

## Civil society and environmental policies

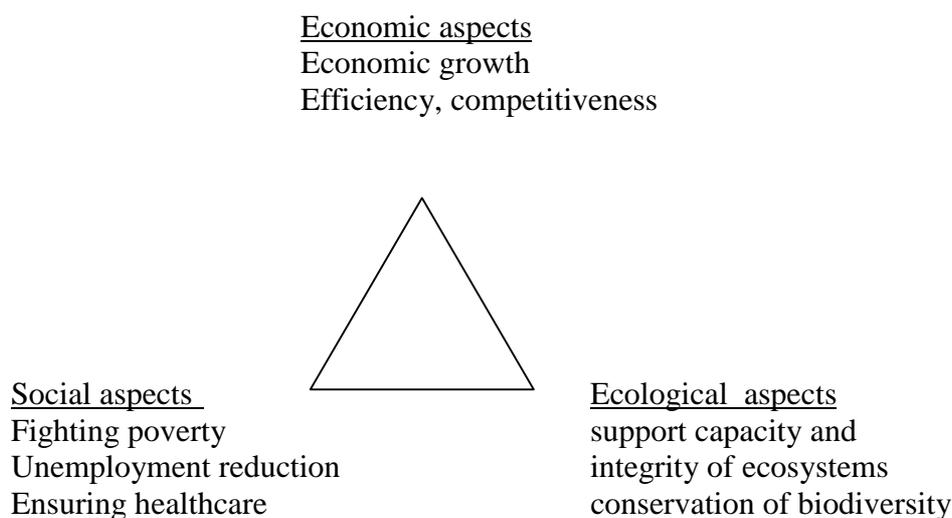
*Every individual has the right to an ecologically safe environment for life and health.*  
The Constitution of the Republic of Moldova, Article 37

The basic functions of the state include ensuring an auspicious environment for its citizens, environment protection and recovery and maintaining the ecological balance in scientific correlation with the economic interests of the society. The realization of these state functions is based on the society – environment interaction in three forms: utilization of natural resources; environment protection; ensuring ecological safety.

In the context of sustainable development the utilization of nature and its resource implies human activity of extracting material, energy and useful qualities of the environment and their use for the goal of economic, ecological and re-creative interests of present generations without undermining the needs of future ones.

The essence of applying sustainable development principles in the Republic of Moldova can be expressed through a close relation between economic social and ecological aspects of development as presented in picture 1.

Fig. 1. Aspects of sustainable development in the Republic of Moldova



The relation between sustainable development and good governance principles and environment protection principles can be proved through the following goals:

- utilization of natural resources to the limited extent of their regeneration;
- revision of extensive resource utilization policy;
- integration of ecological requirements into all spheres of social and economic development;
- maintenance and improvement of environment quality
- providing population with the minimum necessary of energy, water, food, labor, communal services and medical assistance;

The state has the principle function in the promotion and implementation of these principles. All the above mentioned elements are state activities. The state administration in these fields, in the framework of responsible governance, is done through the mechanism of law, as well as through political economic and ideological mechanisms.

The goal is to ensure adequate quality of environment by elaborating and enforcing the norms of law which reflect the legality of interaction between society and nature at present.

The reform of all sectors of the national economy requires a necessary change of attitude towards the use of natural resources, promoting economic and social development compatible with the environment.

The foundations for environmental policy in the phase of transition to a market economy were established by the Law on Environmental Protection (1993), the Concept for Environmental Protection of the Republic of Moldova (1995), the National Environmental Strategic Action Programme (1995), the National Environmental Action Plan (1996) and the National Environmental and Health Action Plan (2001). At the same time a number of sector-specific strategy documents have been elaborated which include a series of provisions related to environmental protection.

In the period 1995 to 2000, the “Environment for the Europe” process has been developed significantly and extended to include the New Independent States (NIS). The Republic of Moldova has participated actively in this, being represented at the highest level in international environmental organizations.

Seventeen international conventions have been signed, about 50 regulations and instructions have been approved, which have formed the legal basis for the environmental sector. A series of legal instruments, programmes and strategies have been adopted relating to other sectors of the national economy. A series of changes has occurred in society and in the structure of the national economy.

The need to implement a unified policy on the environment and the use of natural resources, which integrates environmental requirements into the process of national economic reform, along with the political desire for European integration, has resulted in the review of the existing environmental policy and the development of a new policy concept.

