# STABLE DEVELOPMENT OF HUMAN SETTLEMENTS IN THE URBANAIZED WORLD

The National Report



Georgia

"HABITAT GEORGIA"

Tbilisi, January, 1996

CONTENTS	page
PART A	
	2
Preface 1. Process	
2. Participants	
PART B	
ESTIMATION AND PRIORITIES	5
1. Background	5
The Main Factors of the Development of Settlement System	5
The Man Lactors of the Beveropment of Sections of Special	
2. Contemporary conditions	7
2.1. Urbanization Process and Its Results	
Subsystem of City Settlement.      Current Condition of Dwelling	9 11
2.3. Current Condition of Dwoming	
3. Last 20 Years	16
3.1. Analysis of Experience in 1976-1995	16
3.2. Analysis of Natural Disasters and Prospective Schemes for	
Such Phenomenon	onflicts in Georgia
5.5. Aliarysis of Data of Wilgration Conditioned by William C	27
3.3.1. Introduction	27
3.3.2. Principal Problems of Geography of Internally Displa	aced Persons (IDP).27
3.3.3. Brief Data of Sociological Study of Refugees (IDI	? s)33
4. Agenda of 21 Century and Global Strategy in the Sphere of 1	Housing 34
4.1. The Factors Conditioning the Necessity of Reforming	of the State Housing
Policy	34
4.2. The Goals of the Housing Policy	
4.3. Routes for Realizing Housing Policy	35
5. Model Examples from Urban Planning Experience	36
6. Priority Problems	37
o, a month a month of the contract of the cont	

PART C NATIONAL OPERATION PLAN	39
1 Strategy and Politics	39
2. Problems	39
2.1. Priority Tasks	39
2.2. Housing Policy, Housing Reforms and Housing Construction	40
Development and Management of Housing Policy	41
2.4. Legal Base	
3. Measures	42
4. Monitoring.	43
5. Responsibilities	44
PART D INTERNATIONAL COOPERATION AND ASSISTANCE	46
1. Priorities	46
2. Improvement of Labour Efficiency	46

## **PREFACE**

This report is based on the analysis of the urbanization process and the housing sphere carried out with the stipulation of the guiding principles of "Habitat-II", the Conference of the United Nations Organization.

The national report has been worked out with the methodological assistance of UNCHS (Habitat), the Centre of the United Nations Organization and it includes the fundamentals of the strategy of urbanization, the stable development of inhabited areas and the housing policy in Georgia. The working out of corresponding program of the mentioned problems is being coordinated by "Habitat - Georgia", the state enterprise at the Ministry of Urbanization and Construction of the Republic of Georgia.

#### 1. PROCESS

The active involving of Georgia in the preliminary program of "Habitat-II" was carried out in 1994.

On June 27, 1994, the chiefs of National State Administration Bodies of Construction Field of the CIS adopted a joint statement on the Collaboration with other Countries and International Organizations in the process of the preparing of "Habitat-II".

Special Coordinating Council was, in accordance with the resolution #207 of 23 September, 1994, of the Head of State of the Republic of Georgia set up at the Head of State for the purpose to define of urbanization strategy, the effective carrying out of housing policy and the working and of the program of the UN Centre "Habitat"

A list of works to be done for the purpose of the working out of national plans in the fields of the urbanization, the stable development of inhabited areas and the housing policy in the Republic of Georgia was accepted by the Instruction #240 of 8 December, 1994. The same question was included in the resolution #219 of 25 April, 1995, of the Cabinet of Ministers of the Republic of Georgia.

In November 1994 the National Coordinating Service was set up at the Committee of Architecture and Construction of the Republic of Georgia, which in November, 1995, was transformed into the State Enterprise "Habitat-Georgia". The research sphere of this National Report includes the whole territory of the Republic of Georgia while the object of particular research is Tbilisi, the capital of the Republic.

- The research done contains three sets of issues:
- urban sphere;
- housing sphere;
- alleviating of the results of disasters and military conflicts.

# 2. PARTICIPANTS:

The following organizations have been involved in the joint process of the working out of national plan:

- the Committee of Architecture and Construction Issues of the Republic of Georgia (from December, 1995, the Ministry of Urbanzation and Construction);
- the Ministry of Finance of the Republic of Georgia;
- the Committee of Social and Economic Information of the Republic of Georgia,
- the Department of Geology of the Republic of Georgia;
- the Municipality of Tbilisi City;
- the Department of Prospective Development and Reconstruction of Tbilisi City;
- the Institute of Geography of the Academy of Science of the Republic of Georgia;
- the Tbilisi State University;
- the Stock Company "Sakckalakmshenproekti";
- the Institute of Investigation of Public Opinion of the Republic of Georgia";
- the Development and Integration Fund;
- the Creative Studio of Georgian Architecture Fund;
- "Tbilarchteoria", the Tbilisi Scientific Research Institute of Theory of Architecture and Urban Planning.

Carrying out of the works is being coordinated by "Habitat Georgia", the State Enterprise of the Ministry of Urbanization and Construction.

Part B 5

# ESTIMATION AND PRIORITIES

# 1. BACKGROUND

# The Main Factors of the Development of Settlement System

The contemporary system of settling of Georgia was set up as a result of a long process of development under the joint influence of natural and geographic, historical, social economic and political factors.

The most important natural and geographic factor having positive or restricting effect on the territorial organization and development of common settlement system of Georgia is the restricting role of relief conditions (the absolute attitude of cite, the degree of inclination and division of slopes).

The maximum altitude of mass settlement of population in Georgia is about 2,400 meters. It should be mentioned also, that the altitude of more than half of the territory of Georgia (54%) is higher than 1,000 meters, which considerably restricts the space resources fit for the settling as well as for the carrying out of economic activities. Thus, the aggregate area of inhabited territory (i. e. the territory where active and regular economic activities are carried out) makes no more than 36,1% of the aggregate area of Georgia. The density of population on the inhabited territory is 2,8 times more in comparison with the average density of population of Georgia (216,8 and 78,1 heads per sq. km. correspondingly). At the same time the average density of population is continually decreased because of the reduction of its amount. (in 1970-1974 from 97,3 heads to 31,5 heads per sq. km) while on the inhabited territory from 98,4 heads to 92,5 heads accordingly.

From the point of view of the settling and economic using of the territory (proceeding from the character of the whole natural complex) Georgia may be divided into three areas different from each other in the degrees of the whole natural complex, population settlement and the fitness for economic activities:

 the areas with the most favourable conditions for mass settlement, territories fit for mass settlement but needing certain engineering and ameliorating measures without the acclimatization and special means of adapting of the population;

- the areas with limited territorial resources fit for mass settlement of population because of the high degree of inclination and division of relief (with the abundance of isolated small settlement areas);
- areas unfit for the settlement of population.

The first type, containing about half of territory cultivated for population settlement and economic activities (45.3%) includes the Georgian Plain (Kolkhida lowland, Shida and Kvemo Kartli Plains, Alazani field) as well as the places of South Georgia, Akhalkalaki, Tsalka and Gomareti and the parts of Upper Imereti height, Akhaltsikhe Pit, etc.

The second category includes a considerable part of cultivated territory (31.1%): some regions of Zemo Imereti height, the less swampy part of Kolkhida lowland, the river ravines, etc.

The third category contains the isolated settlement areas of Georgian highland in Svaneti, Samachablo, Pshavi and Khevsureti, Mtiuleti, partly in Inner Achara, etc. The share of such isolated settlement areas makes 19.9% of the cultivated territory.

The small isolated settlement areas of the forth type are also represented in the mountain regions and are characterised by the heaviest natural conditions and corresponding possibilities for social and economic activities.

The establishment and territorial organization of settlement system, together with natural factors, has been greatly influenced by historical and political as well as social and economic factors. At the same time for many centuries the fitness of natural conditions was not the only factor that determined the arising and functioning of settlements. Greater importance was attached the population from foreign invaders. Thus in old times (almost up to the 19-th century the density of population in mountain regions and foothills was higher in comparison with woodless open plains and plateaus. As to live in the plain meant to be subject to constant danger (because of foreign invasions and feudal wars) the Kolkhida lowland as well as the open plains of Kvemo Kartli and Gare Kakheti were less densely populated up to the 19-th century compared with foothills and forest zones. After joining with Russia the danger of foreign invasions was annulled, while the development of capitalist relations promoted the construction of transport lines, the development of natural resources and other fields of industry and economy. These were the processes that greatly influenced upon the general aspect of settlement. The construction of backbone roads and railways caused the slipping down of the villages located in foothills and near the river ravines along the roads, the creating of non agricultural settlements and accordingly the increasing of

population density in lower zone. The development of transport improved the economic and geographic location of a number of settlements and promoted the emerging of new type of settlements with a non agricultural function most of which were subsequently transformed into towns (Samtredia, Khashuri, Senaki, Zestafoni, etc.).

The development of a number of settlements was influenced by their administrative functions which considerably improved the economic and geographic location and the development of the economic basis of capitals of provinces (Tbilisi, Kutaisi), "okrug" towns (Batumi, Sokhumi) and "uyezd" towns (Gori, Telavi, Ozurgeti, Akhaltsikhe, Zugdidi, etc.). During the years of Soviet Power similar role was played by functions of Autonomous areas and Regional centres.

The industrial development, the intensifying of agricultural production and role of health-resorts and other fields of social infrastructure were the most important factors that influenced the contemporary territorial and functional structure of Georgian settlement system.

## 2. CONTEMPORARY CONDITION

#### 2.1. Urbanization Process and Its Results

Contemporary Georgia belongs, in accordance with the indices of urbanization level, to comparatively urbanized countries. Georgia joined this group in the second half of the 80-th, when the urbanization level exceeded 50%, while the urbanization degree 35%. Prior to this period, until the end of the 30-th Georgia was a less urbanized, and during the next two decades an averagely urbanized state.

