

**NATIONAL REPORT
OF THE REPUBLIC OF MOLDOVA
FOR THE UNITED NATIONS CONFERENCE
ON HUMAN SETTLEMENTS**

(HABITAT II)

CHISINĂU, 1996



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I would like to greet the participants of the United Nations Conference on Human Settlements HABITAT II and to express my hope that its proceedings will contribute to seeking of ways and action forms needed for solving the problems, the mankind is faced by at the end of this millenium. The presence at this prestigious world meeting is of a paramount importance for the Republic of Moldova.

At present the human settlements from our country encounter extremely complicated problems caused by the specific process of transition we undergo as well as by the fact that a policy of extensive development implying irrational utilization of natural resources has been pursued during the previous period.

The preparatory activities for the HABITAT II Conference have offered to relevant organs and specialists of the Republic of Moldova a good opportunity to assess the situation and to elaborate, in accordance with the principles followed by the United Nations, a national plan of actions aimed at achievement of the goal on overcoming the crisis and contribution to the implementation of the development strategy for localities. That strategy will create favourable conditions and possibilities in order to improve the habitat of all citizens of the country including the actual generations and the future ones.

Being oriented toward the realization of this common human objective the Republic of Moldova will seek to fully use the experience accumulated in that field by the international community and we hope for a fruitful and useful international cooperation.

I express my conviction the outcome of the HABITAT II Conference will constitute an important landmark in the process of improving the mechanism of international collaboration within the United Nations Organization for the best of the whole mankind.

I would like to wish successful unfolding of the Conference, so beneficial for the benignity and prosperity of the world.

MIRCEA SNEGUR

President of the Republic of Moldova

The evolution of living conditions since it was discussed at the first United Nations Conference on Human Settlements 20 years ago in Vancouver, Canada, will be the focus of international attention at the United Nations HABITAT II conference being held in Istanbul, Turkey in June 1996.

Since all of us are affected by where and how we live, the concept of human settlements can, however, no longer be thought of as "provision of housing". While this is a basic need and an essential human right, other elements factor into our way of living. These include access to employment opportunities, transportation, telecommunications, utilities, health and education services, recreation and cultural amenities, and building a sense of community. In some countries these are viewed as assumed rights. However, in impoverished regions, war torn states, and newly independent nations, government and societies often ignore these needs in favour of economic policies. A balance must be achieved right from the beginning to ensure that individuals know that national priorities are consistently "people centered" and working for them.

Moldova, independent since 1991 has bravely faced civil war, questions of sovereignty, natural disasters, and a declining economy while struggling with three major reforms: nation building, a transformation from communism to democracy and a transformation from a command economy to a market economy. During the initial transition period the changes have been shocking to many inhabitants, notwithstanding the new opportunities which they have afforded.

This report does more than describe existing conditions. National experts have taken the initiative to prepare their suggestions on how to ameliorate human settlement conditions. It is this initiative, as well as the participation of a large cross section of interests on the National Steering Committee, that I am most proud to support. UNDP Moldova has provided financial assistance, technical support, as well as arranging for the participation of an international HABITAT expert to work with the national team. Our goal has been to provide national professionals the opportunity to demonstrate the resilience of their country.

WINSTON TEMPLE

UN Resident Coordinator of the Republic of Moldova



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S U M M A R Y

The Report presented to the UN HABITAT II Conference is the result of the National Steering Committee for HABITAT activities. The Steering Committee was created in the Republic of Moldova on July 24, 1995. The structure of the Report was established according to the recommendations of the UN HABITAT II Conference, with the exception of the chapter «Best Practices». This chapter was not introduced into the Report because of the specific situation existing in the Republic of Moldova in this period of transition: in the period before 1990-1995 the settlement development was based on a centralized economy and had an extensive character with excessive use of natural resources. At present it is necessary to apply a new methodology, but the Republic of Moldova has not yet obtained positive results in this direction.

Part A of the Report is a general presentation of the Republic of Moldova, and describes the process of Report elaboration and presents the list of participants. **Part B** outlines characteristics of the settlement and dwelling development processes for the last 30-35 years and evaluates the present state of affairs; the priority areas are defined. The most important characteristic for the period of transition occurring in the Republic of Moldova are described and reflect the lack of institutional mechanisms, legislation, technical normatives and methodological practice relevant to the new socio-economic conditions. These problems are aggravated by the fact that in recent years the economy of the Republic and settlements respectively had an extensive development based on overuse of resources.

On the basis of these evaluations the Plan of Action was elaborated which is described in **Part C**. The actions of the Plan have been imposed by the necessity of solving simultaneously two general problems: the formation of a settlement management mechanism based on the principles of a democratic society and market economy; and secondly the implementation of the sustainable development principles. **Part D** describes the intentions of the Republic of Moldova concerning international collaboration in the field of settlement development.

Following the Second United Nations HABITAT II Conference in Istanbul the National Steering Committee of the Republic of Moldova will define the envisaged measures and will make necessary arrangements for their realization.



PART A. INTRODUCTION

1. GENERAL INFORMATION

The Republic of Moldova (Moldova), a young country which proclaimed its independence on 27 August 1991, is situated in the south-eastern part of Europe and has a total area of 33,700km². On the west it borders on Romania and on the north, east and south it borders on Ukraine. Total population is about 4.35 million people.

As an independent state, the Republic of Moldova has proceeded firmly along the path of major reforms: formation of independent state system, transition from planned economy to a free market, and the creation of a democratic society.

which dignity, rights, and liberty, justice and political pluralism are guaranteed. New legislation suitable for the market economy was created.

Privatization is developing at a rapid speed: as of 1 January 1995 55,931 enterprises, out of 59,721 registered, belonged partially or fully to the private sector. Foreign trade has been liberalized. The macrofinancial situation has stabilized. All these permit hope for an acceptable level of national development in the Republic of Moldova. But a necessary pre-condition is a well-defined human settlements development and management policy leading to the creation of good living conditions for all people.



Along this path Moldova has come into collision with the inevitable socio-economic difficulties of this period of transition which have been aggravated by the political separatist movements in the eastern part of the republic and the related presence of foreign army forces there, and by such natural calamities as drought, floods, and early frosts which caused a considerable decay of the agriculture.

The main tasks which now require urgent attention are socio-political stabilization and the economic reform. The Constitution adopted by the Parliament of the Republic of Moldova stated that Moldova is a legal and democratic country in

2. PREPARATION OF THE NATIONAL REPORT

The preparation of the National Report of the Republic of Moldova for the United Nations Conference on Human Settlements (HABITAT II) began in July 1995. The Government formed the National Committee for report preparation by a special decree. The Committee is chaired by the Vice Prime-Minister of the Republic of Moldova. The preparation for the conference and participation in its work is an opportunity to discuss problems and to find possible ways to solve them, and to compare the national housing and settlements policies with global strategies.



The structure and main directions of the report were discussed and approved by the National Committee in August 1995. The working group for its elaboration was organized at the Department of Architecture and Construction, which is a state body responsible for regional and urban planning and for housing.

The working group appreciates the consultancy help of the Official Representative of the United Nations Centre for Human Settlements (HABITAT) as well as the advisory and financial assistance of the UNDP office in the Republic of Moldova.

On the basis of considerable participation of all interested sides the priority areas were determined, and the strategy, policy and corresponding tasks were elaborated; the anticipated results in the area of settlements and housing development have been defined.

The information given in this report was prepared by the Department of Statistics of the Republic of Moldova, by the ministries and departments, design institutes, and local administrative bodies.

The most significant difficulty in the elaboration of the report was discrepancy between the existing statistics, the new social-economic conditions and the absence of research on urban planning processes for the last 5-6 years, i. e. for the period of radical political and economical transformations of the State system. The absence of statistics on some indicators of urban development made estimations and calculations necessary. Some indicators have been calculated without account of the indicators for the eastern districts of Moldova because up-to-date information is not available.

3. PARTICIPANTS

The National Steering Committee includes government and non-government organizations representing a wide variety of interests. Members of the National Committee are on behalf of the:

Government of the Republic of Moldova
Vice Prime-Minister of the Republic of Moldova:
Valentin Kunev,
(Chairperson of the Committee)

Permanent Commission on Budget and Finance of the Parliament of the Republic of Moldova

Secretary of Commission:
Dumitru Cernei

Ministry of Health,

State central executive body responsible for the development of public health in the republic

Deputy Minister:
Mihail Magdei

Ministry of Community Services and Housing,
 State central executive body dealing with communal services, development of engineering infrastructure of the settlements and provision of the housing

Deputy Minister:
Alexandru Burbulea

Ministry of Education,

State central executive body responsible for the development of pre-school, secondary school, technical vocational and higher education in the republic

First Deputy Minister:
Simion Musteata

Ministry of Privatization and State Property Administration,

State central executive body for State property administration and privatization

First Deputy Minister:
Andrei Cucu

Ministry of Transport and Roads,

State central executive body of public management ensuring coordination and development of transport and road sectors of the republic

Deputy Minister:
Andrei Focsa

Ministry of Labour, Social Protection and Family,

State central executive body responsible for social protection of all sectors of the population

Deputy Minister:
Valeriu Revenco

Ministry of Agriculture and Food Industry,

State central executive body responsible for agricultural and food industry development and land tenure

First Deputy Minister:
Ion Palii



Ministry of Economics,
State central coordinating body of the executive power carrying out common management of the economy

Deputy Minister:
Vasile Florea

Department of Architecture and Construction,
State central executive body substantiating policy and fulfilling common activity in architecture, construction, urban planning and territory management

Director General:
Valeriu Cebotari
(*Vice Chairman of the the coordination of Committee*)

Deputy Director:
Valeriu Isaico

Chief of Urban and Regional Planning Division:
Gheorghe Visotschi

Chief of Architecture and Housing Division:
Aurel Burciu
(*Secretary of the Committee*)

Department of Environmental Protection,
State central executive body in the field of environmental protection and natural resources utilization

First Deputy Director:
Arcadie Capcelea

Department of Statistics,
State central executive body managing national statistics

First Deputy Director:
Vasile Pentelei

Local Government of the Municipality of Chisinau,
Represents the interests of management and development of the Chisinau and of all major towns

Vice mayor:
Alexei Paladi

Local Government of Orhei,
Represents the interests of local public administration, fulfills the strategy of small towns development

Chief Architecture:
Victor Covbasan

Federation of Independent Trade-unions,
Non-government organization, representing labour interests

Vice Chairman:
Valeriu Cristea

Association of Women of Moldova,
Public organization representing the interests of women, their participation in state and public activity

Chairman:
Ludmila Scalnaia

Moldconinvest Company,
Non-state organization carrying out construction of dwellings, public and industrial buildings

President:
Pavel Caba

Academy of Sciences of Moldova,
Director, Institute of Economic Research:
Victor Ciobanu, Ph.D.

Technical University of Moldova,
State university specializing in training of engineers and technical staff for the Republic
Dean, Faculty of Urban Planning and Architecture:

Mihai Vangheli, Ph.D., univ. prof.

State Design Institute URBANPROJECT,
responsible for urban planning and design development of settlements

Chief Architect:
Simion Soihet

UNDP Moldova Representative
National Officer:
Nadejda Chirica



PART B. THE CURRENT SITUATION AND IMMEDIATE PRIORITIES

1. OVERVIEW

According to the existing data, the oldest human settlements on the territory of the Republic of Moldova date back to the period of early paleolith, i.e. about 300,000 years ago.

The existing network of settlements appeared much later under the influence of the occurring major changes in the environment, the economic revolution, historical, political, social, demographic and other processes. The first mention of Moldovan settlements in written sources dates back to the beginning of the XV century, i.e. after the origin in 1359 of the Moldovan principality (princedom), although the organization of settlements of course began much earlier.

The geopolitical vulnerability of the region restrained the development of towns. Still, favourable agricultural conditions stimulated the organization of large rural settlements both at absolute and relative indicators. The fundamentals of the existing settlements system on the territory of Moldova were laid in the first decades of the 19th century.

In the second half of this century, during the postwar period of rehabilitation, the national economy acquired more industrial features, the rate of growth of urban settlements in Moldova exceeded the average of the former USSR, and was also the highest of these countries.

At present the settlements development is very much influenced by political and economic factors at global and regional levels.

The formation of independent state system in the Republic of Moldova, the liberalization of economic life, carrying out of reforms, the first result of which is the macrofinancial stabilization, did not create a basis for steady welfare standards, stable economic and social development in the republic.

The main reasons for this are: the on-going crisis in industrial production, insufficient investments, low production activity and, as a result, low state budgets and low incomes of population. In addition, the stabilization of the macroeconomic situation is blocked by the unsolved fundamental problems, which this country faces after the declaration of political independence. Among them are the absence of raw materials, including energy resources, and also the existing agricultural-industrial specialization. The existing situation influences the development of settlements, and the living standards of urban and rural population.

Because of the sharp decrease of the living standards of the population the migration from towns to villages has been growing for the last years. Previously there was an opposite tendency — migration from villages to towns.

The socio-economic stratification is very characteristic for urban settlements nowadays. The largest share of private capital, the new institutional structures, banking-financial and trade-mediatory institutions, etc., are concentrated in urban areas.

