
HUNGARY:
BASIC FEATURES AND INDICATORS OF
SOCIAL, ENVIRONMENTAL AND ECONOMIC CHANGES
AND PLANNING FOR SUSTAINABILITY

National information
to the World Summit on Sustainable Development
Johannesburg, 2002



2002

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CONTENTS

PREFACE.....	3
SOCIO-ECONOMIC AND ENVIRONMENTAL CHANGES DURING THE TRANSITION PERIOD.....5	
Economic development.....	5
Social dimensions of sustainability.....	8
Environment: changing pressures and changes in its state.....	12
INSTITUTIONAL SETUP AND PLANNING FOR SUSTAINABLE DEVELOPMENT19	
Setting up a framework for sustainable development.....	19
Towards strategy planning for sustainable development.....	21
INDICATORS OF SUSTAINABLE DEVELOPMENT25	
Social dimension.....	26
Environmental dimension.....	35
Economic dimension.....	43
Institutional dimension.....	53

PREFACE

The fundamental socio-economic changes in our region have coincided with the period of global recognition of the close interlinkages of social progress, environment protection and economic development, realization of the dramatic increase of the poverty gap and the rapid degradation of the Earth's natural resources, and eventually, the acknowledgement of the principles and criteria of achieving sustainability. Apparently, a comprehensive and realistic evaluation of the changes that happened specifically in Hungary in terms of the long-term objectives of sustainable development will be possible only later - after gathering enough experience and having already some historical perspective. The socio-economic transition in our country followed the political changes after the late 1980s: the democratization process was characterized by the "introduction" (actually, reintroduction) of the multiparty system, recognizing the constitutional role and the significance of effective functioning of the Parliament, changing priorities of the participation in the international cooperation etc.

Despite of the relatively short period of these changes, it is evident, that the tendencies of the recent past should be assessed critically and the future development should already be guided by these early experiences and by the above-mentioned sustainability principles. Those principles along with the global programme of sustainable development (Agenda 21) were universally adopted in 1992 during the United Nations Conference on Environment and Development and we think that these documents are of critical importance in context of planning and implementing of our long-term national strategy.

We have passed an extraordinarily complex period of transition in our country and this booklet summarizes some of the basic features of the changes. Most of the structural indicators clearly demonstrate the transition, however, obviously the complexity of the changes cannot be adequately reflected in such a tiny booklet and exclusively by means of these indicators. The basic outcomes revealed by the indicators and the features derived from the tendencies reflected also by those indicators and their correlations are as follows:

- Hungary has met economic challenges of the transition period. Economic transformation has been fast and deep with sweeping changes and major restructuring both on macro and micro-economic level. After some years of transitional recession, the economy recovered: the GDP started to grow, public debt and foreign debt were cut, foreign direct investment stabilized on a high level. By now, Hungary has successfully met most economic criteria of the EU accession and expects to become an EU-member in the near future.

- The profound changes in the structure of the economy helped the country to reduce the use of energy and materials as well as the emission of some important pollutants. As a result of the changing production patterns, the economy started to develop along a new, more sustainable path. Due to this change, previous levels of pollution and the use natural resources are not likely to return.
- Economic and environmental achievements, however, have not been accompanied by similar progress in social issues: social challenges of the transition proved to be more difficult for Hungary. The transition has brought improvement of the living conditions for about one third of the population, while the bigger half of the society has had to face unemployment, a decline of their income and social status. Social inequalities grew sharply, and poverty increased. Certain social groups, e.g. the long-term unemployed, single parent families, families with three or more children, elderly people with special regard to single elderly people, people lacking vocational skills; people with disabilities, citizens settled in certain regions and certain types of locality (farms, small villages), and the Roma have been particularly vulnerable.
- The transition did not affect some long-term trends, namely the decrease and aging of the population, the split up of families and the lower female wages on the one hand, and the rising level of education, increasing life expectancy and the impact of expanding sanitation system and developing communal and telecommunication infrastructure on the comfort of people on the other.

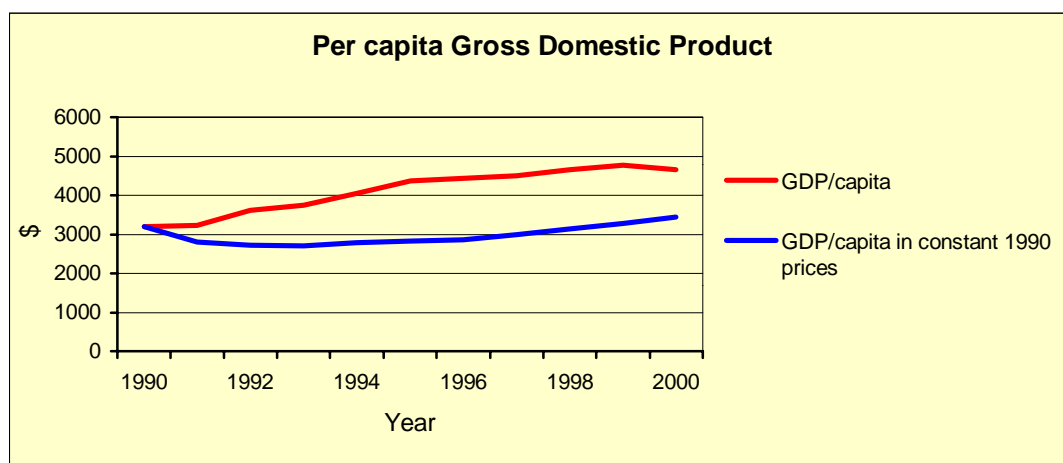
Such analytic approaches, sustainability indicators and similar instruments will also be needed in the future. We are now committed to draw a national strategy for sustainable development and at last the process of its formulation has been launched. Various means of its implementation and measuring the progress will also be of key importance. National dialogue with all stakeholders, public participation, active international collaboration are also crucial prerequisites.

In light of these national aspirations, we expect that the World Summit on Sustainable Development will significantly contribute to the solution of the international tasks of sustainable development and finding consensus on the necessary common activities will also assist us to raise public awareness, to proceed with a national sustainable development strategy, strengthen the relevant institutional mechanisms and eventually to achieve our sustainability targets.

SOCIO-ECONOMIC AND ENVIRONMENTAL CHANGES DURING THE TRANSITION PERIOD

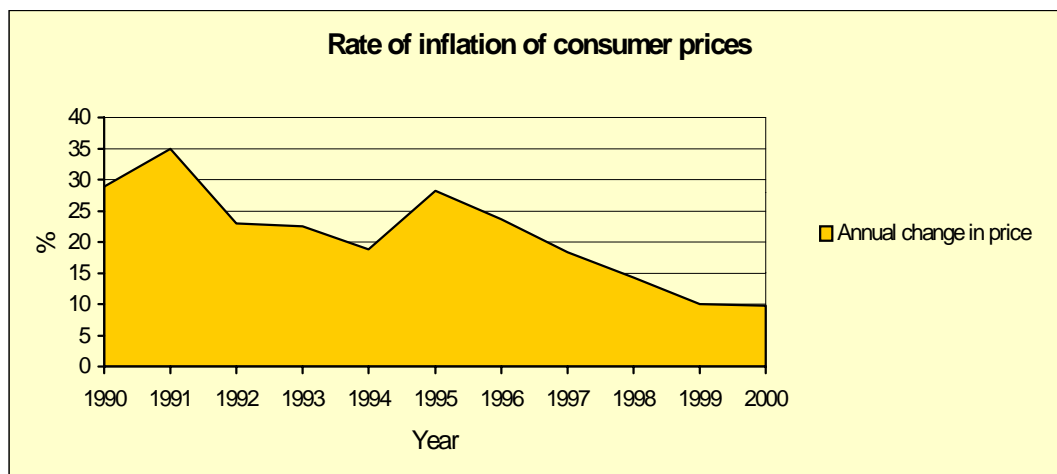
Economic development

Economic transformation has been fast and deep. It has brought sweeping changes and major restructuring both on macro and micro-economic levels. Structures and procedures of central planning have been replaced by those of market economies. State property has been privatized, and new private firms have been established. As a result, the private sector was rapidly expanding, and currently its contribution to GDP is over 85%. State influence on the macro and micro economy was reduced through the liberalization of prices and trade (including foreign trade) as well as the cut of subsidies. At the same time, the state role and responsibility for the establishment and proper operation of the institutional mechanisms of the market economy has substantially increased. Regular country assessments of the European Union about Hungary affirm that Hungary is a functioning market economy that should be able to cope with competitive pressure and market forces within the European Union in the near term (European Commission, 2000).

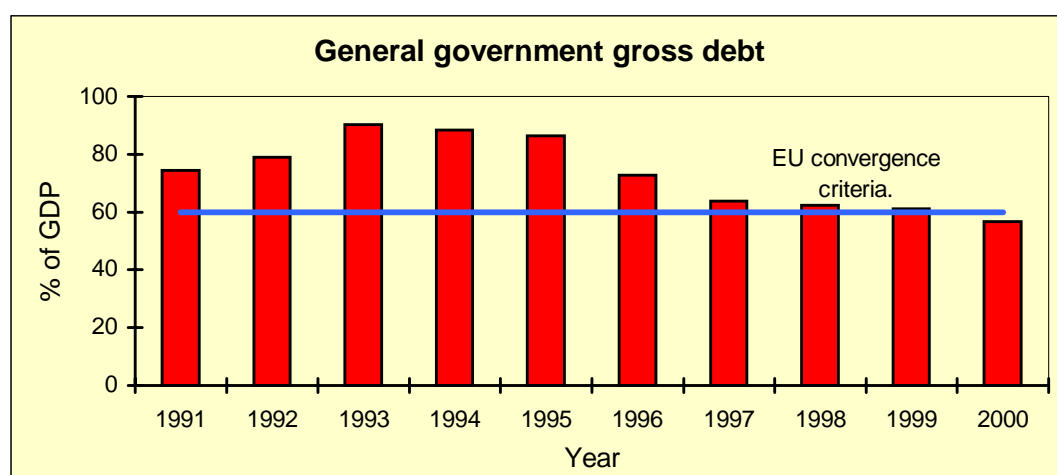


(indicator 3.1)

Initially, transformation was accompanied by recession characterized by the decline of the GDP, industrial and agricultural output, the decrease of fixed capital formation and employment as well as macro-economic imbalances: high level of public and foreign debt and inflation.



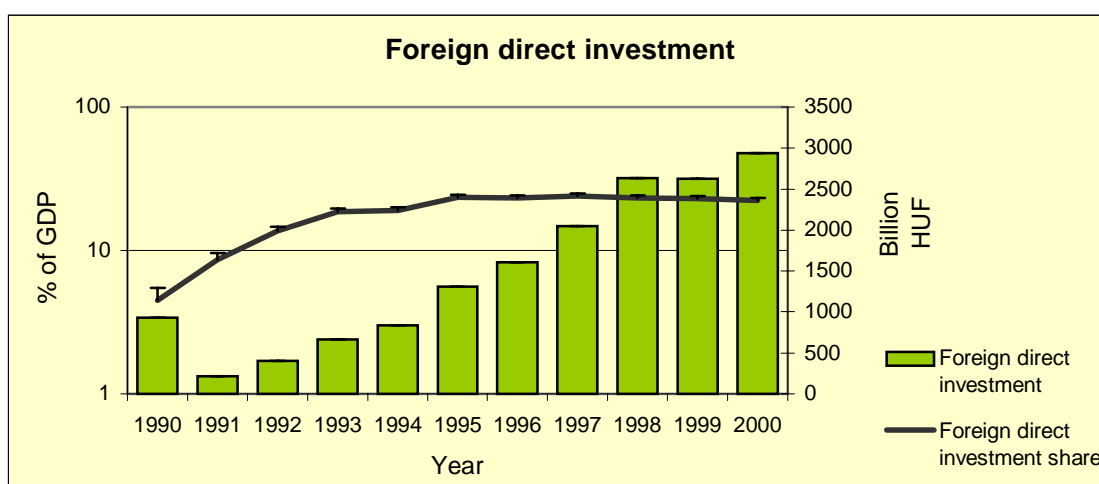
(indicator 3.4)



(indicator 3.6)

Between 1990 and 1993, GDP per capita shrunk by more than 15%, industrial output by 19%, and agricultural output by 32%. With the exception of 1994, inflation in the first half of the 1990s ranged between 20-35%.

