GOVERNMENT OF THE HUNGARIAN REPUBLIC

NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY

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1. SUSTAINABLE DEVELOPMENT

Sustainable development is aimed at preserving and improving the quality of life permanently and in the long run.

The National Sustainable Development Strategy is a long term frame strategy document helping to lead the development of society on an appropriate track, outlining a system of instruments and a reform framework corresponding to a positive and sustainable future vision with which all members of the society can identify.

1.1. THE CONCEPT OF 'SUSTAINABLE DEVELOPMENT'

Sustainable development is a process aiming to improve the quality of life in the broadest sense, which cannot be restricted to financial wealth or material welfare but comprises the quality of the environment, the exercising of democratic rights, access to natural resources and to services and institutions made available by the society, along with full physical and mental health, spare time, safety, and security. Social welfare is a manifestation of the quality of the environment and that of the life of people making up society.

Sustainable management of natural resources must be accompanied by economic growth generating and supporting wealth and welfare and by social justice and equality of opportunities.

In regard to *natural resources* this means that satisfaction of society's reasonable needs and requirements can be provided for in the long run only in concert with the carrying capacity of the natural environment: the environment's carrying capacity is, at the same time, the limit beyond which no demand can be satisfied. Thus there is a need for sustainable utilisation of natural resources which requires environmental awareness and environmentally ethical behaviour of the society. This in turn requires focusing more on bringing up future generations in a professionally sound and well prepared way, aiming to develop environmental awareness in the family and in all areas of education.

In a society living with due observance of the principles of sustainability there is social justice - among other things - which is based on guaranteed equality in access to opportunities as well as on the sharing the costs of the operation of society, along with never ending efforts to improve the quality of life. To achieve this there is a need for presenting a set of moral norms to the members of society to support and assist these processes.

The goal of providing for fair circumstances of life, adequate quality of life, and welfare applies to everyone, including all members of the future generations. Accordingly, the concept of sustainable development recognises and pursues a goal of ensuring equal rights of the *successive generations* to adequate quality of life, along with the necessity of fulfilling the obligations relating to this goal. Sustainable development is, consequently, a form of development that enables the satisfaction of the needs of present generations in a way as will not compromise the ability of future generations to meet their own needs.

Many of the current social and economic processes and their impacts are contrary to the requirements of sustainable development. These trends *necessitate a shift to a growth path*

that will ensure the sustainable development of societies - including the Hungarian society - in the long run. This goal cannot be achieved within the confines of a single country or region, since no society can isolate itself from its wider natural, social, and economic environment. Because of increasingly intensive interactions and mutual dependencies, societies also share the same long term future.

1.2. THE BASIC PRINCIPLES OF SUSTAINABLE DEVELOPMENT

The basic principles of sustainable development make it possible to harmonise the various sectoral and development strategies with the horizontal strategy on sustainable development (hereinafter: Strategy) and they also provide a general type of guidance for determining the Strategy's priorities, more specifically defined goals and tasks, the frameworks and means of implementation, in a coordinated and harmonised way. The basic principles have been formulated, clarified, and adopted at the highest levels by the relevant bodies of both the UN and the EU. On account of their national relevance the following should be highlighted from the complete set of principles:

- *The principle of holistic approach*. Things must be viewed as a system of inter-related elements, the elements themselves also being systems interacting with one another. Any intervention may trigger ripple effects even in remote systems. So local challenges can be adequately addressed relying on the knowledge of the wider environment and global trends alike.

- *Principle of intra-generation and inter-generation solidarity*. The interests of sustainable development are focused on people. The development and environmental needs of present generations must be addressed without compromising the ability of future generations to meet their own needs.

- *The principle of social justice.* The right to adequate conditions for living must be recognised and fundamental human rights must be guaranteed for all. All people should have equal opportunities for acquiring knowledge and skills required to become a worthy member of society.

- *The principle of sustainabile management of resources.* Sustainable management of resources with a view to the limitations of the carrying capacity of the environment; by using natural resources in a prudent and thrifty way it preserves resources required for future development. Biodiversity is also a natural resource and we attach high priority to its conservation.

- *The principle of integration.* In the course of elaborating, evaluating, and implementing sectoral policies, plans, and programmes, economic, social, and environmental considerations and their relationships must also be taken into account to ensure that they can mutually reinforce each other. Local, regional, and national activities must be coordinated.

- *The principle of utilising local resources.* Efforts should be made to supply the needs of communities on a local level, from local resources. Local features and diversity should be preserved. Preservation and sustainable utilisation of the man-made environment and the cultural heritage are also very important tasks.

- *The principle of public participation.* Adequate access to information affecting social/economic life and the environment, to information on decision making processes must be provided for all. People's knowledge about sustainable development, its social/economic and environmental implications, and about sustainable solutions and approaches must be clarified and enhanced. Public participation in decision making should be strengthened.

- *The principle of social responsibility.* To enable sustainable development and to make higher quality of life possible, unsustainable patterns of production and consumption must be changed. Businesses' social responsibility must be strengthened, along with cooperation between the private and the public sector.

- *The principle of precaution and prevention.* The precautionary approach means that wherever the possibility of severe or irreversible damage is perceived, lack of complete scientific certainty may not be used as an excuse for delaying effective action to prevent damage to the environment or endangering human health; i.e. action must be taken in view of the gravity of the perceived threat. Human activities must be planned and carried out in line with this precautionary principle and activities damaging or polluting the environment endangering natural systems and human health must be prevented and - where it is not possible – reduced, and finally, damages must be restored to their original state as far as possible.