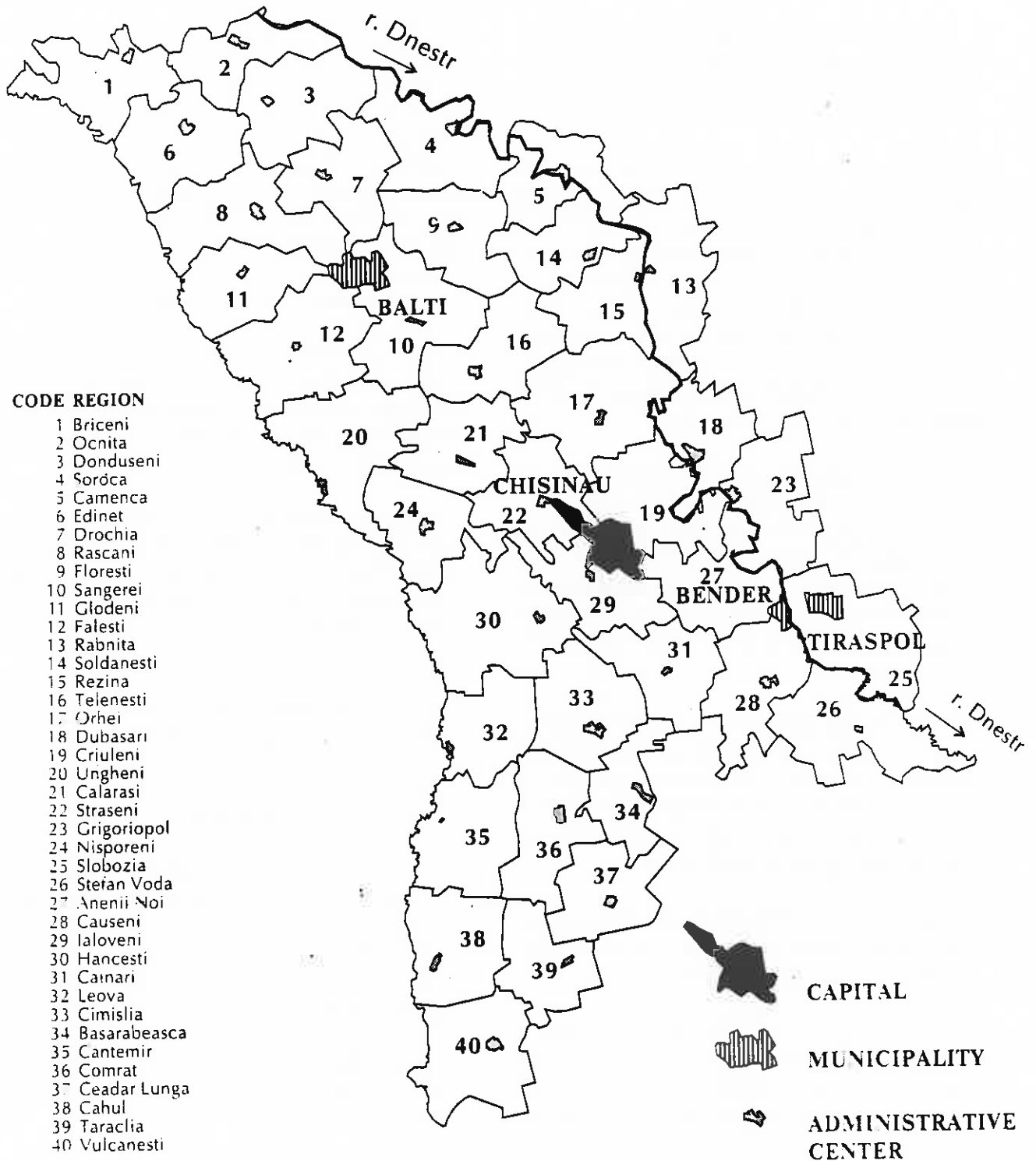
The affluent sector of society are representatives of the new institutes, organized during the period of reforms and located in major cities and towns. This factor confirms once more that reform is realized from above (top down).

The industrial crisis diminishes the role of towns as industrial centres. The reduction of employment in industry and the unemployment among qualified industrial personnel (workers, engineers, technicians) leads to underemployment. The reduction of possibilities to finance fundamental sciences, research in various fields of science and design negatively influences the socio-economic role of Moldova's capital as a major scientific and educational centre.

During recent years, because of the mentioned negative tendencies and in connection with the



THE TERRITORIAL-ADMINISTRATIVE ORGANIZATION





absence of possibilities for the majority of young families to create suitable living conditions for themselves in towns, the migration from villages to towns decreased and there is an opposite tendency: some of the former immigrants go back to their villages.

In rural settlements the agrarian sector is of primary importance. In non-agricultural production employment is decreasing. Moreover the process of naturalization of the agrarian production is developing. In agricultural production the share of subsidiary small-holdings is increasing, although its market value is still not high. These processes negatively influence the production sphere, the infrastructure and the social aspect of the villages on the whole.

2. CURRENT CONDITIONS

2.1. Settlement system and structural changes over the last 30-35 years

The geopolitical situation of Moldova, the historical processes which occurred on its territory, and the existing economic relations determined the specific character of the existing human settlements. There are 1617 rural settlements, on which 53% of the population lives. On the whole, these settlements are large villages with an average population of about 10,000 people. At the same time, Moldova has a stable and balanced network of 64 towns, the majority of which are the results of the evolution of rural settlements.

Since 1970 the size of urban population increased from 32% to 47% while the size of rural population decreased, from 68% to 53%.

The main sources of urban population growth were:

- rapid development of industrial activity accompanied by the inflow of population from other regions of the former USSR;
- reorganization of some rural settlements into urban zones
- migration from villages to towns;
- natural rate of population growth

The number of towns increased by 16 new towns (from 53 to 64) as a result of the placement of factories in rural regions. These were factories for agricultural production processing.

The dynamics of the increase in the size of the population and its distribution by place of residence is given below:

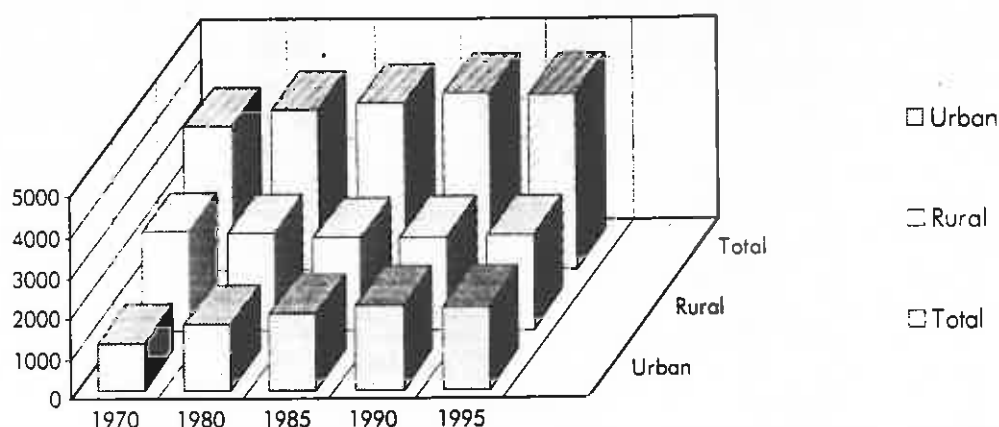
The average annual growth of the number of families has decreased:

1970 — 1979	—	118.6%
1980 — 1989	—	111.6%
1990 — 1994	—	110.7%

This has led to a reduction of the natural increase of population, from 12 to 2,5 people out of 1000 inhabitants.

The average size of families has also changed. In 1970 an average family in the Republic consisted of 3,8 people (3,4 people in town; 3,9 people in rural regions), but in 1994 the average family in the Republic consisted of only 3,17 people (3,45 people in rural regions; 2,89 people in urban settlements, respectively).

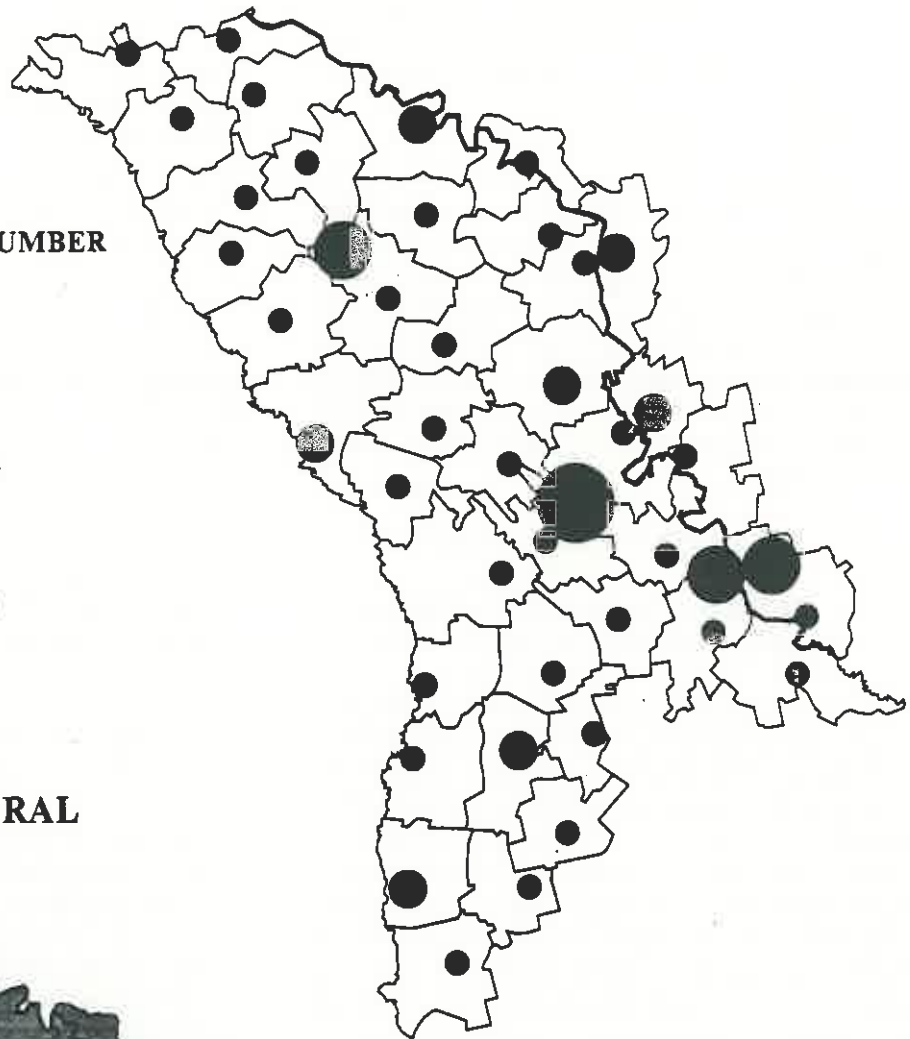
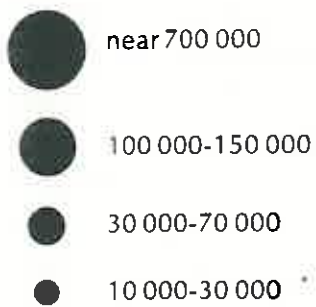
Fig. 1. Size of population (thousand of people)



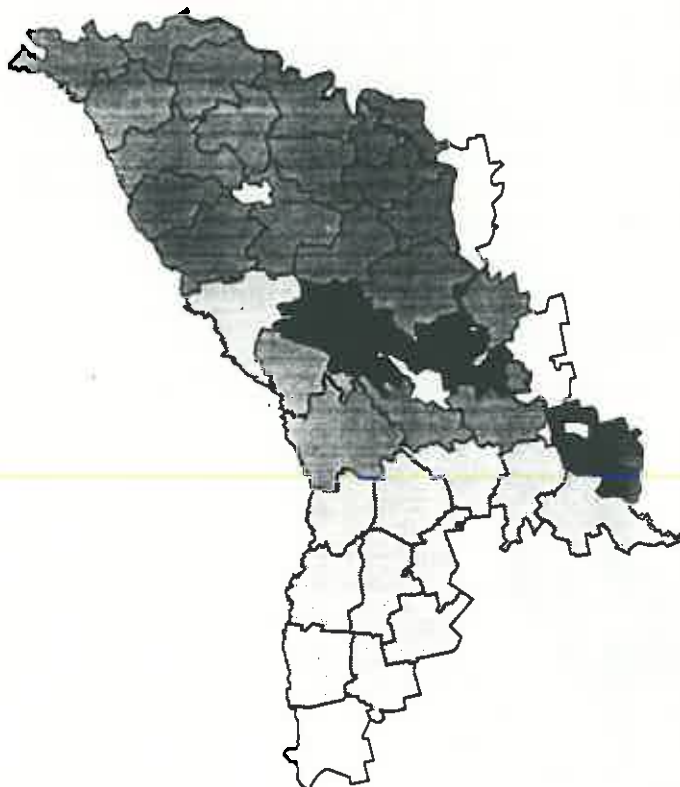


NETWORK OF TOWNS

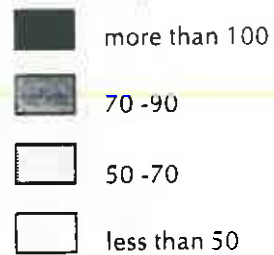
TOWNS WITH THE NUMBER OF POPULATION



DENSITY OF RURAL POPULATION



NUMBER OF INHABITANTS PER 1 KM SQ.





At present the population of the republic is characterized by the following trends:

- decrease in birth rate;
- increase in mortality rate;
- reduction of overall size of population, including the labour force;
- a very slow process of smoothing the correlation between the number of men and women;
- increase in the number of elderly people.

In conditions of planning and management practice the housing development depended, on political and economical factors. This process had its positive and negative results. The urban development avoided disorganization. There were tight functional interrelations between various systems of settlements. Organized urbanization made possible the development of groups of settlements systems. All towns and most villages had general housing plans related to social infrastructure development.

At the same time, industrial ministries and departments subordinated to central government could afford greater independence in choosing the sites and time for construction of defence industrial enterprises on the territory of Moldova. Those ministries did not take account of the local planning objectives and ignored them in favour of politically determined priorities: lower expenditures for construction, manufacture and transportation of their production. The objectives of defence bodies did not coincide with the final tasks of sustainable human settlements planning.

Long-term regional planning in the former USSR was attached to geopolitical factors and regional development. For example, in Moldova the major industrial capacities were built on the left-hand bank of Dniestr river. But on the whole, there was not a regional plan respecting role, place, planning features, resources for separate terrains where practically most aspects providing conditions for living and steady development could be examined.

This led to the imbalance between distribution and concentration of industry, to the fluctuation of economic growth and the discrepancy between

housing provision and their industrial capacities, and to the aggravation of socio-demographic and environmental factors. Finally, all these factors had an impact on production efficiency, welfare and living standards of the population.

Nowadays, in the period of socio-political transformation and economic crisis there is no overall regional planning. The role of state in this field decreased because the rights and functions of local public administration became larger. In addition there is no adequate legislation which would define the role and duties of all planners in the implementation mechanisms, and involving the private sector and the residents; the municipalities and district councils have no instruments to influence the process occurring on their territories. In those settlements where there was no industrial development the local public administration had no possibilities to increase the transport and technical infrastructure, to sustain a good quality of life and to provide a range of choices for living and working, etc.

The dilemmas of socialist planning practice were particularly evident in the case of small settlements which were not only labour force suppliers for large towns but also provided natural resources. They did not get back the necessary physical support and indemnities needed to eliminate regional planning disproportions.

Under the new economic and social realities the most notable manifestation of urban change is the expansion of towns. Their integration demands a new approach in solving the problems of their vital activity. Larger settlements and most of all towns and cities cannot develop within their present administrative boundaries. New construction (infrastructure, transport, recreation facilities) are built on nearby agricultural land. At the same time rural settlements become more demanding in their use of social, scientific and industrial capacities of large settlements.