In the same period, public debt ranged between 75-90% of the GDP. By 1993, net current account turned negative and amounted to more than 8% of the GDP in two consecutive years (i.e. in 1993 and 1994) and over 5.5% in the next two years. In the same period, despite the high level of foreign direct investment ranging between 19-23% of the GDP Hungary had serious problem in balance of payment.



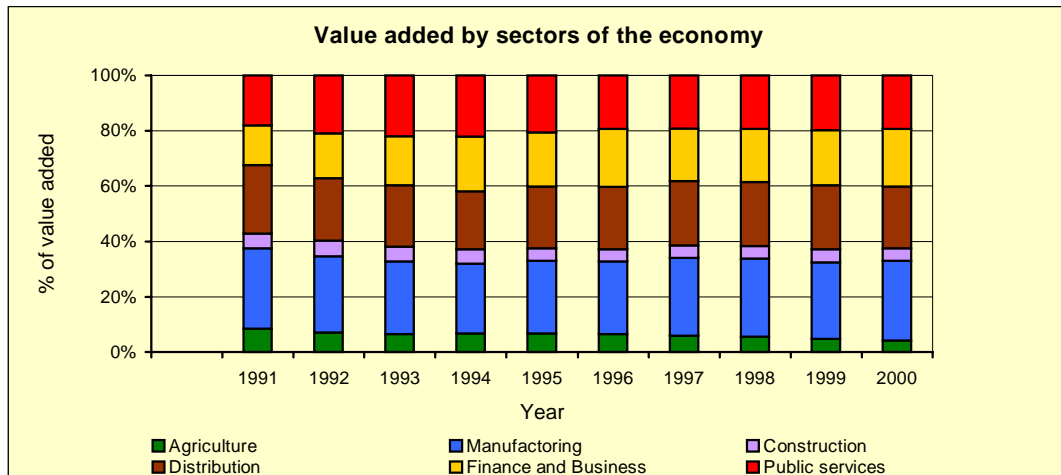
(indicator 3.5-2, the vertical axis is in logarithmic scale)

Hungary's recovery from the transformational recession was relatively slow as compared to pioneering CEE countries like Poland and the Czech Republic. Recovery started in 1997. Since then, the annual growth of per capita GDP ranged 4-5%. GDP per capita reached its 1990 level by 1999, industrial output by 1998. Rate of investments to the GDP has been growing and reached 24% in 2000. In 2000, the GDP per capita in Hungary amounted to USD 4649, which was about 50% of the average per capita GDP of the European Union.

With economic recovery, macro-economy has been stabilized. Inflation diminished to around 10%, public debt was continuously shrinking and got below 60% of the GDP, which is the EU requirement. Net account deficit has been also decreasing. Hungary has received continuously improving qualifications as an international borrower from financial institutions. Foreign direct investments have stabilized on 22-23% of the GDP, i.e. a relatively high level despite the fact that privatization was basically finished by 2000.

The high level of foreign direct investment and the sales method of privatization facilitated sound economic restructuring both on macro- and micro-economic level.

The share of contribution of different sectors to the GDP has changed. The share of agriculture, manufacturing and construction has dropped while the share of services, i.e. trade, financial and public services increased significantly. Decreasing share of the production and increasing share of services facilitated the decrease of resource use and pollution.



(indicator 3.3)

Structure of industry has changed as well. Contribution of all branches to the GDP has diminished with the exception of two, namely wood, paper and pulp industry and printing on the one hand and manufacturing of machines and equipment on the other. The former branch's contribution has practically stagnated while the contribution of manufacturing of machinery and equipment has more than doubled and has become the leading branch of industry.

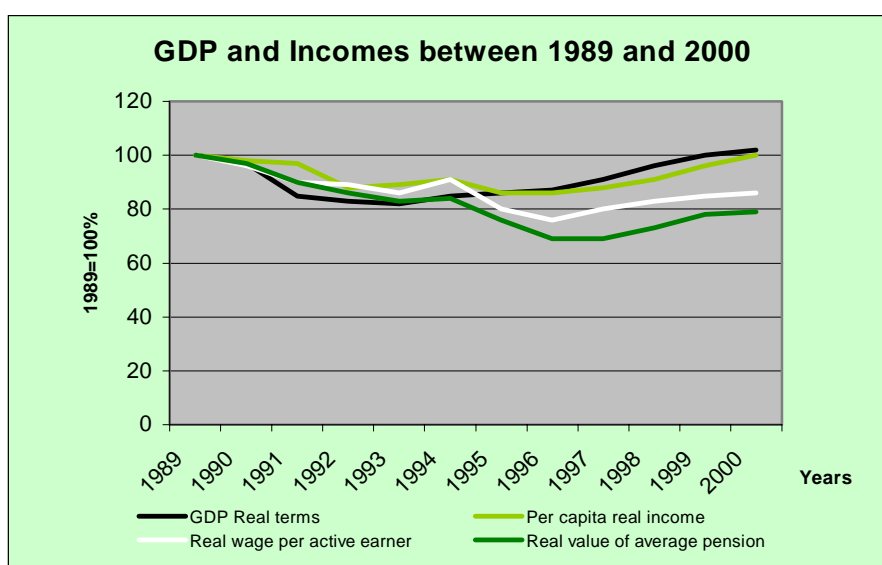
On the micro-level, both technology and products have changed which helped to ease the pressure of Hungarian industry on the natural resources.

Hungary has basically met economic challenges of the transition period. Economic success, however, was not accompanied by similar progress in social issues: social challenges of the transition proved to be more difficult.

Social dimensions of sustainability

So far, successful economic restructuring failed to improve living standards for many people. The transition brought improvement of the living conditions for about one third of the population, and significant improvement for a much narrower group. The bigger half of the society, however, people, who were unable to adapt to the new conditions due to their age, skills, education, family status, place of residence, etc. had to face unemployment, a decline of their income and social status.

In the 1990s, social inequalities grew sharply. Income disparities started to increase as early as the 1980s as a result of the appearance of small businesses, the process of income differentiation, however, accelerated in the 1990s. The gap between the lowest and highest income deciles has doubled. In 15 years, it grew from about four- to fivefold to about eight- to tenfold. (The accuracy of the statistics is limited due to the existence of black economy.) The pre-transition Gini coefficient was 21% in 1982 and 23.58% in 1988. The post-transition Gini coefficient increased to 32.06% in 1997 and 33.01% in 1999-2000, i.e. it was higher than the EU average.



With the close down of in-competitive companies, many employees lost their jobs. Competitive companies also shed workers in order to increase their profitability. People lacking required skills found it difficult to find new jobs. With the economic recession, unemployment grew to over 10%. By year 2000, the rate of unemployment has shrunk to about 6%, which is favourable in international comparisons. The official rate, however, is somewhat misleading, as it does not reflect all joblessness. It conceals the fact that the number of people economically active decreased by more than 20% between 1989 and 1999. Due to the black and grey economies and workers who have been discouraged from the labour market and are no longer looking for jobs, inactivity rate is high, higher than in most countries of the European Union. In 1998, among those in the 15-64 year cohort (6.8 million people) the rate of employed was 54% as against 61% in the EU (Employment in Europe, 1999 quoted in the Report of the National Centre of Labour Market Research, 2000, p.4). The gap is

particularly high in the case of men: the rate of employed among men was 71% in the EU and only 61% in Hungary. The respective rates for women were just the opposite: 51% in Hungary and 47% in the EU. (To some extent, these differences are consequences of the specific national circumstances in that period: the higher age of retirement and the so-called “two-earners family model”.)

In line with international trends, the unemployment rate is higher than the average among the youngest and the oldest, the low skilled or uneducated, and in less developed areas. The rigidity of the labour market is also significant. The rate of the long-term unemployment – those who are unemployed for more than 12 months – grew rapidly and has stabilized around 50%.

With the economic recession of the early 1990s, average real income, average wage and pension in real terms decreased. While the GDP per capita, as already mentioned, reached its 1990 level by 1999, and real income by 2000, in 2000 the average real wage was by 14%, the average pension by 21% lower than in 1989.

Shrinking incomes, the emergence of unemployment and the sustained high (two-digit) inflation imposed economic hardship on large groups of the Hungarian society. This, together with the decrease of social transfers in real terms, contributed significantly to the increase of poverty. Both relative poverty, i.e. the share of people living under half of the mean and absolute poverty, i.e. the ratio of those who live under the subsistence minimum has grown. Absolute poverty has tripled since the early 1990s and the share of people living under subsistence minimum reached 30% by the millennium.

Relative and absolute poverty in Hungary (%)

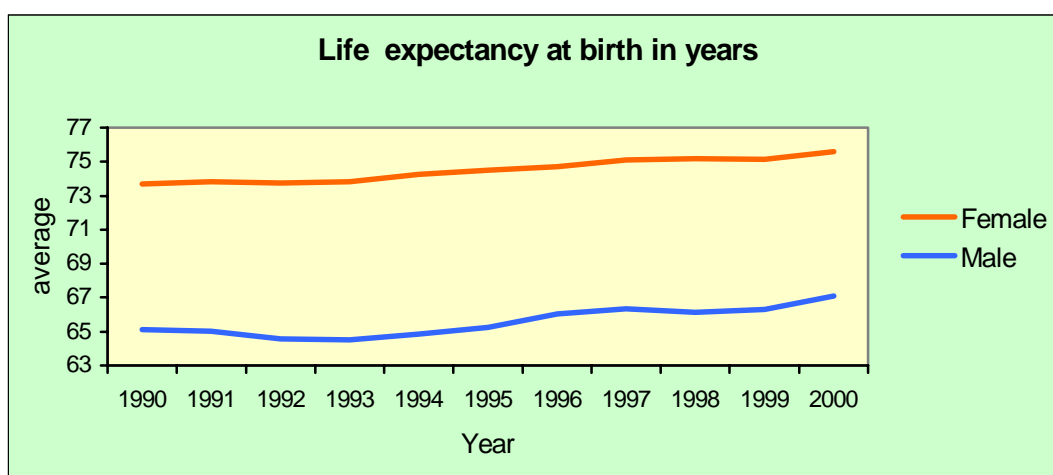
	1987	1992	1995	1996	1997	1999	2001
Relative poverty							
Population living under 50% of the average equivalent income [†]	~ 6-7 ⁱ	10.2	~15 ⁱⁱ	18,3	17,8	13,8	14,4
Absolute poverty							
Population living under the subsistence level ⁱⁱⁱ	n.a.	10,1	n.a.	26.6	31,0	n.a.	n.a.
Population living under the official subsistence minimum ^{iv}	n.a.	n.a.	n.a.	n.a.	25-30	29	n.a.