During 1959-1994 the index urbanization level of Georgia was increased from 42.4% to 57.1%, the urbanization level from 6% to 36.8% while the Arriaga urbanization level index from 132.8% to 334.1%. Urbanization may be divided into 5 stages according to the development of urbanization process and the role of qualitative changes:

- creating and developing of towns, when the absolute and relative increase of population is more than the one of city population;
- the rate of population increasing in the cities is higher as compared with the one in the countries;
- the commencement of the decreasing of country population;
- decreasing of the population of small towns;
- the levelling of city population density in the regions of the concentration of population (in agglomerations and urbanized areas).

Proceeding from the above at present Georgia is at the fourth stage of urbanization. The amount of country population has been decreasing since the second half of the 70-th, while the population of small towns has not been increasing.

The process of urbanization, notwithstanding the decreasing of its rate, is being developed in the director of quantitative changes characteristic to functional urbanization. At the same time the process of urbanization is characterized by considerable regional differentiating. Only in 4 regions of Georgia (Tbilisi region, Kvemo Imereti, West Abkhazia, Kvemo Imereti, West Abkhazia, Kvemo Adjara) the urbanization level exceeds the average Republican index, while in 8 regions such level is twice as lower. At the same time the degree of regional differentiation is increasing.

The space results of urbanization process can clearly be observed in the changes of territorial distribution of density of population. Urbanization results in the deformation of territorial distribution of population, i. e. its concentration in cities and economically developed regions on one side and the depopulation of weakly developed mountain region on the other side. During 1939-1989 the population amount in upper vertical zones (up that 1.500 meters) was decreased by 54.5%. Similarly was decreased the specific share of population of all altitude zones (from 43.2% to 33.2% excluding the lower (up to 500 meters) zone.

The further concentration of population in city agglomerations and urbanized areas proves that in the case of maintaining of current tendencies more than 90% of the population of Georgia will be concentrated at the altitude up to 1 000 meters, and no more than 3% will remain at the altitude exceeding 1 500 meters.

The urbanization influence on demographic processes has especially been intensified since the 60-th, which is reflected in rapid decreasing of birth rate and the accelerating of the process of demographic ageing of population as well as in the increasing of migrate mobility of population.

The urbanization process was greatly influenced by the rates of economic development of Georgia. During 1950-1990 the correlation between the city origination and industrial development (putting into operation of important industrial objects) was high (0.930) as well as between the changes of urbanization level and the rates of industrial development (0.854) especially with respect of increasing of the share of population engaged in non agricultural fields (0.998).

The social results of urbanization process have been reflected in the spreading of city life order in the countries, which is particularly perceptible in city agglomerations and the Black Sea shore line. The urbanization influence changes the size and function of family. The share of so called "biological families" (parents and children) is being increased, while the share of families consisted of 3 generations is being decreased. The average size

of family is similarly being decreased. In particular, during 1959-1989 the specific share of big families (consisted of 7 persons and more) in the countries was decreased from 11.1% to 8.9%. At the same time the share of families consisted of four persons was increased in the cities (from 23.3% to 28.0%).

The function of family is undergoing serious changes in the process of urbanization; families cease to be productive units characteristic for the countries and become educative and attending cells.

# 2.2. Subsystem of City Settlement

The subsystem of city settlement of Georgia consists of 114 city settlements of various size and function. The most numerous of them with respect to their number are small city settlements (up to 10 000 population), which makes 66.6% of city settlements and 9.6% of population, while the most numerous, with respect to population amount are big cities (with population exceeding 100 000), which makes 66.0% of city population (including Tbilisi with 41.5%) and 4.4% of the amount. The share of cities with population from 10 000 to 50 000 is also considerable and makes 26.0%

As for structural changes of classes of city population, they are integrally described by the Gini Concentration Index, which makes possible the complex reflection of quantitative and qualitative changes. The changes of the Gini Concentration Index in 1939-1989 show different tendencies: the increasing until 1979 (from 0.737 to 0.779) and decreasing since the mentioned year (to 0.764 in 1989), which was mainly caused by the change of specific share of the Capital population, which was decreasing until 1979 and increasing afterwards.

The rate of increasing of city population has been redacting for the last 3 decades from 2.47% (1959-1970) to 1.55% (1979-1989), which was related to demographic processes (the passing into the phase following the demographic transition) as well as to the slowing down of city originating and the decreasing of the intensity of the "country-city" type of migration. During the period of resent censuses the population decreasing was observed in 17 city settlements, while in 30 settlements an insignificant increasing. The population of 30 cities (cost of them being big and average size cities) has been increasing at considerably higher rate (more than 2% annually).

The Georgian city settlements are divided into the following types according to role of natural migration components of the increasing of city population amount:

- the natural increase exceeds the migration positive saldo (+NI>+MS) 17 towns and 4 settlements;
- the migration positive saldo exceeds the natural increase (+MS>+NI) 4 towns and 4 settlements;

- the natural increase exceeds the migration negative saldo (+NI>-MS) 18 towns and settlements;
- the migration negative saldo exceeds the natural increase (-MS>+NI) 24 towns and 31 settlements.

In the early 90-th the share of the first and second types made 26.1% of city settlement. These cities are the main economic centres of Georgia, and most of them are the parts of city agglomerations of Tbilisi (Rustavi, Gori, Kaspi, Bolnisi, Sagarejo), Kutaisi (Samtredia, Tskaltubo), Batumi (Kobuleti) and Sokhumi (Gagra, Ochmchirae, Gudauta, Bichvinta, Gulripshi), while some of them fulfil the functions of regional (Telavi) and district (Borjomi, Kvareli, Kareli, Terjola) centres.

The role of the towns of the third type (being grown exclusively at the expense of natural increase) is quite important. Here must be mentioned district centres (Sugdidi, Ozurgeti, Akhaltsikhae, Akhalkalaki, Gurjaani) and economic centres (Poti, Samtredia, Khashuri, Chiatura, Zestafoni, Marneuli, Tkibuli, Gardabani, Mtskheta, Kazreti, etc.).

The most numerous is the group of towns of the fourth type, which makes nearly half of the city settlements (49,6%). The population amount of these town does not grow actually and in most of these town does not grow actually, and in most cases it is being reduced, such towns include the centres of 35 administrative centres and two industrial towns (Tkvarcheli and Valae).

The population amount of some of the cities (Tbilisi, Kutaisi, Zestaponi, Lanchkhuti, Vani, Dmanisi, Tsalenjikha, etc.) mainly increased due to the alterations of administrative borders (the joining of adjacent villages to the cities.).

The following structural and functional types were observed with respect to the economic functions of cities and their role in territorial distribution of labour:

- polyfunctional cities (4 cities);
- industrial centres (11 cities and 5 settlements);
- transport centres (3 cities);
- cities with mixed functions (13 cities);
- administrative attending cities (23 cities and 17 settlements);
- health resort and recreation centres (7 cities and 14 settlements);
- other cities without distinct functions (2 cities and 15 settlements).

The role of polyfunctional cities is most important, among which Batumi and Sokhumi have, like Tbilisi, functions of "Capital" together with economic functions. In Tbilisi

10.4% of population was involved in the sphere of administrative governing, while in Sokhumi and Batumi - 5.1% and 4.9% accordingly. During the resent years on account of government decentralization, the role of regional centres of various ranks being increased which will make certain alterations to the above topology.

At present the railway, air, sea, road and pipe-line transport function in the Republic. In some cities the rope-ways and cable railways operate together with traditional busses, trams, trolley busses and subways. The Republic also has certain experience in the operating of pneumatic transport and moving side-walk.

According the resolution of the president of the Republic of Georgia the departments of all the types of transport operation.

According to the order of the Ministry of Urbanization and Construction the state enterprise "Sakkalakmshenproekti" is working on the development of transport infrastructure of the Republic of Georgia.

# 2.3. Current Condition of Dwelling

The average annual volume of new house-building is no less than 1 mln. sq. meters. The basic statistic data include the period between 1976 and 1989 as at that time the house-building structure (with official statistics attached) was being planned and corrected on a regular basis in the Republic in accordance with the centralized planning principle characteristic of Soviet System

No less important issue is the providing of traffic safety.

The informational communication links have been damaged nearly in every Ministry and Department, which resulted in the decomposition of informational basis.

The current deep economic crisis of the country has negative influence on the operation of nearly all the types of transport, which is reflected in the deterioration of technical condition of transport fleets (in the impossibility of proper technical maintenance and repairing). The temporal and spatial changes of cargo and passenger traffics have brought up the question of the improvement of fleet structure.

The favourable geopolitical location of Georgia conditions its prospective as of transit country between the continents of Europe and Asia. The decision of International Oil Consortium on the passing of Azerbaijan initial oil through the territory of Georgia was mainly conditioned by current political stabilization and the commencement of economic

reforms of the country. All the above are hopeful preconditions for the restoring and developing of the Europe, Caucasus and Asia transport corridor.

The practice of the building of mass dwelling-houses was mainly based on so called "centrifugal tendencies", i. e. on industrial (mainly large panel) house-building which usually was carried out on free territories (extensive development). The monotony of building achieved as a result of such strategy was justly criticized. The restricted range of houses with respect to the number of storeys and types (1,2 and 3 room apartments) resulted in their unjustified circulating. Such houses were unfit to be built in the centres of the cities. The small metric area apartments with common lavatories cum bathrooms, small kitchens, non isolated rooms and the planning unfit for climatic conditions were the result of type-design practice which was started in 1958 and which since the 70-th was reflected in the new sphere of more or less improved typical houses.