After a period of intensive urbanization, occurring during the first three decades after the second World War, in the '70-'80s the growth of towns became more moderate, and the system of settlements became more balanced. At the same time



the economic profile and functional type of the most populated places became defined, working relations acquired steadiness, and the local systems were drafted. The on-going development of human settlements will take place on the basis of the quantitative characteristic changes, by evolution. But we should not underestimate the danger that may occur and affect on the stable development of the society. This can happen because of lack of efficient regional planning, uncontrolled redevelopment of some settlements and degradation of others.

2.2. Land use

Fertile soils are the most important natural resource in Moldova. Arable land constitutes 76% of the overall land mass.

Settled areas (434,6 thous. ha.) constitutes 12,8% of the total country territory, of which towns and small towns constitute 14%, and villages 86%.

Balanced land management in urban and in rural regions is one of the most urgent problems. Since the '80s the majority of towns have run out of space for new constructions. The land, being in fact property of the socio-political system was used for solving current problems of the system to the detriment of the sustainable development of the society. Nevertheless, one time expenditures for the reconstruction of old buildings and the volume of the demolished houses were strictly limited by the former Soviet Union standards, without regard of conditions in the Republic of Moldova. Urban territories could be extended if the Government decided to do so, by taking the arable land and using it to build new houses.

This process led to the following negative consequences:

- during the last 20 years about 76,000 hectares were removed from agricultural land use;

Fig. 2. Trends of urban and rural land use in the Republic of Moldova



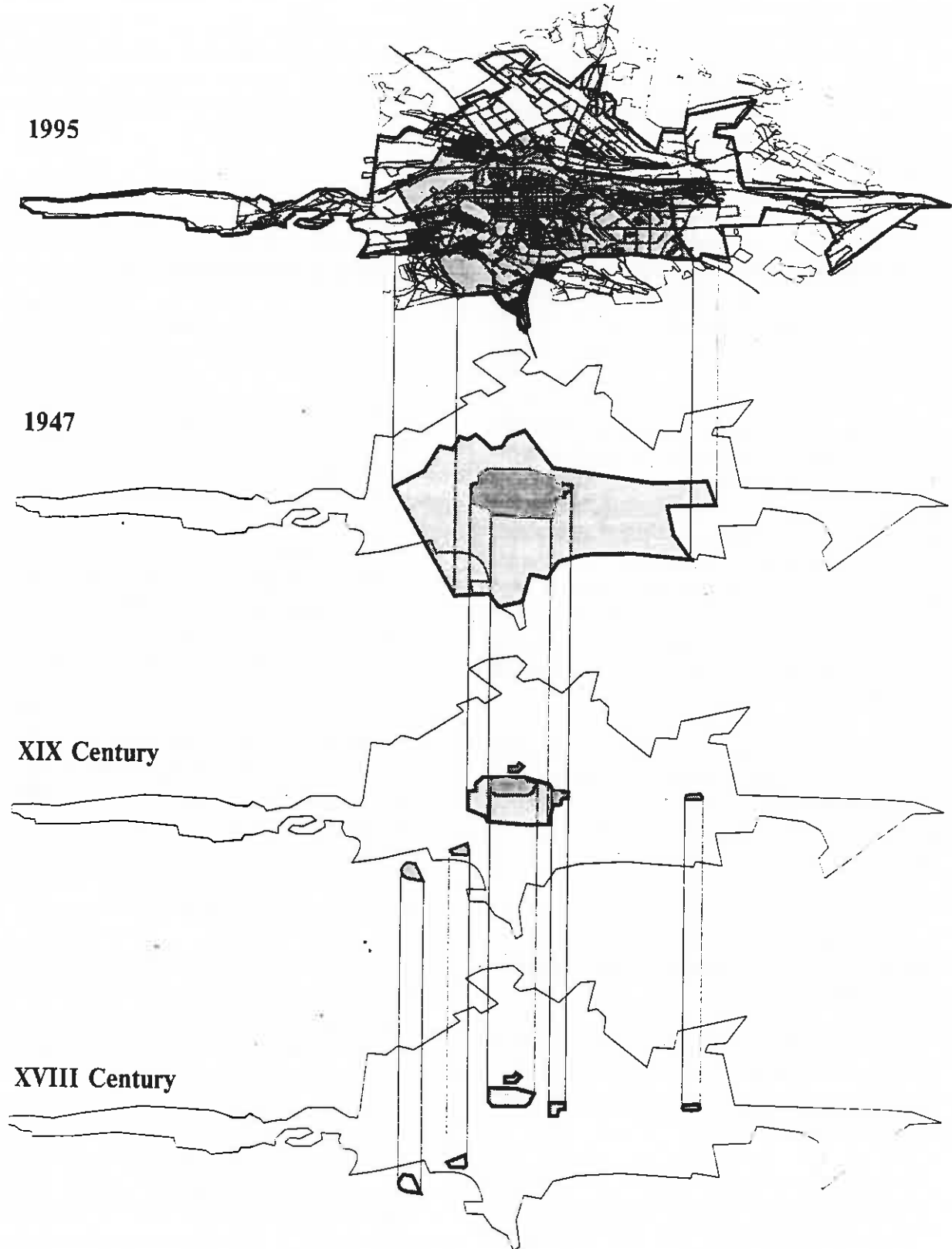
The correlation between personal holdings and within settled areas can be shown as:

Table 1.

	overall settled territories ('000 ha)	including farms ('000 ha)	overall settled territories in %	including farms in %
1990	350,2	207,4	100	59,2
1991	399,4	256,3	100	64,5
1992	413,0	306,4	100	74,2
1993	430,2	328,6	100	76,4



Territorial Evolution of Chisinau





- the density of population within the boundaries of the urban territories and residential zones continued to be low (about 26 person/ha and 51 person/ha, respectively) at the moment when there were no land resources for new constructions;

- as a rule, on newly created tracts of land, residential buildings were erected forming large suburbs, this led to an increase of expenditures for technical infrastructure construction and was not favourable for the population;

- especially in smaller settlements, old buildings in poor state of repair and without basic facilities continued to be utilized for public use purposes.

In the middle of the '80s it was permitted to build private houses in 10 large towns, and private house building became more active. As a result during a short period urban territories increased 1,5 times.

The process of development of the settlements was under control and was not based on industrialization. Since 1970 the general plans of all towns and 845 villages have been elaborated and planned. Special attention was paid to functional zoning optimization of the territory and to a balanced location of industrial buildings and housing structures, as well as to the technical infrastructure development of the region. In addition the landscape and architectural aspects of settlements became a matter of concern.

Still, a strict standard for the elaboration of design and planning documentation, whilst there was no legislation on urban planning, could not abolish the negative consequences of the active urbanization.

In the sector of rural planning where the use of land for housing depended on the local governments and on the owners initiatives, the general plans fulfilled their role.

At present the land use in towns is linked to the privatization process and the establishment of rights to private property as well as to the process of accumulation of capital.

The situation is critical because the tendencies of purchasing land and real estate by new commercial structures and private individuals face the lack of adequate legislation.

Land cannot be purchased and sold but the premises built on it can be privatized and sold. Thus there is a concealed process of land seizure in towns including the privatization of cheap constructions built on them. Earlier developed general plans of towns and other urban planning documentation was not kept, under the pretence that it does not correspond to the new conditions. The process is out of control.

To change this situation it is necessary to improve the legislation, to inform the media, to work out and adopt new development plans of towns, to organize a system of land registry.

2.3 Socio-economic situation of settlements and standard of living

Difficult socio-economic conditions of the transition period in Moldova and their negative consequences affected the quality of living standards and the development of settlements.

Prior to independence the country underwent a process of industrial specialization where raw material supply, plant localization and management, production processes and their commercialization were entirely governed from outside.

In contemporary conditions the shortcomings of the past years in settlements development has become more evident: by the gap between rural and urban provision of health and educational facilities, the higher quality of modern conveniences in towns, the low level of well organized settlements, the poor provision of housing stock with technical infrastructure, etc.

The significantly low level of provision of cultural and public facilities is in the rural regions. 270 villages have neither hospitals nor medical offices. There is an absence of pre-school institutions in 254 villages. In 27% of the secondary schools the process of education is organized in two shifts. 349 schools, i. e. 24% out of the total number of schools, are located in arranged buildings, not corresponding to the sanitary-hygienical requirements; 43 schools (3%) are located in damaged buildings. 60 villages are without schools.



There are no community recreation centres in 352 villages. There are no libraries in 19% of the villages and only 16% of villages have cinemas. Post-offices are absent in 31% of villages.

Trends in social aspects of settlements is given below. This information applies to the whole territory of Moldova without regard to distinctions between rural and urban regions.

Health, educational and cultural facilities, 1975-1994:

Table 2.

		1975	1980	1985	1990	1995
1. Kindergartens children	units	1780	2057	2193	2322	2093
	thous	188	266	310	337	230
2. Secondary schools pupils	units	1676	1594	1579	1635	1686
	thous	701	655	687	732	721
3. Vocational schools pupils	units	82	98	105	114	98
	thous	38	49	56	59	41
4. Universities and colleges students	units	54	59	61	59	72
	thous	99	110	114	105	81.7
5. Doctors	thous	10.1	12.6	15.6	17.4	17.6
6. Hospitals beds per 10,000 persons	thous	42.1	48.9	52.4	57.3	53.0
	beds	109	121.2	123.8	131.4	122
7. Polyclinics per 10,000 persons	visits	-	47.9	58.3	85.3	90.4
	visits	-	118.8	137.7	195.5	208
8. Cultural Centres	units	1838	1866	1866	1790	1536*
	seats/1000	-	116	117	111	102
9. Theatre	units	7	7	7	10	14
10. Museums	units	36	49	71	79	85

*-estimated data

According to 1994 data for budgets of 1325 families, about 72% of these families had an average monthly income per person less than the average monthly salary per person registered in all areas of the national economy. Only 2% of the families had an income above the consumers minimum basket in December (322 lei).

There is a discrepancy in the average income per person in towns and villages. In towns only 0,4% of residents had an average monthly income of 18 lei, and in villages 6,2% of residents earned the same amount.



During the last few years the consumption of food products has declined. From 1990 to 1994 the consumption of fish declined more than nine times, of eggs — more than twice, of meat and dairy products — more than three times, of vegetable, oil and sugar — from 1,8 to 2 times, of fruit — by 40%, of bread and bakery products consumption — by 20%.

Individual expenditures continue to increase, and it makes up now 81 % out of all expenditures.

The population spent 77,5% of their income for purchasing goods and services in the period from 1990 to 1994.

According to international standards, poverty is considered to exist when expenditure on food reaches or surpasses 60% of income. In conformity with this criterion all the population of Moldova is placed under this level, on average. At the same time the indicator is a bit exaggerated and is to be evaluated because it has been estimated on the basis of the distribution of family income created in 1994 and which was published by the official statistics without regard of involvement in the non-formal sector of the economy and private production sphere.

One of the factors affecting the social situation of the population is consumers' rights protection. The significance and role of this problem is growing at present in the conditions of an unstable economy, when the degree of risk of consumers' rights infringement is high.

The economic crisis has resulted in rapidly increasing unemployment in Moldova. The Government makes arrangements to support the unemployed. The number of unemployed receiving allowances is growing.

Amendments were introduced in the legislation on pensions. For those unemployed who have children up to 14 years the allowances are 20% bigger. For the last two years the average disability allowances increased by 3,6 times. In January it was US\$ 2,1 and in December 1995 — US\$ 13.

The international convention on human resources development, unemployment and social

protection of the unemployed has been ratified by Moldova.

According to the data of employment centres in 1994 38,000 people were registered as officially employed, i.e. 21% more than in 1993. At the same time the unemployment is rapidly developing and in 1993 1,3%, of the population were unemployed but in 1994 the figure rose to 9% of the total population.

2.4. Public health

The system of health and medical assistance like other fields of the economy and social assistance was influenced by the extensive development during the last decades.

Despite of a higher level of provision with medical assistance, facilities and doctors (122 beds in hospitals per 10,000 persons in 1994, 40 doctors per 10,000 persons) the public health system in the Republic of Moldova is a particular concern.

The demographic situation is deteriorating annually. The birth rate decreased considerably from 17,7 persons for every 1,000 habitants in 1990 to 14,3 persons for every 1,000 inhabitants in 1994; the growing death-rate of 21% in 1994 in comparison with 1990 led to a reduction of the natural growth of population from 8,0 to 2,5 persons per 1,000 habitants.

In connection with the economic difficulties and the decline of social conditions the living standard of the population decreased, and the quality of food for infants and pregnant women also declined. This process led to a deterioration of the immunity system, to the development of avitaminosis, anaemia, hypotrophies and other pathologies. The considerable specific weight in the structure of infant diseases and morbidity related to infant pathologies, respiratory diseases, nervous system pathologies, contagious and viral diseases.

Total infant morbidity in 1994 grew by 20% compared to 1992. Infant morbidity increased from 19,0 per 1,000 inhabitants in 1990 to 22,6 in 1994 (up to one year of age) out of which about 1/3 are rural residents, dying at home, mainly because of unsatisfactory microsocial conditions.



The decreasing level of medical services, the lack of the necessary medical supplies for vaccinations lead to a growth of contagious and viral diseases among children, to an increase of nervous system and respiration diseases and to allergies. The growth of chronic diseases among children (hepatitis, gastritis, stomach and duodenal ulcer, bronchial asthma) causes anxiety. All these diseases need a very long rehabilitation period and require biological and social adaptation methods.

Insufficient knowledge by the population of contraception and the insufficient delivery of contraceptives is the main reason for a high rate of abortions (for every 100 births there are 95 abortions). Maternal death rate is 51,8 cases for every 100,000 children born alive in 1993.

For the past few years, as a result of malnutrition, deficiency of medical supplies, pollution of environment, etc., the morbidity and mortality rate among adults grew considerably. The main cause of death is cardio-vascular system diseases (42%). Intestinal, liver (chronic hepatitis and cirrhosis), and respiration diseases are also very high.

Since 1990 in conditions of the social-economic instability, the number of cases of tuberculosis increased. Cases of the oncologic diseases, among them intestinal cancer (32,6%), respiratory cancer (16,2%), skin cancer (11,6%) and genital cancer (9,6%) have increased. Oncologic diseases increased in the northern districts of Moldova as consequence of the Chernobyl disaster (40%). The limited diagnostic possibilities and the lack of cure for these diseases lead to a growth in the number of patients with neglected states of oncologic diseases.

One of the reasons for the desperate state of public health is declining environmental conditions. Tests carried out by the sanitary-epidemiologic services reveal a high level of concentration of chemical and microbiological pollution of soils and water. An increase of nitrates, ammonia, fluorine, sulphur, etc., was observed in the ground water.

The use of drugs has increased considerably during the last 4 years.

The main reasons for this is the socio-economic crisis, the increase in the number of persons with antisocial behaviour and lack of measures for the struggle against drug contraband.

