

HUMAN SETTLEMENT COUNTRY PROFILE

HUNGARY

Decision-Making

Programmes and Projects

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- B. Improving Human Settlement Management
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Status

Capacity-Building, Education, Training and Awareness-Raising

Information

Research and Technologies

Financing

Cooperation

Decision-Making: The Act on Regional Development emphasizes both short- and long-term planning, in particular, at the level of the settlements and introduces institutional mechanisms for this task. Development and modernization of human settlements and infrastructure are considered important in Hungary. The national development policy directs that special attention be paid to the underdeveloped regions and rural areas of the country, as well as to the remarkable differences between the western and eastern halves of the country. The aim is to strengthen regional planning, strengthen the relevant capacities and mandates for the coordination and cooperation between local governments, and to enhance information collection. The Act on the Local Governments includes the basic obligations for the local authorities in terms of the development of “their” settlements (financial sources, basic services, infrastructure development, environmental protection and nature conservation etc.).

Regional development issues are handled by the National Regional Development Office (www.nth.hu), which belongs to the Prime Minister’s Office.

Hungary will join the European Union on May 1, 2004 and subsequently will become eligible for support from the EU Structural Funds and Cohesion Fund. Hungary has prepared a National Development Plan (NDP), which sets the framework for the utilization of Structural Funds assistance. The primary objective of these funds is to help reduce the disparities in development between Member States and regions in order to strengthen the economy, and social cohesion with regard to environmental aspects. The strategy is implemented through operational programmes setting out the strategy of a given sector or region identifying the development priorities and the measures to be taken. Based on the NDP, Hungary has drafted five operational programmes: Economic Competitiveness Operational Programme, Environmental Protection and Infrastructure Operational Programme, Human Resources Development Operational Programme, Operational Programme for Agriculture and Rural Development, Operational Programme for Regional Development. Coordination of the work is done by the National Development Office (www.nfh.hu), while the responsibility is for the Government.

Employment issues are handled by the Ministry of Employment and Labour (<http://www.fmm.gov.hu>). The central consultative forum of employment and labour issues is the National Labour Council. A significant forum from the point of view of the social field is the Social Council and its so-called social sub-councils. Regional development also has consultative forums in a form of national, regional and county councils. Trade unions, NGOs, municipalities, religious communities representing different interests also help to solve social problems by organizing various programmes and mobilizing/providing financial resources.

Ministry of Home Affairs (<http://www.b-m.hu>) has the main responsibility in connection with human settlements. The Ministry of Economy and Transport (www.gkm.hu/dokk/main/gkma) has the key responsibility for national energy policy and regulations in cooperation with other ministries (e.g., Ministry of Finance - <http://www.p-m.hu/enhome.htm>) and authorities (specifically, the Hungarian Energy Office <http://www.eh.gov.hu/home/html/index.asp?msid=1&sid=0&HKL=1&lng=1>). The Ministry also has the key policy planning and coordinating role in transport sector. The local governments have essential decision making mandates and they can apply for financial assistance for transport infrastructure development from central budgetary resources and also from ISPA.

The main government agencies responsible for coordinating desertification and drought management policies in Hungary are the Ministry of Agriculture and Rural Development, the Ministry of Environment and Water. They work closely together on the implementation of the UN Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification, Particularly in Africa (UNCCD). This Convention has been ratified by Hungary in 1999 and promulgated in 2003.

Basic sanitation issues are in the responsibility of Ministry of Health, Social and Family Affairs (http://www.eszcsml.hu/eszcsml/eszcsml_angol.main.page).

The Ministry of Environment and Water (<http://www.kvvm.hu>) also has responsibility in human settlement related issues (drinking water, waste and waste water management, local environmental plans etc.) The second National Environmental Programme (NEP II) has two specific Thematic Action Programmes for urban environment quality. The main goals of the NEP II can be summarised as follows. Protection of ecosystems, that is, taking into consideration the principles of sustainable development in the administration of natural resources; economical utilisation of natural resources considered to be vital elements (water, earth, air) to protect their value and preserve them for coming generations, taking their quantity and quality features into account as well; preserving and ensuring the survival of natural systems and assets; preserving the variegated nature of the biosphere; preserving the information hidden in natural processes. Ensuring a harmonious relationship between society and the environment: improving the health status of the population, preservation, improvement, and remediation of the environmental condition required for adequate life quality, that is, ensuring the conditions of a healthy environment, as well as to reduce and eliminate effects impairing / endangering human health. Assertion of environmental aspects in economic development. Economic development should be implemented in a way that growing welfare be coupled with reduced environmental loads. In terms of economic development, this is subject to the establishment and maintenance of a harmonious relationship between society and the environment; sustainable use of natural resources and land areas; exploitation not exceeding environmental load capacity; prevention / mitigation of environment damage.

The Act on Environment Protection (1995) clearly expresses the idea of integrating environmental aspects in regional planning. The establishment of various associations of the local authorities reinforced their opportunities and influence in terms of decision-making, to present their interests in the government and Parliament level preparatory processes of those decisions and regulations, which concern the municipalities. Many local authorities have developed environmental, nature conservation, and regional/local development programmes, which incorporated the principles and methods of sustainable development to some degree. Also some local Agenda 21 programmes have been prepared. (The basic reasons for the lack of full-scale local Agenda 21 programmes are most probably related to the extensive socioeconomic changes that have started in the transition period.).