During 1971 and 1985 the dwelling with total area of 25.8 million sq. metres was built in the Soviet Socialist Republic of Georgia at the expense of all types of financing. It was 28.4% of total housing fund of Georgia. During 1981 and 1985 the state and cooperative institution and organizations put into operation 6.3 million sq. metres, the workers and civil servants built 1 537 000 sq. metres at their expense and by means of state credits, while the "kohkhozs", "kolkhozniks" and country intelligentsia 876 000 sq. metres. In the territorial context these volumes were distributed in the following way: the Autonomous Soviet Socialist Republic of Abkhazia - 7.4% of total volume, the Autonomous Soviet Socialist Republic of Achara - 5.3% of total volume, the Autonomous Area of Ossetia - 1.7%, and Tbilisi - 30 4%. The corresponding investments in house-building (1971-1985) made 3894 million rubles (according to prices in effect in 1984). The similar index of 1981-1985 made 679.1 in Tbilisi, 80.6 in Kutaisi, 57.4 in Sokhumi, 51.1 in Batumi, 21 in Tskhinvali and 17.5 in Poti.

In accordance with the data of Central Statistical Department of Georgia, the housing fund of the Republic reached 90.8 million sq. metres total (useful) area by the end of 1985. (In accordance with the data of 1986 of Program "Gruzia 2000 - Region" this index is much higher and makes 9 734 000 sq. metres) Out of total volume 30.6% was the share of public sector, and 69.4% of the individual one. It meant 17.4 sq. metres per head. The share of cities in the housing fund was 48.5%, while the share of countries 51.5%.

The share of the area of individual (private) houses was 40.8% in the cities and 96.6% in the countries. The indices of improvement of public housing fund of the cities were as follows: water supply - 96.2%, disposal system - 94.1%, central heating - 90.1%, gas - 89.1%, hot water - 54%, baths - 87.2% (the corresponding data of 1970: 78.9%, 76.8%, 60.8%,61.9%, 7%, 28.6%). It must be mentioned that the indices were raised in quantity as well as in quality, but must by all means underlined, that the "Soviet standard" fell considerably behind the level of developed countries with respect to the quality as well as the index of house-providing. It is also noteworthy that with respect to the area per head

the Baltic Republics were the only ones among the Soviet Republic which passed ahead Georgia.

The income per person was 2 295 USD, while the cost of 1 sq. metres of total area in mass dwelling houses was about 190.5 USD, however these indices may not be considered to be a real reflection of the correlation between the cost of dwelling and income as the dwellings, with respect to the main aspects of dwelling problems ("quantitative", "qualitative," "distirbutional") were not goods from the point of view of free market

relations. It must be noted, that the families having no dwelling or the dwellings not corresponding to the established norms and registered in common lists for the improvement of dwelling conditions made 53%, the so called preferential lists made 32% and those who wished to join the housing cooperatives - 15%.

The forced stage of the solving of housing problem, which began in 1986, coincided with the commencing of the reorganization of economic reorganization. It must be mentioned that the said problem was approached on the basis of the tendencies which give it the character of one more large scale "campaign" like the agricultural product's problem or the school reform.

The so called program "Dwelling-2000" was worked out on the basis of traditional procedure in the centre as well as on cites ("total volume" from "the achieved"). Almost at the same time shy voices could be heard saying that it would be unreal to provide every family with an apartment or a house by 2000, however officially the failure to fulfil the program was inadmissible.

In 1986 1130.7 thousand sq. meters of total area of dwelling were put into operation, which is by 6.7% less than the dwelling built in 1985 (1212.3 thousand sq. metres). In 1987 1255 thousand sq. metres were built. These rates were not sufficient and did not meet the requirements of social program by 1 January, 1988, the housing fund of the Republic made 90.8 million sq. metres of total area, 4484.5 thousand sq. metres of which was in the cities, particularly:

- 16820.5 thousand sq. metres in the ownership of executive committees of local councils (37.5%);
- 5650.1 thousand sq. metres in the ownership of departments (12.6%);
- 769,5 thousand sq. metres in the ownership of housing cooperatives (8.4%);
- 18608,4 thousand sq. metres in the ownership of individual housing fund (41.5%).

The technical condition of the housing fund by that time was as follows:

- 26% in proper condition (depreciation up to 20%)
- 36% in proper condition (depreciation up to 41 60%)
- 2 4% in ramshackle and breakdown condition (60% and more of depreciation).

By January 1, 1989, the number of families registered for the purpose of the improvement of dwelling conditions made 152033. The families having no apartments or living under the conditions not corresponding to the sanitary norms made 81058 or 53.3% while the families living in ramshackle and breakdown houses 324422 or 21.3%.

By that time the specific share of families provided with apartments made 0.95 0.9 in the cities and 1.0 in the countries. The total area of 17.4 of metres was allocated per person: 17.5 sq. metres in the cities, 19.8 sq. metres in the countries, 14.9 sq. metres in public housing fund and 18.7 sq. metres in individual fund. It is noteworthy that the Baltic Republics were the only ones among the Soviet Republics which passed ahead Georgia with respect to these indices. The gradual improvement of apartment quality was partially connected with the new wordings of normative basis particularly the norms and procedures of construction, (constructing norms and rules 2 08 01 - 85 constructing norms and rules 2 08 01 - 89) which notwithstanding the increasing of the upper limit of apartment area considerably lack behind the level established in developed countries. The point of view of the necessity of the working out of Georgian norms and procedures of construction is based on the specificity of natural and climatic as well as national and cultural traditions of the country. The circumstance that the amplified seismic stability norm (8 beaufort number) is accepted on the territory of Georgia will have important planning, technical and economic results.

By January 1990, the housing fund in the Republic of Georgia made 102 million sq. metres of total area (530,000 houses), 50 million sq. metres of total area (dwelling - 33,5 million sq. metres) was in the cities, particularly:

- 18 million sq. metres in the ownership of local government bodies;
- 6 million sq. metres in the ownership of departments;
- 4 million sq. metres in the ownership of housing cooperatives;
- 22 million sq. metres in the individual (private) ownership.

The housing fund in the countries made 52 million sq. metres of total area, mainly in private ownership of the citizens.

Total area per head made 21.2 million sq. metres in the countries and 16.2 million sq. metres in the cities.

By that time the state housing fund was in unsatisfactory condition. The failure to carry out the repairs (according to the prices effective in 1984) made 210 million USD. 1.5 million sq. metres of dwelling was in breakdown condition. Annually about 47.6 million USD were spent on capital repairs (financing from the state budget), 28.6 million USD were spent on technical maintenance (including routine repairs mainly at the expense of housing organizations. Annually about 3.5 USD were spent on 1 sq. metre of total area. Repairs done to 500 000 sq. metres.

As a result of the earthquake of 1990 1.5 million sq. metres of total area was destroyed in West Georgia, 350 000 sq. metres of which belonged to state sector. At present only 35% of it is restored. Natural disasters (earthquake, landslide) in 1991

resulted in the various types of damages of 46,000 houses, while 800 housed were landslide.

As a result of military actions, in accordance with initial data, a considerable part of dwelling area is destroyed in Shida Kartli (South Ossetia) and Abkhazia, particularly:

- in Inner Kartli 950 houses with total area of 8000 sq. metres, 55000 sq. metres of which belong to state sector.
- in Abkhazia 40 000 houses with total area of 200 000 sq. metres, 550 000 sq. metres of which belong to state sector.

During the last 3 or 4 years no capital repairs or technical maintenance of state sector dwelling have been carried out in the Republic which resulted in the advance depreciation of the fund.

The housing organizations are carrying out the reconditioning in order to eliminate the dangerous situations of inner engineering communications. The cost of these works does not exceed 85.7 or 107.1 thousand USD (at the prices effective in 1984) instead of the planned 100 million rubles, which was used for the maintaining and keeping of this fund. On August 11, 1994 Government of the Republic adopted the resolution (Ne825) and Temporary Provision on the privatization of state and public housing fund (i. e. the free of charge transfer of the apartments to the population). By 1 June, 1994 53% of the housing fund was privatized.

The restrictions on the exchanging and selling of apartments were annulled, and the dwelling became the object of market relations.

#### Summary:

The Soviet period Basic damages of dwelling policy:

- the inefficiency of investments;
- the lack of quality at each stage;
- the inefficient using of the housing fund.

## 3. LAST 20 YEARS

# 3.1. Analysis of Experience in 1976-1995

The informational vacuum of the Republic was absolutely impossible to fill by means of measures allowed from the "centre" and reflecting the general course: the taking of political, economic, social and cultural decisions in the "centre" and their compulsory fulfilling in the peripheries. Due to such a "centrifugal" policy, which assigns to functions of a humble satellite to the republics. straggled away Georgia for an extended period from economic and cultural processes going on in the world. Role of a potential co-operator of Georgia in global processes was ignored which resulted in a low level of political culture, which was vividly expressed in the first period of search for independence and state constructing.

Again due to such a policy national scientific-technical and cultural-intellectual potential was disregarded with forced "leakage" of this potential into foreign countries. The process, at a lesser rate is still in progress by inertia.

The current processed did not avoid such a significant sphere of peoples (national)economy as building which mirrored general all -union building policy reigning at that time which included consolidated, that is atrophied building monsters - housing building combined (group of enterprises) with crude technological lines which filled vacant spaces by typical, similar buildings with arge-pannel, block and partially frame elements, the so called "standard" projects involving as well as the realization of all-union program "Housing-2000" and its regional sub-program "Housing-2000"

Among the heavy consequences of the inheritage of the Republic remaining as a result of building policy of the "Soviet Period" the building conbietes equipped with non-flexible Technological lines with limited nomenclature of building elements and constructions are to be mentioned with large black buildings with non-justified minimization of living space.

With the respect to urban planning this period is characterized by stamped settlements, residential micro-regions and similar service amenities which completely excluded condition for developing of traditional national building culture as well as having conditions adequate to modern made of life.