It is clear that under the existing conditions of centralized management of public health, the financing system cannot maintain the necessary level of medical assistance. Budget financing of public health at 35% (315 mln lei) of the necessary amount, ensures only 90 lei (US\$ 20) of health service per capita. On the whole the settlements of Moldova have enough potential to provide the necessary medical assistance to the population. It is necessary to create conditions for required support. First of all public health should receive the required financing.

During the period of creation of the independent state of Moldova, some actions concerning improvement of medical primary assistance have already started. The reorganization and decentralization of the Ministry of Public Health functions was carried out. The programme of primary medical services was created. Possibilities for the development of private medical practice were created. International cooperation in the field of public health has widened. The Republic of Moldova appreciates the assistance offered by other countries.

2.5. Level of infrastructure services

Heating

The technical infrastructure of Moldovan towns was organized at the same time as the mass construction of regional housing. The most complicated problems are in the field of heating provision.

831 central heat plants provide heat for towns. About a half of them use natural gas. Since 1970 the length of heat supply networks increased from 688 km to 4000 km, with heat consumption increasing 4 times. Despite this, heat supply consumption remains one of the most important problems in the field of community services industry. Central heat plants and networks equipment have



depreciated by more than 50%. Central heat plants of small capacities have low efficiency. The network maintenance is regarded for 10-15 years operation and about 40% of the networks exceeded this period already. In the near future urban centres will face the prospect of recurrent heating plant failures.

New technologies of anticorrosion and thermal isolation of pipes are being implemented in the Republic. Thus the losses of heat will decrease and the maintenance period of heating networks will increase. The Government has worked out together with the European Bank for Reconstruction and Development a project on heating designed to increase efficiency for the town of Chisinau. Similar projects will be prepared for the following towns: Balti, Ungheni, Cahul, Soroca. It is envisaged to build about 50% central heating plants and to equip the distributive networks with more efficient devices.

The problems of heating are close to the problems of energy supply. During the last years the energy system in the Republic was not equipped with new capacities, maintenance and renewal works of the system were not produced in the necessary volume because of absence of finance. These processes lead to rapid wear of the equipment and networks. All power units of the heating plants at Chisinau HPP No. 1, Balti HPP, Dubasari HEPS have been operating more than three decades, i. e. efficiency beyond their period.

Since 1994 the energy system in the Republic of Moldova which during the last 30 years had surplus of power, is now in short power supply and during autumn-winter period is not able to satisfy the requirements. Energy disconnections in settlements especially in villages, are something usual at present and have an impact on the telecommunication systems on public health activity and educational process and finally on the living conditions of the population.

Water supply

Water in Moldova has always been the most valuable natural resources.

Between 1970-1990 the use of water-pipes increased by 2,3 times. The development of these

systems is connected with the growth of the settlements in the Republic. The total length of water-pipes was 6414 km (for 1 January, 1992), including 2572 km in urban area, and 3842 km in rural areas.

Average daily water delivery through the central water systems for one person constituted 140 litres, being 280 litres in urban area and 34 litres in rural areas.

The capacities of the sewerage systems increased 10 times over the last 25 years. In 1970 sewerage systems were located in 12 settlements (with a capacity of 85,000 m³/day), but in 1990 such systems were in 48 settlements (with a capacity of more than 906,000 m³/day). Water purification increased from 5,2% (1970) to 92% (in 1995).

The provision of settlements with centralized water supply is difficult because of the location of water supply sources in the Republic, and non-conformity of the water quality defined by technical standards.

One of the problems is the existing state of these systems. For example, in Chisinau 40% of the systems require urgent reconstruction and replacement.

All the above determine the necessity of the development of infrastructure. This will provide the consumers with guaranteed water supply and will ensure the construction of new water purification systems. All households should be equipped with water-meters, which will allow decreased water consumption and leakage. All engineering systems development should become more reliable through use of modern electronic devices.

All these problems should be solved with the realization of the «Drinking water» State programme which is being elaborated.

The realization of the «Drinking water» programme and the development of the technical infrastructure will depend on the financial situation of the relevant enterprises. Still, the main way to implement this programme is the utilization of centralized investments and foreign credits. A project is now in the process of preparation together with the European Bank for Reconstruction and Development.



2.6. Urban transportation

The process of urbanization was accompanied by the intensification of problems of transport facilities for the population and industry. For the road transport was faced by the following main problems:

- insufficient network of well-equipped roads;
- deficiency of energy resources;
- shortage of automobiles.

For the last 25 years more than 3,000 km of public roads were built and repaired. The length of trolleybus lines increased from 114 km to 308 km. The passenger turnover on the trolleybus' doubled, and on the bus fleets increased four times (by 1990). The existing growth of bus and trolleybus use means these facilities are always overcrowded. The increase in the number of private cars contributed to the reduction of this problem. The number of cars per 1,000 habitants on average in Moldova is:

1975	— 10	
1980	— 21	
1990	— 46	
1994	— 48	(estimated data)

The capital of the Republic of Moldova has the most extensive urban transport system. It was formed on the basis of the historically developed planning scheme. The flood-lands of the Byk river, the railway and the green zones for public use divide Chisinau into 6 districts.

The peculiarities of the planning structure of Chisinau had an impact upon the formation of the road network, which is the basis of the transportation system. This network was planned radially, i.e. the communication of the centre with the outskirts is ensured by a few highways. A considerable part of the transport flow passes through the centre moving to the outskirts of Chisinau. The development of a new system of transportation requires large capital funds because, in almost all cases, it is connected with the necessity to build viaducts and bridges. An example is the highway built in 1990 which is of 2,0 km long and connects the centre of the town with the Botanica district. The total cost was equal to two annual budgets for road construction.

In spite of this, during the last few years, due to the construction and reconstruction of some main streets, we can observe the reorganization of the existing radial scheme of the highways into the radial-circular one. This would permit resolution of the problem of excessive traffic in the centre. This proposal is one of the tasks in the strategy on town road-transportation system development.

The second strategic problem is the improvement of the quality of the road system, improving its capacity in accordance with the present and future volume of transportation and with the requirements of protection and improvement of Chisinau's environment.

The existing roads system in Chisinau, and its positive and negative attributes are revealed in the functioning of the public transportation system. At present passenger transportation is served by two types of vehicles — bus and trolleybus. A subsidiary role is played by cars, minibuses, taxis, and by private vehicles.

Estimations show that 82% of town passenger transportation is carried out by public vehicles, 18% by private vehicles (private cars and taxis). More than 70% of public vehicles are trolleybuses, making of 52% of total transportation. Data on motorcycles and bicycles use does not exist; this kind of transport is insignificant because there are no conditions for their utilization.

The existing scheme of passenger transport reveals inadequacies of the road system. In particular, up to 15 bus and trolleybus routes are concentrated on the highways between the districts of the town, and the frequency of traffic exceeds 1,5-2,0 times the traffic capacity of the lines. As a result of the discrepancy between the traffic capacity and passenger flows, intolerable short intervals (up to 10-15 seconds) exist in rush-hours, significantly exceeding the standard, and decreasing the speed of the traffic. The result is unsatisfactory service to the population and difficult conditions for transport maintenance.

Research shows that in conditions of hypertrophied development of the existing passenger transport system, the problem of passenger transportation in Chisinau can not be solved without qualitative improvement.



To provide a standard of passenger transportation in Chisinau and standard requirements of comfort, reliability and speed of movement, to ensure the necessary freight capacity of public transport and the traffic capacity of street and roads it is necessary to organize a new «out-of traffic» transport system with high freight capacity.

The most convenient kind of public transport is considered the tram which will move on isolated road-beds. This is confirmed by estimation, documentation and also by the experience in the design of town transport systems.

One of the determining factors is mobility of the population. Research of mobility made in Chisinau in 1980 revealed:

- average mobility of population made up 3,29 transportation/person in 24 hours, from which mobility to working places and on business affairs made up 0,55 transportation/person, i.e. 16,7%;
- of all trips (1,91 transportation/person) are made using transport, and 42% (1,38 transportation/person) without transport. In other words the coefficient of transport utilization is 0,58;
- the average time spent for one trip is 24,6 min; in traffic it was up to 31,3 min, out of traffic — 15,8 min.
- 30,0 min were spent on average getting to work are spent. During 40 min 79,7 % out of all trips were made in the town and 68,6% are trips to work.

In 1974 in Chisinau 5,300 private cars were registered — approximately 12,0 cars per 1,000 habitants. In 1984 the total number was 24,000 cars (32,7 cars per 1,000 habitants), and by the end of 1994, there were 40,955 cars (55 cars per 1,000 habitants). The increase of the private parking creates lack of parking space. The deficiency of free town territories sharpened the problem of private car security and parking.

Interurban transport to Chisinau is by motorcar, railway and air transport lines ensuring all transport-economical communications of the capital within the Republic. Razdelnaya-Ungheni railway line and some roads of various national-economic importance cross Chisinau. There is an airport with

two runways one of which provide reception of TU-154 and Boeing airplanes.

Automobile transport plays the leading role in interurban passenger transportation assimilating up to 75% of the overall volume. In Chisinau two large terminals exist, one in the centre of the town with a capacity of 800 persons and the other, the «lujnyi» terminal has a capacity of 400 passengers.

Their functioning is connected with many problems, the main ones being the discrepancy between their traffic and their increasing negative influence upon the environment of the nearby town territories.

These problems can be solved only by building a new terminal with a capacity of 1000 passengers, corresponding to international standards and aimed for interurban and international passenger transportation. This proposal is well-founded and approved by the town administration.

To improve the quality of service of passengers at the railway station in Chisinau and to increase their safety it was decided to divide the flows of passengers into local and interurban flows. For this purpose a platform for reception and departure of the diesel-trains is in the process of being completed. Later to increase the capacity of the station, a second station on another site, is envisaged. The buildings will be linked by concourses and pedestrian crossings.

We recommend organizing a joint railway and bus terminal and other buildings which will ensure good operation. All buildings will have a common square and transportation system as well as common technical facilities. Research of the road-transport systems of other towns confirms that these towns are facing the same problems and difficulties.

Characteristic features of big and small towns are the following: low density of highway system, absence of highway differentiation by the character of motion, undevelopment of transversal streets and roads, low technical equipment of the road covering and facilities, overloading of separate



sections of the system and directions by the transport, high accident rate. The main problems of public transportation are insufficient development of routes system, small number of vehicles, their technical state, and an inadequate maintenance.

A significant problem is the lack of protection, parking and technical assistance to the private transport systems.

For small towns, where as a rule there are no passenger transportation systems, the main problem is improving the quality of the road system, i. e. equipment of carriageways and pavement coverings, and improvement of the level of maintenance.

On the whole, the development and management of the road-transport systems of towns require large financial investments which are especially difficult at this time.

2.7. The environment

Air pollution

At the end of the '80s the Republic of Moldova was considered to be one of the most polluted zones of the former USSR. The soils and water suffered most of all. Lately, as result of the reduction of the chemical agents use in the agricultural sector, and in connection with the decrease of the industrial protection volume the environment was improved. Still, the subterranean water is very polluted. Uncontrolled deforestation and poaching has increased considerably. Erosion has caused irreversable damage to the soils of Moldova.

The problem of air pollution is a peculiar feature for towns where we can observe an annual growth of the Maximum Admissible Concentration of various pollutants: dust, nitric oxide,

formaldehyde, etc. In the first half of 1995 there were cases of MAC growth of dust in Chisinau for 21 days, in Balti and Tiraspol for 34 days, of nitric dioxide growth in Chisinau for 57 days, in Ribnita for 9 days, and for Balti — 12 days.

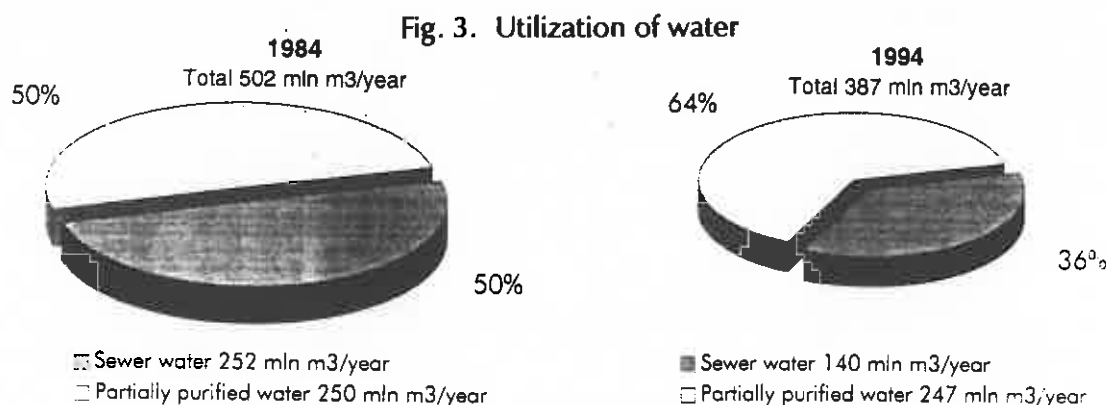
Water pollution

The total volume of water resources used in the country is 6,3 km³ for a average year, 3,4 km³ for a dry year, 1,9 km³ for a very dry year. Use of reserves of subterranean drinking water makes up approximately 3 mln m³ for 24 hours. From this quantity of water only 25% can be used without preliminary purification. The remaining quantity can be used only after its demineralization, defluoriting, deazotization denitratization, etc.

The provision of quality drinking water especially in rural regions is one of the main problems. Within about 60% of the country's territory the quality of drinking water does not correspond to the requirements. Untreated sewage from the existing settlements and animal waste from cattle and poultry farms are the main sources of nitrate pollution.

610 disposals and plants (including 35 town systems) were built in Moldova. At present only 40% out of them are working. As a result 500 mln m³ of sewage water (including 5-7 mln m³ unpurified sewers) goes into the hydrographical system. The purification plants in Dubasari, Orhei and other towns are nonfunctioning.

The Government pays great attention to water supply for the population in the southern regions. A complex water-supply and drainage scheme for the Republic of Moldova to the year 2005 was designed and adopted.





Solid waste

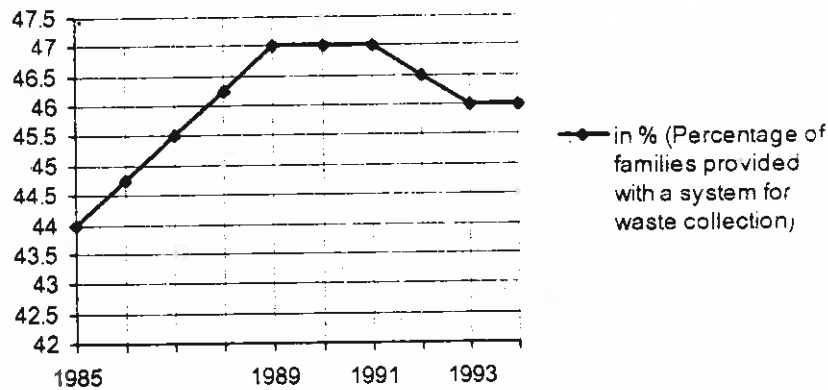
Data on solid waste products per capita (m³ and ton/year) is given in Table 3.