- *The polluter pays principle.* Prices must reflect the real costs paid by society for activities involved in consumption and production as well as for their impacts, including the costs of using natural resources. Those engaged in activities damaging/polluting the environment must pay for damage caused to human health or the environment.

1.3. THE OBJECTIVES OF THE STRATEGY

The main objective of the National Sustainable Development Strategy is to help shift domestic social, economic, and environmental processes, i.e. Hungary's development onto a path that is sustainable in medium and long-term, taking into account both domestic realities and external and global processes and conditions.

The Strategy has been worked out with a view to the guiding principles and key objectives laid out in the EU's renewed Sustainable Development Strategy. Since Hungary's Strategy integrates domestic sectors, it is coherent with the goals of sectoral strategies and programmes.

Based on the concept, approach, values, basic principles, objectives, and implementation tools of sustainable development, this Strategy offers a long term comprehensive framework - that is to be regularly reviewed and renewed - for strategies, programmes, and plans focusing on development and other - more concrete - horizontal issues, thereby taking into account at the same time their relationships and interactions and assisting their coherence.

To this end, the Strategy

- *determines and facilitates the medium term and longer term changes and their frameworks, which are required for attaining sustainability and for a shift towards the desired state of society;*

- *identifies the fundamental conditions that will enable attaining and implementing these goals and policies in a way that can be clearly planned, communicated, and measured, where those in charge are adequately accountable;*

- *identifies the main factors hindering and those assisting implementation and on the basis of these it establishes long term objectives and the key directions of action;*

- *takes account of already existing plans and strategies, gets integrated in them, and initiates their review and transformation along with the development of new strategies, thereby ensuring the maximum possible coherence of policies and the integration of fields of action in the medium and long run.*

At the level of strategic planning, the implementation of the Strategy requires a process of broad public consultation, involvement of representatives of different stakeholders and the process of implementation itself is simply inconceivable without cooperation involving the widest possible range of political, economic, and social partners.

To accomplish its objective, the Strategy provides conceptual guidance concerning the type of attitude and approach to be applied in the course of the assessment and review of long term comprehensive sectoral and regional/local development plans and sectoral programmes from the aspect of sustainability and in the course of producing and implementing new ones.

The requirements of the strategy must - over the medium and long run, through an ongoing process of reviewing - be integrated in domestic national and regional/local programmes and action plans, including, among other areas, those of social policy, economic development, the various sectors, health, environment protection, education, and science policy. This means that the various sectoral development programmes and policies must be coordinated and harmonised by means of the objectives and basic principles of the Strategy and the goals and means of implementation adopted for the various fields of action.

1.4. A SYSTEMIC PROCESS OF THE IMPLEMENTATION

The process of developing a country and improving its competitiveness can be successful and sustainable in the long term only if it relies on a broad social basis and as many people participate in producing goods and enjoying their benefits as possible.

There is a definite need for elaborating a long term (25-50 year) sustainable development policy in the course of whose implementation all social partners clearly know the goals towards which they are working and the investment and efforts it takes.

The National Sustainable Development Strategy (NSDS) is, accordingly, a **long term frame strategy type document** outlining a set of long term goals and corresponding means and instruments leading to a positive and sustainable future vision for all social, economic, and environmental areas, with which all members of the society can identify.

The above long term goals may, however, only be accomplished through reforms laying down the foundations required for making those goals possible - even if those reforms entail conflicts - and through conscious efforts on the part of all members of society. For this reason, the Strategy **is aligned to the existing frameworks of domestic and international strategies and concepts in a short run of 3-5 years, involving at the same time their review and their adjustment in a medium run (10-15 years) and in a long run (25-50 years), to the**

goals of sustainable development. Under the current domestic economic and social circumstances, it also means that the steps proposed in the strategy will be feasible in a medium run only in concert with the elements of the convergence programme whose implementation is currently underway.

The Strategy determines the process, institutions, and instruments for attaining sustainable development in a medium run and in a long run. A shift towards sustainability requires a harmonised systemic approach making it possible - by constantly reviewing and, if necessary, renewing the contents of the Strategy - to identify the requirements and solutions that ensure the coherence and connections between the various actions and measures as well as their effectiveness.

The structure of the general (horizontal) areas of action (relating also all of the priorities to be discussed below) supporting sustainability and its attainment, or in other words the implementation of the Strategy, is as follows:

- *enhancing the knowledge base concerning sustainability, the processes strengthening and those endangering it and concerning the required change in values, through strengthening scientific research and the exchange of knowledge and by making research findings accessible;*

- *knowledge on sustainability to a wide range of partners should be disseminated from two directions: awareness of society in realising the concept of sustainability can be raised on the one hand, through public education, vocational training and adult training, based on their established means and instruments and on the other hand, with the assistance of the media and other channels and using their institutional system;*

- *assisting the development and evolution of the required channels and conditions - convincing and involving economic actors, publicity, activity of civil society organisations, political commitment - to make it possible for social partners to play a substantive role in decision making processes based on their knowledge;*

- *developing, transforming, and effectively implementing public policies on the basis of the principles and practice of sustainability;*

- *developing and transforming the institutional system;*

- *monitoring and evaluating changes whose results affect the knowledge base and all other areas of activity.*

2. ANALYSIS OF THE CURRENT SITUATION

2.1. INTERNATIONAL PROCESSES AND COOPERATION

2.1.1. The key global processes

Taking account of global and regional social, environmental, and economic processes is crucial in preparing the Strategy, since in the majority of cases domestic issues can be understood only in with a view to global trends and processes and the efforts to be made in order to attain sustainable development in Hungary cannot be segregated from the relevant international trends.