Programmes and Projects :

A. Providing Adequate Shelter for All: Providing adequate shelter for all is a basic right stated in the Constitution of the Hungarian Republic.

The problem of homeless people is handled by the Ministry of Health, Social and Family Affairs in co-operation with some non-governmental organizations.

Issues regarding to housing is coordinated by the Ministry of Home Affairs (National Housing and Building Office).

B. Improving Human Settlement Management: Act on regional development and physical planning was adopted in 1996 while comprehensive National Regional Development Concept in 1998 that includes the identification of priorities, formulation of basic policy directions, and measures for regional development and sustainable human settlement development. In addition, a legal instrument on the “built environment” has also been adopted (1997) containing important provisions in this regard.

The central (state) budget ensures direct assistance primarily to the local governments, but also to churches and NGOs so as to enable them to provide social services. (In 2004 the projected sum total is about EUR 2092 million \approx USD 2615 million). A set of special programmes in order to mitigate poverty related problems including community work programmes, whereby long term unemployed persons can

have access to employment (1998: EUR 16 million; 1999: EUR 8.8 million; 2000: EUR 8 million; 2004: EUR 12 million \cong USD 15 million); the social “land use” programme, assisting the living conditions of unemployed families in backward rural regions by promoting small-scale agricultural production (1992-2003: EUR 8.7 million \cong USD 10,8 million); the so-called small district social programmes aiming at the decrease of social problems among the population living in disadvantaged regions by developing social services (2001-2003 EUR 2.15 million \cong USD 2,69 million). Employability and long-term employment of multiply disadvantaged groups - ESF type pilot project (HU0008-03 – 2004 EUR 0,228 million \cong USD 0,285 million). The first immediate objective of the project is the improvement of employability and the reduction of the long-term unemployment amongst disadvantaged youth, people living with disabilities and other marginalized groups of the population with special emphasis on the Roma. The second immediate objective is a Hungarian institutional system well prepared to participate in European structural policies of the kind carried out with the support of the European Social Fund. -Tackling the gender gap in the labour market (HU0104-02 - 2004 EUR 1,7 million \cong USD 2,1 million). The main objective of the project is to transfer EU best practices in developing and implementing positive measures in employment action plans transferred to respond to the fourth pillar of the European Employment Strategy. In the framework of the project self-employment among women absent from the labour market will be supported through training, assured services for trained self-employed women and implementation of innovative pilot grant projects.

Funds from the Phare programme contribute both to social sector reform and the softening of the social consequences of the economic transformation. For the period 1995-2004, reform of the social sector remained a Phare priority. Special assistance funds have been established for the poorest social strata. These cover, for example, vocational training courses. Parts of environment-related funds are spent for pollution abatement programmes, projects, and investments; which contribute to local capacity building, and increased working opportunities.

C. Promoting Sustainable Land-Use Planning and Management: Responsibility for legislation and the coordination of land management programmes rests primarily with the Ministry for Agriculture and Rural Development. In addition, the role of local authorities (municipalities) in the regulation, management and control of land use practices has substantially increased in recent years. The legislative framework for the management of land use is provided by the Act on Agricultural Land (1994), the Act on Environmental Protection (1995), the Act on Nature Conservation (1996), the Act on Forests (1996), the Act on the Development of Agriculture (1997) and the Government Resolution 2253/1999 (X. 7.) on the introduction of the National Agri-Environmental Programme (NAEP). The primary objective of NAEP is to enhance agricultural practices based on the sustainable use of natural resources, the protection of environmental and natural assets, maintaining the values of the rural landscape and the production of quality products. The agri-environment payments are contract-based incentive aids for the application of environment-friendly methods. Establishing an improved research, education, model-farm and advising network on the basis of the present agricultural and environmental institution system are also part of the NAEP.

The economic and social changes of the nineties have radically transformed the organizational and ownership structures of agriculture. Due to the changes of the ownership structure, 86% to 88% of arable lands (and 41% of the forests) is now privately owned. Land use, however, has greatly fundamentally changed and separated from land ownership. From among the total number of farms which carry out agricultural activities, the main proportion is made up of tenant farms, about 8400 (59.5%), while the remaining 40.5% of the land is cultivated by private farms. Land use is differentiated according to factory size and type of farming. According to the General Agricultural Census (GAC) of the Central Statistical Office, in 2000 – 40.5% of the total land area used by farms was used by the nearly 959 thousand individual farms attaining the statistical farm size.

The interest groups consist of the many landowners or associations of forest owners. Their members and interest group representatives play an important role in negotiations on elaboration and/or amendment of land use and agricultural production regulations, or on the principles/terms of allocation of the relevant funds.

The Land Protection Fund was established to assist production in high-quality land areas withdrawn from farming, and to ensure proper use and protection of arable areas. The National Forestry Fund ensured protection and sustainable management on large areas of woodland. The Regional Development Fund helps to create employment opportunities for the unemployed in agriculture and thus preserve rural capacities. The Credit Guarantee Fund supports farmers having difficulties providing the property guarantees demanded by the banks. Financing systems are also being refined to build an effective rural network of banks. Nevertheless, there are serious problems in restructuring and reorienting agriculture, and in strengthening the conditions for ecologically and economically effective land use practices. This is due partially to the limited availability of financial resources. Hungary participates in the relevant programmes of the United Nations Food and Agriculture Organization (FAO). Land use policies are also subject to harmonization with European Union regulations.

