic of Moldova nr. 87-IV and entered in force on January 01, 2006.

Related to financing of environmental protection monitoring and setting up of the monitoring of the desertification process we were informed that financial resources allocated from the State Budget in the period of 2000 – 2004 consisted of over 22.2 million lei at the time, the contribution from the National Ecological Fund for the implementation of some projects related to the modernization of the infrastructure for making hydrometeorological observations was over 2.5 million lei. The financial means obtained through the carrying out of the paid services in the same period constituted 2.0 million lei. This shows the importance of the State Hydrometeorological Service in prevention systems, evaluation, monitoring and desertification.

It is anticipated that programs approved by the Government will be financed in the State budget. In many cases, however, the funds allocated by the state budget are insufficient to implement the programs, which results in very slow action and working in impossible conditions. The MENR and the four territorial ecological agencies are responsible for the selection and elaboration of projects submitted to the National and Local Ecological Funds for financing.

The Ministry of Ecology and Natural Resources is the President of the Administrative Council of the National Ecological Fund, which approves projects for financing. The Presidents of the Local Ecological Funds Administrative Councils are the directors of the territorial ecological agencies. Other ministries and governmental institutions as the Ministry of Economy and Trade, the Ministry of Finance, the Ministry of Industry and Infrastructure, the Ministry of the Agriculture and Food Industry co-operate with the MENR in the field of financing of projects and programs which have environmental components. All of these are included in the state budget. It is difficult to keep track of funds because the branch ministers don't keep evidence of expenses for environmental protection activities.

The National Unit for Development program has been supporting activities related to environmental protection since 1998. From 2001-2006 it has included environmental protection issues as a cross-sectorial entity within the general area of Assisting for Development. Financing PNUD Projects is done in the form of grants. The main goal of the PNUD Projects is to assist the country in fulfilling the commitments assumed within the international or regional conventions or agreements where Moldova is a partner. The source of the financing of these projects is the Global Environmental Fund (GEF). The total sum of environmental projects financed through the PNUD in the period of 1998 – 2002 was about \$550,000 USD (all projects have been finished). For the years 2003 – 2006 the fund approved about \$489,000 USD (projects are in the implementation phase). On average, PNUD allots about \$110,000 USD per year for environmental projects.

In the period of 1999-2006, the United Nations Environmental Program assisted our country with financial support in total value of \$300,000 USD (from GEF funds). Those funds supported two projects related to the implementation of provisions of international conventions. Recently the World Bank has become one of the most important partners of the Republic of Moldova in financing environmental protection projects. The World Bank finances our projects through credits, some as a credit of the International Development Association (IDA), and grants (for the most part those fund GEF projects). Before the year 2000, World Bank financing was limited to environmental protection projects. Only projects of the Social Investment Fund and Energy Project (1996 - 2001) had environmental segments. The situation began to change in 2002, and at present more projects that are in the implementing phase can be classified as environmental projects. The biggest ones are:

- Agricultural Pollution Control Project (2004 – 2009, the value of the grant is \$4.95 million USD, the total cost of the project is \$10.74 million USD);
- Soil Conservation Project (began in 2004, the value of the grant is \$5.18 million USD);

- Pilot-project on supplying water and sanitation (2003-2007, the total cost of the project is \$14 million USD).

*Financial capacity (the current financing, investments, crediting and subsidizing)*

*In the Law on Budget in 2004* – for the agriculture, forestry, pisciculture and water sections 151 million lei were allocated, including 25 million lei for education, 0.4 for research and development and 125 thousand lei for financing activities and services in this segment. This number represents 2.8% from the general state budget. A part of the allocations - 36 million lei or 24% - is supported by the Fund of Agricultural Supporting Sector.

It is worth mentioning that subvention of the agricultural sector has increased considerably since the year 2005. For example, in 2002 the Subvention and Stimulation Crediting Fund administered by commercial banks as well as economic and credit associations acting as economic agents for producers of agricultural production, constituted only 39 million lei. But in 2005, 180 million lei were allocated, including 120 million lei, which were distributed among the second level administrative-territorial units. In 2006 the Fund for Subvention of Agricultural Producers has already allotted the sum of about 190 million lei (about 2% of the total budget for anticipated expenditures).

In 2004, the Fund for the Subvention of agricultural works connected to autumn ploughing was created in the sum of 15.3 million lei. 76 million lei were allocated for buying small irrigation equipment and reparation of irrigation systems. These funds were distributed through a European Commission grant within the Food Security Program.