By 2050 the population of the world may reach 9 billion despite the fact that population growth has been slowing down during the recent decades. This growth will be a source of new social and - particularly due to growing consumption - environmental tensions. Much of this growth will take place in developing countries, whose population will account for some 88 % of the global population, though at present their consumption equals less than 15 % of the global consumption, and in many developing regions large numbers of people live in poverty and are undernourished.

Meanwhile, in developed countries the number of births is declining, life expectancy is increasing, and, consequently, the populations of developed countries are ageing. Increasing immigration may improve the demographic balance but it may also be a source of new tensions. The active part of an individual's life spent on the labour market is growing longer and in recent years the trend of people reaching a physical state at the age of 60 where they are in need of retiring has apparently been coming to an end.

The global environmental load has been and is steadily growing. This process involves exploiting non-renewable natural resources, (over)use of certain resources without capability of renewal, land use, and environment pollution. Developed countries have historically played and still play a substantial role in these processes but developing countries whose economies have started to grow rapidly are also playing an increasing role in this aspect. As an overall consequence of all this is that the balance and carrying capacity of our environment is already being threatened. At present some 1.2 billion people do not have healthy drinking water and if the current trends in water production continue unchanged, by year 2025 some two thirds of the population will not have enough water to meet their basic needs. Between 1970 and 2000 the populations of land and marine species dropped by some 30, those of freshwater species diminished by 50 %. Biodiversity and the proportion of natural areas - particularly tropical forests - is steadily declining and the number of endangered species is increasing. Although ecological efficiency has been growing, savings are absorbed by increasing consumption.

The threat of a global climate change is increasing rapidly, which may result in a significant change in the general temperature and precipitation conditions and in an increase in extreme weather conditions and impacts. The average temperature of the surface of the Earth has been increasing steadily - but not evenly - during the recent century and a half, and sea levels have also been slowly rising. The growing risk of a global climate change is caused by the extra carbon-dioxide entering the atmosphere primarily as a consequence of human activities, most notably as a result of burning fossil fuels. According to forecasts, by 2100 the atmospheric CO_2 concentration may reach a level of 75-350 % of the concentration measured in 1750.

Social polarisation, the gap between the incomes of the rich and those of the poor has been increasing across the world. Increasing inequalities have been observed in the access of different social groups to employment, resources, health services, culture, and education.

The global economy has been growing steadily but this growth is far from evenly distributed. Many countries show signs of growth disorders and imbalances. Sometimes these appear on regional scales, causing global financial and economic crises. The efficiency of labour is growing persistently in agriculture and industry but only part of the surplus labour force so released is absorbed by services, i.e. the goods and services required for satisfying demand are being produced with decreasing labour input. This process, however, has not resulted in shorter working hours. To the contrary, it is extending working time and leads to additional redundancy programmes.

These global trends show that the societies' existing collective development models are not sustainable in the long term.

2.1.2. International cooperation under the aegis of the UN

Since the 1980's sustainable development has become an important element of international cooperation. In the wake of the report 'Our Common Future' published in 1987 by a UN Commission dealing with this issue and the UN General Assembly Resolution adopting the report, a high level world conference was held in 1992 (the Rio 'Earth Summit'), where - in view of the fact that global social economic and environmental processes that are in close interaction with one another, are threatening societies' development in a longer run - the basic principles of sustainable development and a comprehensive programme, the Agenda 21 was adopted. The UN Commission on Sustainable Development was set up after the world conference in 1993, to coordinate the implementation of the UN programme. The Commission carries out regular reviews of the global situation in relation to sustainability, the results achieved, and the obstacles, preparing recommendations to help attain goals adopted by international fora.

This was followed by the adoption of highly important programmes and agreements at high level international fora concerning other relevant issues such as social development, population growth, food supplies, human rights, climate change, sustainable forest management, biodiversity, world trade, developments, and aids for them. At the UN Millennium Summit in 2000, adopting the Millennium Development Goals, heads of states and governments made decisions on the most important steps to take in order to combat poverty and to help developing countries catch up. The World Summit on Sustainable Development in 2002 summed up and laid out a great variety of programmes and objectives in a single comprehensive Plan of Implementation, strengthening political will to achieve sustainable development.

Despite the large number of programmes, agreements, and efforts aiming to strengthen cooperation assessments in recent years have shown that - in spite of favourable trends in certain places and sectors - the world has become less sustainable on the whole. Social differences have intensified both globally and in many regions, less developed countries are lagging more behind, and the degradation of non-renewable natural resources is becoming more and more evident.

2.1.3. The European Union and sustainable development

According to its treaty, the European Union has defined sustainable development as one of its key objectives. In June 2005 the European Council adopted the declaration on policy guiding principles for sustainable development, declaring that the EU is committed to sustainable development and that this commitment determines all of its policies and actions. The EU is building a society based on freedom, democracy, and respect of fundamental rights, a society that encourages equality of opportunities and solidarity between generations. Sustainable development must be focused on improving the quality of life and to this end the protection of the environment and the goal of social cohesion must be regarded to be the engines of innovation, growth, and job creation.