The development of the Concept of Environmental Policy of the Republic of Moldova covers the adjustment of the major objectives of the ecological policy to take account of the social and economic changes in the country, as well incorporating regional and global programmes and trends in order to prevent the deterioration of the environment.

The main objectives of the environmental policy are:

- the prevention and mitigation of negative impact of economic activities upon the environment, natural resources and public health in the context of sustainable national development;
- ensuring a safe environment for the country.

Exerpt

## **Medium -term strategy of social and economic development of the Republic of Moldova**

*Approved by Decision of the Government of the Republic of Moldova  
nr. 1415 of December 19, 2001*

### **ENVIRONMENTAL PROTECTION AND RATIONAL USE OF NATURAL RESOURCES**

The main objective of the strategy on environment and management of natural resources is to prevent and reduce the negative impact on the environmental factors and natural resources.

The economic development of the Republic of Moldova shall be based on the principles of sustainable development regarding all components of nature: air, water, soil, biodiversity, forests and subsoil resources. Among these the soil has a special importance for the national economy, as it constitutes the main natural resource of the country. Similarly, water-the fundamental element of life- is exceptionally important, the reserve of which are insufficient in the country. Therefore a special consideration shall be granted to attracting investments for potable water supply for the population.

#### **Priorities for global environmental policy:**

The priorities for global environmental policy are:

- a) the creation of conditions for collaboration between all layers of society, for the achievement of sustainable development objectives and prevention of ecological disasters;
- b) Counteracting the negative aspects of economic globalization, which affect regional and national environmental safety.

The main emphasis of Europe's environmental protection activities is upon the reform of institutional and legislative frameworks in the field in the NIS. The extension of the "Environment for the Europe" process in the NIS give rise to the need to reform environmental policy and adjust it to regional and global requirements.

These political priorities on the regional and global level had a significant impact on the strengthening of institutional and legal framework in this field. Thus, in 1998 the Ministry of Environment was established, which raised the statute and increased the role of environmental protection bodies, according to the principles of good governance.

At present the Ministry of Ecology, Constructions and Territorial Development has the basic functions of elaborating and promoting the state policy of environment protection and rational use of natural resources.

#### **Environmental policy priorities for the Republic of Moldova**

One of the basic environmental policy priorities for the country is capacity building and cross-sector collaboration. The integration of environmental considerations into the development strategies for other sectors of the national

economy implies the development of sector action plans, taking into account the strategic provisions of national documents and respecting the cross-sector principle in the decision-making process in the field of environment and natural resources, which is a feature of responsible governance. The ecological activities are meant to contribute to the economic development of the country, including by applying the “economy through ecology” and “cost-benefit” principles. National level efforts are undertaken to improve the condition of the environment in order to ensure the appropriate health condition for the population.

An imperative of the time is the revision of current legislative and normative documents and their harmonization to the European ones and the adjustment or elaboration of their implementation mechanisms on a case-by case basis.

Activities in specific directions such as ensuring biological safety and promoting clean production have continued.

In the period of 2001 were laid the bases for implementing the environmental audit at enterprises and for introducing environmental risk insurances and integrated environmental permits.

An important measure in the conditions of our country is increased energy efficiency through the introduction of energy-saving technologies and the use of alternative energy sources (biogas, wind and water energy).

These measures also included actions for the recovery of the forestry (replanting and extension of forest areas, incentives for planting green belts, and improvement of degraded and unproductive sites through forestation. The implementation of a zonal approach in territorial development is also promoted. The protection of natural ecosystems under threat of damage, of degraded ecosystems and their ecological restoration is done in parallel with the monitoring of biological resources.

The creation of the National Park “Orhei”, of the Biosphere Reservation “Lower Prut” and of the “Lower Dniester” National Park are considered major activities.

In 2000 – 2001 the actions of protection and conservation of biological and landscape diversity of the river Dniester took a larger scope.

The Law on ecological education is being drafted, envisaging the introduction of ecology as a school subject and stipulates ecological education in preschool institutions and for the population at large. Another necessary activity is publishing textbooks and guides for all schools. The implementation of these provisions will require finance from the state budget or other sources.