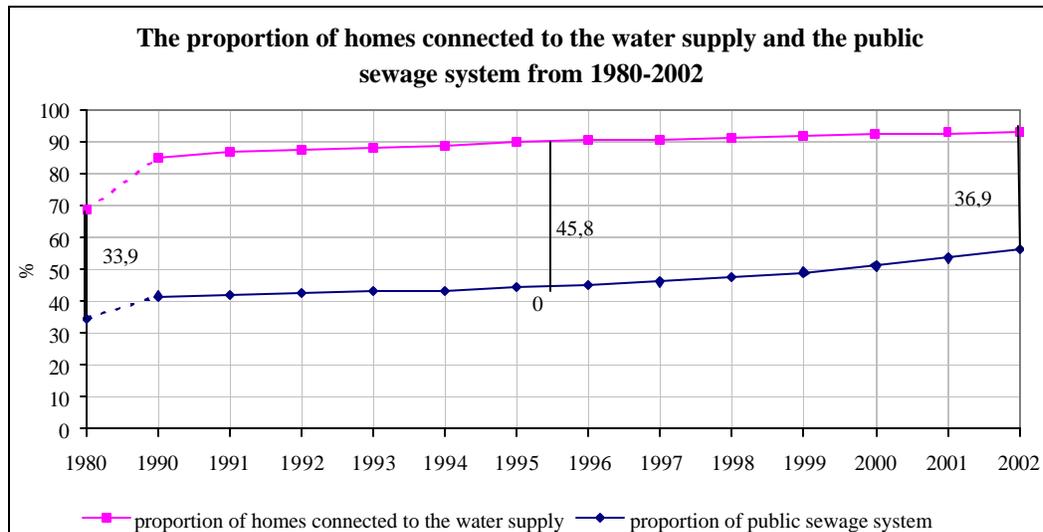
D. Promoting the Integrated Provision of Environmental Infrastructure: water, sanitation, drainage and solid waste management: See also Freshwater & Sanitation Profiles.

Water supply: In Hungary, practically all settlements have mains water supply with 98% of the population supplied with water. However, the quality of more than 42% of the drinking water supplies does not fully meet some of the limit values contained in the 98/83/EC directive about the quality of drinking water and the Hungarian government decree published in 2001. Only 58% of the population live in settlements where the quality of drinking water meets quality standards.

The drinking water supply has high iron and manganese content covering 14.6% of the population (1,674,000 people are affected in 545 settlements), but this is not directly harmful to human health. Hungary is rich in water resources, particularly surface waters; however, 96% of surface waters originate from neighbouring countries. More than 90% of public drinking water supply comes from aquifers or other groundwater resources. Surface water pollution, either indigenous or originating abroad, may result in environmental problems in the ecosystem, aquifers and groundwater. Hungary's ground water stocks are important natural resources, but they do not regenerate naturally and without costly treatment will remain polluted for a long time.

Of these groundwater 66% are in a vulnerable geological environment, where surface pollutants can permeate down to water bearing layers, which are therefore vulnerable to pollution. In 1997, the long-term Drinking Water Base Protection Programme was launched; its purposes are to survey drinking water resources in vulnerable geological areas, to establish their status and establish water protection zones to protect ground water supplies.

Waste water: In Hungary, the number of homes connected to the sewerage system was only 56.1% by the end of the year 2002, despite intensive developments since 1993. In 2002, the public utility gap was 36.9%, which means that waste water collection considerably lags behind public utility water supply. This lack of, and in many cases improper, waste water collection endangers potential drinking water resources. In the period between 1994 and 2000, the length of the sewerage network increased by approximately 7,500 km to 22,300 km. By the end of the year 2002, the ratio of biologically treated communal waste water increased to 61%, and 32% of biologically treated waste water (19.5% of the total waste water) underwent tertiary treatment.

Figure 1.

Source: Ministry of Environment and Water

Many public utility network and wastewater treatment facilities are obsolete or worn out. Consequently, the capacity of wastewater treatment plants and the efficiency of treatment technologies do not comply with basic criteria at many locations in Hungary. Most facilities need refurbishment, and many need complete replacement of infrastructure.

As regards smaller-sized settlements, it is more economical to introduce individual environmentally sound procedures and to spread small wastewater treatment / disposal facilities to ensure environmentally sound, neutralised disposal.

Municipal waste: According to the estimates of the Hungarian Central Statistical Office (KSH), 22.5 million m³ (4.6 million tons) of municipal waste is generated in Hungary. About 66% (15.5 million m³) is household waste, whereas the rest is composed of waste generated by institutions, service providing facilities and businesses, which can be managed together with household waste (7.0 million m³). In terms of mass, the amount of municipal solid waste is expected to increase slightly, although the volume of waste is expected to increase by an annual rate of 2-3% due to the increase in the volume of packaging materials and the increasing use of the light fraction.

In 2001, 86.5% of the households were involved in regular, organised waste collection. About 5.5 million tons of municipal fluid waste and 0.7 million tons of wastewater sludge is collected and treated in Hungary.