On 16 June 2006 the European Council adopted the EU's renewed Sustainable Development Strategy, which. is based on the objectives and guiding principles laid out in the declaration mentioned above. According to the Sustainable Development Strategy, the Lisbon Strategy makes an essential contribution to the overarching objective of sustainable development focusing primarily on actions and measures aimed at increasing competitiveness and economic growth and enhancing job creation.

Compliance with the renewed EU Strategy requires - for the purpose of coordination - a structural reform affecting all community strategies and sectoral policies, altering all of these elements in line with the basic principles of sustainable development. To this end, those creating sectoral policies have to integrate the basic principles of sustainable development in all EU, national, regional, and local level policy making and all major sectoral policy decisions will, in the future, have to be preceded by sustainability impact assessment.

The EU Strategy identifies the following main challenges: climate change and clean energy; sustainable transport; sustainable production and consumption patterns; managing natural resources; public health, social inclusion, demography and migration; and global challenges relating to poverty and sustainable development.

2.1.4. Strategies of other countries

Many countries of the developed and the developing world have elaborated their own sustainable development strategies. These are characterised by a wide variety of both the processes involved in elaborating the strategies and the structures, goals, contents, time horizons of the strategies and the institutional, legal, economic, and other instruments of implementation as well as the systems of monitoring the process of implementation, as well as by quite a number of common elements.

The following main conclusions can be drawn from the different national strategies: various but, in essence, very slow implementation of goals; the strong political and social demand for

economic growth frequently in conflict with goals of sustainability; improving coherence between different policies, coordination and the harmonisation of decentralisation is a slow and organic process; however, in many cases the overarching principles are supported by concrete programmes and measures.

Those strategies have been more successful where: the concept and longer term objectives of sustainable development enabled harmonisation of the strategy and a variety of different social-economic and development programmes and plans; commitment evolved on a national level in general and on that of politics specifically, to the importance and the cause of sustainable development; broad public participation developed both in the process of strategic planning and the implementation of the strategy.

2.2. DOMESTIC PROCESSES AND MEASURES RELEVANT TO SUSTAINABLE DEVELOPMENT

In addition to strengthening processes in concert with the objectives of sustainable development, the strategy should specify the direction, goals and instruments of action predominantly and primarily with respect to trends that are the most threatening to long term sustainability. These are the ones among social, environmental, economic and institutional processes that need to be identified and these are the ones on the basis of which the primary (priority) areas of the strategy must be determined. In relation to these, attention has to be paid to earlier and to ongoing programmes and actions - adopted so far separately from one another, based in most cases on sectoral aspects - and their impacts.

2.2.1. Social processes

During the past 10-15 years Hungary has seen major social changes in terms of the circumstances of life, educational attainment, and employment, along with a rapid increase of social inequalities among people living in different locations. The greatest tensions are caused by poverty and social exclusion, but demographic trends and the population's health status also give rise to concern. Although social and economic transition has imposed substantial burdens on most people, some disadvantaged social groups are facing increased risks of poverty and problems resulting from lack of security. Such groups include the Hungarian Roma population, unemployed people, those with low levels of educational attainment and those without qualifications, people of poor health status and those with disabilities, addicts, lone parents and endangered children, families with more than two children, people living under poor housing conditions or in disadvantaged municipalities, as well as the homeless. At the same time, a new social group of intellectuals and entrepreneurs has appeared and is growing larger and stronger with improved social positions.

Demographic processes

Hungary's population is ***diminishing and ageing at an increasing rate*** similarly to many developed countries. The ageing of the population coupled with the decline of the fertility rates has lead to an alarming drop in the active population. The decreased willingness to have children and the increased life expectancy at birth may lead to a situation where in 2050 one elderly citizen will be sustained by two workers instead of the current four. The growth in the number and proportion of elderly people is also likely to lead to a substantial increase in the demand for health services, social care, and nursing services. As a result of the low level of employment, the service providing systems are already difficult to finance but the expected

growth in demand will make a reform indispensable, as has already been started in certain areas.

The decline of the population started back in the 1980's. The total number of residents dropped by some 5 % during the past two decades and this process has been accelerating. Some thirty years ago the number of children per maternal age woman equalled the average of 2.1 which is required for the reproduction of the population, but this ratio had dropped to 1.32 by 2005. This process is explained by the facts that fewer young people get married, mothers have their first born child later than they used to, and that family and marital relations have been changing. The number of births has also been substantially affected by the increase in the time spent studying, by the fact that young people tend to start their own separate lives later in life and that the acceptance of different forms of cohabiting has been changing. Fertility rates among teenagers and in the group of women between 20 and 24 years of age - which used to be the most fertile age group - has continued to decline, that of the 25-29 age group increased again and the fertility of women over 30 has increased dynamically.

The population decline is a consequence of, besides low fertility, extremely high mortality rates, particularly in the active age population (below 65 years). The population decline (8 % during the past two decades) generated by natural decrease is balanced to some extent by the migration balance which has been positive in Hungary since the change in political system.

Significant changes have also occurred in other aspects. The number of familial households has declined while that of non-family - including single - households has increased. While in 1990 one in four, in 2005 one in three households were single households. The number of families has dropped. The number of children below the age of 15 per 100 families with children has dropped to 84 from the 102 recorded in 1990. The decline was significant among lone parents and married couples, while practically no change has been observed in the social group of life companions.