At the present stage some actions of legislation amendment or completion are needed, to ensure access of the civil society to information regarding the environment status, to the decision-making process in this field on all levels, on issues of national level and on ensuring environmental safety. It is important to promote continuous environmental education and awareness of citizens, especially for children and teenagers, for officials and their efficient involvement in the promotion and implementation of environmental policy on the national and local level. The earmarking of finances for these activities must be a priority.

The promotion of integration of environmental protection requirements into the economic reform and sector policies has continued. The environmental protection activity continued in the condition of finalizing privatization and agricultural reform by integrating environmental protection requirements into the ownership reform process and applying the assessment of previous activity impact of economic agents on environment.

Natural resources represent a basic component of the national patrimony. The degree of use and depletion of resources and the environment status depend on the exploitation mode. The Republic of Moldova has sufficient pedological and climate resources representing a valuable regenerative potential for the development of agriculture. The unregeneratable natural resources, such as construction materials or raw materials for construction materials, with small exceptions, have a local importance. The lack of energy resources is a limiting factor in the diversity of economic and consumption activities, imposing an adequate economic policy.

In the course of transition to the market economy, reforms have resulted changes in land repartition for land owners and in the use of land. Over the last ten years the agricultural land has been reduced to ~ 500 000 ha. From 1989 to 2000 some 120 000 ha. of orchards and vineyards were cleared, and ~450 000 ha. were transferred for social development of localities and other general purposes (pastures, etc.)

The economic situation and low responsibility of land owners have made impossible the activities of protection, land improvement and sustainable use of agricultural land. Out of the total area of agricultural land (2.017 million ha.) ~1.5 million are slope areas and in risk of degradation. ~ 850 000 ha of agricultural land are eroded, of which 105 000 ha are heavily eroded. Economic losses in agriculture are enormous, because the erosion alone is the cause of an annual loss of 26 million tons of fertile soil and 600 000 tons of humus. This influences the amount and quality of yield on these areas. The most eroded soils are in the sectors of Cahul (71%), Calarasi (56%) and Vulcanesti (45%). The situation is getting worse because of the repartition of land plots along slopes. As anti-erosion measures are lacking, the process of ravine formation is deepening. At the same time only 40 ha of green belts for protecting the agricultural land were planted in 2000, whereas the necessary area is ten times as much.

Another phenomenon that has intensified over the last decade is land slide. The largest areas of active land slide are in the sectors of Telenesti (1071 ha), Ungheni (1554 ha), Hincesti (2314 ha), Calarasi (2018 ha), Soroca (766 ha). The overall areas affected by land slide are 11 000 ha of inactive slide and 7000 ha of active slide. The considerable reduction in 1999 – 2000 of the amount of applied pesticides from 13, 5 kg of active substance per hectare in 1985 to 1, 0 kg per hectare in 2000 did not solve the problem of soil and surface water pollution with these substances. This kind of pollution continues because of a lack of control over pesticide application and inappropriate, outdoor storage of pesticides. This is also the case with the 2 100 tons of non- usable and banned pesticides, stored in all counties of the country. Over the last five years ~200 storehouses for pesticides have been destroyed. The 2001 inventory registered only 1700 tons of substances of this kind. In order to solve this problem the National Ecological Fund earmarked 1million lei – only enough to repair a limited number of storehouses, to partially pack and store the pesticides in the 33 selected storehouses.

Measures for soil conservations will include:

- agricultural practices involving crop rotation and machinery having a reduced impact on the environment, and practicing organic agricultural methods;
- development of a draft law on soil conservation, taking as a model the existing European laws, use of economic mechanism to prevent soil degradation;
- improvement of existing legislation, regulating the responsibilities for all legal entities and individuals undertaking works that lead to degradation of soil layers, by providing a clear definition of responsibilities for reestablishment of soil fertility;

- development of a national map of a degraded areas, using the experience of European countries to combat soil erosion;
- encouraging the re-establishment of “green belts” and the application of measures to combat soil erosion;
- regulation of exploitation of pastures.

The volume of water piped from water sources in 2000 –2001 was ~1000 million m<sup>3</sup>. For the water supply the share of river Dniester is 54 %, river Prut – 16%, other sources of surface water – 7 %, ground water – 23%. The water supply in the localities of the Republic of Moldova is also done from 7000 artesian wells and 132 phreatic wells.