Table 3.

	1985	1989	1991	1993	1994
1. Population of Moldova (^ 000)	4235.2	4368.0	4359.1	4352.7	4347.9
2. Quantity of solid wastes, 1 person, m ³	1.564	1.616	1.679	0.770	0.787
3. Quantity of solid wastes per person, ton/year	0.469	0.485	0.504	0.231	0.236
4. Urban population (^ 000)	1859.4	2075.0	2052.2	2036.6	2033.0

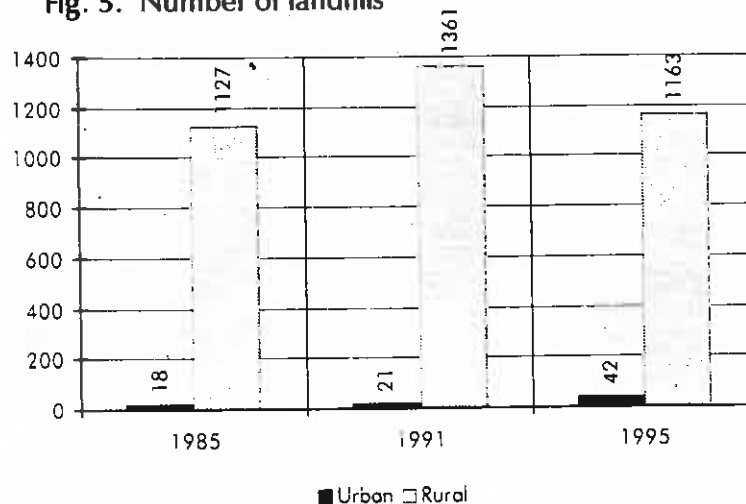
Today, in Moldova there are no specialized plants for processing waste products. In 1987 the construction of a plant for burning waste products began in Chisinau. But it was not completed because of lack of finances (it needs approximately 20 mln US dollars).

Fig.4. The systematic centralized collection of waste products is done only in towns and small towns



There is a system of stocking and burying domestic waste products on designated grounds in Moldova. Still, the problem of construction and organization of such grounds is very acute. Figure 5 shows the quantitative growth of these grounds, but most of them do not meet sanitary-hygienic requirements.

Fig. 5. Number of landfills





2.8. Local administration

The period between 1976-1991 is characterized by the absence of legislation respecting local administration. Reference to the aims of local administration was made in the law concerning budget rights of Moldovian SSR and local Soviets of People's Deputies of MSSR from 28 December 1960 and in a few decrees of the MSSR Council of Ministers.

In 1991-1995, after the declaration of independence the situation changed radically. The new legislative basis was elaborated and adopted. Among the most important documents are the following: the Constitution of the Republic of Moldova; law on territorial-administrative organization in the Republic of Moldova; law on local

public administration; law on elections to the local administration; law on the juridical status of Gagauzia (Gagauz-Eri); the statute respecting the Municipality of Chisinau; the statute of villages and town; articles 107-113 of the Constitution of the Republic of Moldova, etc. All these documents reflect the transfer of some functions of the Government, ministries and departments to local administration aiming to a more efficient management of the decentralization of power and independence in the management of settlements.

In conformity with the law on the territorial-administrative organization in the Republic of Moldova the country was divided into 40 districts, 4 municipalities, 60 towns and 1617 villages. Each territorial administrative unit is considered juridical person and has its own administration bodies.

Data on local public administration staff is given below

Table 4.

	staff of local bodies including office staff	inclusive			staff of local bodies per 1000 persons
		Chisinau	other towns	villages	
1976	14120	891	9590	3639	4
	6173	268	2672	3233	1.8
1980	12958	970	8102	3886	3
	6776	344	3076	3356	1.5
1985	13912	1222	8378	4312	3
	7669	422	3577	3670	1.6
1990	13636	933	6487	6156	3
	8086	600	3320	4166	1.8
1994	19118	1644	9014	8460	5
	8502	579	3179	4744	2.2

The data for 1994 shows that the law on local public administration works and in connection with this the transmission of some functions of higher authorities to local bodies and the increase in the number of staff (in comparison to the number of staff per 1000 habitants (from 2 to 5) is relevant.

The financial resources of the village, town and district are formed out of budget and extrabudget funds. In conformity with the law on local public administration and the law on taxes and duties, the local bodies of public administration formulates, approves and implements independently the budget of the territory-administrative unit in the interests of local community, on an annual basis.



Intervention of higher authorities in the process of formation, approval and fulfillment of the budget is forbidden.

The main sources of income are:

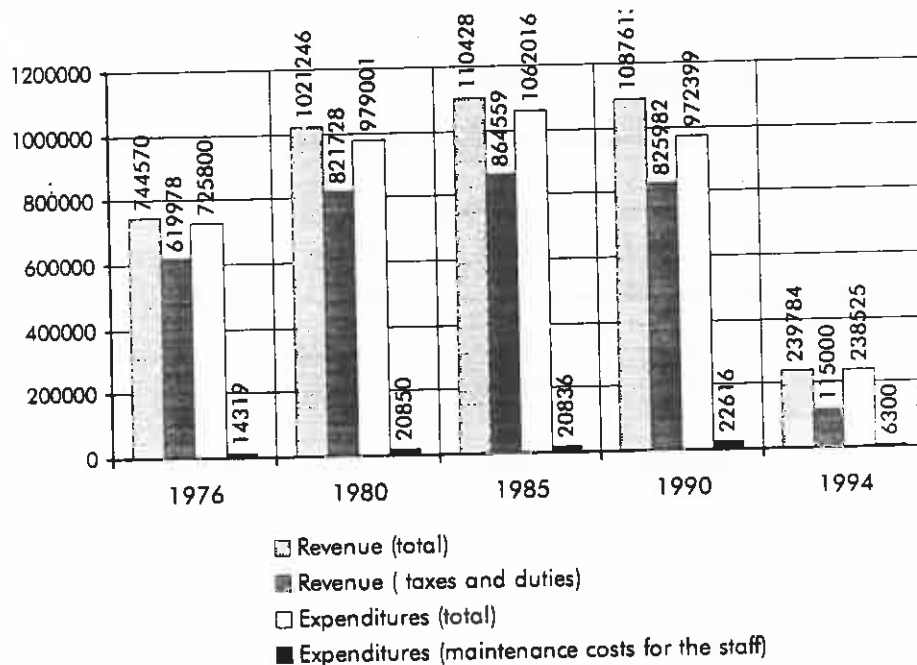
taxes on income of enterprises, institutions, organizations, structure of the municipal economy; local taxes and duties; assignments from republican taxes accordingly to standards established by the law; banking credits, given under the terms to be turned back and payment of percentage; subsidies from the budget of the higher territory-administrative unit, etc.

The expenditures of the local public administration are as follows:

- financing of enterprises, institutions and organizations, financing of construction and reconstruction of social and economical, units and infrastructure;
- allocation of finance for community services development; payment of salaries to its staff; subsidies to assure wages for public service personnel;
- assignment of privileges for paid services;
- assistance to vulnerable sectors of the population;
- distribution of credits to smaller territorial units.

The revenue (total, including taxes and duties) and the expenditures (total, including maintenance costs and salaries for the staff) of the local public administration bodies is shown in the following diagram (in '000 USD).

Fig. 6.



The adopted laws affirmed the independence of the local public administration with respect to finance and coordination of public finance, management of local affairs fulfilling the administration and enforcement functions in accordance with the existing laws (for instance, management of property, creation and abolition of enterprises, lease on concession, creation of communal services, approval of plans for territorial organization, provision of construction works, etc.).

In those regions that are not under the competence of local bodies the territorial-administrative

units are subordinated to national government bodies, i.e. when fulfilling their commissions they are autonomous. Autonomy provides both for the organization and functioning of local public administration and arranging the affairs of the presented associations under their responsibility. However, it is necessary to mention that the mechanism of real independence does not yet function properly. The reform of local public administration bodies is in its initial phase. Until now, the reform of the local public administration bodies was directed to the reorganization of management and the creation of the necessary man-



aging bodies, while the determining factors to be considered are financial independence and private land ownership.

2.9. Housing fund; dwelling construction; affordability of housing

The housing fund of Moldova consists of 79,1 mln m² of the overall area, of which the urban fund is — 30,1 mln m², and the rural fund is — 49,0 mln m².

The average housing area provided in the Republic is:

- total average (per inhabitant) — 18,2 m² of the aggregate floor space;
- urban average (per inhabitant) — 14,7 m² of the aggregate floor space;
- rural average (per inhabitant) — 21,3 m² of the aggregate floor space.

On 1 January 1992, 71% of the housing fund was used for state property and 95% of the rural housing fund was used for individual property.

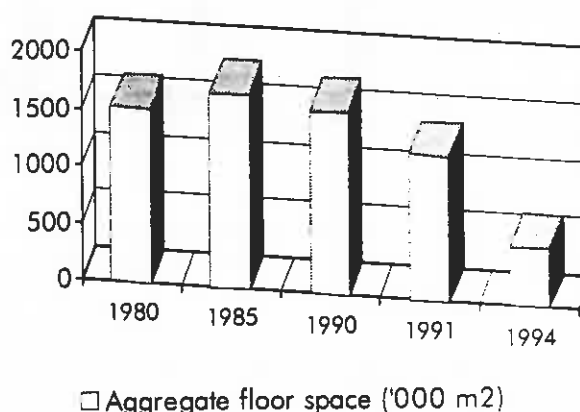
The very small share of the individual housing fund in towns is explained by the fact that in 10

larger towns, individual housing construction was forbidden until 1988.

Nowadays, the ongoing process of privatization of state apartment buildings changes greatly the structure of the housing fund.

For the last 15 years housing construction levels in Moldova can be characterized by the following:

Fig. 7.



From 1980 to 1994 the volume of housing construction decreased 3 times.

The analysis of dwelling construction financing, for the last 15 years:

Table 5.

Source of Financing		1980	1985	1990	1991
State budget and enterprises	%	59	53	54	60
Housing cooperatives	%	8	8	6	7
Collective farms	%	6	6	4	1
Private constructions	%	27	33	34	32

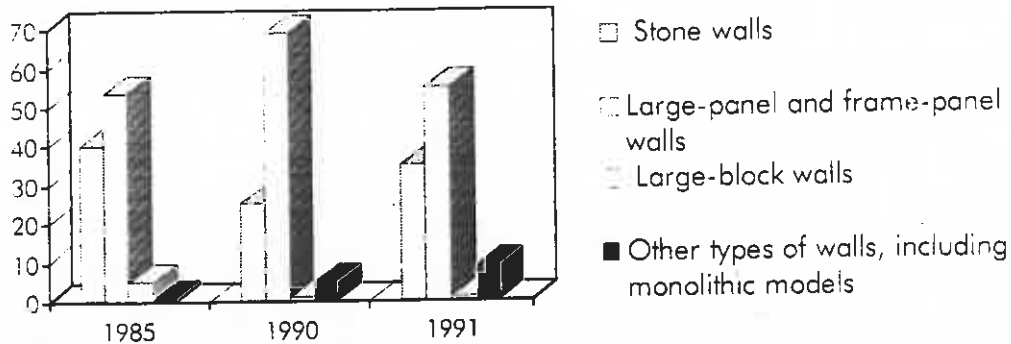
Such correlations of financial sources were imposed by the possibilities of the state and for a very long time were not subjected to changes.

The demands of population for apartments have not been satisfied. At the end of 1970 the number of apartments per household (including single households) was 0,79 and at the end of 1990 this indicator did not change at all.



The existing framework of investments defines the physical structure of dwelling construction, taking into account the construction material (constructing technology):

Fig. 8.



Large-panel buildings prevailed in the urban area and only 35% of buildings were constructed from local materials (cut lime-stones).

In 1985-1991 multi-storeyed buildings (of more than 6 storeys) made up 65% of the total residential supply.

The main construction materials for dwellings in rural regions were stone and adobe blocks.

Practically all housing stock has existed for 20 years and more, and are considered to be permanent dwellings.

Where the state manages the housing sector and the dwellings have been allocated to families by the authorities (i.e. state flats provided free of

charge), accommodation has the following characteristics:

- quantity of living space for one person — 9,0 m²;
- allocation of dwellings have the following formula n-1, for instance: a three-person family gets a two-room flat, a four-person family gets a three-room flat, etc.

Housing construction was carried out on the following main principles which determined its technical specifications:

- maximum upper limit on the space of the flats;
- correlation between the living space and total area of the flat (0,55-0,6)
- height of the rooms;
- comfort of the dwellings and the level of their facilities.

The level of public services and amenities for state, public and cooperative housing is given below:

Table 6.

Number of flats, provided with: (in %)	1980	1985	1990	1991	1993
water-pipes	88	92	93	89	94
sewerage systems	85	89	90	87	92
heating	81	85	86	84	88
gas	86	90	95	90	94
hot water supply	60	69	75	69	74
baths or showers	74	78	83	81	85



We have no data concerning the level of public services and amenities for private housing stock in rural districts.

To provide housing for the population who moved from villages to towns it was necessary to build temporary living apartments, residences, houses blocks for small families. But «temporary living» turned out to be «long-term living», and the existing central financing of mass housing construction could not solve the problem.

The management and maintenance of public housing is performed by housing and municipal agencies which receive subsidies out of the budget because the municipal taxes does not cover the expenses for its maintenance.

During the past few years the national budget for housing construction has been drastically reduced, and the level of these investments in 1994 is only 26% of that in 1991.

Mortgage crediting is not available at present.

The average value of 1 m² dwelling space is 1400 lei. Hence, a 2-room flat with an aggregate floor space of 50 m² costs 70,000 lei (US\$ 16,000).

Thus, only a small number of people have the possibility to build a private house or to purchase a flat because the great majority of families have very small incomes.

Resulting from the existing standards 198,700 families are registered on a waiting list for improved accommodation, i.e. every third family in the urban area; 20% of these families have been on the waiting list for flats for 10 and more years; 2% of the population lives in hostels (not including students' hostels).

The analysis of the residential supply shows us the acuteness of the problem, especially in urban regions.