No success has been achieved in population policy. The steady decline or stagnation of the reproduction rate has not been turned around despite population policy communication's focus on encouraging young people to have more children and on efforts to provide for the financial background required for child raising. The insufficiency of the means actually applied and the failure of having much impact, however, show that not much has been done apart from communication. Not much emphasis is laid on involving older generations in child raising either.

In the 30-60 year old age group men's mortality deteriorated between 1990 and 1993 but has improved since, though not to the extent it has among women, primarily as a consequence of inadequate treatment of conditions caused by our civilisation, the protracted and regionally recurring crises of the domestic industrial and agricultural society and the growth of social inequalities. Also, there are substantial territorial differences in mortality rates.

There is a growth in the number and proportion of elderly people which is also likely to lead to a substantial increase in the demand for health services, social care, and nursing services. As a result of the low level of employment the service providing systems are already difficult to finance and it is not sustainable in the long run. These facts and the expected growth in demand will make a reform indispensable, as has already been started in certain areas.

The most important steps aiming to address the sustainability problems in the whole of society and the service providing systems include a gradual increase of the retirement age and

the starting of a transformation of the social security system as well as the separation of the collective and the private pillars of the pension scheme. This has strengthened the acceptance of the social security system among certain social groups, however, problems relating to the long term financing of the system and those relating to the future of people entitled to pension benefits that are not enough to live on have not been resolved, and there will likely to be social groups who may 'drop out' of the (social) security coverage. This problem will also have to be remedied.

Employment

The most important features of the situation in the labour market are ***low rates of employment*** and low rates of participation in the labour market. The low level of employment in the 15-64 year old age group (57.3 % in 2006) is accompanied by a relatively low though growing level of unemployment (7.5 % in 2006), while there is an outstandingly high - though declining - ratio of economically inactive people (38.4 % in 2006), showing that a significant proportion of the unemployed are not actively searching for jobs. The very low levels of participation in the labour market following the change in political system were explained partly by the low retirement age and the poor health status of the population, as well as by the fact that people who had lost their jobs or those who felt their employment threatened had access to a relatively wide range of income supplement benefits.

A significant proportion of all unemployed people is comprised of the long term unemployed. Those seeking for jobs cannot find employment partly as a consequence of a shortage of jobs but also as a result of their lack of qualifications and/or the skills required for work. Inactive people find it difficult to return to the labour market because their qualifications do not match the labour market's rapidly changing requirements and those having been inactive for a longer period of time have to realise that their qualifications have become outdated. The potential labour supply is also substantially limited and the competitiveness of the labour force is deteriorated by the population's poor health status.

Expanding the group of employees is still the most important goal of ***employment policy***. The means of attaining this goal is the subject of unceasing debate but at present financial type incentives are predominantly in use and less attention is paid to instruments focusing on encouraging the initiative and activity of those concerned, including access to information and acquiring of specifically targeted qualifications.

Some social groups are more heavily affected by disadvantages in the labour market and the risk of exclusion. Groups in particularly disadvantaged positions include the Roma community, those with low qualifications, people living in disadvantaged regions, people with disabilities, and certain demographic groups (primarily defined by life cycles), such as women having children, young people, and elderly workers. High taxes and contributions hinder the growth of legal demand for labour while expanding the number of undeclared forms of employment.

Despite growing problems no material change has been introduced to the system of services provided for the disabled in terms of the regime of entitlements. Though some changes have taken place in recent years in rehabilitation activities, yet employment rehabilitation, which is helping disabled and handicapped people to employment, and the efforts aiming to (re)integrate them into the labour market, have yielded few results so far.

There are large differences in employment and unemployment within and between regions. These differences are not only substantial because of the rates of unemployment but also because of the composition of the group of unemployed. In micro-regions with high

unemployment rates there are higher than average rates of recipients of regular social aid, those qualifying as long-term unemployed, people with low educational attainment and inactive people permanently forced out of the labour market.

The poorest active age social groups are characterised by larger than average family sizes, disadvantages in terms of place of residence, family problems and difficulties in cohabiting, health, qualification, and ethnic problems. The structure of poverty has remained unchanged: child poverty is still a serious problem in that primarily those below 14 years of age and particularly those below 3, families with several children and most notably lone parents, tend to live in poverty. The risk of poverty has increased among the unemployed, those living from odd jobs, people without skills or qualifications, the Roma and people living in North and East Hungary as well as those living in rural Hungary.

By international standards Hungary's labour market can be regarded as being relatively flexible. The spreading of new forms of employment, however, requires reviewing the regulatory environment of employment, along with ensuring a balance between flexibility and security. From the aspect of adaptation to the constantly changing labour market and economic environment and from that of chances to find employment training of workers and particularly adult training are crucial requirements.

Education, science, culture

Owing to a number of factors, Hungary's public education sector saw the appearance of adverse trends in terms of quality standards deteriorating by international comparison, education and training not sufficiently supporting subsequent employment in the labour market, and amplifying social inequalities. These trends have been altered by interventions during recent years.

As a consequence of demographic processes, the number of primary school children has been declining steadily since 1990, though this has not been accompanied by adjustments in the capacity of the education system. This imposes substantial burdens on the organisations financing the operation of institutions and it also raises sustainability issues.