Sources: ⁱ TÁRKI, ⁱⁱ HCSO 1987, 1997, ⁱⁱⁱ TÁRKI ^{iv} - HCSO: Létminimum 1997, 1999

[†]this approach differs from the EUROSTAT methodology

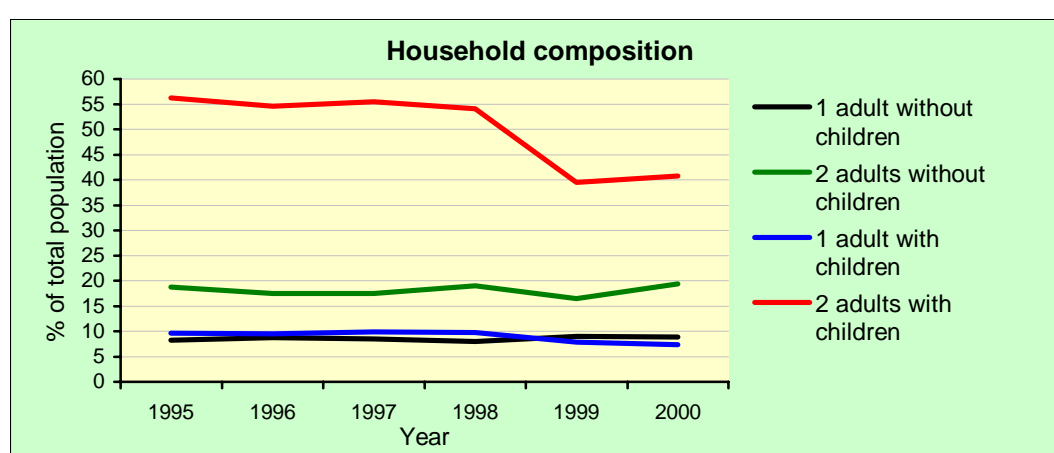
Certain social groups are especially threatened by poverty. These groups include the unemployed (particularly the long-term unemployed); single parent families; families with three or more children, especially small children; elderly people with special regard to single elderly people (mainly women over 70); people lacking vocational skills; people with disabilities, citizens settled in certain regions and certain types of locality (farms, small villages); and the Roma. Poverty mainly strikes rural population. The risk of poverty in villages is twice as high as in the capital. (About 40% of the Hungarian population lives in the countryside.)

Decreasing welfare expenditures did not compensate for the decreasing real incomes. Due to public deficit, the proportion of welfare expenditures to the GDP was cut between 1991 and 1998 by more than 10%. Shrinking welfare expenditures did not keep pace with inflation. Their real value decreased by 35% between 1989 and 1996, and even in 2000, it was by 2.4% lower than in 1989. Despite the fact that with economic recovery, welfare expenditures grew faster than inflation in the late 1990s. In addition, a significant group of unemployed people who withdrew from the labour market without registering for benefits were left without social provisions (the estimated number of these unemployed people is over 500 thousand.) At the same time fluctuating public health expenditures covered a decreasing part of total health care expenditures that created further burdens for some disadvantaged groups of people. As a consequence, economic difficulties affected even daily calorie consumption. The number of homeless people have increased as well.



(indicator 1.8)

In other respects, living conditions have slightly improved. Life expectancy, after a temporary fallback at the late 1980 and the beginning of the 1990 has started to grow, though it is still very low in European comparison. An increasing share of population got connected to the sanitation system and gained access to earth gas heating and telephone. More people have attained upper secondary and tertiary education. The share of people with upper secondary education as well as college and university degrees rose not only among young people but in every age group. Housing condition turned somewhat better despite the decline of constructions in the mid-1990s. The average number of rooms per capita grew from 0.85 to 0.98.



(indicator 1.14)

Economic trend and the transitional period, on the other hand, did not influence some major long-term demographic and social tendencies. The Hungarian population has continued to shrink, and despite the net inward migration, it decreased by 4% during 10 years. The aging tendency of the population sustained due to the increased life expectancy and the low birth rate. In 2000, the share of elderly people aged 65 or more related to the working age population was 21%. Despite decreasing differences in the level of education, on the average, the wages of women is 80% of those of man. The difference is particularly high in the newly developing financial sector where women earn only 55% of male salaries.

Environment: changing pressures and changes in its state

Hungary, like other Central and Eastern European countries inherited serious environmental problems and had to contend with the legacy of an energy and pollution intensive industrial structure, high accumulated levels of pollution and inadequate environmental infrastructure.

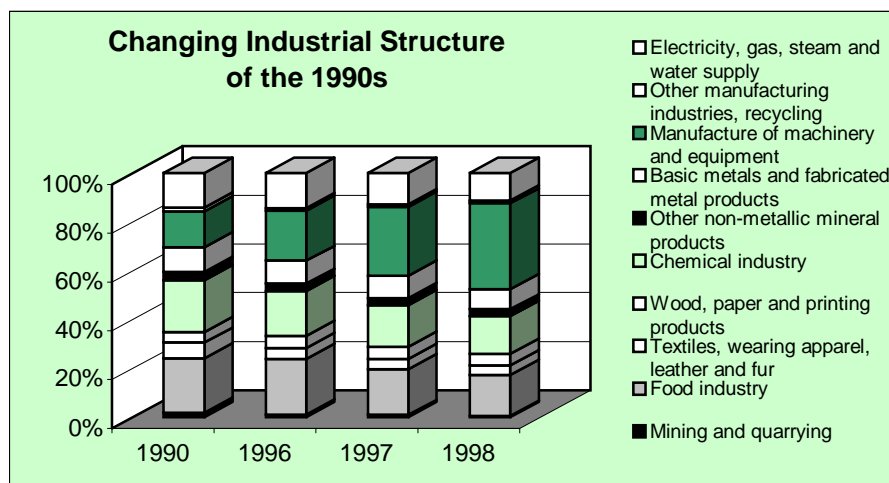
During the past ten years, the country has started to catch up with the environmental performance of the developed countries. Economic restructuring provided a good basis for this process by decreasing the pressure of production on the natural environment.

Hungary: basic geographical and environmental facts

Hungary lies in the middle of the Carpathian Basin, surrounded by the Carpathian Mountains and the Alps. Its territory is 93,030 km² (1% of Europe's territory), with a total population of 10.197 million. Its widest extensions are 268 kilometres North-South and 526 kilometres East-West. More than half of its territory is plain. The mountains on the northern-east of Hungary are the Southern appendixes of the Carpathians. The highest point is Mount Kékes (1,015 metres). Transdanubia is a rather hilly region. Lake Balaton - the largest and warmest freshwater lake of Central Europe - is situated there. The two most important rivers, the Danube (its length in Hungary is 417 kilometres), and the Tisza (598 kilometres), cross the country from North to South. The climate is temperate continental, with an annual average temperature of 10°C.

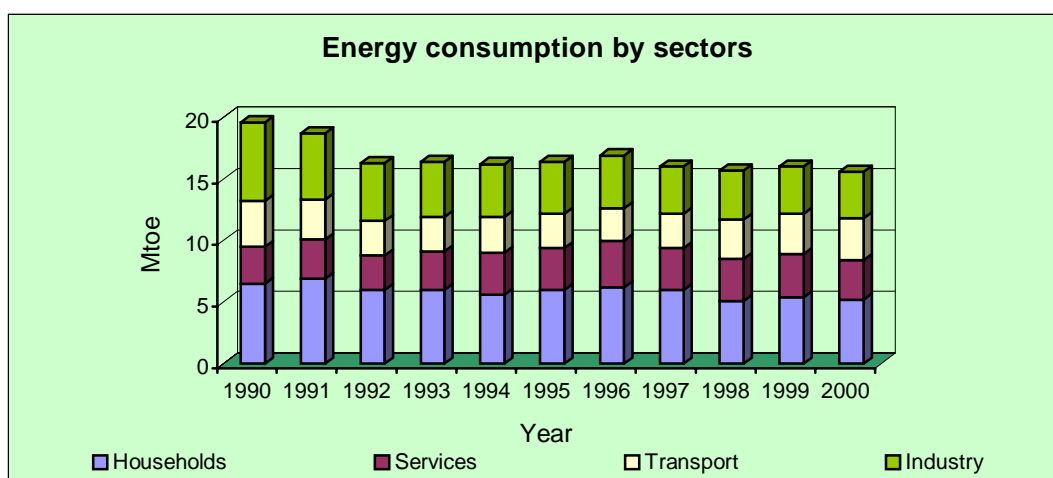
The renewable water source is 120 billion m³ annually, what is mainly provided by the Danube river (the amount of inflowing water per capita is the highest in Hungary in the world). About three fourth of the country's water resources (groundwater, bank-filtered and karstic) is vulnerable. The Danube provides water for half of the population mainly from bank-filtered dwells, which have excellent quality. Flood can endanger 52% of the country. The country is reach in thermal waters. 20% of the country's territory is forested. However, only half of these forests are natural or close to the natural state. The first protected area dates to 1939. Nowadays about 9% of the country's territory is protected, in addition Hungary has 10 national parks, of which 5 are situated next to the country's borders and maintained in co-operation with neighbouring countries. The number of protected plant species is 695, of which 63 are strictly protected. Hungary has 965 protected vertebrae and invertebrate species, of which 137 are strictly protected.

Transformational recession hit industries that were most energy and material intensive, and most polluting at the same time, e.g. energy production, mining and quarrying and chemical industry.



As a result of the structural change as well as changing products and technologies, the use of natural resources has significantly decreased. Material consumption dropped by almost 40% between 1988 and 1992, i.e. in four years. Though with increasing production, material consumption grew as well, in 2000 it was still by 26% lower than in 1988. With changing industrial structure and decreasing material consumption, waste generation as well as freight transport intensity of the economy also dropped considerably in the early 1990s. Later, similarly to material consumption, they also increased but did not reach their pre-transition level.

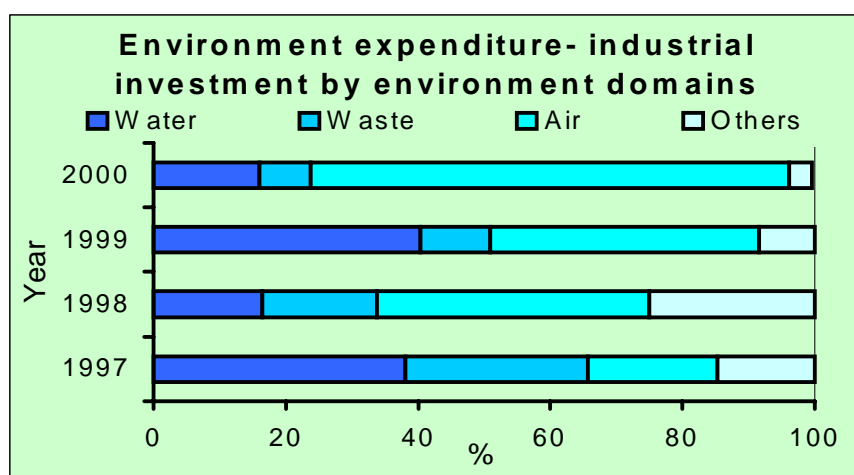
Between 1990 and 2000, energy use diminished by 17%, energy intensity by 22%. Hungarian per capita material and energy consumption is much lower than those of the European Union. The Hungarian per capita material consumption in 2000 amounted to 60% of that of the EU while energy consumption was 44-86% of the energy consumption of the average of the EU member states. Obviously, it is also the consequence of the significantly lower performance of the national economy.