The water supply and sewage systems are about 25-30 years old. The water management sector has suffered from insufficient investment and lack of funds for maintenance for many years resulting in a drastic but unplanned decrease in investments. The severe consequences are to be felt on the quality of services rendered. Water sources have become more polluted, poorly maintained, the wastewater treatment facilities do not cope with the water quality standards, most of these wastewater treatment facilities de-facto use the mechanical treatment method only.

In Chisinau, Balti and Ungheni water supply is uninterrupted, and the supplied water is good quality. The towns with the population of 25 000 – 50 000 are disconnected from water supply on a regular basis fro 4- 8 hours a day, partially due to electricity cuts. The disconnections and low water pressure in the systems negatively influence the quality of water. Several small towns are supplied with ground water which does not correspond to the chemical and hygiene standards (high concentration of iron, fluor, nitrates, pesticides etc.). These towns are daily disconnected from electricity and, consequently, have irregular water supply of poor quality.

In towns with population less than 25 000 almost all wastewater is collected in sewage systems. In small towns wastewater is collected from the centre only (where social infrastructure is concentrated. As a rule the wastewater is directed to treatment facilities designed with mechanical and biological treatment technologies but due to inappropriate maintenance, permanent electricity cuts, diminished water flow into the treatment facilities and insufficient finance for maintenance most of treatment facilities de-facto use the mechanical treatment only.

In 2000 only 123 out of 580 treatment facilities functioned. The economic situation and the impossibility of the population to pay for communal services have led to a series of situations during 2001 – 2002 in which wastewaters in Soroca, Rezina and Criuleni were discharged without treatment into the river Dniester. The concentration of pollutants exceeded the admissible limit in waters discharged from Orhei, Ocnita, Otaci, Edinat, Cahul, Comrat, Hincesti.

Calculations of the social and economic costs of water pollution have shown that polluted potable water ( in urban and rural areas) is the cause of 950 – 1850 premature deaths annually and the loss of 2- 4 million working days due to diseases caused by poor water quality. In figures the economic costs are 5 –10 % of the GDP. Water management in the Republic of Moldova is still inefficient, hence the inability to get finance, to improve services and to protect aquatic ecosystems. There are big losses in distribution networks, in urban localities and in irrigation systems. There is no unitary body to promote the state policy in this field, as the administration, management and control functions are performed by several institutions.

The prevention of water resources is directed towards their conservation, the improvement of water quality, satisfying the requirements of the population and the national economy for water supply and the restoration of aquatic ecosystems. This objective will be achieved by:

- development of regional, local and sector plans for preventing pollution of water resources;
- identifying the locations and capacities of all sources for water supply and sources of pollution;
- promotion and implementation of clean technologies at enterprises in order to minimize water-borne wastes and water consumption;
- improved monitoring of industrial wastewater;
- development and promotion of a programme for the reduction of water pollution arising from agricultural practices, including irrigation and the application of pesticides;
- implementation of charges for making polluting discharges to aquatic resources, including rainwater run-off;
- modernization of treatment systems for drinking water supply and wastewater;
- creation of protection zones around water reservoirs and water courses, as well as for sanitary zones for water supply resources, respecting the requirements of each, and planting greenery in these zones;
- improvement and elaboration of programmes for the monitoring of surface and ground water quality, taking into account the requirements of international conventions and agreements of water protection.

In 2000 about 2300 economic agents had a volume of emissions of 23 100 tons from 22 000 point sources of pollution of atmospheric air. Compared to 1990 (397 000 tons) the pollution decreased considerably. In the same period the pollution from means of transport also decreased: 546 000 t in 1990 and 110 000 t in 2000. In big cities such as Chisinau and Balti ~90% of the total volume of emissions are from transport. Exceeding of toxicity threshold was found at ~10 % of the checked transport units.

The introduction of restrictions such as the import ban for cars more than 7 years old and intensified control of the technical condition of automobiles has not yet led to the expected results because there is big number of old cars that have an increased level of pollution, while the quality of gasoline in the country often does not correspond to the standards.