The standards of the educational attainment of the population of Hungary have been rising since the change in political system. The most dynamic improvement has been observed in terms of the number and ratio of people having completed secondary and tertiary educations, particularly among women. In the 1990's, the expansion of education extended the time spent in education and it contributed to easing tensions in the labour market, besides raising the overall levels of educational attainment. At the same time the relative wage advantage of those with higher education increased up to year 2002. Since the structure of the expansion of education had not been aligned to the requirements of the economy, the labour market today is facing growing problems resulting from difficulties of young people leaving the schooling system in finding jobs. This points to the fact that expansion of education has a positive impact on the labour market over a longer term only if the quality and structure of the expansion of education is aligned to labour market demand.

The high proportions of drop-outs in secondary education make substantial contributions to reproducing social groups with low qualifications. Programmes aimed at reducing drop-out rates have not been very successful so far. Many people leave the education system without having completed their studies or without having acquired qualifications and these people do not have a very promising future in the labour market. The high drop-out rate is partly a result of the fact that primary education is not particularly successful in transferring to students the fundamental skills and competences, including forms of conduct reflecting environmental or social awareness.

Education should improve the fundamental skills required for success in the labour market and in life in general more than today. Education should be more practice oriented and should provide more support to students to adopt an approach of lifelong learning, thereby easing labour market tensions, making people more flexible concerning changing their jobs. Besides a substantial rise in the population's levels of educational attainment, international comparative surveys conducted in recent years concerning the levels of the population's basic knowledge and skills have shown Hungary's achievements to have been stagnating or even deteriorating in a number of areas. Lack of foreign language proficiency is a grave problem, having adverse impacts on acquiring knowledge, on training, and on employment.

Differences in the quality of education between various types of institutions have also increased. During the past decade, the education system has contributed to increasing social differences. Children of the lowest status social groups typically receive lower than average standards of education, many of them drop out of the education system, and the lack of an adequate cultural background hinders their acquiring new knowledge in the long run as well. Competition between education institutions has, on the one hand, expanded the range of services offered by the education system, as a consequence of which there are better possibilities for creating personalised study and career paths, on the other hand, however, the equality of opportunities to participate in the education system as well as the standards of mass education have deteriorated. The poor instrument and infrastructure supplies of schools, however, hinder the dissemination of up-to-date knowledge. Wages in education and training do not particularly promote high quality work, so institutions are finding it increasingly difficult to employ high quality teachers and instructors. The development of the quality of education is also hindered by the lack of a comprehensive quality assessment and quality assurance system.

The Hungarian education institution - as has been proven by findings of numerous Hungarian experts and international data (PISA Report 2000 and 2003) - do not always provide equal conditions for its participants. Members of disadvantaged social groups are provided with lower standard education under poorer conditions. There are extreme differences between the levels of performance in education of children coming from poor families and those from more affluent families: for example, children in the latter group stand a 50 times higher chance of acquiring GCSE than those in the former. Discrimination suffered by children belonging to disadvantaged social groups - primarily those belonging to the Roma community - appear in a variety of forms. For instance, a survey conducted in 2000 revealed ethnic and social segregation often experienced in primary schools, most notably that a third of Roma schoolchildren accounting for some 10 % of the total primary school student population are attending school in classes where they make up a higher proportion of the children than the non-Roma students. Some 9,000 children attend primary school in about 770 exclusively Roma classes. Besides segregation within schools, there is also segregation between schools: education institutions admitting children in disadvantaged social positions in rural municipalities have the lowest prestige and they have the poorest resources in terms of staffing and infrastructure.

Adequate pre-school preparation is one of the most important requisites for successful schooling, since children acquire important skills and capabilities during pre-school education that make them capable of meeting fundamental expectations and the norms of the primary school successfully. Research shows that some 11 % of children in disadvantaged social positions - most of them of Roma families - do not attend pre-school even after the age of five, primarily because of the expensive services and the shortage of pre-school capacities.

In the course of education/training, students are not provided with adequate systemic and practice-oriented knowledge. The practice of education enabling participants to acquire comprehensive knowledge concerning sustainability has not evolved yet, no education materials are available for this at present, and the education profession has only just started to prepare itself for the subject of sustainability. An increasing number of initiatives are launched to offset social differences and inequalities of opportunities that are reproduced in the public education system and are conserved from generation to generation and these are also priority elements of development strategies.

Substantial shortcomings are still observed in the field of lifelong learning. On the one hand, no system of education, training, and adult training, in which the various elements are organically linked together in a coherent hierarchic regime, has evolved so far and requisites for universal access to learning have not been provided for. The instruments and forms of non-formal and of informal training are not adequately utilised, cooperation between the education and the cultural system is inadequate and consequently synergies based on efficient cooperation between education and culture are not utilised. Particularly adults with little or no qualifications find it difficult or practically impossible to access adequate education/training services.

Health

The Hungarian population's health status is extremely poor by international standards and it is far below the level that could be enabled by the general level of Hungary's social and economic development. Hungary is a world leader in international statistics of certain illnesses and causes of death. The extremely bad health status of the Hungarian population is a result of a variety of historical, social, economic, and cultural factors, including, in particular, people's habits and general way of life.

The Hungarian population's diet patterns are rather unhealthy. A high proportion of the adult population is overweight or obese, spending less than 10 minutes a day doing physical exercise on an average. Some 41 % of men and 26 % of women smoke. Alcoholism is wide-spread and drug users are growing in number. Many Hungarians do not have the capability of tackling daily problems and many people have poor mental health.