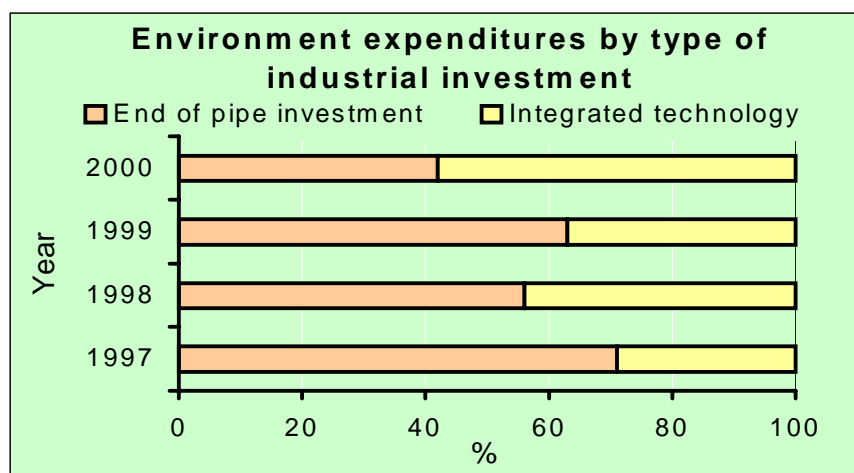
(indicator 3.8-1)

Energy intensity of the Hungarian economy, on the other hand, is about twice as high as that of the EU countries, which shows that energy is used in a less profitable way in Hungary than in the EU. Similar trends prevailed in water consumption. The use of fertilizer and agricultural pesticides has also been cut and the per-hectare doses are lagging behind not only those of the EU but some CEE countries as well. This latter trend, however, is due to the decrease of agricultural production, i.e. it is not necessarily a positive phenomenon, particularly as the low doses of fertilizers are insufficient to maintain nutrient balance.

More environmentally friendly production has been facilitated by new technologies, new production patterns as well as a higher level of environmental awareness in companies. Though environmental investments fluctuated with GDP and business cycles, both public sector and businesses environmental investments have been steadily increasing. New methods of production, like organic farming and renewable energy production has been marginal as yet, their share in the economy is lower than in the EU countries, but it is increasing.



(indicator 3.15-1)

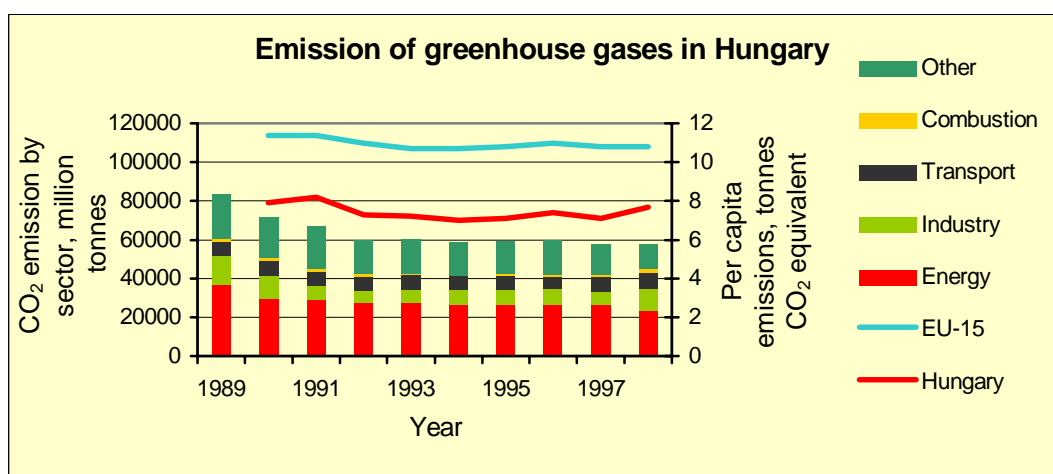


(indicator 3.15-2)

As a result of all these factors, emission of several pollutants like SO₂, NO_x, and dust, as well as, that of greenhouse gases has been diminishing. Consumption of ozone depleting substances has also been cut. Quality of surface water has improved.

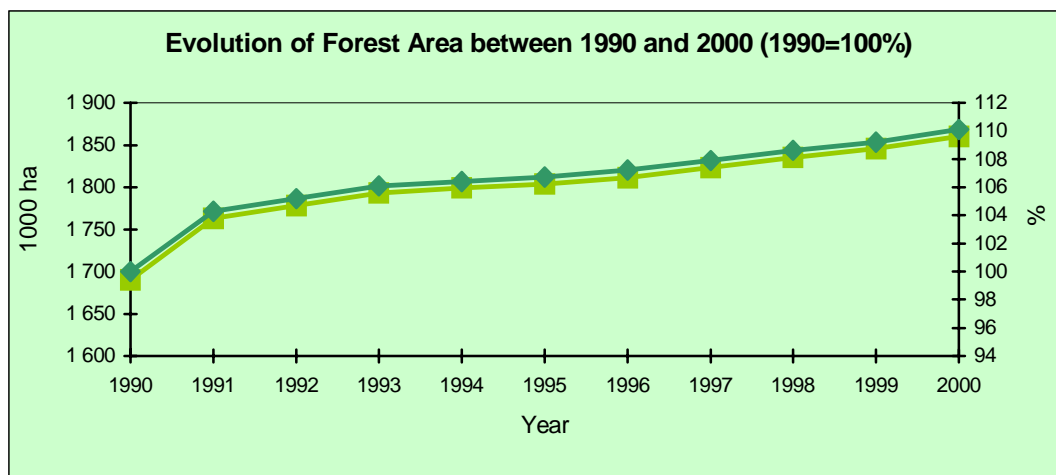
Decreasing trend of energy and water consumption as well as GHG emissions continued after the economic upsurge in the late 1990s. (Decreasing trend of material intensity has reversed in the mid-1990, however, it is too early to decide whether the increase is temporary or will continue for the long-term as well.) These trends indicate that the change of production patterns has started and the economy is developing along a new, more sustainable path. Due to this change, previous levels of pollution and the use natural resources are not likely to return.

Data series available since the economic recovery are not long enough to foretell whether this decreasing trend will sustain. If it does, it means that the long-term link between the production increase and the resource use is broken. This would be a significant achievement even if the extent of improvement was not sufficient for sustainability.

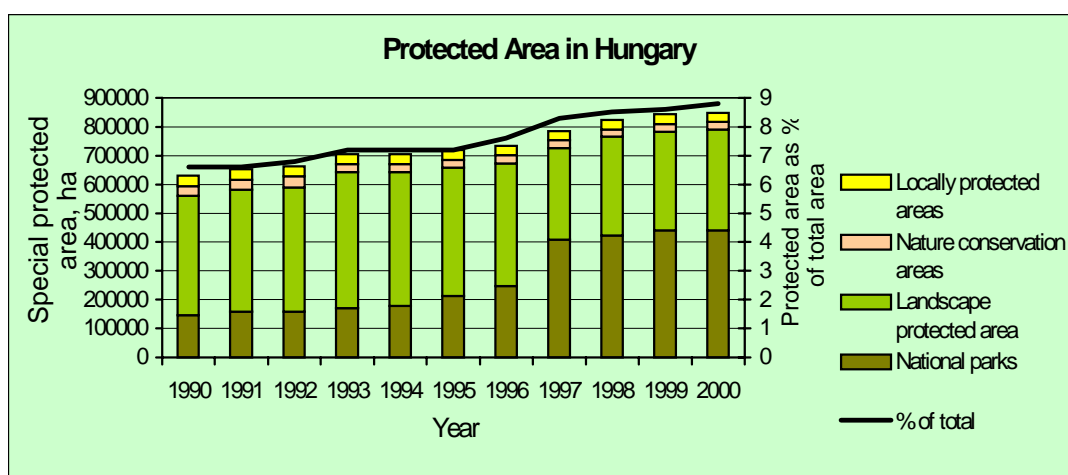


(indicator 2.1)

Positive achievements of the last 10 years include the extension of forest area and nature conservation area. The proportion of forests to total land area increased from 18.2% to 20%, and it is expected to grow as a consequence of Hungary's integration into the European Union. Between 1991 and 2001, the territory of national parks and nature conservation areas has been also expanded by 31% and their proportion to the total land area grew from 7 to 9%. Nevertheless, this share of protected land is insufficient for biodiversity protection, which is indicated by the increasing number of protected species. Besides a larger share of protected areas, additional measures and approaches are needed to maintain biodiversity that is relatively rich in international comparison.



(indicator 2.6)



(indicator 2.10)

The last ten years have also brought some trends that on the long-term pose additional threat to sustainable development.

One of these trends is the increase of road transport with its negative environmental implications: air pollution, the increase of built-in area at the expense of agricultural and other green areas, congestion, noise, increased risk of accidents, etc. This trend characterized both passenger and freight transport. Though freight transport has dropped from its pre-transition level, road transport that replaced inland water and railway transport, developed rapidly. Recent data show that after the initial sharp increase in the early 1990s it rose in close correlation with GDP, however, transit freights continue to grow. Passenger car transport shows a similar tendency as road transport of goods. While passenger travels changed parallel to GDP and real incomes, car ownership grew steadily all along the 1990s.

By the late 1990s, transport has become the major source of urban air pollution as well. It is successfully competing with urban public transport.

Another contradictory trend is the consumption pattern of households. Households on the one hand have contributed to energy and water saving, on the other; however, they have also played a role in the increase of car transport and municipal waste by this causing serious municipal environmental problems.

As regards environmental dimensions of sustainable development, the transition and restructuring helped Hungary to diminish the gap between the environmental performance of the European countries and other developed OECD countries while preserving some of its advantages, i.e. the relatively rich biodiversity, the lower level of personal consumption as well as material and energy consumption of the economy.

INSTITUTIONAL SETUP AND PLANNING FOR SUSTAINABLE DEVELOPMENT

Setting up a framework for sustainable development

Hungary took part in the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 and devoted increasing attention to its outcomes. Besides timely ratification of the two „Rio Conventions” (namely, the Convention on Biological Diversity and the UN Framework Convention on Climate Change), the sustainability principles and the global programme on sustainable development (Agenda 21) were published and widely disseminated.

Moreover, the concept of sustainable development and some of the key principles from the Rio Declaration were reflected already in certain sectoral programmes, plans of action and legal instruments. Like other countries, the policymakers and experts in the field of environment protection were the most enthusiastic of learning and using this concept, its requirements, methodologies and instruments.

A key indication and result of these efforts was that the new framework act on the environment in 1995 and the subsequent first National Environmental Programme (1997-2002) clearly mentioned sustainable development as their overall objective and the programme took into account such sustainability principles as the principles of prevention, polluter-pays, partnership etc.

Other new sectoral strategies and programmes (e.g., for the energy or transport sectors) also referred to these principles. Regarding public awareness, one of the important steps was the elaboration of a strategy on environmental education in 1994 following the initiatives of civil organizations; its new version is now the subject of broad discussion and approval. Sustainable development was incorporated as a major goal into the 1996 Regional Development Act, the Act on Agricultural Development. In the field of combating poverty, shortly after the UNCED the most important piece of legislation was the Social Act of 1993, which established the legal basis of social provisions.

Further on, other acts and programmes incorporated elements of sustainability, for instance, on nature conservation in 1996, energy efficiency or agri-environment in 2001, or as a more recent development, a new public health action programme was launched to address major issues affecting mortality and life expectancy. In spite of these achievements, however, the overall integration and the adequate prioritisation in light of the ultimate objectives of sustainable development were overlooked.

After the UNCED, a governmental decree was adopted on the tasks related to the implementation of the agreements accepted in Rio and on the establishment of a new government panel to coordinate these activities. Eventually, the Hungarian Commission on Sustainable Development was established in 1993 and it also paid attention to the international follow-up of the Rio Conference. Formally, the Commission started its work as a permanent inter-ministerial body responsible for coordination of identification, planning, implementation of national tasks of sustainable development and participation in the relevant international programmes. Later, the membership of this body was extended and several non-governmental organizations delegated their representatives.