Taking into account the current situation in regard to air protection and the need to improve public health, the following are required:

- elaboration and implementation of regulations containing advanced European practice and experience, of air quality standards and level of dust;
- respecting the requirements of the Convention on Long Range Transboundary Air pollution and implementing the provisions of the United Nations Convention on Climate Change and of the Kyoto Protocol;
- payments for atmospheric emissions;
- elaboration of a national investment programme for improving the monitoring system, installation of equipment for sample collection and measurement, initially in urban areas, concentrating on the most important atmospheric pollutants;
- promotion of a policy for transition to the use of more advanced technologies and ecologically cleaner fuels;

- modernization of installation that generate energy or employ other fuel combustion processes, and equipping them to collect and purify toxic substances;
- promotion of advanced methods to limit or prevent emissions from stationary mobile sources, as well as promotion of cleaner production;
- elaboration and implementation of limit values for the concentrations of installations, both stationary and mobile, old or new, according to the protocols of international conventions, and limit value for toxic substances in fuels and other products;
- promotions of advanced methods of regulating products, including fuels, that have a negative impact upon the environment;
- monitoring of air pollution.

The impact of anthropogenic activities on biodiversity can be seen in the assessment of rare and on the verge of extinction species. The first edition of the Red Book of the Republic of Moldova (1976) included 29 species of animals and 26 species of plants, whereas the second edition (2001) – 126 species of plants and 116 species of animals. As the second edition is considered incomplete it gives an alarming signal and proves the harming impact of anthropogenic activities on the environment and ecosystems. This impact has had big proportions in the last 20 years because ecological of the expansion of agricultural land, pollution of soil and water resources, reduction of areas of natural vegetation. The process of privatization and parcelling of land, the reduction of forest and green belts areas in the last 10 years have worsened the living conditions and limited the habitat areas of many species of animals and plants, as a consequence many of them are extinct or reduced in number. The protected area constitutes 1.7 % of the country's territory, one of the smallest of the European countries. There are 12 categories of protected areas: 5 scientific reservations, 130 monuments of nature, 63 reservations of nature, 41 landscape reservations, many geological, paleontological, hydrological monuments and others. According to the Land Cadastre the forestry area is 394 700 ha, including forests 325 400 ha, the forestation degree of the country is 9.6 %. There are 800 forest bodies with areas ranging 5 – 1500 ha, ununiformly dispersed. About 89 % of the forestry area is managed by the State Forestry Agency “Moldsilva”, the rest of it is managed by local public administration, economic agents in agriculture, transport, industry etc. The quality of forests is increasingly influenced by illegal cuts and cattle grazing in. In the last few years the deforested area is three times larger than the afforested one. Like other countries the Republic of Moldova is facing problems of waste accumulation. In 2000 the industrial wastes averaged 2.08 million tons, of which 50 % from food processing industry, 25 – livestock operations, 10% -public services, 10 % - extraction enterprises. A large amount of these wastes is accumulated on enterprise sites or on landfills due to lack of financial resources or recycling technologies. The resolution of these problems is the competence of respective ministries and economic agents, which neglect them due to economic reasons. The problem of municipal waste is also awaiting resolution. The capacity of most sites is exhausted, and there exploitation is reaching admissible limits. Other landfills cannot be constructed not only because of lack of finance but also because of lack of space. There are 1350 municipal waste facilities with a total area of 134.1 ha that accumulated 1144.6 thousand m<sup>3</sup> of waste.

Pollution charges constitute the basic revenue for the environmental funds, which are meant to finance environmental improvement activities. Due to amendments to the legislation in this field and diverse sources for establishing environmental funds, the revenues accumulated by the National Environmental Fund

increased from 380 000 lei in 1998 to 7.7 mill.lei in 2000. The fund's resources are meant for implementing the national action plans in this field, for the protection and conservation of water resources, water supply, forestation and waste management activities. As it is a domestic source of finance in this field the environmental funds must ensure transparency in the decision-making process and improve monitoring of allocated finances.

According to the current legislation the use of natural resources is payment-based. This mechanism is aimed at stimulating undepletable economic use of renewable natural resources and economizing unrenewable ones. The revenues from charges for resources are distributed to budgets of different levels with a ratio stipulated in the Law on State Budget. However, the accumulated finances are not used in accordance with the provisions of the legislation for the maintenance and recovery of natural resources, for the environmental protection and management of natural resources but for other needs considered priorities of the socio –economic situation in the republic.

An additional mechanism of environmental protection which is considered to be implemented is the ecological insurance. This type of insurance could introduce and efficiently implement a system of reduction of risk of negative impact of economic activities on environment. It will improve environmental management at enterprises and will contribute to the accumulation of additional resources for preventing pollution and liquidation of environment pollution consequences. This will facilitate the realization of a complex system of actions for minimizing the impact of hazardous factors on environment and for the promotion of a socio-economic policy aimed at creating the premises for sustainable development.