Life expectancy at birth is still low, though it has increased both among men and women since the change in political system: in 2004 the average life expectancy was 72.8 years (68.6 among men and 76.9 among women). According to data from the year 2003, Hungarian men's and women's average life expectancy was shorter than the EU average by almost 7 and by more than 4 years, respectively. The situation is even worse in terms of the differences between the genders, for men can not only expect a shorter life but also fewer healthy years in life. This is also confirmed by the fact that the life expectancy of Hungarian men and women at the age of 65 is only 2 years behind the EU average in the case of both sexes, so the gravest problem is the outstanding mortality rate of men in their middle years.

The Hungarian population has the third highest mortality rate in the EU and the mortality of the active - below 65 years old - population is even more unfavourable. In 2003 Hungary was fourth in the EU-25 in terms of mortality caused by diseases of the circulatory system and by external factors. After the Baltic States, Hungary has the highest rate of mortality caused by heart diseases, cerebral blood-vessel diseases and external causes such as suicide. Hungary is first in mortality caused by malignant tumours and diseases of the digestive system. Among malignant tumours, mortality caused by lung cancer is almost twice as high in Hungary as the EU average.

In year 2003 the causes of mortality resulted from circulatory diseases in 51 % of all cases; malignant tumours in 25 %; diseases of the digestive system in 7 %, and injuries, poisoning or other external causes in another 7 % of all cases. In recent decades, mortality resulting from cardiovascular diseases has declined while mortality caused by malignant tumours has increased.

Trends in the health status are, however, affected by other factors as well, thus the educational and the income level also contribute to differences in people's health status. Lack of health awareness and unhealthy forms of conduct are particularly typical in some social groups, most notably in disadvantaged social groups.

Hungary's poorer health status is explained to a significant extent by the unhealthy way of life of a large proportion of the population and by structural problems in the health care system.

The ***unfavourable general situation*** of the Hungarian health system also enhances the above adverse processes. The structure of health services has been largely inherited from the earlier centrally governed health system and it cannot or can only very slowly adapt to changes in demand. Scientific achievements are introduced to medical practice after long delays and in many cases unevenly, resulting in thriftless use of the generally scarce resources. At the same time, progress and improvement could be driven by Hungarian medical training of international renown and the already existing regional networks of medical officers and district nurses.

Few concepts and proposals developed with the aim of improving the status of the Hungarian health system have been realised at least to some extent. The public health programmes that have been launched are highly important from the aspect of preserving health. The biggest problem with these is that based on a certain 'efficiency consideration' they target exclusively people with higher educational levels and primarily women, because messages aiming to promote healthier lifestyles, early diagnostics and screening tests can, among members of these groups, have their effects at smaller costs and in less time, therefore they seem to be more effective. At the same time, the existing public health problems hardly focus on groups of society with little education and so middle aged men with no qualifications and often with no jobs, people who have outstanding mortality rates in Hungary, are practically totally neglected by these programmes.

Growing social inequalities, social groups falling behind

Social inequalities have increased substantially in terms of living standards, income levels, health status, qualifications, and access to public services. Most critically, the territorial concentration of poverty and segregation has been increasing. Inequalities in the quality of and access to the public service providing systems (education, culture, health, social services, transport) do not reduce, indeed in some cases they even contribute to strengthening and preserving this trend of falling behind.

The average living standards, housing conditions, health status, employment, and schooling of the Hungarian Roma population is far below the Hungarian average: the income of 82 % of this group is below the sustenance level, 56 % of the members of the Roma community belong to the poorest 10 % of the total Hungarian population. The rate of employment is below half of, the unemployment rate is 3-5 times as high, while the number of persons sustained by one wage earner is three times as many as the corresponding ratios in the non-Roma population.

The civil sector is playing an increasing role in initiatives aiming to help social integration of disadvantaged groups and Hungarian churches are also undertaking substantial social roles.

Social order and the rule of law

Traditional social values are gradually eroding, social bonds have been weakening ever since the change in political system. As a consequence - along with growing social inequalities - social solidarity and internal cohesion has been diminishing. Changes in views of the most important common values entail a risk of social partners paying less and less respect to moral and legal norms. Shortcomings in the operation of the system of sanctions make it increasingly worth for the subjects of law to bypass and not comply with written and unwritten norms. Any continued strengthening or spreading of these phenomena would threaten the fundamentals of the rule of law along with the sustainability of the democratic order.

Crime has increased dramatically in Hungary since the change in political system. The majority of criminal acts reported to the police directly violate people's personal safety and that of their property and have a negative impact on the quality of life. This process has not been kept abreast of by the development of the self-defence mechanisms of society and citizens. Since crime is a social phenomenon, in addition to the criminal law, actions should be taken against it in the way of social policy measures as well.

Important steps have been taken to secure the framework of the rule of law both by the state and by local governments. Further action is necessary to ensure sustainability of results achieved so far, with more focus on quality aspects and on increasing public participation. Lack of consensus and a deepening schism in the Hungarian society are risks that need to be addressed from this aspect.

The increasingly relative nature of legal compliance is one of the most serious internal threats endangering the rule of law and at the same time the partners in charge of keeping up the existing social order are facing increasing challenges in the form of new threats that appear as negative consequences of globalisation.