The difficult housing situation is intensified by the existence of a considerable housing volume, built, accordingly to the standard models of the initial mass house-construction, which is morally

and physically exhausted. At present, about 2 mln m² floorspace require reconstruction; and about 500,000 m² floorspace demand major repair. In the past the state provided necessary financing for these purposes and for technical infrastructure maintenance. Currently such investments are absent.

The crisis in the housing sector is the result of the processes that matter during the transition from state management to market economy. The state has virtually withdrawn as investor. Budget allocation for the housing construction and community services are very small; the possibilities of residents' participation in solving the problems of housing construction are too small.

Urban renewal policies are linked with the housing issues. Central housing policy regarded dwellings as a matter for distribution not as a result of production. During the transition to market economy the housing construction share in the GNP decreased. Housing construction problems are very acute and the traditional approach when the state provides dwellings for the whole population is unrealistic. These circumstances and the existing social conditions define the necessity for the housing reform as a component of socio-economic transformations.

2.10. Priority problems

The issues of Moldovan settlements are complex and are intensified because of the economic crisis. In general we can outline 4 groups of problems.

a) Common problems for all settlements all over the world. Such issues as the interrelations between towns and villages, lack of natural resources and increased environmental pollution, social isolation in towns as well as many others are distinctive for Moldova too.

b) Traditional for Moldova is the divergence between economic potential of the agricultural industrial complex of the republic and the degree of its involvement in rural settlements development. The distinction between the level of rural residents density, the size of rural settlements and



the low level of their planning, social services and technical position are issues.

c) Regional problems under the influence of specific political and socio-economic conditions in which Moldovan settlements developed in the former USSR demand coordinating and decisive sustainable activities and substantial subsidies. Among these regional problems we can specify the following: irrational land-use, out-of-date technologies in housing construction, lack of economic mechanisms and technical equipment for managing their consumption.

d) At present the major specific problems are more evident. The most important is insufficiency of finance for housing and settlements development. The absence of a scientific concept for the development of settlements in the new conditions, lack of functioning legislation and mechanisms of organization, management and monitoring as well as limited opportunities for the population to participate in the process of solving the housing and settlements development problems have a big impact on society as a whole.

At first sight all these are temporary problems which will be solved together with the completion of socio-economic reforms. Still we should not underestimate their acuteness and impediment of the consequences. Stagnation of urban housing construction and the impossibility of people

resolve their housing situation cause social anxiety and do not individuals, households and communities positive response.

Uncontrolled redistribution of urban land in the absence of a relevant land market, an account of long-term social concern and tendencies for sustainable development generates a range of complicated interdependent problems for many years later.

Delay in the elaboration of steady and vital mechanisms of maintenance, renewal and management of community services system may break down with environmental calamities.

Decrease in the demand for professionals in the field of urban planning led to a decrease of dwellings quality and cultural development of the society.

The information given in the above chapters shows that the existing problems resulted in negative consequences in all fields of housing and settlements development. To overcome these tendencies we should make efforts and use more subsidies. The transition problems are priority for the next years. At the same time, it is necessary to make decisions in connection with other problems. In conformity with these priorities the sustainable policy, the targets and the plan of actions have been formulated.



PART C. NATIONAL PLAN OF ACTION

During the elaboration of the National Plan of Action for the 1996-2000 period, the National Steering Committee of the Republic of Moldova for the preparation for the UN Conference on Human Settlements (HABITAT II) proceeded from requirements that the objectives, tasks and actions detailed in the plan should mainly be coordinated with the existing programmes and plans of the Government, Ministries and Departments but not limited to this. The national sustainable policy on housing and settlements renewal must be set up both on the principles detailed in the process of wide-ranging preparation and agree with the general trends of the General Plan of Actions on Human Settlements (HABITAT II) and should consider the peculiarities of the situation in the country with all the ensuing consequences to the utmost.

1. GENERAL PRINCIPLES OF THE LONG-TERM POLICY

The system of human settlements policy should be supported by the necessary relations and unity of physical, social, economic and ecological planning. At the same time such a complex approach should ensure the balance of national, regional and local interests.

The goals of such a policy should be as follows:

- to provide principles for steady development at all stages, to protect the environment and to elaborate and make the most efficient use of natural resources;
- to maintain the economic balance at national as well as local levels and to contribute to the political, social and economic integration of the society;
- to stimulate the development of functioning relations among settlements at local, regional and national levels by using the economic and social potential of settlements more efficiently;
- to solve the problem of small towns growth in the context of the national system of urban/rural balance;

- to provide optimum conditions for energy consumption in settlements in various domains of activity, beginning with urban and district planning, and the designing and constructing of buildings which take into account climatic conditions and use non-traditional energy resources;
- to increase the role and functions of local government concerning housing construction;
- to create comfortable houses and to protect the environment while taking into account the qualitative and quantitative needs of the population;
- to protect historical monuments for future generations, to ensure better environmental conditions for the population;
- to ensure optimum utilization of new technologies in conformity with the scientific and socio-cultural aspect of human settlements.

2. STRATEGY

2.1 Challenging approach

The tasks of stable development and adequate housing provision for the population are very demanding and require the involvement of as many participants as possible. In addition, they concern a wide range of aspects in state and private sectors (land-use, finance, participation of population, macroeconomic factors, environment, political issues). Therefore it is very important to elaborate and apply the stimulating approach at all stages of implementation of the development strategy. For a better coordination it is necessary to involve all participants in the elaboration and implementation of the strategy. The organization of the National Steering Committee is the first step in this direction. The stimulating system will reach a further development when the new legislation on settlements and housing development will be established.

An optimum stability between various interests, between the demand and certain resources can be obtained by state regulation. Regulation (for instance, territorial zoning, shortcoming in land-



use, architectural and construction norms) should ensure the protection of public health, safety and steadiness of the settlements.

An important aspect of this strategy is the determination of functional and reasonable system of land tenure (ownership), right to real estate property and its transfer. The contemporary system of real estate registration (urban cadastral surveying), the protection of right of the private of holders and tenants (leaseholders) by improving legislation and setting up administrative procedures are important allowances concerning the implementation of the stimulating system.

Subsequently the necessity to secure the right to private property on land and allowances to take on lease the housing stock will be considered.

Direct participation of the Government in financing the housing construction and the infrastructure will be reduced to the minimum. Subsidizing should be planned, significant, affordable. It should not be misrepresented by the housing market or by the demand for land.

2.2. Urban planning

Urbanization will eventually slow down or stop owing to the necessity of agricultural land preservation. It is necessary to intensify urban land use. The renewal of the older apartment blocks through reconstruction and refurbishment is very important. The main path for improved urban planning in the Republic of Moldova is the reorganization of the existing urban territories.

The reconstruction of towns should be regarded as a continuous process. It is necessary both to reconstruct the buildings and the existing infrastructure. It is also important reorganize urban territories with the aim of a balance between the socio-economic development and the improvement of the human environment. Thus, it is necessary to take into account the new requirements for the settlements development which require the amelioration of the living conditions (place of residence and work), and the increasing of environmental protection.

It is necessary to find more progressive and rational forms of housing fund renewal while constructing and equipping buildings. Special attention should be paid to the socio-economic aspect of this question. The problem of renewal cannot be solved without the participation of society. Success depends on the level of public participation in all these processes. This participation should become broader in all spheres, beginning with planning and construction, and finishing with policy implementation.

Decentralization, influencing the specific problem of urban planning, will increase the role and functions of local governments. Special attention should be paid the problems of capital investments planning and that of construction organization. One of the main tasks for urban planners is to provide possibilities for the improvement of welfare of the population by creating indispensable comfort in dwellings, at working places, by organizing leisure and necessary services, i. e. by improving the quality of life. This objective will remain valid for all plans and programmes of human settlement development.

Privatization, diversification of property and of the managing methods, an increase in the number of new enterprises require complex estimation at all urban planning territorial levels of the existing resources, a delimitation of property rights, creation of an information base for well-founded and legal decision-making. A compulsory condition for this estimation is its relation to a physical territory and land-surveying basis.

These tasks should be decided concurrently with the creation of the urban cadastral survey which is a component part of the national cadastre.

The Department of Architecture and Construction in cooperation with the National Agency on Land Surveying, Cartography and Cadastre is working out the concept of the urban cadastral survey.

In conformity with the concept, the cadastre should represent a complex adequate classification of data on legal, property, land and financial



matters of the property. Although the accumulation, processing and renewal of such data require considerable effort, the availability of this classification is very important. The availability of such indicators is relevant for all aspects of settlements development.

Of course such data basis could be useful for the elaboration of the district planning designs, the general settlement plans, the detailed zone design and neighbourhoods. As a primary task the plans an urban cadastral organization will legalize the new methods of urban design, as the majority of land plans and district planning designs are out-of-date.

As a result new informational systems should be organized by using the existing international standards of common classification, forms of change and coding of information.

To assist the legal base of the creation and implementation of urban plans, quality assurance of urban planning, creation of urban informational systems, the Department of Architecture and Construction recommended the relevant legislative translation of these aspects in the Law on territory planning and urbanism.

One of the main tasks of urban planning is to provide conditions for the increase of living standards of the population by creating the necessary comfort in dwellings and at job places, by organizing the recreation of residents and providing social services, i. e. by increasing life quality assurance. These tasks will continue to satisfy the requirements of the population and will persist in all plans and programmes of settlements development.

2.3. Infrastructure

The creation and maintenance of urban heat, water supply, sewerage, energy supply systems, communications and other networks will be a compulsory condition for the construction of new housing stock as well as for its rehabilitation and modernization.

The organization of such systems and their operation with in the framework of both the regional

and national infrastructure and the structural elements of the town will demand efficient management and monitoring for the purpose of protection and increase of the socio-spatial aspects of settlements.

At the same time, in suburbs and districts with a low construction density it will be demanding to place autonomous technical structures (various electrical plants, water supply and sewerage system communications, etc.).

During the next 5 years it will be necessary to realize the existing possibilities of extending and re-equipping the energy system. It will be necessary to put into operation generating equipment with a total capacity of 500 MW. The acquisition and installation of the equipment require about US \$ 220 mln. At the same time we seek possibilities for a more efficient integration into international energy system.

To provide conditions for infrastructural improvement it should be compulsory to set up adequate prices for the creation and maintenance of technical provision, to involve the private sector in the creation and support of the infrastructure, to ensure a financial basis of infrastructural institutions.

Special attention will be paid to the issues of private and public transport and its influence upon the organization of the technical infrastructure. Since the density of transport flows are too high and the roads are overloaded the public transport should be given priority.

2.4. Housing concept

The problem of well-designed dwellings as one of the basic conditions to guarantee human well-being takes up a distinct place in the housing policy strategy and plan of action for the next 5 years.

The Department of Architecture and Construction together with the Ministry of Economics, Ministry of Finance, Ministry of Communal Services and Housing Stock Maintenance, Ministry of Justice, Council of the Independent Trade Unions developed the concept on national housing policy of the Republic of Moldova in 1994.



The fundamental trends of this concept were approved by the mission of the International Bank for Reconstruction and Development in conformity with the Declaration on housing policy adopted at the meeting of Ministers of Construction from Eastern European countries in Warsaw.

The objectives of the new housing policy are as follows: provision of tenants' protection, new mechanisms for decision making which permit the population to articulate and assert their needs, etc. The basis of this policy is the separation of functions between the state, judiciary and individual in adjudicating issues of construction, renewal and maintenance of the housing stock.

The housing policy is based on the affordability and equality of rights to diverse forms of a variety of housing property, to the citizens rights to diversified forms of dwellings, their demands for dwellings and the possibilities to use them in conformity with the existing legislation.

The main conditions for securing this is the formation of the housing market:

- privatization of dwellings;
- dwellings should be regarded as products;
- availability of the design markets, construction contracts, construction technologies, materials and equipment;
- transfer of decision making in housing problems to a system of subsidies and credits, to increase the construction of well-equipped houses;
- redevelopment of the construction system and its management, its adjustment to a market economy, equality of access for residents to housing construction.

To stimulate various forms of private activity in housing sector it is necessary to develop the existing legislative and standard documents.

The Government of the Republic of Moldova adopted the programme for the elaboration of a legal framework for housing construction to ensure a better functioning of housing markets and financial instruments. Current legislation has been adopted in the Republic. In particular, the law on privatization of the housing stock was adopted in

1993. Today about 50% of housing stock under the local government management was privatized. 80% of the total housing fund is now private property.

The tasks of the central housing policy are to build commercial dwellings and to stimulate the private housing construction by allocating land, to provide the technical infrastructure, to organize the relevant construction industry and to implement the adequate financial instruments.

Private housing construction should become an important means of increasing housing stock. For this purpose the government elaborated a draft document on the construction and allocation of long-term credits.

The main trends of using of budget funds are:

- creation of housing fund for public use;
- subsidies for the territorial technical infrastructure in zones with mixed forms of tenure;
- to allot subsidies for certain income groups for rent and community services.

To overcome the decline in housing construction it is planned to organize an extrabudget financing system. To use the allocations for housing construction more efficiently a special development fund will be organized at central and local levels.

Resources for this fund can be:

- from the incomes of products sold, produced on foreign markets; real estate taxes;
- taxes on the difference between the cost and selling price of dwellings;
- state credits and credits offered by international organizations, etc. Organization of various forms of the financial crediting and allocation of credits for workers by enterprises on preferential terms is planned.

To carry out the above mentioned the government adopted the following documents concerning:

- construction of dwellings for sale;
- state and private investments in the construction of unfinished houses.

The law on housing construction crediting is in the process of elaboration.



Decentralization of community services management is carried out and new conditions for the organization of open competition in the housing maintenance sector should be created.

From the point of view of architectural and urban planning aspects the concept envisages the transitions from precast concrete, as construction materials for dwellings, to local traditional and efficient construction materials (limestone blocks adobe blocks, bricks, tile, etc) and to efficient modern construction materials and products (light panels, efficient heaters, products from industrial waste materials, and so on) the government has already adopted the decree concerning the use of the existing large panel housing construction. This documents envisages the reduction of enterprises which produce large panels for dwellings and their reorganization into enterprises which produce construction materials for private houses.

Envisaged is the use of modern technical equipment, and to build more comfortable dwellings for the population and the improvement of thermal protection. The implementation of small autonomous plants for technical provision of free-standing houses and neighbourhoods, that will permit to increase the standard of rural housing stock.

Social aspects, necessitate the most real and economical forms of construction, i. e. forms which will permit new flats within a short period of time. Such forms can serve the modernization and reconstruction of the existing housing stock which was built in conformity with the standard models of the initial mass construction period. Modernization and reconstruction of the housing stock will increase the quality of dwellings and will permit additional floorspace on built up territories provided with technical infrastructure.