Actually, besides this body, from time to time various other councils, commissions, forums were dealing with particular issues of sustainable development: the National Environmental Council (established in 1996), committees of the Parliament, councils of stakeholders' dialogue and conciliation etc.

Besides government and national level, objectives of sustainable development were taken into consideration by several local and regional governmental bodies and non-governmental organizations. Using opportunities provided by regional development funds and the pre-accession funds of the European Union, several sub-regions and local communities have formulated their development programs or participated in the preparation and implementation of such programs and paid due attention to the overall integration requirement of all dimensions of sustainability.

A few local governments launched even "Local Agenda 21" programmes that explicitly addressed complex issues of local sustainable development. However, such an approach was not followed within the majority of the regions and the communities.

Apparently, without a comprehensive national strategy for sustainable development and the consequent coordination and assistance to regional/local sustainable development projects, even the most adequate projects remained isolated and their success had to be limited.

The number of civil organizations in the field of environmental and social policies grew sharply in the 1990s after the political changes and they also have been intensely involved in such publicizing, planning or implementing activities.

Hungarian academic and scientific institutions also carried out research activities related to various aspects of sustainable development (in the field of such research areas as, for instance, ecology, environmental management research, social surveys, poverty and social exclusion, factors of demographic changes etc.) However, no systematic, integrated research programme has been set up and pursued on sustainable development.

Despite obvious progress, the legal and institutional framework of sustainable development is still weak. The numerous pieces of legislation, programmes and projects are not sufficiently integrated. Those remained generally isolated, lacking synergy, which is restricting their effectiveness in terms of principles and approaches of sustainable development. The various institutions often deal only with partial issues without recognizing and accounting their overall context and the interlinkages. Frequent conflicts between economic and environmental interests have often been settled in favour of shorter-term economic interests.

Towards strategy planning for sustainable development

So far, efforts to establish a strong foundation of integrated planning for sustainable development have been inconsequent. After the UNCED, it was usually regarded that in Hungary as a country “with economy in transition” there were limited opportunities to fully undertake and implement the tasks described in Agenda 21 in an integrated manner.

With the problems of the transition process, attention of the policy-makers, the legislature and the central and local government authorities was constantly drawn to principal issues of democratisation, the economic and social issues, i.e., primarily the requirements of legal and institutional framework of the market economy at the expense of the much more comprehensive and longer-term concept of sustainable development and its implications on

health care, education, environment protection, economic development, etc. Problems related to unemployment, income disparities, poverty, unsustainable use of natural resources, rural development were addressed on a rather ad hoc basis, at least from the perspectives of objectives of “true” sustainable development.

During the early phases of transition, there has not been a strong enough political will to formulate a comprehensive strategy for sustainable development. Such an attitude and improper awareness of the sustainability concept has been characteristic not only of politicians but the majority of society. However, it should be admitted that the concept and principles of sustainable development had not been widely known, rightly interpreted, the longer term consequences of unsustainable patterns of production and consumption accompanied with the degradation of natural resources were not recognized and taken into consideration in a complex way.

The success of the democratisation process and the stabilization and improving performance of the national economy from the second half of the 1990s, the accelerating preparations for the EU membership and changing priorities on domestic policies and participation in international cooperation altogether have created a new atmosphere to tackle with the requirements of sustainable development.

The preparatory process for the WSSD has also provided a good opportunity to make progress in raising awareness of unsustainable tendencies and requirements of changes, strengthening the relevant institutional background and proceeding with preparations for a national sustainable development strategy.

With the institutional, technical and financial assistance of the national Commission on Sustainable Development, environmental ministry (through its environmental fund) and the UNDP several projects were launched from 2001 on under the aegis of the national Commission. These initiatives and projects *inter alia* aimed at:

- systematic assessment of changes basically during the 1990s and proper understanding and evaluation of the national circumstances and opportunities from the point of view of perspectives and means of achieving of sustainable development as a cooperative effort of experts and various stakeholders;

-
- raising public awareness (including awareness of business and governmental decision-makers) on the principles of and progress needed towards sustainability, developing a concept/vision for the national sustainable development as a “forerunner” of the comprehensive strategy;
 - starting national dialogue, so that a series of stakeholders’ forums was held to clearly understand the views and concerns of the various interest groups and enhance their participation in the further planning and implementation process; these groups included local authorities, environmental organizations, scientists, public administration, business community etc.;
 - raising public awareness, and for that sake a sustainable development website was recently opened (www.ff3.hu) and publications were issued and disseminated, e.g., on the international and national background and preparations for the WSSD (Láng, 2001), on the concept, principles and problems of achieving sustainability (Gyulai, 2002), on the international cooperation in this area with a particular emphasis on the EU’s sustainable development strategy (Faragó, 2002);
 - launching the planning process and in that context, the general approach to formulation of the national sustainability concept was summarized (Éri, 2002) with a view to facilitate the further process of preparation of the national strategy and
 - at last the evaluation, adoption and derivation of sustainability indicators have been started (Szűcs-Fekete-Németh, 2002).

The Commission - the national Commission on Sustainable Development - discussed also the need and modalities of broadening the civil society representation within this coordinating body through involvement of various stakeholders groups and their organizations.

Such an extension is unavoidable to reach a common understanding of the problems, share the views of the objectives, achieve consensus on the strategy and then to effectively implement it. Moreover, besides the national level process, local experiences and initiatives are of also crucial importance.

Based on these and other parallel activities, there is now a firm dedication to have a national strategy of sustainable development in place by 2004. Obviously, substantially more efforts,

broader public participation, political dedication, cross-sectoral collaboration will be necessary to achieve that goal (i.e., to derive the holistic and deliverable strategy), to strengthen the relevant institutional background, to agree on the necessary policies and means in order to be able to realize the objectives of such a strategy.

INDICATORS OF SUSTAINABLE DEVELOPMENT

In order to demonstrate the changes prevailing during the transition process we use the indicator set adopted by the European Union. This set is derived to assess the progress in terms of sustainable development and monitor the effects of the relevant policies and measures.

These indicators are classified in four groups which correspond to the social, environmental, economic and institutional dimensions of sustainability.

Hungary's recent development was basically determined by the changes of the political and socio-economic systems. The indicators reflect the so-called "transformation crisis" together with structural changes and some shift towards sustainability. For better description of these processes, i.e. for better tracking of the transition and its implications, some more indicators were necessary apart from the EU-set.

These indicators were calculated by means of the Hungarian statistical data, that is, generally from the database of the Hungarian Central Statistical Office (HCSO). In some cases, annual data were not available for earlier time periods or the methods of data collection changed over the period considered. As a matter of fact, the Hungarian statistical system is also undergoing important development phases in light of the EU accession "harmonization" requirements.

In spite of certain data problems, the indicators presented in this booklet give a reliable picture of the changes during the transition period in all dimensions of sustainability.

Social dimension

- 1.1. Measures of income inequality
- 1.2. Unemployment rate
- 1.3. Level of social benefit per capita
- 1.4. Female to male wage ratio
- 1.5. Child welfare
- 1.6. Nutrition status of population
- 1.7. Mortality due to selected key illnesses
- 1.8. Life expectancy at birth
- 1.9. Population connected to sanitation system
- 1.10. National health expenditure
- 1.11. Immunisation against childhood diseases
- 1.12-1. The highest level of education attainment
- 1.12-2. Low level of education attainment
- 1.13. Improvement of housing conditions
- 1.14. Household composition
- 1.15. Reported crimes
- 1.16. Population growth rate
- 1.17. Net migration rate

1.1. Measures of income inequality
Social indices of income distribution

Year	Population living below the poverty line, % of total population	Gini index, %	90/10 share ratio
1982	n.a.	21.00	n.a.
1988	n.a.	23.58	*4.6
1995	8.6	29.65	7.5
1996	9.3	**31.00	n.a.
1997	8.7	32.06	9.2
1998	9.7	n.a.	n.a.
1999	9.1	n.a.	n.a.
***2000	9.1	33.01	n.a.

*Data for 1987

**World Bank Development Report 2000/2001

***1999-2000 average

Source: HCSO

1.2. Unemployment rate

Year	Unemployment rate		Youth unemployment		
	% of active population	Long-term unemployment % of unemployed	% of active youth population	Long-term unemployment	
				% of labour force	% of unemployed
1992	9.8	21.0	17.5	2.7	15.4
1993	11.9	35.2	21.3	5.1	24.1
1994	10.7	43.2	19.4	5.1	26.0
1995	10.2	50.6	18.6	6.0	32.1
1996	9.9	54.4	18.0	6.4	35.5
1997	8.7	51.3	15.9	5.4	33.6
1998	7.8	49.8	13.5	4.1	30.6
1999	7.0	49.5	12.4	4.0	32.2
2000	6.4	49.1	12.1	3.9	31.8

Note: The definition of the long-term unemployment was calculated by the EUROSTAT method (Those people who have no jobs for more than 12 months, in case of youth those people who have no jobs for more than 6 month.)

Source: HCSO

1.3. Level of social benefit per capita

Year	Social benefits per capita* HUF/capita (at current prices)	Inflation rate	Social benefits as percentage of GDP	Unemployment benefits as percentage of total social benefits
1989	41 128	100	25.1	0.05
1995	163 420	399	29.8	3.82
2000	323 400	806	24.7	2.40

Note: Social transfers in kind and social benefits other than social transfers in kind together.

Source: HCSO

1.4. Female to male Wage Ratio

Year	Wage ration by sectors		
	Industry (CDE)*	Financial intermediation	All
1992	68.4	61.2	80.8
1993	68.2	65.0	79.6
1994	68.9	64.0	80.3
1995	69.3	64.9	80.1
1996	69.5	59.3	78.9
1997	68.0	60.7	78.1
1998	68.3	59.2	82.3
1999	70.6	55.0	80.8
2000	72.0	55.7	80.5

*Mining and quarrying (G) + Manufacturing (D) + Electricity, gas and water supply (E)

Notes: Average gross earnings of full time employees.

Data in the national economy including data concerned to enterprises with more than 20 employees.