The state system of financing environmental protection needs improvement, implying that the state budget would finance national programmes and projects as well as the activity of environmental bodies, while other works to be financed by earmarked finances of economic agents, also from local budgets and environmental funds. Every year the state budget includes ~ 3 mill. lei for state services of environmental protection. This amount covers only 60- 80 percent of the real needs of state bodies in this field. Capital investments in fixed capital for environmental protection decreased from 16.5 mill lei in 1997 to 6.0 mill lei in 2000, while the real needs are estimated 50 mill lei a year.

Presently Moldova lacks the application of analytical procedures for the assessment of costs, benefits, and risks for the goal of estimating the consequences of local and national decisions that are made as well as their impact on environment. In order to efficiently and appropriately use the finances it is necessary to promote clear and transparent budgetary operations for financing environmental activities. The attention and support from international organizations for environmental issues in the Republic of Moldova in the recent years are succeeding in increasing the awareness and actions of decision – makers. There is multilateral collaboration with European Union, the Council of Europe, the Organization for Economic Security and Cooperation, the Organization for Economic Cooperation in the Black Sea Region, the Danube Commission, the Organization for Economic Cooperation and Development, the World Bank, the United Nations Development Programme, the Global Ecological Fund, the World Meteorological Organization, the Kingdom of Denmark, etc.

The technical assistance for projects under implementation, coordinates by governmental structures amounts at ~ 1 500 000 \$ and investment grants – 2 000 000 \$.

The local public administration ( county councils, prefectures, major's offices) has the decisive role in ensuring the rational use of natural resources and environmental protection by exerting the functions defined in the legislation of the Republic of Moldova, including:

- territorial planning
- infrastructure development and water, electricity, heating supply
- industrial pollution control
- waste management
- protection of natural environment
- environmental information and training for the population.

The role of local authorities has been enhanced by the territorial – administrative reform. In the present economic situation the local authorities have to plan and develop the localities and regions without counting on a financial assistance from the centre. The establishment of environmental priorities and of local priorities in general is an important requirement for efficient spending of public finance the elaboration and approval in 1998 – 2000 of local environmental action plans contributed to determining the priorities and planning the necessary activities. As the implementation of these plans depended to a large extent on allocations from local or national budget, many activities were not carried out as they had not been financed. The elaboration of such a plan for Chisinau municipality began as late as 2002. The departments of environmental protection and management of natural resources within the county councils also have an important role to play. The main task of the Territorial Ecological Agencies is state control of the observance of ecological legislation by physical and juridical persons, economic agents, and beneficiaries of natural resources.

The essential problem which hampers the efficient institutional functioning in environmental protection is the lack of clear law enforcement mechanisms, of collaboration on the micro-level: local public administration, economic agents, civil society, and citizens.

It is known that economic development on the national level directly influences local development and vice versa – local economic development contributes to an additional economic growth for the economic growth of the country as a whole. This is first of all due to the community efforts to realize its development strategies on the local level.

#### Aphorisms

Tudor Arghezi

In its evolution, mankind has lost its self

Eugen Frunza

Every generation digs wells but the springs remain the same.

We are only born with the opportunity of becoming human beings

Rodica Tott

A new kind of pollution: smokes of successes

**Main indicators of economic activity influence on environment and use of natural resources**

Indicator	Measure unit	1985	1990	1995	1997	1999	2000	2001
Water volume from sources	Mill. m3	3745	3918	2005	1513	999		
Water consumption	mill. m3	3641	3827	1889	1412	920		
Volume of polluted wastewater discharged	mill. m3	41	90	15	11	10	9	
Emissions of hazardous substances in atmosphere By: point sources - automobile transport -	Thousand tons	1029 477 552	943 397 546	279 41 238	250 34 216	130 20 110	15	
Wood cuts( main cuts and for forest regeneration)	Thousand m3	140	123	128	189	198	194	
Application of pesticides per 1ha of agricultural land	Kg of active substance	13.5	5.7	1.8	1.4	1.1	1.1	

Source: statistic year-books of the Republic of Moldova, 1998, 1999, 2000.  
Department of Statistics