The housing reform is oriented to the creation of legal, economic, urban planning and management mechanism for the future development of housing construction. Concerning the social sig-

nificance of this sector and for the coordination of activities between ministries and local governments for the elaboration and realization of economic and organizational actions the Government of the Republic of Moldova formed an interdepartmental council steered by the vice prime-minister of the republic. The representatives of ministries, local governments, non-governmental organizations, banks, etc. are involved in the activity of this body. At regional and town levels housing reform provision is organized by the local bodies. The established mechanism of control will be up-dated periodically.

3. TASKS OF THE NATIONAL PLAN OF ACTION

The fundamental task of the national plan of actions for the nearest 5 years is to find a way out of the crisis, to preserve the positive results in urban planning system achieved during the past 25-30 years, the reduction of the consequences of the extensive growth and the creation of the conditions for settlement development.

Among the most important concerns are the following:

- realization, by social and political circles, of the importance of the settlement problem and the inter-relation of this problem with those of the government's understanding of human development on the whole;
- preparation of the legislative base for a national planning and development system reform of the planning and development regulations;
- creation of the institutional investment mechanisms for housing construction and technical infrastructure of human settlements;
- training of staff in the area of urban planning management;
- creation of the urban planning design model which takes into account resource conservation and steady development;
- transformation of the construction industry, elaboration of the reconstruction technology for



the existing housing fund and the construction of new houses using local resources and efficient construction materials.

4. NECESSARY ACTIONS FOR STRATEGY IMPLEMENTATION AND RESOLUTION OF ISSUES

The actions included in the National Plan have been proposed by the participants with account of the existing possibilities and are based on the willingness of participants to achieve appreciable results. The specific contemporary state of the Republic of Moldova and the process of intensive transformation of all management structures have determined the character of actions as most necessary to create the new legislation and the regulatory technical basis, to set up the organizing mechanisms, to improve the problem solving methodology. These actions are important for Moldova's development.

The National Plan of Action is for the period up to the year 2000 and is not final. It should be extended whilst new participants will be involved in its realization and the coordinating activity of the National Steering Committee for the UN Conference on Human Settlements (HABITAT II) will increase. The National Committee will continue after the Conference as steering body at the national level.

The implementation of the commitments by the participants in the preparation of the National Report will be provided by the respective Government decisions because the majority of the participants are representatives of Ministries and State Departments, non-government organizations, private sector planners and researchers. Still, the National Committee will undertake purposeful and consecutive efforts to involve more widely non-government organizations, private sector, scientific bodies into the process.



LIST OF ACTIVITIES, INCLUDING SCHEDULE AND EXECUTORS

Planned actions	Expected results	Executors
I. ELABORATION OF LEGISLATIVE DOCUMENTS		
Laws:		
1. Law on territory planning and urbanism (1996)	Legislation securing interrelations of various bodies in the field of regional and urban planning.	Department of Architecture and Construction
2. Law on shelter (1996)	Determination of the basic rules on citizen rights to housing under the new social-economic conditions and legal regulation concerning housing relations with regard to mixed ownership and various types of estates in the housing sector.	Department of Architecture and Construction, Ministry of Justice, Ministry of Economics, Ministry of Community Services and Housing
3. Law on loans for the housing construction (1997)	Set out the regulations housing construction, loan and financial assistance to residents aimed at solving housing problems. Organization of a mortgage system to maintain housing construction.	Ministry of Finance together with National Bank of Moldova, Savings Bank of Moldova, Ministry of Justice, Department of Architecture and Construction, Ministry of Economics
4. Law on condominiums (1997)	Establishment of tenants' rights, duties and determination of basic rules on condominiums.	Ministry of Community Services and Housing, Department of Architecture and Construction, Ministry of Economics, Ministry of Justice, Ministry of Privatization and State Property Administration, Municipalities
5. Law on settlement protection from calamities and disasters (1997)	Legislation on safety provision. Distribution of tasks and responsibilities between central and local governments concerning prevention of calamities and abolishment of consequences.	Department of Architecture and Construction
6. Law on safety provision of the existing buildings (1997)	Legislation concerning tasks of technical maintenance of the existing buildings and taking actions to provide their safety in case of natural calamities.	Department of Architecture and Construction



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| 7. Law on drinking water (1997) | Legislation regulating of tasks and responsibilities between state bodies and NGOs concerning provision to residents of drinking water in conformity with the standards. | Ministry of Community Services and Housing |
| 8. Law on sanitation treatment technology (1997) | Legislation determining tasks and responsibilities between state bodies and NGOs concerning provision of settlements sanitation technology. | Ministry of Community Services and Housing |
| 9. Law on land expropriation in the interests of the public sector (1997) | Legislative establishment of the procedures concerning land expropriation in the interests of public sector by maintaining the rules of reimbursement. | Department of Architecture and Construction |

Decrees of the Government:

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| 10. General urban planning regulation and draft of local urban planning regulation (1997) | This document should set up regulations and technical requirements in the Law on regional and urban planning | Department of Architecture and Construction |
| 11. Housing affordability to residents with low incomes and to citizens under social protection (1996) | Regulations for housing distribution and costs for rent. | Ministry of Community Services and Housing, Ministry of Justice, Ministry of Labour and Social Protection and Family, Department of Architecture and Construction, Federation of Independent Trade-Unions, Municipalities |
| 12. State support of private housing construction (1997) | State support of private housing construction as one of the main forms of moving to a market economy; allocation of long-term loans. | Department of Architecture and Construction, Ministry of Economics, Ministry of Finance, Ministry of Justice, Municipalities |
| 13. Housing Inventory (1996) | Regulations for housing inventory by location, forms of property and condition as well as for its technical inventory and assessment. | National Agency on Land Surveying, Cartography and Cadastre, Department of Statistics, Ministry of Privatization and State Property Administration, Department of Architecture and Construction, Ministry of Community Services and Housing, Municipalities |



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| <p>14. Development of housing construction cooperatives (1997)</p> | <p>Development of housing construction cooperatives in a market economy; new forms of co-operation between managing bodies and private residents.</p> | <p>Department of Architecture and Construction, Ministry of Economics, Ministry of Community Services and Housing, Ministry of Finance together with the National Bank of Moldova and Savings Bank of Moldova, Ministry of Justice, Municipalities</p> |
| <p>15. Creation of investment funds for housing construction development (including various non-budget forms) (1997)</p> | <p>Use of non-budget forms of investment and creation of loan and finance mechanisms at local and central levels.</p> | <p>Ministry of Economics, Ministry of Finance together with the National Bank of Moldova, Ministry of Justice, Department of Architecture and Construction, Municipalities</p> |
| <p>16. Support for housing construction through payment of subsidies (1998)</p> | <p>Determination of rules for payment of subsidies for housing construction.</p> | <p>Ministry of Economics, Ministry of Finance together with the National Bank of Moldova, Ministry of Justice, Department of Architecture and Construction, Municipalities</p> |
| <p>17. Rents in the conditions of a market economy (1996)</p> | <p>Establishment of regulations for rent payment depending on the family income and provision of subsidies to residents with special needs.</p> | <p>Ministry of Community Services and Housing, Department of Energy and Fuel Resources, Ministry of Finance, Ministry of Economics, Department of Architecture and Construction, Municipalities</p> |
| <p>18. Regulation about public opinion polls concerning the formulation of urban planning documents (1996)</p> | <p>In the Law on territory planning and urbanism.</p> | <p>Department of Architecture and Constructions</p> |
| <p>19. Elaboration of legislation, regulations and mechanism of buying and selling land privatized or under privatization (1997-1998)</p> | <p>Regulations setting out corresponding procedures should be elaborated.</p> | <p>Ministry of Privatization and State Property Administration, Department of Architecture and Construction, Ministry of Economics, Ministry of Agriculture and Food Industry</p> |
| <p>20. Norms and regulations for housing maintenance (1997)</p> | <p>Elaboration of design and architectural-construction decisions reducing consumption and losses of heat in dwellings.</p> | <p>Ministry of Community Services and Housing, Department of Architecture and Constructions</p> |



2. TECHNICAL NORMS AND STANDARDS

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| 21. Construction norms and regulations "Dwellings. Design norms" (1997) | Implementation of new rules of housing infrastructure (autonomous central heating systems, two-funneled heat-supply plants, gages, etc.). Implementation of renewable energy resources for housing heat-supply. | Department of Architecture and Construction |
| 22. Urban planning standards and regulations "Planning and housing construction for towns and rural settlements" (1997) | Management of urban and rural settlements under conditions of a market economy. | Department of Architecture and Construction, Ministry of Economics, Municipalities |
| 23. Long-term housing standards (adjusted to European standards) (1999) | Creation of the architectural-construction system with a higher quality of dwellings satisfying the environmental and heat-supply demands and requirements. | Department of Architecture and Construction, Ministry of Economics, Municipalities |
| 24. Development of typology and architectural construction housing systems, including: <ul style="list-style-type: none">• dwellings for families consisting of 2-3 generations;• dwellings with built in premises for the social sector;• dwellings for aged and disabled persons;• dwellings for population with low incomes and families with special needs;• dwellings having an increased level of comfort. | New types of buildings taking in to account demographic, office requirements and types of activities as well as the financing possibilities for the builder. | Department of Architecture and Construction |

3. INSTITUTIONAL ACTIVITY

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| 25. Formation of the National Centre for Habitat (1996) | The duties of the Centre will be defined and conditions will be created for its activity. | Department of Architecture and Construction, Ministry of Finance |
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| 26. Foundation of the Association for Urban Development (1996) | Non-government organization which expresses the interests of investors, designers, builders, local associations and other participants to the urban process. | Department of Architecture and Construction, Local Government of the Municipality of Chisinau Union of Architects of Moldova |
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4. PROGRAMMES AND TECHNICAL DESIGNS

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| 27. Concept of settlements rehabilitation in the Republic of Moldova (1996) | The rules strategy and tasks for a steady rehabilitation of settlements in the specific conditions of the Republic of Moldova should be formulated in this document as well as the concrete actions. | Department of Architecture and Construction, Ministry of Economics, Department of Environmental Protection, Academy of Sciences |
| 28. National Territory planning (1995-1997) | The most important draft document concerning the main directions of settlements rehabilitation, as well as social and technical infrastructure improvement at a macro level. | Department of Architecture and Construction, Ministry of Economics, other related ministries and departments, scientific and design organizations |
| 29. Organization of a data base of Habitat indicators (1997) | It is necessary to create the system of collection and processing of the information concerning the situation of the settlements for its utilisation in the urban planning and management proces. | Department of Architecture and Construction, State Design Institute "URBANPROJECT" |
| 30. Programme of modernization and renewal of the older housing stock (1997-2000) | This document concerns the modernization and renewal of the older housing stock for the purpose of providing supplementary housing in existing developed areas. | Department of Architecture and Construction, Ministry of Economics, Ministry of Finance, Ministry of Justice, Ministry of Community Services and, Municipalitie |
| 31. State programme for settlements protection in case of geological processes and floods (1996-2010) | Determination of priority protection actions in case of earthquakes, landslides, floods, marshes, soil collapse, etc. Provision of coordinated actions of various ministries and governmental organizations, local governments, scientific and design organizations. | Department of Architecture and Construction |
| 32. Programme of modernization concerning the existing industry of construction materials (1996-2000) | Coordination of actions between state and private sector in the field of construction materials production with due regard to its efficiency and environment safety. | Department of Architecture and Construction, «INMACOM» Company, enterprises producing construction materials |



33. Land use and general development plan of the Municipality of Chisinau (1996-1997)
- This document defines the main targets for the development of the capital of the Republic of Moldova.
- Municipality of Chisinau, Department of Architecture and Construction, other related ministries and departments, government and non-government organization
34. Modernization of seismic plants in Chisinau, Cahul, Leova, Soroca, Jurjulesti and construction of new plants in Ungheni and Vadul-lui-Voda (1997)
- Academy of Sciences
35. Implementation of the heating supply system efficiency increase design in Chisinau (I Stage) and elaboration of the similar designs for other towns. This action will be implemented with the help of the European Bank for Reconstruction and Development (1997)
- Ministry of Communal Services and Housing Stock Maintenance, Municipalities of Chisinau and other towns
36. Renewal and modernization of production of the central heating supply plants in Chisinau and Balti (1997)
- Municipalities of Chisinau and Balti together with the Department of Energetics, Energy Resources and Fuel, «MOLDENERGO» State Company
37. Organization of production of the necessary equipment, inventory and control of industrial and domestic energy and water consumption (1997-2000)
- Department of Energy and Fuel Resources, Ministry of Community Services and Housing, Agency for Energy Conservation, Department of Architecture and Construction, Ministry of Economics, Ministry of Industry, other related ministries and departments, Municipalities
38. Elaboration and implementation of the state programme "Drinking water" (1996-2000)
- Ministry of Community Services and Housing, Department of Architecture and Construction, Ministry of Health, Department of Environmental Protection, Ministry of Agriculture and Food Industry



PART D. INTERNATIONAL COLLABORATION

The National Steering Committee of the Republic of Moldova for the preparation to HABITAT II Conference agrees unanimously that foreign assistance cannot by itself solve all the problems existing in this country, but fruitful international collaboration may accelerate the commencement of positive processes, the development of government and non-government potential, and the involvement of the population in the creation of better living conditions.

The problems, which the Republic of Moldova meets in this period of transition, are the result of a shortage of being well-informed and of practice in the field of planning and urban design, urban management and also a lack of efficient financial mechanisms. The strategy for overcoming these obstacles is based on new economic, social and urban planning development doctrines. Therefore, the former practice of government and non-government organizations, and various professionals can be only useful partially. In connection with the above, the detailed study and implementation of the existing international practices, the elaboration of new methodologies and the participation of the new intellectual and economic potential is of particular importance.

International cooperation can have positive influence in the following areas:

- exchange of information, technical cooperation, research, consultancy and training of national staff;
- collaboration and assistance in creating international mechanisms for the implementation of settlement and housing development policy and strategy;
- mutual elaboration and implementation of educational programmes and design;
- initial financial support to implement new technologies during the transition to mutual economic collaboration.

There can be a variety of forms of collaboration and partners they. At present such government

bodies as Ministries and Departments are prepared for international cooperation. In future more participants from local government and non-government organizations should be involved in international cooperation. It should be noted that the institution of non-government organizations in the field of urban development and housing construction will demand consultancy and support in the framework of the international collaboration. Concerning cooperation between Moldova and UN, the collaboration with the UN Centre on Human Settlements (HABITAT) is of great interest. The National Committee for report preparation for the UN Conference HABITAT II aims to further the establishment of the National Centre on HABITAT which could provide coordination between the national strategy and plan of actions, and the global strategy.

The participation of the Republic of Moldova together with the UN Centre on HABITAT, the World Bank and UNDP in the urban management programme.