Today, the typical manner of disposal is landfilling (83%). In the framework of public services, 665 landfills operate with permission, of which only 15% meet the requirements of a modern landfill site. In addition to the approximately 620 municipal landfill sites operating without proper insulation, the estimated number of abandoned, closed down or illegal waste dumps is 2000 in Hungary. The only municipal waste incinerator is the Waste-to-Energy Plant of Budapest recovering 360,000 tons of municipal waste annually. Only 3% of the collected municipal solid waste and about 40% of the municipal fluid waste is recovered.

According to the Phare HU9911.01 study on the existing landfills there are at present 1300 landfills not in operation in Hungary, 1367 landfills operate (with or without any permission), while 136 will be closed down by 2009, and following 2009, 42 landfills remain in operation.

The National Environmental Program and the National Waste Management Plan (NWMP) adopted by the Parliament in 2002 describes the current situation as follows: (a) organised waste collection is not all-inclusive, the volume of selective waste collection is low, the technical level and the conditions of the facilities are extremely bad; (b) there is a considerable number of illegal and legal dump sites which are potential sources of environmental pollution; (c) free disposal capacity is low; (d) the technological and technical level of waste collection and management systems fails to meet the requirements of modern waste management, up-to-date waste management methods are not widespread; (e) the rate of separated waste is low.

There are some local initiatives for separated waste collection but the results are rarely satisfactory.

E. Promoting Sustainable Energy and Transport Systems in Human Settlements: Air pollution – mainly due to traffic - is one of the major factors behind respiratory diseases, asthma and allergic disorders. About 11% of the country can be regarded as polluted where about 40% of the population lives. There is a comprehensive reporting system for health care system, statistical analysis of the basic population and health data. Geographic Information System (GIS) is widely applied for better assessment of regional distribution of adverse health effects.

Energy: The supply, distribution, and the consumption patterns of energy have undergone dramatic changes in the past ten years. This included the introduction of new price system, privatisation, the creation of the institutional framework for competition in some areas.

There are such government programmes and the relevant regulatory frameworks, which address the national energy strategy, price regulation, energy reserves, energy efficiency and use of renewables. Hungary's greatest opportunities lie in the utilisation of biomass-based (including biofuels for transport, biogas from agriculture, municipal biodegradable waste and wood-based biomass) and geothermal energy, but there has been a favourable shift in the field of using wind and solar energy over the recent period. Currently, the proportion of renewable resources out of the total energy production is 3.6% and 0.76% of electricity generated with renewable energy resources compared to total electricity consumption. Future increasing use of renewable energy resources requires significant investment support as well as much higher purchase prices guaranteed in the long run as compared to traditional energy resources. In order to ensure sustainable development, it is especially important to enforce environmental requirements for both existing power generation and consumer equipment and for future developments.

Consumption of coal has been reduced considerably due to the increased use of natural gas and introduction of nuclear energy. The single nuclear power plant provides about half of the electric energy for the country. Since 1990, total energy use has increased, especially within the residential sector.

The ten-year energy saving programme specified in Government Resolution No. 1107/1999 (X.8.) embraces a range of energy efficiency programmes to be implemented in the business, household and municipality sectors and pays adequate attention to promoting the additional use of renewable energy resources. The Government has provided significant resources for all this from 2000. From 2001, energy efficiency programmes were carried out in the framework of the Széchenyi Plan. A total of about EUR 15 million (\cong USD 18,75 million) has been spent for energy efficiency projects in 2001.

The EU and the OECD – by extensive regulations on environmental protection – , as well as the UN and other organisations – by applying a broad range of conventions – make considerable efforts to mitigate

the detrimental effects of energy consumption and generation on the environment. Hungary has to meet obligations set forth in a number of international agreements in the field of protecting air quality. The decline in energy demand following the economic recession made it easier to fulfil the former undertakings (SO₂, NO_x). The fulfilment of latter undertakings (Sulphur II, CO₂ restrictions) is subject to effective energy savings and a quick shift to the increased utilisation of renewable energy resources.

Air quality limit values were reviewed and Hungary adopted the air quality limit values specified in the EU directive on large firing equipment. With the adoption of the new Act on Electricity in 2001, the country took a significant step towards joining the EU's internal energy market, by fulfilling the EU requirement on market liberalisation regarding electricity.

Transport: The ongoing second National Environmental Program in its Thematic Action Programmes (TAPs) and Environmental Protection and Infrastructure Operational Programme covers also policies and measures influencing energy consumption and transport towards a more sustainable manner. In broader aspects, the comprehensive restructuring and modernization programmes and processes of the economy resulted in substantial changes of the consumption patterns.

It covers both the relevant EU policy framework and national policies, with special regard to the National Development Plan (NDP), and the Hungarian Transport Policy Concept 2003 – 2015 (TPC). The concept is based on an analysis of the situation of the transport sector in Hungary, and summarises the development objectives for all relevant sub-sectors.

The social, economic and ecological effects of transport are inseparable from each other. Therefore, all these three aspects need to be taken into consideration in transport policy, infrastructure development and regulatory activities. Transport has also a direct impact on the quality of life, thereby playing an important role in social policy.

The development of Hungary's transport system is a pre-condition to the sustained development of the national economy. It is also one of the principal determining factors of competitiveness, and a sine-qua-non of economic and social cohesion, the reduction of regional imbalances and strengthening co-operation with neighbouring countries and EU member states. In line with the principle of sustainable mobility, an optimum balance must be sought between economic, social policy and ecological objectives. The share of environmentally effective transport modes should be increased.