Source: HCSO

1.5. Child welfare

a) dependent children living in single parent families

Year	% of all dependent children
1995	20.7
1996	20.6
1997	21.4
1998	22.4
1999	20.3
2000	19.4

Source: HCSO

Note: Contents of the indicators based on Euro-statistics principles
dependent children – below 15 ages and 16-20 ages, but dependent.

b) persons living in low income households –2000

	% of household by type
Single-parent	68.7
2 adults with dependent children	15.9

1.6. Nutrition status of population

Daily calorie consumption and energy fat

Year	Daily calorie consumption (kcal/person/day)	Energy from fat % of total energy available
1990	3 383	26.1
1991	3 215	26.2
1992	3 295	25.9
1993	3 124	26.9
1994	3 050	28.6
1995	2 979	28.3
1996	2 963	27.6
1997	3 046	26.8
1998	3 051	26.2
1999	3 032	25.7
2000	3 229	30.5

Source: HCSO

1.7. Mortality due to selected key illnesses

Mortality rates per illness and gender

Year	Cancer		Circulatory diseases		Infections diseases		Infant mortality per 1000 live births
	per 100 000 population						
	Male	Female	Male	Female	Male	Female	
1988	330.4	243.4	695.9	708.1	11.5	5.7	15.8
1989	339.3	246.9	713.2	717.7	13.1	6.1	15.7
1990	354.4	252.1	731.8	741.4	13.0	5.9	14.8
1991	362.9	254.9	730.2	735.6	12.7	5.7	15.6
1992	372.9	264.6	739.4	738.0	13.0	5.9	14.1
1993	369.3	267.2	755.2	748.4	13.7	5.4	12.5
1994	378.6	269.1	719.7	725.9	12.6	4.9	11.5
1995	381.4	273.7	714.4	727.9	12.0	4.3	10.7
1996	390.9	278.7	706.2	743.7	11.0	4.7	10.9
1997	394.5	277.1	688.2	715.0	9.9	4.8	9.9
1998	397.4	279.3	705.0	725.8	10.2	4.2	9.7
1999	400.2	285.6	706.7	748.2	10.0	5.1	8.4
2000	395.5	281.6	665.6	706.6	8.7	4.6	9.2

Source: HCSO

1.8. Life expectancy at birth

years

Year	Average life expectancy at birth	
	Female	Male
1988	74.03	66.16
1989	73.79	65.44
1990	73.71	65.13
1991	73.83	65.02
1992	73.73	64.55
1993	73.81	64.53
1994	74.23	64.84
1995	74.50	65.25
1996	74.70	66.06
1997	75.08	66.35
1998	75.18	66.14
1999	75.13	66.32
2000	75.59	67.11

Source: HCSO

1.9. Population connected to sanitation system

Connection rates and types of treatment

% of total population

Year	Connected to: public sewerage system		Connected to: public sewage treatment		
	Total	of which: public sewage treatment	Mechanical	Biological	Advanced
1990	42.9	20.4	5.6	13.7	1.1
1991	n. a.	n. a.	n. a.	n. a.	n. a.
1992	35.5	16.3	4.4	11.0	0.9
1993	42.7	20.3	5.1	14.3	0.9
1994	43.5	20.9	4.3	15.7	0.9
1995	44.2	20.5	2.7	16.9	0.9
1996	44.9	21.8	3.0	17.7	1.1
1997	46.0	23.5	2.7	19.8	1.0
1998	47.6	25.5	2.6	20.1	2.8
1999	49.1	28.6	3.7	21.8	3.1
2000	51.2	32.2	2.3	24.4	5.5

Note: data are estimated values

Source: HCSO

1.10. National health expenditure

Year	National health expenditure	
	% of GDP	Public expenditure as % of total
1991	7.1	89.1
1992	7.7	87.9
1993	7.7	87.4
1994	8.3	87.3
1995	7.5	83.9
1996	7.2	81.6
1997	7.0	81.3
1998	6.8	82.3
1999*	6.8	78.1
2000*	6.7	75.5

Source: OECD health data

*HCSO – not published yet

1.11. Immunisation against childhood diseases

% of 0-2 years olds

Year	Tuberculosis	Diphtheria
1991	100.0	99.9
1992	100.0	99.9
1993	100.0	99.9
1994	100.0	99.9
1995	100.0	99.9
1996	100.0	99.9
1997	100.0	99.9
1998	100.0	99.9
1999*	100.0	99.9
2000*	100.0	99.9

Source: HCSO

1.12-1. The highest level of education attainment

% of selected age groups

Year	Upper secondary (ISCED 3-4)				Tertiary (ISCED 5-6)			
	Age groups				Age groups			
	25-64	26-29	35-39	55-59	25-65	26-30	35-40	55-60
1992	46.6	63.6	59.7	20.6	12.4	14.2	13.7	7.8
1993	45.9	64.6	59.5	18.8	12	13.6	12.9	8.6
1994	47.6	66.3	60.2	19.7	11.8	12.3	13.4	8.2
1995	49.0	67.6	61.7	22.2	12.5	11.9	14.1	9.1
1996	49.6	67.2	62.3	22.1	13.2	12.1	14.9	9.9
1997	50.8	68.0	62.7	23.0	12.2	10.8	13.1	9.2
1998	50.7	64.2	61.6	23.7	13.2	13.5	13.7	11.0
1999	53.9	66.4	64.3	29.1	13.5	13.2	14.3	12.6
2000	55.3	66.5	67.9	33.6	14.1	14.4	15.2	13.5

Source: HCSO

1.12-2. Low* level of education attainment

% of population by age group

Year	Age groups				
	18-24**	25-64	25-29	35-39	55-59
1992	31.1	42.0	22.2	26.6	71.6
1993	31.6	42.1	21.8	27.6	72.6
1994	31.9	40.6	21.4	26.4	72.1
1995	34.0	38.5	20.5	24.2	68.7
1996	33.5	37.2	20.7	22.8	68.0
1997	32.1	37.0	21.2	24.2	67.8
1998	25.9	36.7	22.3	24.7	65.3
1999	23.3	32.6	20.4	21.4	58.3
2000	23.4	30.6	19.1	19.9	52.9

*Primary and lower secondary education (ISCED 1-2) **not in education and with low qualifications

Source: HCSO

1.13. Improvement of housing conditions

Year	Average number of rooms per capita
1981	0.66
1991	0.85
1996	0.94
2000	0.98

Source: HCSO

1.14. Household composition

Year	1 adult without dependent children	2 adults without dependent children	1 adult with dependent children	2 adults with dependent children
1995	8.2	18.7	9.6	56.2
1996	8.7	17.5	9.5	54.5
1997	8.5	17.5	9.9	55.4
1998	8.0	19.0	9.8	54.0
1999	9.0	16.4	7.8	39.5
2000	8.8	19.4	7.3	40.8

Source: HCSO

1.15. Reported crimes

Year	All crimes	Domestic burglary	Motor vehicle theft*	Drug trafficking	% annual change
					Recorded homicides
1989	21.6	n.a.	n.a.	n.a.	n.a.
1990	51.3	n.a.	n.a.	n.a.	n.a.
1991	20.1	n.a.	n.a.	n.a.	n.a.
1992	1.6	n.a.	n.a.	n.a.	n.a.
1993	-10.3	n.a.	n.a.	n.a.	- 2.9
1994	- 2.9	n.a.	n.a.	n.a.	5.0
1995	28.9	n.a.	n.a.	n.a.	- 7.3
1996	- 7.2	34.6	33.3	2.6	- 6.5
1997	10.4	3.8	- 10.8	114.2	6.6
1998	16.8	- 2.4	5.8	119.3	- 0.7
1999	-25.8	- 2.0	- 24.2	38.3	- 12.9
2000	-10.9	-10.2	- 13.4	10.9	- 18.0

*cars only

Source: HCSO

1.16. Population growth rate

Year	Number of population (thousands)	Annual rate per 1000 population ‰	65 and over years old population of the working age population %	Population density (capita / km ²)
1988	10 464	- 4.3	n.a.	112.5
1989	10 421	- 4.0	19.7	112.0
1990	10 375	- 4.4	20.0	111.5
1991	10 355	- 2.0	20.2	111.3
1992	10 337	- 1.7	20.4	111.1
1993	10 310	- 2.6	20.4	110.8
1994	10 277	- 3.2	20.6	110.5
1995	10 246	- 3.0	20.7	110.1
1996	10 212	- 3.3	20.9	109.8
1997	10 174	- 3.7	21.0	109.4
1998	10 135	- 3.8	21.2	108.9
1999	10 092	- 4.3	21.3	108.5
2000	10 043	- 4.8	n.a.	107.9

Source: HCSO

1.17. Net migration rate

per 1000 cap.

Year	Net migration rate
1988	- 2.8
1989	- 2.0
1990	- 2.7
1991	- 0.3
1992	0.9
1993	0.6
1994	- 0.2
1995	0.3
1996	- 0.4
1997	0.1
1998	0.5
1999	0.5
2000	- 1.0

Source: HCSO

Environmental dimension

- 2.1. Emissions of greenhouse gases in Hungary
- 2.2-1. Consumption of ozone depleting substances
- 2.2-2. Consumption by chemical type
- 2.3. Air pollutants in urban areas
- 2.4. Agricultural area and organic farming
- 2.5. Use of fertilisers and pesticides
- 2.6. Forest area and its utilisation
- 2.7. Intensity of water use
- 2.8. Biochemical oxygen demand (BOD) of largest rivers
- 2.9. Quality of bathing waters
- 2.10. Biodiversity and number of protected species

2.1. Emissions of greenhouse gases in Hungary

Year	Energy	Industry	Transport	Combustion	Other	Hungary	EU-15
million tonnes						tonnes CO ₂ equivalent	
1989	36 928	14 480	7 741	1 353	23 174	n.a.	n.a.
1990	29 746	11 461	8 208	1 381	20 877	7.9	11.4
1991	28 520	7 762	7 383	1 224	21 749	8.2	11.4
1992	27 476	6 299	7 189	1 534	17 306	7.3	11.0
1993	27 575	6 866	7 141	899	17 592	7.2	10.7
1994	26 290	7 703	7 212	278	16 960	7.0	10.7
1995	26 431	7 790	7 001	1 022	16 761	7.1	10.8
1996	26 609	7 747	6 612	663	18 091	7.4	11.0
1997	26 537	6 492	7 741	1 148	16 221	7.1	10.8
1998	23 031	11 911	8 381	1 478	12 800	7.7	10.8

Source: HCSO

2.2-1. Consumption of ozone depleting substances

Year	Ozone depleting substance (ODP tonnes)			
	Production		Consumption	
	Hungary	EU	Hungary	EU
1990	0	332 100	5 645	208 114
1991	0	293 386	3 991	197 590
1992	0	296 030	2 823	169 567
1993	0	225 204	2 169	139 486
1994	0	104 568	989	56 891
1995	0	30 580	685	19 619
1996	0	24 331	160	24 721
1997	0	47 436	139	24 980
1998	0	32 173	121	20 840
1999	0	n.a.	122	n.a.
2000	0	n.a.	72	n.a.

Source: Ministry of Environment

2.2-2. Consumption of ozone depleting substances by chemical type

Year	CFC	Carbon tetrachloride	Methyl bromide	Halons	Metil-chloroform	HCFCs
1990	3 850	528	n.a.	1 199	68	n.a.
1991	2 636	352	32	965	6	n.a.
1992	1 862	220	27	650	45	20
1993	1 652	136	46	268	29	37
1994	844	32	44	n.a.	19	50
1995	566	18	32	n.a.	9	60
1996	*60	n.a.	32	n.a.	n.a.	68
1997	*25	n.a.	32	n.a.	n.a.	82
1998	n.a.	n.a.	32	n.a.	n.a.	90
1999	**8	n.a.	24	n.a.	n.a.	90
2000	n.a.	n.a.	n.a.	n.a.	n.a.	72

* recycled, ** recovered

Source: Ministry of Environment

2.3. Air pollutants in urban areas

Air pollution in Budapest

Year	SO ₂	NO ₂	SO ₂ ,NO ₂ -yearly limit value	Settling dust	Settling dust – 30 days limit value
	mg/m ³			g/m ² *30 days	
1990	12.8	36.8	70.0	5.6	16.0
1991	17.4	44.6	70.0	6.2	16.0
1992	15.3	48.0	70.0	6.9	16.0
1993	20.1	52.0	70.0	5.8	16.0
1994	22.6	57.5	70.0	6.5	16.0
1995	19.1	49.6	70.0	5.3	16.0
1996	24.2	48.3	70.0	4.9	16.0
1997	20.0	36.0	70.0	5.3	16.0
1998	20.5	34.9	70.0	4.7	16.0
1999	16.6	40.3	70.0	4.7	16.0
2000	21.0	43.0	70.0	5.4	16.0

Source: HCSO

2.4. Agricultural area and organic farminging

Year	Total Utilised Agricultural Area (UAA) 1000 hectares	Area organically farmed	
		hectare	% of UAA
1996	6 184	11 390	0.18
1997	6 195	15 772	0.25
1998	6 193	21 565	0.35
1999	6 186	32 609	0.53
2000	5 854	47 221	0.81