Building policy of 1970-1980 years represents only a cosmetic version of the period preceding it - Visionary-illusive of an Architectural - construction - Technological system of designing and the so called "Open Systems" existing in building sphere, could not favour to the formation of weather, and could not make principal transformations in the building complex.

The residential settlements and living points of this period are created on the background of a somewhat "mildening" of planned normatives of physical parameters and the relation to the environment, but general strategy and tactics remain the same and a motto "a flat or a house to every family" was realized by great difficulty: municipal housing fund (communal fund) was introduced into exploitation unfinished, non-equipped and with great delay. Individual house building was carried out by slight corrections of federal state normatives (+10-15% of the space).

prohibitions and limitations induced searches of round about ways in designing and engineering, which often has a criminal hue. Irreality of accomplishing of realization of state programs generally by the beginning of 80 and first of all their absurdity made the key authorities to make complete decisions at forcified rates in order to "humanize" the strict housing and building programs. Such measures involved: permissions of individual house building by means of temporary Republican norms, granting permissions to of making changes and building extra premises to the existing housing fund of the cities on the basis of so called "standard" projects at the expense of the builders (owners) of the buildings etc.

These decisions and decrease Adventurous (shady) by their approach and non-refined by the mechanizm of execution attempted the population of leasers in many cases to conduct engineering by violation of morms, living environment was deformed and dangerous conditions were created due to norms justified, hasty decisions, for life Economical crisis of 80-ies created in the Republic was a culmination of the end of such processes, as a result of which many started building complexes were not accomplished and were abandoned.

In the recent 20 year cycle the so called "Post Soviet" period, 1989-1995 should be signed out. It was a period of great metamorphoses, expressed in drastic changes on the background of general stability of preceding years; in the sphere of ideology - in leaving the integrated structure; in the material-technical sphere - by vividly expressed fast and irrevocable regression which was preceded by: large natural disasters of 1987-89 resulting in impressive damage made to the economy of the country; civil war; activation of ethnic conflicts in separate regions with subsequent disastrous effects; in the material sphere - physical ruin destruction of landscape views and the whole eco-system; In a social sphere - forced migration of the population, destruction of the house economics creation of large groups of homeless and unemployed, deterioration of criminogenous situation decrease of birth-rate and increase of mortality impairment of social-psychological climate

# 3.2. Analysis of Natural Disasters and Prospective Schemes for Protection from Such Phenomenon

By its favourable geographical location and diverse natural conditions Georgia occupies special place in the whole Caucasus. As it is known, more then 70% of the territory of our Republic is mountainous. Strong vertical and horizontal distribution of the relief and activation of seismic phenomenon, alongside with abundant atmospheric precipitation and other favourable factors form model conditions for the development of exlodynamic processes, and often becomes a source of natural disasters.

Today natural disasters induced by natural phenomenon such as earthquakes, snow and rock-slides, floods, earthflows, erosive and abrasive processes and other dangerous ones obtained chronical nature. Their special activation is connected with vienlivening of geodynamic processes on the earth. For example, at the current stage, Georgia alongside with other regions of the Caucasus entered the phase of large seismoactivity, which is expressed in intensification of ruinous earthquakes; all the above-mentioned is intensified by limitless anthropogeneous effect on the environment followed not only by colossal material loss, which even in non-extremal conditions, annually reaches to hundreds of millions USD, but which resulted in having human victims too.

Territory of Georgia spreads up to 5000 m from the sea level (see Table 1). The majority of population (more than 90%) is distributed and 1000 m form the sea level and namely this part of territory represents an area of scaly natural disasters. Evolution of natural disasters in Georgia is subject to vertical zoning. Thus for example, area of a plane and a part of territory of mountain and hills are subject to natural disasters, conditioned mainly by floods, coud-bursts, hails, droughts, frosts. Mountainous and alpine areas are known for the natural disasters induced by earth-slides, rock and snow-slides. As to the earthquakes and erosive processes, they are similarly dangerous for plane, mountainous and alpine zones. According to the ruinous force and concomitant material damage, principal plane among other natural calamities in Georgia earthquakes, which is verified by the Table 2 is occupied by expressing natural disasters having occurred during recent decade.

Table 1.

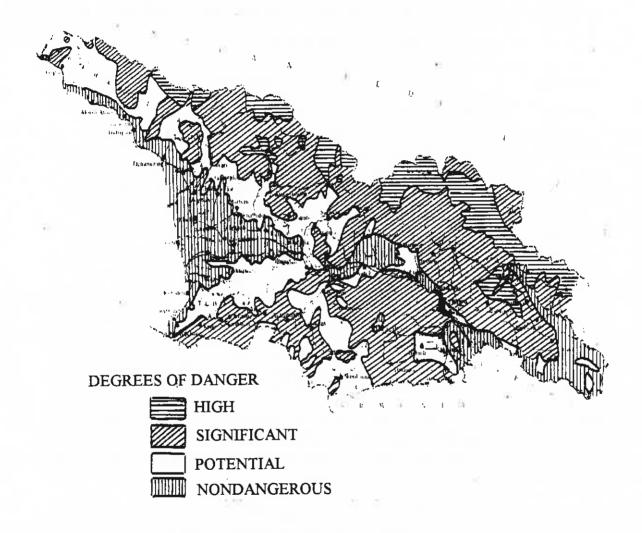
# DISTRIBUTION OF RESIDENTIAL (SETTLEMENTS AND THE POPULATION) IN GEORGIA ACCORDING TO THE HYPSOMETRIC STAGES

#### IN CONFORMITY WITH CENSUS 1989)

hypsometric	hypsome	etric areas	populated	population		
stage (m)	sq.km	%	absolute	%	thousand population	%
ī						
0 - 500	18174	26.1	1746	39.4	3838.0	71.1
500 - 1000	13881	19.9	1293	29.2	1104.8	20.4
1000 - 1500	12875	18.5	837	18.9	249.9	4.6
1500 - 2000	11283	16.2	495	11.2	195.0	3.6
2000 - 2500	9261	13.3	57	1.3	13.1	0.3
2500 - 5000	4226	6.0		. 2	-	
total	69700	100.0	4428	100.0	5400.8	100.0

In the historical past (since 11 century) and in our century 16 earthquakes have been registered in Georgia with force 8 and 9. High seismo-activity of our territory is verified also by the fact, that here the number of earthquakes which may estimate seismic parameters of approximately equal to 1000 per year.

The earthquake of April 29, 1991 of Racha-Imereti and Shida Kartly, with its magnitude 7.1 by its inner-city, distribution area and scales of damage is the largest in Georgia among those earthquakes registered till today. In encompassed 7800 square meter of territory (fig. 1.) more then 700 villages and town type settlements; a number of people died and hundreds of them were injured. Elemental force distracted and markedly damaged motor-road 1 200 km length, monuments of history and culture engineering constructions and communications. 10 000 citizens of Georgia were left without shelter. According to the data of the Department of Geology the damage conditioned by this earthquake amounted to approximately 10 billion USD.



 $\underline{\textbf{Fig.1.}}$  The map of earthflows danger..

Among the regions of Georgia Javakheti upland and axial section of Caucasus Ridge are characterized by most high seismic activity. Between these two seismo-active zones there lies one of the stable structure of the Caucasus, so called Georgian Block.

According to the forecast of seismic danger which is calculated for mean ten year period reparability, seismic potential of active structures of the Caucasus Ridge and Javakheti equal possible earthquake of m=7 which in case of small depth of earthquake center will result in M-g vibration, and for Georgian Block These values will amount to m=6 and m=8.

SIGNIFICANT NATURAL DISASTERS IN GEORGIA DURING LAST

TEN YEARS (1985-1995) kind of natural disaster region year damage in **US** dollars 2 3 earthquakes Racha Imereti and Shida Kartli 1991 10 mln. floods Western Georgia lowland and 1987 380 mln. Abkhazia 1995 60 mln. rock falls and mountain regions of 1987 Х land-slides Georgia 1989 1991 X 1992 X earthflows Adjara 1991 150 mln. snow slip mountain regions 1987 300 mln. hail Kakheti 1987 16 min Drought Eastern Georgia 1989 Χ lowland Frosts Western Georgia 1994 Х lowland

x- damage is to be determined.

Table 2.

In order to alleviate further misfortunes provoked by earthquakes we consider it necessary to accomplish the below present programs:

• on the basis of a new map of seismic regaining of the territory of the Republic which will replace temporary amended map of 1991 new micro-seismic regioning of the territory of the Republic should be conducted;

it is necessary to evaluate seismic stability of the existing constructions by taking into account new reties, as well as passportization of buildings and heightening of their

stability by means of respective measures;

• provision of seismo-stability of engineering of new residential massifs, by the aid of specialists of advanced countries and drawing-out and processing of norm-document;

training of specialists and education of the population;

creation of legal and economic basis for engineering (construction);

• participation of international oganizations in the preparation of the stated programs and in their execution.

Unfortunately we may state decisively that today Georgia is absolutely unprepared for a disastrous earthquake and its result in the areas of big cities weight be extremely lamentable.

All types of slides on the territory of Georgia known in special respective literature are developed landslides registered in the republic in the area of 50.000 at about 2000 residential points with more than 200.000 inhabitants are involved. Total area of the earth damaged by land-slips exceed 1,5 mln. ha. Annual damage suffered only by the agriculture amounts to USD 45 mln. Net length of the damaged motor-roads amounts of 300 km. that is 25% of the whole.