Consequently, the principal objective of Hungarian transport policy is to create a transport system that is safe, modern, effective, efficient, meets social needs, and puts less of a burden on the environment.

For the period between 2004 and 2006, development efforts will focus on investment measures directly related to European integration, the alleviation of transport bottlenecks with the most serious negative effects on economic development, and the elimination of environmental and safety risks.

The volume of traffic varies with changes in economic activities: in the period between 1990 and 1995 the decline in the volume of passenger traffic slightly exceeded the decline in the economy (in the case of railways, approximately 6% decline could be shown p.a., and a 4.5% decline for public roads). In the same period, transport expenditure by households increased both in absolute and relative terms. The main reason for the decline in passenger transport was the substantial drop in solvent demand: as the Government reduced the amount of aid provided, transport companies were forced to increase their tariffs to make up for lost aid. Higher transport costs were matched by a relative decline in the standard of services.

Since 1995, public transport use has been on the rise again in Hungary (3% p.a. in case of the railways, and 5% p.a. approximately in the case of road transport), with the ratio of public passenger transport compared to the total value of transport on roads exceeds 40% (twice the average of the EU). This is due to a combination of factors: well organised local and interurban transport and relatively low private car ownership.

Car ownership in Hungary (320 cars/1000 inhabitants) is approximately half of that in the EU. The envisaged increase in the standard of living is likely to increase demand, leading to an increase in the car pool and a rise in terms of passenger kilometres. A two-fold impact is to be expected as a result: car use by those who have used their cars less frequently until now will increase their use as real income grows, and the additional charge of the infrastructure caused by newly acquired cars.

The TPC recognises that the increase in car use is unstoppable particularly in the candidate countries. In Hungary the decline of real incomes over almost a decade held back the growth rate of the car pool. But now, the sustained growth of real incomes has resulted in increasing the number and use of passenger cars and slowed the reduction in the performance of public transport. This trend may only decelerate, as on average, every other household has a passenger car today. The number of cars was 1.9 million in 1990, 2.2 million in 1995 and 2.4 million in 2000, since then the number of cars increases by 80,000–100,000 a year.

Transport by long-distance coach passenger traffic is expected to increase in the next few years and railway transport (primarily with the increase in InterCity services) will recover some passengers primarily over longer distances (this trend began already in 1995). In addition, due to an increase in real income, the total number of trips for the entire transport sector will increase, although most of them will enhance the ratio of individual transport mode within the sector; consequently, the *ratio* of coach transport to the overall volume of the transport (in terms of passenger kilometres) will decline, while the actual numbers of those travelling by coach will increase. At the same time (albeit to a moderate extent) the ratio of transport by rail compared to the overall volume of the transport (in terms of passenger kilometres) will also increase.

The economic downturn between 1990 and 1995 resulted in an annual average 3% reduction in public transport usage. However, the international trend for an increase in local (urban) transport is associated with substantial traffic jams, air and noise pollution and the risk of accidents as much in the European Union as in Hungary. In 2001, the number of passengers using local public transport was close to 2.5 billion, which equates to over 9.7 billion passenger kilometres. Nevertheless, public transport is not sufficiently flexible; currently it is unable to accommodate increasing transportation demands. To help alleviate this, the European Commission provides support for all alternative solutions to replace cars.

The most important problem in big cities, and most of all in Budapest, is that the building rate of roads and parking space could not keep up with the increasing use of cars; and changes in life-style, suburbanisation, moving to the outskirts of the urban area increased travel demands without the necessary resources for developing environmentally friendly, rail-based public transport vehicles of appropriate capacity. At the same time changes in the economy made car business journeys more frequent - in many jobs even several times a day - and stimulated and polarised goods transport with requisite vehicles.

Efforts by Budapest leadership to solve the traffic situation, based on urban development plans, aimed on the one hand to renovate the main road network which was in bad condition, to build smaller new road sections, and on the other to renovate and build up large capacity public transport facilities, such as a new underground line or some smaller new tram routes. Introducing pay car parking systems and building car parks outside public areas have been significant steps taken in order to relieve the city centre.

City Bus Greening Programme has been introduced to focus on the replacement of old bus motors with environmentally sound ones, which meet European Union (EU) emission standards. Businesses are becoming “green” enterprises, such as the Hungarian State Railways Co., which is expanding its services in an environmentally sound way. Despite various financing problems, the ratio of the public transport is still relatively high (modal split for travel by car/public transport in Budapest is 40/60 currently, it was 30/70 ten years ago).

Most well-known examples of innovative transport development are connected with Budapest. Renewal of tram route number 56 was carried out on the basis of Budapest transport system plan; it featured with great success in the 'Intelligent Mobility' section meeting at the 2000 URBAN 21 World Conference. Following on from this experience the Budapest Transport Company (BKV), continues its 'BKVPlusz' programme, promising high-quality service, more comfortable and better vehicles, cleaner and more convenient stations in the growing number of tram and bus routes involved in the programme, and also provides appropriate publicity for this. New suburban MÁV trains on the line between Budapest and Vác - which have reduced the public road transport in the area and have become very popular among those involved – have proved to be equally successful.