Source: Publications of HCSO, Biokontroll Kht, Biokultura

2.5. Use of fertilisers and pesticides

Change in Nitrogen balance

Year	Nitrogen balance kg/hectare					Consumption kg nitrogen** per hectare
	Mineral fertilisers	Organic fertilisers	Deposition and fixation	Total Out-take	Surplus	
1990	55	20	24	93	6	55
1991	22	29	24	94	- 19	22
1992	24	28	24	88	- 12	24
1993	26	23	24	84	- 11	26
1994	36	26	24	86	0	36
1995	31	18	24	86	- 13	31
1996	33	16	24	88	- 15	33
1997	33	16	23	87	- 15	33
1998	40	17	24	84	- 3	40
1999	42	17	24	86	- 3	42
2000	44	19	24	87	0	44

*Refer to agricultural area, **In active ingredients

Source: Publications of HCSO, "Nutrient Use, 2001" - OECD publication

Use of Agricultural Pesticides

Year	Pesticide consumption ²		Consumption by type %			
	tonnes of active ingredient	Kg/ha ¹	Fungicides	Herbicides	Insecticides	Other
1990	24 718	3.83	29.0	47.8	19.5	3.7
1991	17 885	2.77	23.3	54.8	18.4	3.5
1992	13 057	2.13	24.4	55.2	16.3	4.1
1993	10 193	1.66	25.1	55.0	14.9	5.0
1994	9 560	1.56	29.8	48.4	14.1	7.7
1995	7 696	1.25	26.9	48.2	14.1	10.8
1996	6 863	1.11	27.9	47.9	15.5	8.7
1997	5 313	0.86	29.8	46.8	12.9	10.5
1998	6 229	1.01	30.2	46.5	14.4	8.9
1999	5 790	0.94	29.3	48.9	13.8	8.0
2000	5 171	0.88	29.0	48.9	14.0	8.1

*Refers to agricultural area, **Refers to pesticide sale

Source: Research and Information Institute for Agricultural Economics, HU

2.6. Forest area and its utilisation
Area and Proportion of Forest Land

Year	Surface area 1000 ha	Total forest*		Forest available wood supply		Other forest	
		1000 ha	%	1000 ha	%	1000 ha	%
1990	9 303	1 690	18.2	1 612	17.3	78	0.8
1991	9 303	1 763	19.0	1 678	18.0	85	0.9
1992	9 303	1 778	19.1	1 689	18.2	89	1.0
1993	9 303	1 793	19.3	1 699	18.3	94	1.0
1994	9 303	1 799	19.3	1 705	18.3	94	1.0
1995	9 303	1 804	19.4	1 702	18.3	102	1.1
1996	9 303	1 811	19.5	1 702	18.3	109	1.2
1997	9 303	1 823	19.6	1 712	18.4	111	1.2
1998	9 303	1 835	19.7	1 690	18.2	145	1.6
1999	9 303	1 846	19.8	1 676	18.0	170	1.8
2000	9 303	1 860	20.0	1 650	17.7	210	2.3

* Area calculated according to the UN-ECE/FAO TBFRA 2000 instructions

Evolution of Forest Area

Year	Forest area (1000 ha)	% (1990=100%)
1990	1 690	100.0
1991	1 763	104.3
1992	1 778	105.2
1993	1 793	106.1
1994	1 799	106.4
1995	1 804	106.7
1996	1 811	107.2
1997	1 823	107.9
1998	1 835	108.6
1999	1 846	109.2
2000	1 860	110.1

Source: HCSO

Wood harvesting ratio

Period	Net annual increment 1000 m ³	Fellings 1000 m ³	Wood harvesting ratio, %
1981-1990	9 849	8 016	81.4
1991-2000	10 266	6 542	63.7

Source: State Forest Service

2.7. Intensity of water use
Intensity of water use in Hungary

Year	Surface water	Groundwater	Total abstraction	Total abstraction	
	million m ³			m ³ /capita	as % of resource
1990	5 266.4	1 028.4	6 294.8	607.3	8.0
1995	5 085.7	968.7	6 054.4	591.9	4.9
1998	4 913.7	857.7	5 771.4	570.7	4.4
1999	4 601.6	938.4	5 540.0	550.3	3.7
2000	4 719.9	870.6	5 590.5	556.7	4.7

Source: HCSO

Water abstraction by main sectors

Year	Agriculture	Manufacturing industry	Public water supply
	million m ³		m ³ /capita
1990	987.6	272.3	97.6
1995	662.1	236.2	77.8
1998	407.2	208.7	71.2
1999	441.5	282.8	69.9
2000	501.5	227.5	72.0

Source: HCSO

2.8. Biochemical oxygen demand (BOD) of largest rivers

The length and watershed of rivers

River	Length		Watershed area	
	total, km	in Hungary	total, km ²	in Hungary, %
Danube	2 860	417	817 000	5.7
Dráva	695	143	40 076	10.4
Tisza	977	597	157 183	29.7
Maros	754	50	30 332	6.2

Source: HCSO

BOD Concentration

Year	mg O ₂ /litre			
	Danube	Tisza	Dráva	Maros
1988	4.0	3.5	3.4	11.8
1989	3.4	2.3	4.3	7.2
1990	3.1	1.5	3.4	9.4
1991	3.3	2.1	3.5	5.1
1992	2.4	2.2	3.7	5.8
1993	2.6	2.0	3.3	4.9
1994	2.5	2.0	3.1	3.8
1995	2.1	1.9	3.5	3.7
1996	2.6	1.5	3.1	4.3
1997	2.7	2.0	3.3	2.9
1998	2.6	2.6	3.1	3.3
1999	2.1	3.6	2.9	3.7
2000	1.6	2.9	2.8	5.4

Source: HCSO

2.9. Quality of bathing waters

Eutrophication in selected lakes

Year	µg N/l and µg P/l			
	Nitrogen Lake Balaton (Siófok)	Nitrogen Lake Velencei (Agárd)	Phosphorus Lake Balaton (Siófok)	Phosphorus Lake Velencei (Agárd)
1992	630	2 730	30	72
1993	800	2 980	30	51
1994	1 100	2 730	75	232
1995	690	2 200	69	173
1996	740	2 350	75	83
1997	1 060	2 390	110	81
1998	980	2 420	82	76
1999	940	2 070	56	68
2000	750	2 000	77	79

Source: HCSO

2.10. Biodiversity and number of protected species

Protected Area in Hungary

Year	Nationals parks	Landscape protected area	Nature conservation areas	Locally protected areas	% of total
	ha				%
1990	146 956	413 442	35 006	34 720	6.6
1991	159 139	422 361	35 590	34 700	6.6
1992	159 100	431 500	37 400	34 700	6.8
1993	170 500	473 800	26 200	34 500	7.2
1994	177 700	466 700	26 200	32 964	7.2
1995	212 608	446 286	27 063	32 982	7.2
1996	247 515	425 871	27 926	33 000	7.6
1997	407 445	319 830	25 402	33 000	8.3
1998	422 844	341 695	26 380	33 000	8.5
1999	440 839	341 695	26 380	36 000	8.6
2000	440 839	349 200	25 800	33 900	8.8

Source: HCSO

Number of protected species

Year	Animals	Plants
1990	619	415
1995	857	500
2000	855	516
2001	965	695

Source: HCSO

Economic dimension

- 3.1. Per capita GDP in Hungary
- 3.2. Investment share in GDP
- 3.3. Value added by main sectors of economy
- 3.4. Inflation rate
- 3.5-1. Net current account
- 3.5-2. Foreign direct investment
- 3.6. General government gross debt
- 3.7. Material consumption
- 3.8-1. Energy consumption by sectors
- 3.8-2. Energy use and intensity
- 3.8-3. Comparison of energy indicators
- 3.8-4. Energy production
- 3.9. Municipal waste collected and its disposal
- 3.10. Generation of industrial waste by sectors
- 3.11. Generation and disposal of hazardous waste
- 3.12. Generation and disposal of radioactive waste
- 3.13. Recycling of waste paper and glass
- 3.14-1. Pattern of passenger transport
- 3.14-2. Freight transport by mode
- 3.15. Environmental expenditures (industrial sector)

3.1. Per capita GDP in Hungary

Year	GDP/capita \$	GDP/capita in PPS Euro
1988	2 736	n.a.
1989	2 805	n.a.
1990	3 189	n.a.
1991	3 228	n.a.
1992	3 608	n.a.
1993	3 745	n.a.
1994	4 046	n.a.
1995	4 367	n.a.
1996	4 433	8 500
1997	4 504	9 200
1998	4 651	9 800
1999	4 769	10 600
2000	4 649	11 500

PPS: Purchasing Power Standards

Source: HCSO

3.2. Investment share in GDP

Volume of gross investment in Hungary

Investment	1996	1997	1998	1999	2000
1980=100%	80.9	87.8	99.0	104.2	111.9

Source: HCSO

Gross fixed capital formation

Year	Share in GDP % (at current price)
1990	19.3
1991	20.9
1992	19.9
1993	18.9
1994	20.1
1995	20.0
1996	21.4
1997	22.2
1998	23.6
1999	23.9
2000	24.2

Source: HCSO

3.3. Value added by main sectors of economy

Year	% of value added					
	Agriculture (A+B) ¹⁾	Manufacturing (C+D+E) ¹⁾	Construction F ¹⁾	Distribution (G+H+I) ¹⁾	Finance and Business (J+K) ¹⁾	Public services (L+M+N+O) ¹⁾
1988	16.6	35.2	8.1	18.1	22.0	
1989	15.6	35.3	8.4	18.8	21.9	
1990	14.5	32.1	7.0	22.8	23.6	
1991	8.5	29.0	5.4	24.6	14.6	17.9
1992	7.2	27.3	5.9	22.4	16.2	21.0
1993	6.6	26.2	5.3	22.1	17.8	22.0
1994	6.7	25.3	5.1	21.1	19.7	22.1
1995	6.7	26.3	4.6	22.3	19.6	20.5
1996	6.6	26.3	4.3	22.4	21.1	19.3
1997	5.9	28.1	4.6	23.2	19.1	19.1
1998	5.5	28.2	4.6	23.2	19.2	19.3
1999	4.8	27.7	4.7	23.0	20.0	19.8
2000	4.2	28.8	4.6	22.3	20.8	19.3

¹⁾ NACE Rev 1.1. sections

Source: HCSO

3.4. Inflation rate

Inflation rate of consumer prices

Year	Annual change in prices %
1988	15.5
1989	17.0
1990	28.9
1991	35.0
1992	23.0
1993	22.5
1994	18.8
1995	28.2
1996	23.6
1997	18.3
1998	14.3
1999	10.0
2000	9.8

Source: HCSO

3.5-1. Net current account

Year	% of GDP
1989	1.8
1990	1.1
1991	0.5
1992	0.1
1993	- 8.4
1994	- 8.7
1995	- 5.5
1996	- 5.8
1997	- 4.3
1998	- 5.0
1999	- 4.6
2000	- 3.8

Source: HCSO

3.5-2. Foreign direct investment

Year	Foreign direct investment* billion HUF	Foreign direct investment share of GDP (%)
1989	30.0	1.7
1990	95.2	4.5
1991	215.0	8.6
1992	401.8	13.7
1993	662.9	18.7
1994	833.5	19.1
1995	1304.7	23.5
1996	1602.9	23.3
1997	2046.2	24.0
1998	2364.4	23.4
1999	2624.5	23.0
2000	2935.5	22.3

*Only inward FDI stock
Without: enterprises in which the share of FDI is under 10%, offshore enterprises and inter-company loans
Source: HCSO

3.6. General government gross debt

Year	% of GDP
1991	74.57
1992	78.99
1993	90.43
1994	88.24
1995	86.35
1996	72.81
1997	63.87
1998	62.30
1999	61.21
2000	56.70