Taking into account the conditions of formation of land-slips and rock-slides and their distribution as well as their possible activation and an index of damage of territory reduced by such processes, Georgia has been divided into 7 regions. Land-slips are not anticipated in Kolkhida lowland, Shida Kartli and Gardabani plains. The areas damaged by slide phenomenon are increased annually and present-day rates of their revival makes impossible to compensate even partially the damage conditional by this natural calamity and in accordance with the general scheme measures of anti-slide throughout Republic for the period up to 2000 USD 422 men will be needed for carrying out anti-slide jobs.

Areas and centers of basing of heavy earthflows increase annually at present at about 2500 earthflows areas of river basing are registered on territory of about 2 mln. ha. is under the danger of their influence alongside with hundreds of settlements different designation communications buildings constructions and even large cities such as Tbilisi, Telavi, Kvareli etc. are among them. Damage conditioned by them equals to USD 15 mln. annually and in extreme years - it reached the hundreds of million USD.

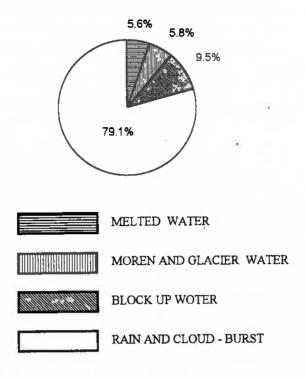
According to threats of earthflows territory of Georgia is divided into regions (fig.2, 3). The unti-earthflow measures conducted for the present time in the Republic are insignificant and they can not provide for reliable protection of the population from the onslaught of natural disaster.

# EARTHFLOW DISTRIBUTION (% FROM WHOLE )

AREA (SQ.KM)	QUANTITY (%)	LENGTH (km)	QUANTITY	INCLINATION	QUANTITY
<5	39	<5	49.5	>0.5	4.3
5-10	17.4	5-10	28.4	0.5-0.3	4.3
10-25	21.9	10-20	14.8	0.3-0.1	54.4
25-50	9.6	20-30	4.7	0.1-0.05	15.6
50-100	7.6	30-50	2	<0.05	8.5
>100	4.5	>50	0.3		*

## DEGREE OF EARTHFLOW DANGER AND MAIN CHRACTERISTICS

DEGRE	E OF DANGER	MAIN CHARACTERISTICS					
			AREA	SOURSE		EATHFLOW	
CATEGORY	ESTIMATION	SIGN		LENGTH	AREA	EXPENDIT URE	FLOW
			(SQ. KM)	(KM)	SQ.KM	M <sup>3s</sup> /s	MLN M <sup>2</sup>
1.	STRONG		>10	>3	>5	>1000	>1.0
2-3	SIGNIFICANT		≤10	≤3	≤5	≤1000	≤ 1.0
_	POTENTIAL			-	-	-	-
	NONDENGEROUS		-	<u> </u>	•	-	-



REPUBLIC TERRITORY DIVISION BY THE EARTHFLOW DANGER CATEGORIES (%)

12	11	32	27	18	GEORGIA
10	12	19	38	21	WEST GEORGIA
15	9	45	16	15	EAST GEORGIA

Fig.3.

Floats, together with earthquakes ere the source for natural calamities and they are followed by human loss destruction and gross material damage. Fight against floods similar to struggle against other natural disastrous phenomenon is connected first of all with the ordering of the environment - with elaboration of complex measures of protection of nature. In the strategic plans of such a struggle construction of water reservoirs must take control place which will enable to us to regulate water expenditures artificially and will efficiently protect settlements from the onslaught of natural calamities.

Snow-slips in the Republic significantly complicate normal functioning of industrial and other forms of objects, including mass mains and power-conduit lines. They brig great misfortune to population; more than 220 economic objects and 4 settlements with more than 40 thousand inhabitant appeared in the snow-slip dangerous zone. Svaneti among them, where during snow-abundant winter of 1987 within January 9 = January 31, cases of 330 snow-slips were recorded. Only in Mestia region 210 houses were completely ruined and 850 just partially. Total damage amounted to USD 300 mln, due to erosive processes thousand ha earth territory is ruined annually in Georgia area of soil damaged by wind and water erosions amount at 50% of the total fertile soil.

In order to stop erosive processes and for revival of damaged soils over-all plan was elaborated in 1980-ies for the struggle against erosion which provides for natural as well as artificial measures of a struggle.

Annual damage conditioned by abrasion in the Black Sea coast region of Georgia amounts to USD 6 mln. In 1961-71 on the coast strengthening jobs more than USD 50 mln. were spent and the length of degraded coasts increased from 155 km to 183 km. In 1972-1982 USD 90 mln was spent for the afre-stated jobs. Net length of damages shores reached to 222 km. Within the same period the area of territory washed out by abrasion exceeded 1400 ha. It was due to the strategy of sea shore-enforcement active up to 1982, which planned optimization of hydrotechnical constructions of their intense building along the coastal objects. since 1982 conception of reconstruction of morpho-dynamic equilibrium of marine-coastal landscape provides for the control of lythodynemic processes.

An over-all 15 years plan of rehabilitation-reservation of the Black Sea Shores was elaborated by amalgamation "Sakhnapirdatsva" (Service for Protection of Shores of Georgia") Within 1987-90 by means of application of the above mentioned over all scheme it became available to rehabilitate to 150 hectare territory washed out by the sea, including 38 hectare in Adjara (fig. 4) and the length of degraded shores of the republic thus was decreased by 80 km, (that is by 38%)

Marked damage has been made to Georgia by hail brought, frosts and the strategy an tactics of the fist against them are still to the elaborated.

The analysis conducted for softening the results conditioned by frequent natural calamities has shown that today we do not possess one complete strategy for a struggle against these phenomenon, as well as the legislative base and organizational structure for natural resource use, which would ensure introduction of mechanisms for protection from natural calamities and resourse-speiring reservation prediction and control of processes conditioning natural calamities their monitoring and study.

Complex geo-ecological state created in the mountainous and plain landscapes of Georgia dictates us to conduct urgent adequate measures which first of all implies radical change

of interrelation of a human society and the nature that is transition to the rails of rational use of natural resources.

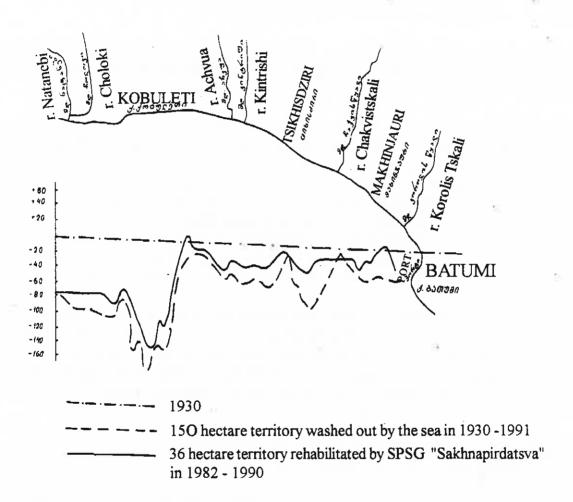


Fig.4. Dynamics 0f Black Sea coast region (Batumi - Kobuleti) in 1930 = 1990.

# 3.3. Analysis of Data of Migration Conditioned by Military Conflicts in Georgia

## 3.3.1. Introduction

Military conflicts which exploded in Georgia by the end of 1990 (conflict in Tskhinvali region) and specially civil war in Abkhazia deteriorated processes of state building and demoralization of society, markedly impaired economic state of the country, significantly regarded resolution of foreign political problems and integration of the state into International common wealth affected social development (including criminogenous situation which was impaired made poor a rather large part of the population) threatened to physical and moral health of large groups of the population. The Government of a new state will need tremendous endeavor to regulate the results of those conflicts and hence it is forced to refuse temporality to solve a number if social problems at their adequate value.

Military conflicts are followed by forced displacement of hundreds of thousands of people both within the limits of the country and beyond its territory. It's logical result is drastic deterioration of living environment: In area from which the population was ridden, housing fund is principally distracted, fertile agricultural spaces become wild and are covered with wood and in towns population has greatly changed at the expense of invading with representatives of different ethnic groups. At the same time in the towns and villages where this temporarily displaced persons were distributed in large groups Social and economic including criminogenous situation and ecological state has markedly changed. (the letter became acute due to the fact that the period coincided with crisis in power provision and was expressed in rather great damage if wood resources and forests and parks). People left without shelter were distributed to the resort establishments resthomes healed resorts, hotels due to which infrastucture of this one of the leading branch of economics of the country that of health resort and tourism economy. Thousands of people employed in this sphere were left without any job.

Below principal issues of geography of internally displaced persons are analyzed and the data are printed from the materials of sociological study of this group of persons

# 3.3.2. Principal Problems of Geography of Internally Displaced Persons (IDP)

According to the data of State Committee for Migration and Dislocation of the Republic of Georgia, total amount of IDP in Georgia equalled to 267820. less those persons who found shelter beyond the limits of Georgia. Thus 5% of the present inhabitants of Georgia are IDP - refugees. Socially they are in the heaviest situation; 96.1% of them 25 7320 are IDPs from Abkhazia, and 9.9% (10 500) from the Tskhinvali Region (former South Ossetia)

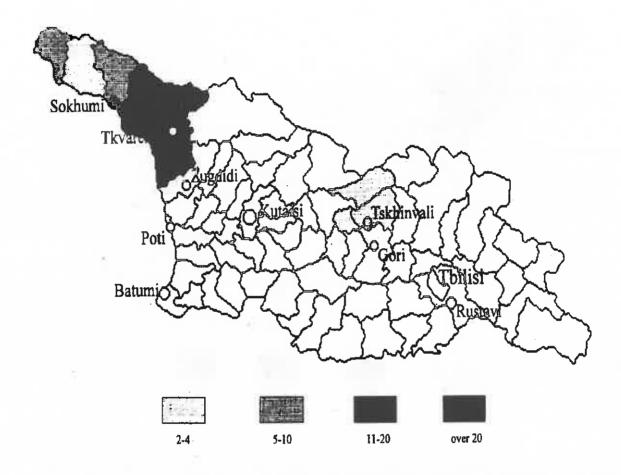
According to the results of population inventory of 1989 population of Abkhazia equalled to 525061 man. Ethnically they consisted of Georgians - 45.7% (233 872); Abkhazians - 17.6% (93 265), Armenians - 14.6% (76 541), Russians 14.3% (74 914), Greeks - 2.8% (14 664) etc. only Gali region was mono-ethnic one in Abkhazia in which Georgians were 93.8% abkhazians were half of the population in Gudauta region, Ochamchire region spoke practically in two languages; Georgian and Abkhazian amounted to 37-40% respectively area under Sukhumi region and Gagra town councils and majority of towns were distinguished by their colourful ethnic picture only town of Gali was monoethnical (Georgian) in Sukhumi and Ochamchire the share of Georgians exceeded 40%. As to the villages, among the total 482 villages of Abkhazia in 191 (40%) absolute majority of population was Georgian in 140 (29%)- Abkhazian, in 80 (17%)- Armenian, in 9 (2%) in 7 (1.5%)- Russian; 55 villages (11%) were mixed that is the share of one ethnic group did not exceed one third of population.