The private vehicle fleet has been significantly increased for the recent decade (from 220 to 320 cars/1000 inhabitants within 10 years) and basically due to that trend, the emissions from the transport sector became the major (and increasing) source of air pollution, while those from industry have decreased over that period.

F. Promoting Human Settlement Planning and Management in Disaster-Prone Areas: Hungary is located at the lowest part of one of the most enclosed basins on Earth, with a considerable proportion of surface waters with no outlet, or prone to inundation. As a consequence of climatic conditions, there are extreme fluctuations in water flow, resulting in regular floods and temporary lakes at one extreme, and droughts at the other. Hungary has the greatest area requiring flood protection in Europe, with nearly 25% of the territory of the occupying the flood planes, which includes one third of the total cultivation area, 32% of railways, 15% of public roads, and 30% of the GDP production. The property value at risk is valued at over 5,000 billion HUF. This includes the gross value of properties and investments in industry, agriculture, the construction industry, tourism, retail trade, catering, accommodation, municipal and treasury properties and the value of houses.

On the basis of statistical averages, areas prone to flooding will experience minor or average floods every 2 to 3 years, major floods occur every 5 to 6 years, and extraordinary floods can be expected every 10 to 12 years. On the upper sections of rivers, major floods typically last 5 to 10 days, while on the middle and lower sections with little slopes floods may even last for 50 to 120 days. For example, there were a series of abnormally high floods along the River Tisza since 1998 that had adverse social and political impacts. Construction of the current flood defence system began in the middle of the last century and was completed recently in order to provide protection against damage by floods. In the whole of the country, the total length of primary protection lines reaches 4,181 km, out of which the length of man-made flood control works, dikes and flood protection walls, is 4,003 km, while 178 km are levees. The 96 flood plain bays of the River Tisza are protected against damage by floods by 2,951 km of defences.

The floods of the last 5 years on River Tisza have led to a revision of the traditional, expensive, follow-up approach of flood fighting and the formulation of a flood control development programme based on the concept of preventive flood mitigation. This concept is developed in the Improved Vásárhelyi Plan (IVP), which aims to lower the peak flood levels by implementing flood retention reservoirs. This component of the measure contribute to the IVP and will support the improvement of the economic, environmental, ecological and conservation status of the regions influenced.

Waterlogged areas: about a quarter of the territory of Hungary consists of low-lying plains that have no natural drainage. Some 10-15% of the almost 5 million hectares of regularly cultivated arable land is affected periodically by harmful surface waters (internal waters). The assessment of the data of several years indicates that the annual average area covered by internal waters (for a period of 2 to 4 months) is approximately 130,000 hectares. The area affected by internal waters was exceptionally large in the year 2000, when 343 thousand hectares were under water at the beginning of the year. At present, a network of drainage canals totalling 27,500 km and 235 surface water reservoirs with a combined capacity of 259 million m³ are available for the drainage and storage of internal waters. The areas of the country that carry the highest risk of internal waters are the Tisza valley and the lower-lying parts of the Danube valley.

In recent years, the risk of the occurrence of moderate droughts has increased significantly across all seasons, while the probability of severe drought in the spring and winter periods has also increased. A survey of the annual distribution of precipitation over the last hundred years indicates that there have been 17 favourable years, 32 dry years and 28 very dry years. The probability of severe drought is particularly large in the plain areas (though there are variations between regions), the Transdanubian region is only subject to more moderate droughts. Droughts may occur every two years. The average period of recurrence of severe droughts is between 10 and 20 years in the Great Plain. In drier periods, actual quantities of precipitation remain far below the average, while in wetter periods, it may reach two to three times the average value. A review of the precipitation conditions of the growing season indicates that rain alone does not meet the water requirements of vegetation.

G. Promoting Sustainable Construction Activities: The First National Environmental Program (1997-2002) determined the basic tasks for sound management of toxic chemicals (e.g., training of experts on risk assessment, support for removal of asbestos, risk reduction from the use of pesticides, and remediation of contaminated sites). A variety of projects aiming at achieving high level of protection of human health and the environment from chemicals are concluded or in progress. Second National Environmental Program (2003-2008) is aiming to continue this work.

In Hungary practically all building materials used in EU can be purchased, and environmentally friendly building structures are also known among designers and professionals. A key problem is that part of materials and structures is much more expensive than lower quality products, and though according to experience many designers would devote money to more sustainable products, this often takes place when extra expenditure is able to be refunded. The most important and most widely-known focus in sustainable building is on energy-saving methods, which are increasingly strictly prescribed in building standards. This endeavour is easy to detect in different heating systems and especially in the case of quantifiable savings, for bigger investment projects, such as office buildings, hotels, commercial institutions, etc. In the last decades different kinds of support systems have come into existence in this field, for example after-heat-insulation in older buildings (the so-called Panel-Programme for energy-saving modernization/renovation of prefabricated blocks of flats).

Sustainable construction activities are supported also by civil society groups. Some of them do awareness raising (www.archilink.hu), others have data base for environmentally friendly construction (<http://www.foek.hu/korkep/index.htm>, <http://www.nemsitt.hu>).