Within this programme the technical collaboration should be organized on the following issues: the elaboration of the national territory design plan and general development plan of the country's capital, the town of Chisinau; and the creation of the national urban planning informational system. In the framework of the Urban Management Programme it is possible to organize training courses for the central and local government staff in the following matters: town administration and town finance, management of urban infrastructure, urban land use, and protection of urban environment.

The other two global programmes of the UN Centre on HABITAT also present interest: the Programme on Settlements Infrastructure and Environment, and the Sustainable Cities Programme. The National Committee for the report preparation considers that relevant ministries and departments should investigate the possible ways of collaboration within these programmes.



The realization of reforms in the area of housing policy, urban planning and the determination of the local government aims to increase its demand of information. Up-to-date exchange of information on the problems of the transition period at international meetings of professionals is very important, but very often our desire to participate in such conferences encounters difficulties related to lack of money. In connection with this, the assistance offered by the Special Purposes Fund to countries in transition would be timely and will support our participation in the meetings and workshops of the Economic Commission for Europe.

The necessity to create a scientific centre for regional, urban and housing planning in the Republic of Moldova is evident. There are practically no non-government organizations in this area. Neither are there funds or forms of extra-budget financing of research. In this context it is important to consider the following aspects: on the one hand, possible assistance of international organizations or countries-donors in the elaboration and modernization of urban and housing development programmes; on the other hand, their contribution to the creation of institutional mechanisms, and a scientific centre and non-government organizations in the Republic of Moldova. The prog-

ramme on urban research in the developing world (supported by the Ford Fund, the World Bank, UNDP and UNCHS (HABITAT) carried out by the Centre for urban and public investigations (University of Toronto) or any other programmes may be very interesting for Moldova. In the process of realization of the National Plan of Actions, including the national housing concept, the National Committee will collaborate with the French Programme of Solidarity with HABITAT; Finnish Agency for International Development (FINIDA); Danish Agency for International Development (DABIDA) and with other organizations able to support the formation of the national housing strategy.

Among the technical projects, the educational project on housing construction based on the privatization of multi-storey buildings takes a special place. But it requires international assistance to involve the population in the process of housing decision-making.

In the field of land use, urban infrastructure development, and environmental protection some projects are in the process of discussion or realization and the financial support of the World Bank or other international organizations will help solve these problems.



LIST OF THE KEY INDICATORS (BASED ON UNCHS INDICATORS)

I. BACKGROUND DATA

Module 0.

Tasks of policy	Key indicators	Indicator significance	Note
Provision of efficient land use	D1: Land-use	3385,100 ha, total area of Moldova 12,8 % residential use.	Department of Statistics and Ministry of Agriculture and Food Industry report data
Provision of steady growth of the population	D2: Population	4347,900 persons, total population as of 1 January, 1995 52 % women (2,273,200 persons), 48 % men (2,074,700 persons).	Statistics report data
	D3: Population growth rate	For the 25 year period from 1970 to 1995 the annual average growth was 0,82%, but from 1970 to 1990 the annual average growth was 1,04%, and from 1990 to 1995 was decrease 0,06% per year.	
Plan for household and family composition	D4: Female-headed households	9,2% households are mothers with children	Census data for 1989
	D5: Average household size	3,17 persons per household 2,89 - in urban areas 3,45 - in rural areas.	Selective data of household budget in 1994
	D6: Household formation rate	The average increase in household size 1970-1979 - 1,86 %per year 1980-1989 - 1,16% per year 1990-1994 - 1,07 %per year.	Statistics report data
Household demand policy and rate of income	D7: Income distribution	Income per family: up to US \$ 43 - 36% families US \$ 43-85 - 36,5% families US \$ 85-127 - 17,5% families US \$ 127-257 - 8% families more than US \$ 257 - 2% families	Estimated indicator without account of households' income in the non-formal sector of the economy, the share of which is considerable but not studied and appreciated
Increase of possibilities to choose dwellings	D9: Housing tenure type	Private housing, including individual dwellings and privatized flats: 84%. Public housing stock, including public, departmental and NGOs non-privatized dwellings: 16%.	Estimated indicator at the end of 1995 Privatization of flats is increasing



II. URBAN INDICATORS

Module 1. Socio-economic development

Tasks of policy	Key indicators	Indicator significance	Note
Decrease of urban poverty line	II.1: Households below poverty line	96 % of families spend more than 60% of average family income on expenditures for food	Estimated indicator calculated by using the distribution of incomes for 1994.
Increase of possibilities for jobs	II.2: Informal/undeclared employment	Not available being calculated at present	Informal employment in the country exists, but not studied and estimated by experts
Provision of health and education	II.3: Hospital beds	82 persons per 1 bed	Ministry of Health data
	II.4: Child mortality	Mortality rate of children under 1 year of age (per 1,000 born): in 1990 - 19,8 in 1995 - 22,5	Ministry of Health data
	II.5: School class rooms	427 pupils per school, 20 pupils on average per classroom	Ministry of Education data
Encouragement of social integration	II.6: Crime rates	Registered crimes per 1000 inhabitants: 1994 - 10,0.	Statistics report data

Module 2. Infrastructure

Tasks of policy	Key indicators	Indicator significance	Note
Increase in availability and affordability of services	II.7: Household provision communal services	Water supply - 74,9%, sewerage - 71,6%, energy supply - 100% - in towns and small towns. In rural areas: water supply - 17%, energy supply - 100%	Ministry of Community Services and Housing
Quality and steadiness of water supply assistance	II.8: Access to potable water	Urban population - 100%. Rural population: 17% - water supply, 83% - wells	«AQUA» Company data
	II.9: Consumption of water in litres	The average water consumption per day/person for all needs: 140 litres/person national average 280 litres/person in urban areas 34 litres/person in the rural areas	Statistics report data
	II.10: Water price median in dry seasons	0,04\$ for 100 litres - constant water prices independent of season	«AQUA» Company data



Module 3. Transport

Tasks of policy	Key indicators	Indicator significance	Note
Increase in functioning and steadiness for transport systems	II.11: Distribution of travel by means of transport	Private cars and taxis - 10%, trolleybus - 25%, buses - 23% walking - 42%.	Research data of Town of Chisinau in 1980, estimated indicator
	II.12: Travel time	Average travel to work - 24,6 min	Research data for 1980 in Chisinau, estimated indicator
Improvement of highways network and decrease of traffic-jams	II.13: Expenditures on road infrastructure	3,2\$ per capita in 1994	Ministry of Transport and Road Administration data
Stimulation of private transport use	II.14: Automobile ownership	Per 1,000 inhabitants private cars: 1994 - 48	Statistics data

Module 4. Environmental Protection

Tasks of policy	Key indicators	Indicator significance	Note
Improvement of water quality in towns	II.15: Percentage of wastewater treated	92%	Department of Environmental Protection data
Improvement of waste collection system on transportation of solid waste	II.16: Solid waste generated	Per person in 1994: 0,78 m3, 0,24 tons	Department of Environmental Protection data
	II.17: Disposal methods for solid waste	Designated waste disposal areas.	Department of Environmental Protection data
	II.18: Regular solid-waste collection	46% household supplied with waste collection services	Department of Environmental Protection data
Decrease of natural calamities consequences	II.19: Housing destroyed	0,0005 - relation between destroyed housing stock and the existing one	Estimated indicator



Module 5. Local Administration

Tasks of policy	Key indicators	Indicator significance	Note
Increase of finance vitality of local governments	II.20: Major sources of income(USD) \$	Taxes and Duty at local and central levels	Ministry of Finance data
	II.20.1. Local government per-capita income	1994 - US \$ 55,1	Ministry of Finance data
	II.20.2. Percentage of local government income by source	taxes, duty- 48% budget - 33% loans - 19%	Ministry of Finance data
	II.21: Per capita capital expenditure	1994 - US \$ 54,8	Ministry of Finance data
	II.22: Debt services charge ratio	Not available at present	
Increase of efficiency of public resources use	II.23: Local government employees (persons)	19118 persons	Ministry of Finance data
	II.24: Personnel expenditure ratio	1994 - 2.6% of all expenditures	Ministry of Finance data
	II.25: Contracted recurrent expenditure ratio	Private services - 0,07%	Estimated indicator
Development of intergovernment structures	II.26: Government level of services	Water supply, sewerage, disposal of waste, energy supply, telephone, public transport, emergency situation - 100% - local government; education, health, public housing construction, recreation and sports facilities are offered by local and central government	
Increase of local decision making	II.27: Control by higher level of government	Local governments has the right to set up some local taxes, consumers tariffs for services, to choose contractors under design. Central government have no right to dismiss local governments and to evict the representatives of local administration from offices	



LIST OF THE KEY INDICATORS FOR CHISINAU

I. BACKGROUND DATA

Module 0.

Tasks of policy	Key indicators	Indicator significance	Note
Provision of efficient land use	D1: Land-use	Municipalities - 337,4 km ² Town - 131,3 km ² , including: settled territories - 48%, business - 16,2%, transport - 14,5%, agriculture - 5,1%, other - 16,2%	Report statistical data. functional use - by the general plan for 1987
Provision of steady growth of the population	D2: Population	Municipalities - 740,600 persons; Town - 661,500 persons	Statistics report data
	D3: Population growth rate	Annual average for 1991 - 1995 Municipalities - increase (0,17%) Town - decrease (-0,45)	
Plan for household and family composition	D4: Female-headed households	25,300 households are mothers with children, 33,700 - are single women	Data of the 1989 census of population
	D5: Average household size	2,89 persons in town 3,17 - average number of persons in the country	Selective data of household budget in 1994
	D6: Household formation rate	The average increase household size: 1990-1994 - 1,05 % per year	Estimated indicator
Household demand policy and rate of income	D7: Income distribution	Average monthly income per one family up to US \$ 40 - 19% families, US \$ 40-78 - 40%, US \$ 78 - 155 - 24%, US \$ 115-234 - 13%, over US \$ 234 - 4% families	Estimated data without account of households income in the non-formal sector
Increase of urban productivity	D8: Urban production per person	US \$ 232,6*	Orientalive data
Increase of possibilities to choose dwellings.	D9: Housing tenure type	Private housing stock - 85%, Public housing stock - 15%	Estimated data at the end of 1995

* estimation was made by using the given formula, is based on the following premise: the relationship between GNP and household income is the same at national and urban levels



III. HOUSING INDICATORS

Module 6. Housing Acceptability and Adequacy

Tasks of policy	Key indicators	Indicator significance	Note
Availability of dwellings	II.H1: House price to income ratio	26 - to the price of the new construction 13 - to market price of average flat	Estimated indicator
	II.H2 House rent to income ratio	Annual average rent per public dwelling - 2% of annual average income of average family, in private one - 100-200%	Estimated indicator with account of the existing public and market prices
Relevant dwellings for all people	II.H3: Floor area per person	18,4 m ² - national average, including - 15,2 m ² - in urban areas, - 21,1 m ² - rural settlements	Statistics data for 1992
	II.H4: Permanent structures	100%	Total housing fund is built for 20 and more years
	II.H5: Relevant dwellings	99,8%	Estimated indicator

Module 7. Housing Provision

Tasks of policy	Key indicators	Indicator significance	Note
Securing of land quantity at available prices housing	II.H6: Land development multiplier	Not available at present because the law on land sale is absent	
	II.H7: Infrastructure expenditure	US \$ 20,7 per capita in 1994	Ministry of Community Services and Housing data
Possibilities to get finance for housing construction	II.H8: Mortgage credit portfolio	The legislation on mortgage crediting is currently being created	
Stimulation of efficient development of housing construction	II.H9: Housing production	In 1994 there were 2,1 flats per 1000 inhabitants	Statistics data
	II.H10: Housing investment	1991 - 27% of GNP, 1994 - 5,5% of GNP	Ministry of Economics data



III. HOUSING INDICATORS

Module 6. Housing Acceptability and Adequacy

Tasks of policy	Key indicators	Indicator significance	Note
Availability of dwellings	II.H1: House price to income ratio	26 - to the price of the new construction, 13 - average household income to market price of average flat	Estimated indicator without account of income in the non-formal sector
	II.H2: House rent to income ratio	Average rent per dwelling in public sector - 2% of average annual income of average family, in private sector - 100-200%	Estimated data regarding the existing public and market prices
Relevant dwellings for all people	II.H3: Floor area per person	15,4 m ² - for municipality, - 15,0m ² - for town	Data of the Municipality of Chisinau
	II.H4: Permanent structures	100%.	Data of the Municipality of Chisinau
	II.H5: Relevant dwellings	99,8%	Estimated indicator

Module 7. Housing Provision

Tasks of policy	Key indicators	Indicator significance	Note
Securing of land quantity for housing of available prices	II.H6: Land development multiplier	In connection with lack of free territories with technical equipment affordable for housing construction the indicator is not available	
	II.H7: Infrastructure expenditure	US \$ 23,6 per capita in 1994	Ministry of Community Services and Housing data
Possibilities to get finance for housing construction	II.H8: Mortgage credit portfolio	The legislation on mortgage crediting is currently being created	
Stimulation of efficient development of housing construction	II.H9: Housing production	In 1994 there were 1,9 flats per 1,000 inhabitants	Statistics data
	II.H10: Housing investment	1994 - 1,2 % of GNP	Estimated indicator according to the statistical data



Module 5. Local Administration

Tasks of policy	Key indicators	Indicator significance	Note
Increase of finance vitality of local governments	II.20: Major sources of income US \$	Taxes and Duty at local level, budget money	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.20.1. Local government per-capita income	1994 - US \$ 85,6	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.20.2. % of local government income by source	taxes, duty- 84% budget - 16%	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.21: Per capita capital expenditure	1994 - US \$ 85,25	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.22: Debt services charge ratio	In 1994 there were not promissory notes	
Increase of efficiency of public resources use	II.23: Local government employees (persons)	Total - 1644 persons including 2,22 persons, per 1,000 inhabitants	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.24: Personnel expenditure ratio	1% of all expenditures	Data of the finance board of the Municipality of Chisinau, budget report for 1994
	II.25: Contracted recurrent expenditure ratio	0%	Contract work was carried out with account of own saved money
Development of intergovernmental structures	II.26: Government level of services	Water supply, sewerage, disposal of waste, energy supply, telephone, public transport, emergency situation - 100% - local government; education, health, public housing construction, recreation and sports facilities are offered by local and central government	Data of the finance board of the Municipality of Chisinau, budget report for 1994
Tasks of policy	II.27: Control by higher level of government	Local governments has the right to set up some local taxes, consumers tariffs for services, to choose contractors under design. Central government have no right to dismiss local governments and to evict the representatives of local administration from offices. The centre board gives information about the volume of gratuitous subsidies before the local budget is worked of out	Data of the finance board of the Municipality of Chisinau, budget report for 1994