As a result of conflict the IDP-s from Abkhazia settled in different regions of Georgia and amounted 49% of this region and together with those fled abroad - amounted 60%.

Among the IDP-s alongside with Georgians, which are represented as the principal victims of ethnic cleaning conducted under the banner of separatism, representatives of other ethnic groups were forced abandon their hearths too. Abkhazians (292 are recorded in different regions of Georgia), Russians (4 094), Armenians (1 492). Alongside with it, almost all Greeks and Jews left the region of conflict which were received by Greece and Israel, respectively, and many Russians, Armenians and Abkhazians who did not want to participate in the fratricidal war, were forced to look for a shelter in the Russian Federation. A significant part of Georgian IDPs found their shelter here too.

At present amount of the population left in Abkhazia should not exceed 200 000 man, irrespective small - scale immigration from Turkey, Islamic countries (from which return of descendants of Abkhazians, departed in the 19 century, in the area of Tsarist Russia is taking place) and those from the Northern Caucasus (principally of mountaineers belonging to Adigei language group).

Among the IDPs to other regions of Georgia 32.7% are from Gali region, 21.2% - from city of Sokhumi 14.3% - Ochamchire region, 12.7% - Gudauta region, 8.4% - Gagra area, 5.1% - Sukhumi region, 3.2% - Gudauta region, 2.4% - town of Tkvarcheli (fig.5). The same map expresses the data of Tskhinvali region (former South Ossetia). The IDPs from this region are respectively less but their problems are analogous to those of IDPs from Abkhazia.



<u>Fig.5.</u> Distribution of the IDPs according to the districts and towns of their permanent residence before the conflicts (percentage).

As a result of civil war in Abkhazia 80.3% of the whole population of Gali region, 59.5% of Gulripshi regions 50.5% of Ochamchire region, 46.8% of the city of Sukhumi, 30.1% of town of Tkvarcheli, 27.6% of Gagra area, and 14.7% of Gudauta region become IDPs refugees (fig. 6).

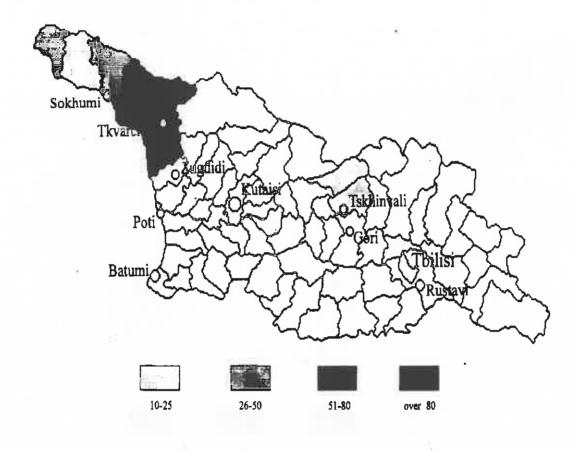


Fig. 6. Proportion of the IDPs in the total population of the districts and towns where they resided before the conflicts (percentage).

Thus practically complete ethnic cleaning of Georgian population of Abkhazia was executed which conformed with the decision of separatists.

IDPs from Abkhasia and Tskhinvali region at present dislocated in all regions and towns of Georgian (less Alpine Kazbegi region, where the IDPs are not registered). Principal mass of IDPs stay in Tbilisi, capital of the state and in the region of Zugdidi (together with the town Zugdidi) which borders directly the Abkhazia. Here 28% of total amount of

IDPs has found its shelter in the Khobi region 6.1% Tsaledjikha region - 5.4%; Martvili region - 3.2% in Poti - 3.1%, in the whole Adjarian Autonomous Republic - 3.0% etc.

There are many IDPs in Tskaltubo region and in the city of Kutaisi. Eastwards the amount of IDPs are less (fig. 7).

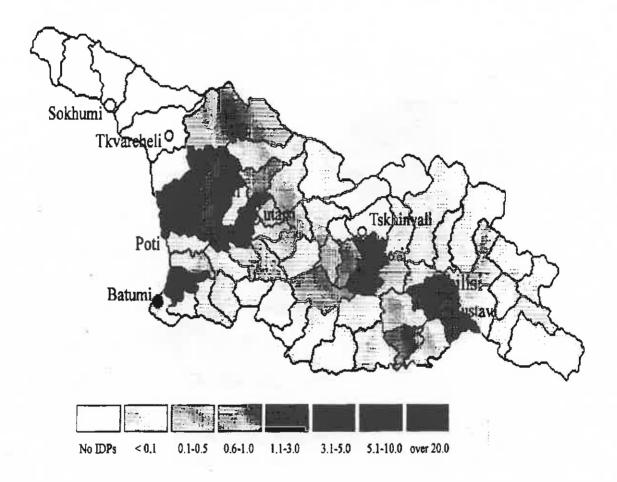


Fig. 7. Distribution of the IDPs according to their recent residence (percentage).

Specific share of IDPs in the population of many regions achieved a significant callus (fig. 8); namely in Zugdidi region (together with the town Zugdidi) the rate of IDPs to local population is 37.4%. in Khobi region - 29.0%, Tsalendjikha regional = 27.4%,

Chkhorotsku region - 17.0%, Martvili region - 15.9%, in the town of Poti and Mestia region - 14%. All these regions and towns are in direct contact with the area of conflicts, but here the decisive factor of concentrating of IDPs in these regions and towns is close relative links of the populations of the neighbouring zones. In spite of this support of such a mass of homeless persons is a heavy social economical and psychological burden for local population.

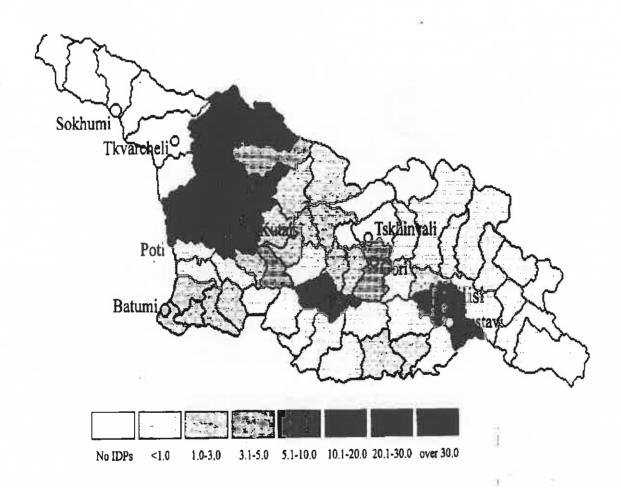


Fig. 8. Proportion of the IDPs in the total population of the districts and towns where they recently reside (1995), (percentage).

The rate of IDP-s - refugees is high in populations of Borjomi and Tskaltubo regions. The powers allocated for them a number resorts and resting homes once well equipped and cared belonging to the state. IDPs were distributed temporarily in resort and resting zones in eastern Georgia, in the vicinity of Tbilisi (Mtskheta, Gardabani, Bolnisi regions). Too great is the amount of IDPs in the city of Tbilisi, by official data it amounts to 81488 person, which forms 6,4% of the whole population of this large city it was impossible to resolve the problem of employment of such a large mass of refugees in the situation of economical arises and they are forced to keep themselves at the expense of odd jobs.

# 3.3.3. Brief Data of Sociological Study of Refugees (IDPs)

In November, 1995, the chair of Social-Economic and Political Geography of the Tbilisi State University carried out interrogation of 164 families - refugees from Abkhazia living in the hotels and hostel of Tbilisi (68% of the questioned) in the rental flats (5,7%), private houses (10,1%) and at their friends or relations (15,7%). Information on 738 persons were obtained (small volume of sampling was conditioned by deficiency of financing, though the obtained results are rather representative.

The results of the study reveals the really tragic condition of IDPs. Their material, physical and psychical condition state has sharply deteriorated. Mortality has increased.

738 persons who up to 1992-1993 lived in Abkhazia formed 164 families (average value - 4.8%) 2/3 of them (66.3%) lived in their own house with its yard and estate; 25.8% lived in isolated apartments 6.1% has private houses or a part of a house without yard, and only 1.8% lived in communal flats with common facilities.

Each family of the present day IDPs possessed averagely 137 m<sup>2</sup> living space Alongside with it yards adjoining their houses (in the villages - estates and land plots amounted to approximately 1908 square meters; thus their housing conditions at their permanent living place were rather good.