Many urban areas are characterised by poor physical conditions, in which an enormous shortfall of investments has accumulated in the stock of buildings and in public spaces. These conditions are often aggravated by concentrated environmental pollution. Dilapidated physical environment is often associated with social problems. In certain urban areas, increased poverty constitutes a significant brake on economic development and renewal, and has a negative impact on public safety. These areas are mostly inhabited by low-income pensioners, unemployed people and groups of multiply disadvantaged people.

Due to past industrial and military activities there are a large number of unused or underused brownfields (unused or underused industrial sites, former military establishments) in Hungary. These areas are characterised by poor physical and environmental conditions, as well as by the fragmented ownership in some areas. The existing productive infrastructure systems (electricity, water, gas, sewers and telephone lines) and the availability of re-usable buildings are an important factor for their re-utilisation. There is reason to believe that in the absence of conscious and organised urban policy intervention, these areas will continue to be neglected by investors, the unfavourable build-up conditions and environmental pollution will remain and block the development of the area, resulting in further depreciation of these sites and the continuation of the related social problems. At the same time, these brownfields would represent a considerable value for the settlements concerned, if their rehabilitation, re-utilisation and functional change would become possible.

H. Promoting Human Resource Development and Capacity-Building for Human Settlement Development: The R&D concept for environmental protection and nature conservation (2001) extended the scope of research activities to sustainable development aspects as research on climate-change, sustainable energy-management, sustainable urban development, sustainable agriculture, sustainable transport etc. Besides the environmental aspects, other important components of sustainable development are also investigated (societal changes, tendencies in technological innovation, interlinkages of social and economic processes etc.).

In spite of the increase observed in 2002¹ (to 1.01%), finance for R&D is still much less than the average of EU-15 (1.9%). In order to achieve the targets of Lisbon and Barcelona (a competitive and dynamic knowledge-based economy, to increase the GERD to 3% of the GDP) a completely new Research and Technological Innovation Fund will be created in 2004. This state Fund will include the two largest current R&D Funds, namely the National Technology Development Fund (MÜFA) and the National R&D Programmes (NKFP), and consist of two main financial income elements: business contribution and state resources.

Status: Hungary is characterised by a unique settlement structure, Budapest and its agglomeration is dominant, with almost one-fourth of the country's population living here (around 2.4 million people), while Hungary's second largest city has only 200 thousand inhabitants; there are no towns of 300-500 thousand inhabitants in the town structure playing an important regional role, which could be regarded as medium-size towns at European level. Large towns as regional centres and other county seats of medium-size towns play an important role in regional economy and in providing services for the population. These are usually dynamically growing centres with significant powers in organising the region, due to their role as economic and service centres, as well as better accessibility and infrastructure supply, leading to a more favourable environment for investors.

The differences in the local quality of life appear primarily between micro-regions and settlements, rather than at regional level.

Large towns, especially Budapest and its agglomeration face the increasing problems of traffic-related air- and noise pollution, as well as the lack of green areas. The escalating sub- and desurbanisation processes of neighbouring smaller settlements are followed by a slower progress in the infrastructure and the service sector. Impoverishment in certain areas of large towns inhibits economic growth and restructuring. It also has an unfavourable effect on public safety. Most micro-regional centres are small towns, which have often lost their functions and are unable to act as dynamic forces in organising the regional structure of

¹ All 2002 R&D data are based on the preliminary data of the Hungarian Central Statistical Office.

their environment and supply institutions for the neighbouring settlements due to infrastructure shortages and disadvantaged socio-economic position of the micro-region.

The quality of the residential environment of settlements with a small population and bad infrastructure generates other types of problems. The poor transport infrastructure (cul-de-sac settlements, shortcomings of public transport system, etc.), the random structure and availability of institutions providing basic services (primarily in the fields of education and health care) and the lack of job opportunities force younger and better qualified people to leave these areas. With the aging of the local population, the situation of these settlements is further deteriorating.

Regional differences in economic development and quality of life induce migration. In the end of the 80's, and in the beginning of the 90's the main target area for migration was Budapest, particularly among the young and those with higher qualifications (the rate of migration was 7.3‰ in 1985 and 5.8‰ in 1999). This trend has significantly changed to-date. As a result of suburbanisation and high natural decline, the population of Budapest has decreased significantly, by nearly 280,000 person over the last 12 years, and the rate of migration was 8.1‰ in 2001, while the population of Pest county increased by 14.7‰ in the same year. In the rest of the country, the migration difference is not fundamentally significant.

Regional processes of the last decade and the resulting disparities in regional development were basically shaped by economic processes and structural changes in traditional sectors and sectors undergoing modernisation after the democratic changeover.

Apart from the conditions of accessibility and human resources, the level of economic development in the various regions was also largely influenced by the role of foreign working capital in the local economy, the entrepreneurial activity and the market position of enterprises (strength of the SME sector), the standard of business services, as well as the research and development (R&D).

One of the major trends in economic transition is the strengthening of the service sector; especially the expansion of modern financial and economic services contributed to increasing the dominance of the capital. The prevailing developmental disparities between the regions, most apparent between east and west, can be traced back to the establishment of modern industries in central and northwest Hungary, largely due to foreign capital investments.

In the recent past, foreign capital and major investments generated by it, were more prone to be implemented in the capital and its agglomeration and areas which were closer and had easier access to Western markets. Such areas are also easily accessible and are characterised by an investment and settlement environment that ensures an above-average quality of life.