In the period of 2000 – 2004, investments in the national economy have increased three times, from 1,759.3 million lei to 5,140 million lei. Investments in the agricultural sector increased five times in 2004, in comparison with the year before (1.65 times). Increase in investments during the last few years show rising interest on the part of business enterprises in this sector. But in the processing industry more than 60% of the total investments are used for food, alcoholic drinks and production of tobaccos articles. Other industrial categories of various products are affected by current insufficient investment.

*Crediting* in the agricultural sector by official financial institutions (bank system) constituted 24% of the total sum of credits. According to national bank data, credits in the agricultural and food industry constituted 2,526 million lei, in December 2004. The total sum of the credits was 10,481 million lei. Comparing that with the year 2000, total credits increased three times as much. Short term credits constituted 68.3% and long term credits – only 0,4%. The dividend rate of commercial bank credits constituted 21.11% at the end of 2004, and of inter-bank credits – 10.99%.

The role of the state in agricultural policy is to create favourable economic and financial conditions for the development of the agricultural food section This does not have to discourage prices and fiscal policy, but must have a base in total subventions. The state supports the agricultural sector in three ways: credits from the budget in cash, credits guaranteed by the state and non-money support.

The report in percentages between subvention and the volume of agricultural production, named *Equivalent of Agricultural Subvention (EAS)*, constituted 1.6% in 1996; 2.3% - in 1998, 16% - in 1999 (including the forgiven debts through the Paminat Program), 1.95% - in 2004. For 1 ha of agricultural land the volume of subvention constituted in 1996 - \$5 USD, in 1999 – about \$ 35 USD, in 2004 - \$ 8 USD.

Beginning with the year 2004, the mechanism of subvention insurance of risks of some products in the agricultural sector has been approved through the law. But the market of insuring services in Moldova is weak in its development.

In a time when agriculture contributes 18.2% to the GDP, budget contributions to agriculture constituted only 2.8% and investments in the agricultural sector – only 6% of total investments in the economy.

The rural sector has at present very limited possibilities for automatic insuring of their own sustainable development from a financial point of view. The underdeveloped business sector, limited

access to financial sources and insufficient support from the state don't permit rural areas to create favourable conditions for social-economic development of rural communities.

## **6. Results and assessment of criteria and indexes used for the analysis of ONCCD implementation**

The information on the state of the environment and its changing tendencies is contained in yearly reports on the environmental quality published by the Ministry of Ecology and Natural Resources. It is also contained in reports on the state of health and hygiene of the population developed by the Ministry of Health.

Besides the main information sources, periodic surveys on the social economic situation in our country are prepared by:

- The European Union Program TACIS (about social economic directions of development);
- The World Bank (about the situation of the agricultural sector and strategies on water management);
- The International Currency Fund (about the situation of the financing system and setting up a macro-economy);
- ONU - Economic Commission for Europe (about environmental activities in the Republic of Moldova) and others.

### **List of Acronims**

UNCCD – United Nations Convention to Combat Desertification  
NAP – National Action Plan  
CCD - Convention to Combat Desertification  
SEGPR – Strategy of Economic Growth and Poverty Reduction  
RM-EU AP – Republic of Moldova – European Union Action Plan  
EU ACP – European Union Agreement of Cooperation and Partnership  
WG – Working Group  
MENR – Ministry of Ecology and Natural Resources  
MAFI – Ministry of Agricultural and Food Industry  
MET – Ministry of Economy and Trade  
MHSP – Ministry of Health and Social Protection  
MTRM – Ministry of Transport and Roads Administration  
MII – Ministry of Industry and Infrastructure  
MEYS – Ministry of Education, Youth and Sports  
MFAEI – Ministry of Foreign Affairs and European Integration  
ARD – Agency for Regional Development  
SSM – Service of Standards and Metrology  
CS – Custom Service  
NBS – National Bureau of Statistics  
ALRC – Agency for Land Relations and Cadastr  
AF “Moldsilva” – Agency for Forestry “Moldsilva”  
NGO – Non-governmental Organisation  
EIC – Environmental Information Center  
DAEP – Danish Agency for Environmental Protection  
GDP – Growth Domestic Product

NIEG – National Institute of Ecology and Geography  
REC – Regional Environmental Center  
SUM – State University of Moldova  
SUT – State University of Tiraspol  
ASUM – Agricultural State University of Moldova  
TUM – Technical University of Moldova  
LPA – Local Public Administration  
CTFD – Center for Technologies and Forestry Design  
RCVD – Republican Center for Veterinar Diagnostification  
NATO – North Atlantic Treaty Organization  
UNDP – United Nations Development Programe  
GEF – Global Environmental Fund  
IDA – International Development Agency  
WB – World Bank