According to the estimation of the heads of the families price of movable and immovable property which they were forced to abandon in Abkhazia amounted to the equivalent of approximately USD 338.3 thousand. Especially highly appreciate their property residents of Gagra area (averagely - USD 630 thousand) which were forced to free from their homeland the first stage of the war, suddenly. Residents of the city of Sukhumi who has no estates there estimate their property at the most low price (equivalent of USD 132 thousand). Even if we consider that respondents exaggerate the value of their lost property, material loss suffered by them will form a tremendous figure.

At present, IDPs live in a very heavy housing conditions in the mean each family occupies 25.9m<sup>2</sup>, 3m<sup>2</sup> per. so. (taking into account that many refugee families stay with their friends

and relations and willy-nilly decrease their living space too).

Very great is a number of unemployed IDPs 52% of interrogated person of potent age declared themselves unemployed (while during questioning other layers of the population of Georgia only 14-17% consider themselves unemployed) If we even admit that many IDPs are living by small commerce real income of the majority of them is rather low.

The death-rate among IDPs is high annually it reaches 18 per thousand, which is twice high than mean indices of death rate fixed for the whole population of Georgia.

Health condition of IDPs suffered market impairment. Compared with the health while living in Abkhazia its has been deteriorated by 6.7%. Many of IDPs have symptoms of derangement of their psychic state which is not strange on the background of the undergone heavy stress and failure of multiple promises to be returned home.

It should be noted that irrespective of everything 30.8% of the questioned families have steady purpose to return to Abkhazia together with all the members of the families as soon as the jurisdiction of Georgian is resumed there and there is more or less guarantee of security here; 5.5% of families are going to return but not completely and only 3.7% of the families declare that they are not going to return in Abkhazia.

# 4. AGENDA OF 21 CENTURY AND GLOBAL STRATEGY IN THE SPHERE OF HOUSING

# 4.1. The Factors Conditioning the Necessity of Reforming of the State Housing Policy

- absence of concrete adequate evaluation of the sphere of building complex and namely
  of housing sphere while planning revival of economics of Georgia;
- Sharp reduction of financing as a result of formation of the state and local budget systems;
- Insufficient support of cooperative and individual housing construction by the government (state);
- Destruction of engineering industry during political instability and military conflicts their inadequate technological equipment and incompetiveness of the goods produced by the stated industry on local and foreign markets;
- Ineligible unfit system of financing of the housing sphere service, non-conformity of payments for housing and communal services with their factual price and real financial capacity of the population;
- Formation of legislative basis for the management of housing policy at the local and State lees. Division of legislative, executive and controlling functions.

# 4.2. The Goals of the State Housing Policy

- Formation of a system of social security in the sphere of rights of citizens for living space, creation of prerequisites on the principles of free choice, for building of a flat (or a house) or for acquiring it as a private property, for temporary use, renting leasing or for other similar actions and purposes;
- Creation of factorable conditions for attracting non-budgetary sources for the purpose of building reconstruction, maintenance or repair of housing fund,
- Settling (legalization) of private property in the housing sphere; protection of property rights of enterprises and owner;
- Development of free competition in the production of materials and constructions necessary for realizing and reconstructing of the housing fund, and at large for housing engineering; following anti-monopolistic law, and stimulation of power-saving methods and technologies and of their application in reality;
- Ranging of living space dues and communal service charges taking into consideration interests of socially unprotected and deprived strata of the population. freeing the resources for Ranging of taxes by means of a step-wise decrease of budgetary subsidies.

# 4.3. Routes for Realizing Housing Policy

- Expansion of housing construction at the expense of diverse sources of financing;
- Improvement of credit system necessary for development of housing construction; encasement of subsidies;
- Simulation of organizations, enterprises and firms working in the sphere of designing of living space and housing construction in the engineering field;
- Refining of taxation system taking into consideration indices of consumer grade and the level of citizens income;
- On the first stage of housing construction provision of spaces with earth plots, built-up of the territories and their engineering equipping;
- Extension of a net of temporary living places (such as hotels, hostels, boarding homes, night-shelters etc.).
- Orientation of building organizations and firms to the progressive, advanced methods
  of housing construction to the production of ecologically pure constructions and to the
  introduction of power-saving technologies;
- Creation of service sphere in the engineering and creation of a market for designs;
- Directing non-state investments in the first place to the housing construction and the objects of social attendance.

# 5. MODEL EXAMPLES FROM URBAN PLANNING EXPERIENCE

A system of scientific design works established in to sphere of urban of the recent 20 years is of special interest.

At the macro-territorial level (the country) this system represents a regional scheme of the Georgian SSR elaborated in 1975-78.

At the mess-territorial level (separate regions of the state, administrative districts) urban building project is represented by the schemes and designs of regional planning.

At the micro-territorial level (towns town-type settlements villages) over all plans for towns projects of detailed planning of town centers and residential regions, and projects for a build-up of residential micro-regions are drown up.

Hierarchical and hereditary signs are inherent to the whole above given system which means that the jobs of the lower level were accomplished after and on the basis of the jobs of the upper level.

Territorial building closely connected with territorial planning and namely with the development and prospects of dislocation of means of products of dislocation of means of production.

Town building projects encompass all 63 administrative regions of Georgia all 62 towns and 52 administrative regional centers. All resorts and villages of historical importance have their own over all plans.

The above-stated enabled the respective bodies to conduct one integral town building policy all over the state. Elaboration of projects for the formation of systems of territories protected in the Republic of Georgia and projects of the plans for management of microsystems of protected territories of separate regions, the components of the whole system elaborated within 1992-93 is of special interest.

In 1995 the Government approved a project of an integral system and a plan of management of the national park of Borjomi - Kharagauli.

In 1985 in Tbilisi a conference was held dealing with the issues of realization of the over all plan acknowledged in 1970. Experts analyzed principal parameters of the over all plan and the process of carrying out the planned measures. On the basis of the expressed critical notes and recommendations the measures for further improvement and realization of the over all plan were elaborated.

In 1977-88 complex works for reconstruction regeneration adaptation of principal historical centers of the city of Tbilisi were carried out which vividly exposed many interesting architectural-planning principles and methods for the solution of multiple town building problems. Alongside with it in the process of designing and constructing a number of nasty decisions were made and executed, which were soon revealed. This will surely incite interest among specialists dealing with problems.

## 6. PRIORITY PROBLEMS

Within the process of preliminary, consultative stage the below listed priority problems inherent to the sphere of urbanization were clearly exposed:

• The state has no modern town construction legislative and normative base necessary for efficient managing of the process of urbanization;

Absolute majority of documents active today were created in conformity with political conjuncture of the former period and at the order of the conjuncture, which of course do not respond to the contemporary demands.

• Scheme of dislocation of the Republic needs substantial correction.

This project drawn up in the middle of 70-ies and partially corrected in the middle of 80-ies do not correspond to the modern realities any more. The process of conducting of integral town building policy is complicated as well.

- Non-equal dislocation.
  - This problem is organically linked with complex natural-scenery conditions of the Republic. The towns are in the main situated along the transport highways. Population is decreasing on about 30 mountainous regions.
- Irrational usage of territories of the towns.

  Georgia belongs to the countries possessing small territory, due to which territorial issues are very actual here. High index of satellite territories is conditioned by extensive nature of the town development as well as by high specific share of individual housing fund.
- Detention of the city of Tbilisi

  According to al principal town building characteristics it exceeds the towns distributed
  by the following hierarchy Kutaisi, Rustavi, Batumi, Sukhumi etc. For a country of

urbanization level and grade of the scale of Georgia, such a growth of Tbilisi creates many extra problems to the country.

Preservation of agricultural land plots.

For a small ferrule territory country like Georgia the problem is very urgent. Extension of urbanization process is characterized by exploitation of new territories. In 1970-89 from the agricultural earth spaces annually 2,0 thousand ha was apportioned to other branches (organizations). Within the same period urable lands annually decrease by 1,7 thousand ha. It was conditioned by amalgamating week and retarded economics of mountain regions and migration of the population to the plain.

- Negative effect of urbanization on the environment. In the conditions of the intense urbanization process, towns and especially their industrial and transport enterprises greatly influence the principal components of the environment climate, hydroresources, soil, flora and fauna. Ecological situation is especially heavy in Tbilisi Kutaisi, Rustavi, Zestafoni, Tkvarcheli, Kaspi.
- Inferior engineering and transport infrastructure low efficiency of the above-mentioned systems and their non-secure functioning which is principally conditioned by poor technical equipment an high rate of amortization, create many problems in a deed of formation of normal living environment.

# NATIONAL OPERATION PLAN

## 1. STRATEGY AND POLITICS

Current social and economic processes taking place in Georgia verify that the state has started its route to the establishment to make economics irrevocably.

It is natural that transition form directive planned system to new economic relations in a most complicated stage of creation of our country proceeds very painfully.

The state course designed for an withdrawal of Georgia from critical situation and for its further progress should involve the following organic and important parts of the strategy:

- Regulation of urbanization process in the Republic and provision of stable development of the towns;
- Improvement of living environment of people and with in view conduction of efficient housing policy;
- Reorganization of the systems of management of these processes aiming to obtain respective practical results of the obtained, existed strategic decisions in the shortest time possible. In this connection it is possible to separate principal blocks of the
- problem which will need international cooperation and attraction of foreign investments.
  - 1. Regulation of the process of urbanization and provision of stable development of the towns.

Increase of ratio of town residents is a reality of the modern time and is inherent to all countries and Georgia too is not an exception. According to the prognosis of UN by the 2000 year half of the world population will live in small and large towns. Taking this fact into consideration it is an axiomatic that: Economic progress of the state is not possible without normal functioning of the towns.