As a result of foreign capital investments, the emergence of new industries in the three more developed regions was coupled with a strong modernisation process, especially in the development of the car manufacturing and auto-spares industries, electronics and IT, electric and engineering industries, logistics centres and large retail chains. This played a major role in shaping the spatial structure of the economy, since the established marketable companies ensure balanced and competitive employment conditions. During recent years increased foreign capital influx and willingness to invest were also apparent in large cities of eastern Hungary (regional centres and county seats) and along the extended motorways. It is important to further strengthen this tendency, which helps the less developed regions to get into the country's economic circulation.

The population living below the poverty level in Hungary is about 10-15% (depending on the definition of poverty). This high rate is mainly due to the deep recession that has characterized the first stage of the

transition process. Although the nearly 15% of unemployment prevailing prior to the economic upswing decreased significantly, but still is around 5,7% (2003. July-September). The chances of employment of the group of elderly unskilled persons with low education have not improved. The groups being most affected by poverty are the long term unemployed; those with low salary; people with disabilities; Roma population (a significant minority with higher than average rates of unemployment due to low education and lack of professional skills); those living in small settlements.

The past ten years, with all political and socio-economic changes were unfavourable to economic and social status (poverty, high unemployment, homelessness, etc) and although improvement can be recorded in the past few years, these facts remain the principal causes of ill health. For the past few years, favourable changes have been observed. Increasing birth rate, decreasing mortality, especially as the cardiovascular diseases are concerned, indicate the positive changes. Economic situation is improving, relatively low rate of unemployment and increasing social security contribute the improving health of the nation.

Capacity Building, Education, Training and Awareness-Raising: See under Programmes and Projects also.

Improvement of knowledge, awareness, and co-operation as related to environmental processes, effects, as well as environmental protection and nature conservation: monitoring and evaluating changes in environmental conditions, environmental effects, and the environmental impact of various measures; making transparent domestic and international decision-making processes affecting the environment and improving the corresponding publicity; measuring changes in environmental conditions and the impact of measures by appropriate indicators; and in the spirit of mutual global environmental dependency – the improvement of co-ordination and information at all levels, with the participation of stakeholders from all sectors, NGOs, and interest groups concerned.

International (PISA 2000) and Hungarian studies have shown that certain effects of the Hungarian education system have tended to accentuate the level of inequality prevailing across the socio-economic divide, which are further aggravated by the settlement-structure as well as by ethnic related considerations. In this context, the strong selectivity and the segregation of schools by social groups are seen as crucial underlying factors, which mostly affect Roma pupils and pupils with disabilities. The infrastructure of the education system is geographically unbalanced and is characterised by significant disparities among the regions, which is mainly due to the size of settlements.

Information: Information on the state of environment is regularly provided for the public, as well. Hungary submits the required source and emission data under the international conventions. In order to maintain nationwide record of dangerous chemicals and an inventory of products, the Medical Toxicological Information Service collects, processes and classifies relevant toxicological, public health and clinical data pertaining thereto. See also under Programmes and Projects.

A new and comprehensive information system should be established including mapping of areas prone to drought, specific database of relevant meteorological, hydrological, agro technical, social and other data, with the help of which a better forecast can be given on drought occurrence, as well as, on estimation of drought impacts. Financing of drought mitigation actions from national budget is not adequately provided and not properly coordinated among responsible organizations.

Websites regarding to human settlement issues: See under Decision making and in the text.
The Hungarian web site on sustainable development: [http:// www.ff3.hu](http://www.ff3.hu))

Research and Technologies: The institution network of research and development is regionally concentrated and apart from a few centres in the country, it is characterised by the dominance of Budapest, since almost half of research facilities, researchers and R&D expenditures come from Budapest. Network structures connecting R&D institutions and companies are missing in most cases. The newly adopted Second National Development Program also emphasizes the importance of research and technologies as a horizontal theme.

Monitoring and assessment of the relevant social processes are conducted by the researchers; the programmes, policies and measures are elaborated by taking into account these assessments and the proposals of various research groups. See also under Programmes and Projects.

Financing: See under Programmes and Projects.

Cooperation: Hungary is a Party to the following international conventions related to human settlements: the Convention on the Protection of World Cultural and Natural Heritage (1985), the Convention on the Protection of European Architectural Heritage (1990), and the Convention on the Protection of European Archaeological Heritage (1992). Hungary takes part in the UN programme on human settlements (HABITAT). A regional information centre of HABITAT is located in Budapest. Hungary also actively cooperates with the Organization for Economic Co-operation and Development (OECD) on regional policy and human settlements.

The basic elements of the environmental action programmes (EAPs) were developed within the framework of pan-European cooperation coordinated by the United Nations Economic Commission for Europe (UN ECE). The Sofia ministerial meeting reinforced the importance of national EAPs. Two years later Hungarian Parliament adopted the First National Environmental Action Program for six years. The result of the Aarhus pan-European ministerial meeting was the Convention on access to information, public participation and access to justice in environmental matters (Aarhus Convention). The last meeting was organised in 2003 in Kiev. Hungary actively took part in this collaboration, as well as in the World Health Organization's (WHO) initiative for the preparation of environmental health action programmes. Their fulfilment has necessitated the integration of specific objectives into national decision-making (for example, emission reduction).

See also under Programmes and Projects.

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