Source: HCSO

3.7. Material consumption

Year	Material consumption in million tonnes			Tonnes per capita
	Fossil fuels and materials	Biomass	Total	
1988	119 200	37 200	156 400	14.9
1992	71 800	47 400	119 200	11.5
1994	80 792	27 168	107 960	10.5
1995	79 926	25 999	105 925	10.3
1999	81 771	24 935	106 706	10.6
2000	88 142	22 249	110 391	11.3
Change % 2000/1988	- 26.0	- 40.0	- 29.4	- 26.2
Change % 2000/1994	+ 9.1	- 18.1	+ 2.3	+ 4.8

Source: The data used here are calculated by the experts of HCSO

3.8-1. Energy consumption by sectors

Energy Consumption (Mtoe)					
Years	Total	Households	Commercial, public etc.	Transport	Industry
1988	23.5	6.6	3.2	4.6	7.4
1989	23.1	6.5	3.2	4.4	7.2
1990	21.1	6.5	3.0	3.7	6.4
1991	19.9	6.9	3.2	3.2	5.4
1992	17.5	6.0	2.8	2.8	4.7
1993	18.0	6.0	3.1	2.8	4.5
1994	17.7	5.6	3.4	2.9	4.3
1995	18.0	6.0	3.4	2.8	4.2
1996	18.3	6.2	3.8	2.6	4.3
1997	17.5	6.0	3.4	2.8	3.8
1998	17.3	5.1	3.4	3.2	4.0
1999	17.4	5.4	3.5	3.3	3.8
2000	17.4	5.2	3.2	3.4	3.8

Source: HCSO

3.8-2. Energy use and intensity

1990 = 100 %

Year	GDP	Energy use	Energy intensity
1991	88	94	107
1992	86	83	97
1993	85	86	101
1994	87	84	97
1995	88	86	98
1996	89	87	98
1997	94	83	88
1998	99	82	83
1999	101	83	82
2000	105	83	78

Source: HCSO

3.8-3. Comparison of energy indicators

%

Countries	Energy consumption per capita	Electricity consumption per capita	Energy consumption per GDP
Romania	76	60	169
Poland	96	93	116
Hungary	100	100	100
Italy	116	142	44
Slovakia	127	120	125
Austria	142	195	51
Czech Republic	145	155	116
Denmark	149	184	48
United Kingdom	155	167	58
Germany	161	178	65
France	173	200	58
Belgium	225	218	80

Source: HCSO

3.8-4. Energy production

%

Year	Coal	Mineral oil	Gas	Nuclear electric	Renewable (water and wood)	Other
1990	31.2	13.0	28.1	22.8	2.2	2.7
1991	30.1	12.7	28.8	23.1	2.6	2.6
1992	26.9	12.9	28.6	24.8	2.6	4.2
1993	23.9	12.6	31.1	24.9	2.8	4.7
1994	23.6	11.9	30.8	25.9	2.9	5.0
1995	23.5	12.3	30.7	25.3	3.2	5.0
1996	25.0	11.3	29.9	26.4	3.1	4.3
1997	26.4	10.7	28.9	26.7	3.2	4.2
1998	26.1	10.6	27.5	28.5	3.1	4.3
1999	26.6	10.8	25.4	29.9	3.3	4.1
2000	26.4	10.4	24.8	30.9	3.6	3.9

Source: HCSO

3.9. Municipal waste collected and its disposal

Year	Municipal waste collected			Disposal of Municipal waste by mode (%)	
	Total (1000 tonnes)	Annual growth rate (%)	Collected per capita (kg/capita)	Landfilled	Incinerated
1990	4 171	n.a.	402	93.0	7.0
1991	3 540	-15.1	342	91.5 ^{x)}	8.5 ^{x)}
1992	3 707	4.7	359	91.9 ^{x)}	8.1 ^{x)}
1993	3 609	- 2.6	350	91.7 ^{x)}	8.3 ^{x)}
1994	3 774	4.6	367	92.1 ^{x)}	7.9 ^{x)}
1995	3 811	1.0	372	91.6	8.4
1996	4 023	5.6	394	92.0	8.0
1997	4 258	5.8	419	92.4	7.6
1998	4 292	0.8	424	92.0	8.0
1999	4 376	2.0	434	92.2	7.8
2000	4 084	- 6.7	407	91.7	8.3

^{x)} Estimated

Source: HCSO

3.10. Generation of industrial waste by sectors

1000 tonnes

Year	Mining	Manufacturing				Construction
		Total	Food and tobacco	Basic metals	Metal fabrication	
1994	1 428	6 328	262	n.a.	n.a.	170
1995	1 012	6 692	n.a.	n.a.	n.a.	n.a.
1996	790	1 796	n.a.	985	189	5
1997	404	2 023	463	786	226	21
1998	182	2 028	302	801	249	81
1999	1 838	3 492	748	363	54	113
2000	2 233	2 605	565	537	58	707

Source: Ministry of Environment

3.11. Generation and disposal of hazardous waste (1000 tonnes)

Year	Total generated	Incinerated	Landfilled
1990	4 691	1 709	2 393
1991	4 427	n.a.	n.a.
1992	4 189	n.a.	n.a.
1993	3 895	n.a.	n.a.
1994	3 338	1 517	1 424
1995	3 424	1 488	1 397
1996	2 585	1 110	1 035
1997	3 630	n.a.	n.a.
1998	3 915	n.a.	n.a.
1999	3 646	n.a.	n.a.
2000	3 392	n.a.	n.a.

Source: Ministry of Environment

3.12. Generation and disposal of radioactive waste

Year	LILW-SL* (m ³)			HLW (m ³)			SF, power stations only (tU)		
	Generated	Total stored	Total disposed	Generated	Total stored	Disposed	Generated	Total stored	Disposed
1990	280	1 510	3 430	2.5	27.0	0	47	n.a.	0
1991	280	1 780	3 430	2.5	29.5	0	47	n.a.	0
1992	280	2 040	3 660	2.5	32.0	0	47	n.a.	0
1993	280	2 300	3 620	2.5	34.5	0	47	n.a.	0
1994	280	2 570	3 800	2.5	37.0	0	47	n.a.	0
1995	280	2 930	3 990	2.5	39.5	0	52	n.a.	0
1996	280	3 090	4 170	2.5	42.0	0	55	n.a.	0
1997	280	3 360	4 350	2.5	44.5	0	55	n.a.	0
1998	280	3 620	4 540	2.5	47.0	0	53	450	0
1999	280	3 880	4 720	2.5	49.5	0	53	n.a.	0
2000	280	4 144	4 905	2.5	52.0	0	53	220	0

* LILW-SL: together with LILW-LL waste

Source: Ministry of Environment

3.13. Recycling of waste paper and glass (%)

Year	Paper	Glass
1991	60	n.a.
1992	55	n.a.
1993	53	n.a.
1994	44	n.a.
1995	55	n.a.
1996	49	n.a.
1997	26	n.a.
1998	n.a.	n.a.
1999	55	14
2000	38	n.a.

Source: HCSO

3.14-1. Pattern of passenger transport

Year	Busses and coaches	Rail	Air	Passenger cars, 1000 capita
				passenger km per capita
1990	1 023	1 100	164	187.4
1991	915	953	124	194.6
1992	842	890	143	199.1
1993	835	819	158	202.9
1994	940	829	218	211.8
1995	934	825	233	219.1
1996	958	842	272	221.7
1997	1 001	854	300	225.8
1998	1 050	878	300	218.8
1999	1 119	945	349	223.5
2000	1 198	958	350	235.5

Source: HCSO

3.14-2. Freight transport by mode

Year	Road	Rail	Inland	Change of Real GDP, %
	Billion tonne-km			
1990	6.2	16.8	14.5	100.0
1991	4.4	11.9	6.1	88.0
1992	3.4	10.0	5.2	85.4
1993	3.0	7.7	1.6	84.9
1994	3.0	7.7	0.8	87.3
1995	10.0	8.0	1.3	88.6
1996	10.4	7.6	2.4	89.8
1997	10.4	8.1	1.6	93.9
1998	12.6	8.1	1.0	98.7
1999	13.1	7.7	0.9	100.4
2000	13.3	8.1	0.9	105.1

Source: HCSO

Comparison of Annual Harmonised Price Indices (1990=100%)

Countries	All items	Freight transport	Public transport services
Hungary	163.6	171.7	180.9
EU-15	106.4	110.0	110.7

Source: Transport and environment 2001, HCSO, based on Eurostat publication

Comparison of Fuel Prices and Taxes in 2000

Countries	Diesel		Unleaded petrol	
	sales prices EUR/1000 litre	taxes %	sales prices EUR/1000 litre	taxes %
Austria	754	54.7	979	59.9
Ireland	839	56.7	928	58.2
Hungary	809	59.9	920	60.4
Germany	762	62.6	1 047	68.7
Portugal	624	54.0	888	47.1

Source: Transport and environment 2001, HCSO, based on Eurostat New Cronos

3.15. Environmental expenditures (industrial sector)

Year	Expenditure % of GDP		
	Investment	Current	Total
1992	0.32	n.a.	0.32
1996	0.16	n.a.	0.16
1997	0.17	n.a.	0.17
1998	0.21	n.a.	0.21
1999	0.36	0.78	1.14
2000	0.41	0.60	1.01

Source: HCSO

Environment expenditures - industrial investment by environment domains

Year	Water	Waste	Air	Others
1997	38.0	27.7	19.5	14.8
1998	16.5	17.3	41.1	25.1
1999	40.3	10.6	40.7	8.4
2000	16.0	7.8	72.3	3.5

Source: HCSO

Environment expenditures by type of industrial investment

Year	End of pipe investment	Integrated technology	Total
1997	71	29	100
1998	56	44	100
1999	63	37	100
2000	42	58	100

Source: HCSO

Institutional dimension

4.1. Communication infrastructure and the Internet access

Main telephone lines and cellular phone subscriptions (per 100 capita)

Year	Main telephone lines	Cellular phone
1990	9.6	n.a.
1991	10.9	0.0
1992	12.5	0.2
1993	14.6	0.7
1994	17.4	1.4
1995	21.1	2.6
1996	26.1	4.7
1997	30.5	7.0
1998	33.5	10.2
1999	35.9	16.1
2000	34.7	30.7
2001	32.0	48.7

Source: HCSO

4.2. Expenditure on research and development

Year	GERD* per capita HUF	GERD**	BERD	GOVERD	HERD
		% of GDP			
1985	.	2.4	.	.	.
1986	.	2.6	.	.	.
1987	.	2.7	.	.	.
1988	.	2.3	.	.	.
1989	.	2.0	.	.	.
1990	3 213	1.61	0.61	0.31	0.23
1991	2 581	1.09	0.45	0.27	0.22
1992	2 998	1.08	0.39	0.27	0.23
1993	3 364	1.00	0.33	0.26	0.23
1994	3 780	0.93	0.33	0.25	0.25
1995	4 021	0.75	0.33	0.19	0.19
1996	4 396	0.67	0.29	0.19	0.17
1997	6 069	0.74	0.31	0.19	0.17
1998	6 771	0.70	0.27	0.22	0.18
1999	7 748	0.68	0.27	0.22	0.15
2000	10 494	0.82	0.36	0.21	0.20

*at current price

**Total data are not equal the sum of R&D expenditure by sectors, incl. amounts used outside the R&D units

GERD: Gross Domestic Expenditure on Research and Development

BERD: Business Enterprise sector

GOVERD: Government sector

HERD: Higher Education sector

Source: HCSO

HUNGARY:
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