## 2. PROBLEMS

- 2.1 Our target is in the situation create in the Republic to set priority tasks of the elaboration and specification of:
- schemes of dislocation and distribution of production capacities in separate regions and in the Republic as a whole;
- scheme for the development of engineering transport arteries and their infrastructures; models of economical and communication liaisons should form forget criteria in independent Georgia during complex resolution of these tasks in order to create a system of free, open economic relations, and favouring the process of transition to market relations

The above mentioned schemes and models should be based on:

 the results of studies conducted by means of new methods (devices) of diagnostics of urban problems;

the results of analysis of their alternative versions,

materials of land cadastre and building inventory of the Republic;

principal regulations of new town building legislation; (law);

• the results of analysis of potential opportunities of ecosystems and principles of environment protection.

The state course and strategy expressed and certified in these documents must become the basis for concrete plans of town development and for measures conducted for normalizing their functioning.

For achieving of it there is only one route based on modern requirements land cadastre and data bank must be created for the whole territory of Georgia and of course on the principles of computerization. It will enable us to fill them in at the expense of state general positions during resolution of issues of development of separate regions or settlements of the Republic and for the resolution of spatial organization problems.

# 2.2. Housing Policy, Housing Reforms and Housing Construction

At the recommendation of European Economic Committee housing reforms and housing construction must be applied as one of the motive force for stabilizing economics of the country and its further progress and as an integral, important constituent of general economic policy.

Principal task of the housing policy is provision of constitutional rights of a man for the living space.

While naturally it does not mean that a man must demand housing facilities from the State but the state must be responsible:

 to follow such a political course which will enable a man to have an adequate living space;

 to ensure legally human rights for using the living space to create legal base for housing fund and to control its observance;

• to conduct such a housing policy which will provide for interests of socially unprotected and law-income population.

State housing policy must pursue:

• formation of systems of social guarantees in the sphere of rights housing facilities;

- human creation of favourable conditions for attracting non-state resources, including foreign investments for building reconstruction, maintenance and repair of housing space;
- development of private property in the sphere of housing and protection of the rights of enterprises and owners;
- development of competition in the production of building material and constructions necessary for building reconstruction, maintenance and repair of housing and conduction of anti-monopolistic course.

# 2.3. Reorganization of Systems of Regulation of Urbanization Stable Urban Development and Management of Housing Policy

The system under the question needs urgent reorganization and a reform is necessary to specify strictly the subjects of the activities, responsibilities and zones of all levels, including those of:

- State managerial body;
- regional and local managerial bodies;
- other participants including those of the so called "third sector".

of course the above stated should be expressed in the legislative documents based on general constitutional principles. Structure the state managerial body as well as its functions, rights and responsibilities are to be considered specifically according to new conceptions.

# 2.4. Legal Base

for the regulation of the process of urbanization in the Republic and for the provision of stable urban development it is necessary to create respective legislative and normative

methodological base. It is urgent to elaborate the "rules of play" for all subjects of the process, which will be harmonized not only within the limits of countries of independent States (CIS) but also at the whole European level.

The elaboration of the above mentioned blocks of issues and their resolution is connected with extremely abundant and labor-consuming studies, which will face with great difficulties taking into consideration state of a budget of our country. Hence it is necessary to use foreign credits.

## 3. MEASURES

5-year plan of the national significance in the town building sphere provides for the conduction of the below listed measures and works:

correction of a Republic scheme of dislocation in which special attention will be paid to the environmental protection, urbanization and issues of optimal development of

transport infrastructure:

Elaboration of town building conception of Europe - Caucasus - Asia transport, creation of transport artery; estimation of permissible capacities of passenger and load flows; calculation of a nature of effect of to mentioned transport - engineering system on the environment and possible ecological results by means of computer modelling in the conditions of its functioning in different regimes. Here great importance will be assigned to the prediction of migration processes induced by attracting force of this transport artery and with this in view planning of complex town building measures in order to avoid unfavourable results.

The State housing policy of 1996-2000 should be based on the statutes: (motto)

• in the limited conditions of resources and finances the families to be satisfied by living spaces from the state and social funds must be provided with the socially guaranteed minimum.

• demand of all groups of the population for the living space the parameters of which exceed socially guaranteed (fixed) norms must be met at the expense of personal means of the citizens. In the resolution of this problem may participate enterprises, organizations banks; dimension and conveniences of a residential space is defined by the Republican housing building program, by availability of territories, possibilities of resources of enterprises and organization and by the demands of the population.

During the period of transition of organizations and enterprises to the self support and economic independence dwellings become consumer goods, which are purchased by people who pay their value in the process of exploitation. Diverse forms of property for dwelling are created in accordance with she participation of a state, enterprise, organization and citizens in investing the engineering of it.

• the state does everything proper and necessary for favour development of individual, amalgamation of individual builders and cooperative housing construction by the

development of the base for land-plots, building industry and production of building materials, creation of special and engineering.

infrastructure on the territory, by issuing credits, offering subsidies favourable terms.

In 1996-2000 the ratio of individual and cooperative housing construction must be markedly increased.

- All rights and responsibilities in the development of social sphere, housing construction ad communal infrastructure should be transferred to the Republican bodies (powers) and local management.
- the new architectural town building policy should provide for the necessity of humanization of living space, efficient application of the residential territory, observance of ecological requirements, original and highly artistic level of build-up. On the territory of the Republic preference should be given to low, danger build-up at the expense of limitation of building of high living houses;

In the conditions of the established system of revival during the above mentioned approach special significance is attributed to the exploitation of territories sub-alpine.

• Construction of housing fund for people damaged during natural calamities and military conflicts remains the state task.

The problem of distribution of this group of population will be solved by taking into consideration the necessity of normalization of national and demographic situation in the Republic.

- it is necessary to regulate taxes for housing spaces in the state and municipal funds on the grounds of principles of social justice, by taking into account a space available for a person and the categories of buildings. The problems of transfer of flats to persons as a rent of the fixed term or without a term by local managerial bodies;
- the necessity of transition to qualitatively new level of build up is conditioned by social ordering and represents a base for new architectural and town building policy. Here it is important transition from typical projects of mass housing construction to target individual designing by taking into account national traditions and natural climatic
- peculiarities. In this respect great importance is assigned to the cession of Republican norms for designing and engineering.

#### 4. MONITORING

For the audit (control) and estimation of execution of tasks of the sphere of urbanization of the national plan of action we consider it expedient to create and monitor the town building cadastre. The cadastre represents a unity of numerical and quality indices characteristic to living environment (conditions) of the population and consists of include:

- topographic plan;
- basic plan;
- land plot plan;

• reigning with the purpose of taxing immovable property.

Topographic plan is an electronic too-plan that is too-plan expressed in numerical form in topological mathematical meaning.

The basic plan involved decision of a territory by topographical principle and topographical assignment of objects, system of decision of territory according to planning marks decision of territory according to administrative subordination and it unites all informational levels.

Legislative plan of zoning is a plan of borders acknowledged according to the present day rule, and it devised the territory of the tow on the zones of similar rules of use.

Cadastre of towns well be elaborated and included in the town building cadastre which will present informational data of town indicators.

Urban and housing indicators are prepared to constitute in the monitoring data bank for city management. These indicators adequate to related information would be saved into "dbf" files to provide compatibility of files and datas with different types of data bases.

# **5.RESPONSIBILITIES**

In accordance with the realization of national action plan Georgia shall take responsibilities to exercise efficient measures including:

- Regular exchange of information dealing with legislative scientific-technical, financial, etc., with the view to harmonize building norms, rules and standards;
- coordinated policy in the solution of the problems connected with the development of residential settlement improvement of their infrastructure, preservation and revival of historical towns;
- conduction of joint scientific-technical researches in the sphere of construction and architecture elaboration of theoretical foundation of a problem "a man environment and architecture" renovation of legislative and normative base for planning and designing of living environment of a man by the use of experience of advanced foreign countries,
- elaboration of development plans of residential settlements and housing engineering and their coordination, creation of engineering technologies and equipment for structural reformation of building base as well as creation of attendance and repair services for ecologically safe systems;

- creation of new resource and energy-saving technologies and their development efficient application of non-traditional forms of energy, creation of one integral base for production and service;
- arrangement of expositions, seminars, symposiums, competitions dedicated to the fields of building and architecture and participation in analogous measures;
- stimulation of investments for structural changes in engineering (building) and attraction of foreign capital (including by state guarantees) dominantly in ecologically dangerous regions and in those damaged due to military conflicts.

# INTERNATIONAL COOPERATION AND ASSISTANCE

## 1.PRIORITIES

The state in which national economy of Georgia is today generally, and particularly its engineering complex needs active international support, but we must take into account high scientific and technical potential of the Republic, the inclusion of which may turn unilateral aid into bilateral and even multilateral international cooperation.

For the provision of regulation of urbanization processes and stable urban development in Georgia, as well as for efficient accomplishment of housing policy we consider it expedient that the forms of international aid (1996-2000) are to be issued to the following spheres:

financial and consultative assistance's for the creation of state programs;

Urban and housing indicators are prepared to constitute in the monitoring data bank for city management. These indicators are adequate to related information would be saved into "dbf" files to provide compatibility of files and datas with different types of data bases.

- technical support for the creation of a base of computers and data bank for information provisions;
- consultations for re-training and improvement of qualification of specialists by the profile of designing and construction.
- training of experts in the center of "Habitat" by a special program for efficient functioning in the habitat system.

#### 2. IMPROVEMENT OF LABOR EFFICIENCY

International programs in which Georgia may participate as a full and equal participant taking into account its intellectual potential;

- projecting and planning;
- creation of a system of expertize and activities as experts;
- processing of constructions from building materials and elaboration of technologies;
- treatment of norms and standards for engineering and designing and creation of legislative base;
- training of specialists in architecture and construction at a level of demands for international certificates.

On the nearest stage of international cooperation and support the principal spheres for Georgia are:

- seismoresistant construction;
- application of alternative sources of energy;
- production of ecologically pure (safe) technologies.