Consumer society, modes of production and consumption patterns

The issues of production and consumption are closely linked to the economic, social, and environmental aspects of sustainability. The current consumption patterns are generally contrary to the requirements of sustainability. ***Production and consumption patterns have a direct and significant impact on the utilisation of natural resources, the state of environmental elements, and consequently on the population's health status.*** The structure of production and consumption in Hungary has changed immensely during recent decades and while some favourable trends have also appeared in the environmental load of production, inequalities between social groups in terms of the qualitative and quantitative parameters of consumption have increased rapidly and, on the whole, some detrimental environmental and lifestyle impacts have amplified. Increasing consumption is regarded by most people to be something good and desirable and this set of 'values' is mostly communicated by the media as well.

Hungary's structure of consumption is growing increasingly similar to that of West European countries. Households' per capita average consumption is on the rise. A large part of the structure of consumption is made up of expenditures on foodstuffs. Although in recent years the proportion of healthy foodstuffs and organic foodstuffs has increased - though it is very low and lags far behind the EU15 average - a rather high proportion of household consumption is made up of consumer goods, tobacco, and alcoholic beverages. Many people consume foodstuffs containing artificial ingredients. The share of foodstuffs in total household consumption is followed by the most dynamically growing share of services - which advanced from the third to the second position in the early 1990's - while the proportion of both foodstuffs and clothing have declined. The trend of gradually growing household consumption also hides some contradictions. On the one hand, households have contributed to reducing the consumption of energy and water, they contribute to the growth in motor vehicle traffic and also to the increase of the household waste output.

In terms of the internal proportions of the consumption structure, there are material differences between different income groups of society. In the case of some particular durable household goods, the number of units per 100 households increases in proportion to households' income.

The production and consumption of products and services meeting the requirements of sustainability was started in the mid-1990's, though not much progress has been observed in this field to date. Another sustainability issue may result from the fact that the steady expansion of the per capita household consumption is financed by people increasingly from loans and this entails a risk of growing indebtedness of a very substantial proportion of the Hungarian population.

2.2.2. Environment

The observed changes in the state of the environment during recent decades clearly reflect the interactions and the mutual determination between the social, the economic, and the environmental dimension in Hungary as well. As a result of the economic restructuring process, the output of a variety of pollutants (e.g. air pollution, excessive use of chemicals in agriculture) has declined. Energy efficiency has improved, environmental management systems, available best techniques, and environment-friendly products are spreading steadily. Besides preserving the quality of the environment the improvements in the environmental infrastructure have also contributed to the improvement of people's quality of life, to the development of the economy and its attractiveness for investors.

At the same time, the environmental load (pollution, use of resources, land use) has increased in certain areas particularly as a consequence of economic growth and the spread of behaviour patterns that are characteristic of a consumer society: the ratio of biologically active surfaces has been and is diminishing, air pollution by transport is on the increase, similarly to the volume of communal solid waste.

Hungary has good traditions in environmental awareness, but there is a greater challenge to be tackled in terms of enhancing environmentally aware behaviour and activities. This does not only involve the enforcement of the renewed environmental regulatory system that has adopted the EU's strict regulations, not only the enforcement of legal compliance, but also beyond these, the adoption of a precautious and responsible attitude, ethical and proactive behaviour, and participation in preventing and remedying environmental problems.

After the change in political system, the first step was the realisation of the heavy environmental damage and loads caused and left behind by earlier economic, industrial, and military operations. For this very reason, in the early 1990's the focus was on eliminating the inherited and the ongoing environmental damage, while prevention was missing from the agenda. Although the proportions of planned waste management and waste water treatment are growing at present, their overall levels are still very low by European standards. For the time being the institutions of the decision makers, the regulatory authorities, investors, and the civil sector, based on adequate dialogue, do not function effectively enough in the course of the preparations for decision making and the elaboration of the modes of implementation of various spatial development, municipal dement, and sectoral dement plans and programmes and of large investment projects, that have substantial impacts on the environment.

The state of the environment

Apart from large towns and the main transport junctions, ***air pollution*** has diminished, but motorisation has increasing impacts.

Actions have been taken ***in land use*** towards revitalising brown field areas, but these have not been able to balance the spread of green field projects and the rapid sprawl of built-up areas (residential and industrial buildings, roads). The proportion of the areas withdrawn from agricultural use and built up - as a consequence of the expansion of the residential and commercial zones of municipalities, construction of new motorways, mining, green field investment projects - has increased substantially as a consequence of developments during recent years. (Agricultural land shrank by 300,000 hectares between 1994 and 2004.)

The ***state of the soil*** has improved partly through spontaneous processes and to a smaller extent through state assistance. The biggest problems are caused by soil and wind erosion as well as by compact impermeable layers in the cultivated soil layer. Water erosion is one of the most severe among soil degradation processes in Hungary, damaging more than a third of agricultural land, besides large areas exposed to wind erosion. Almost 50 % of arable lands in Hungary are endangered by improper land use (no crop rotation, no use of farmyard manure, eradication of patches of woods protecting fields from wind, exposure of soil surface, use of heavy machinery, tillage carried out at the wrong time). Soil improving interventions increased in the first half of this decade and the area treated with chemical fertilisers has decreased. Other unfavourable circumstances and processes concerning agriculture include soil acidification, damage caused by water logging, and salination.

The pollution of agricultural and forestry lands with heavy metals, pesticide residues, and other harmful substances is below the relevant limit values. The nitrate and nitrite content of soils was, on average, higher than the 50 mg/kg limit value only in some 1.7-7.2 % of the samples. Acidification originating primarily from atmospheric deposition affects particularly certain areas of Central and West Transdanubia and North Hungary. Sites of pollution caused decades ago, in different sizes and of varying degrees of severity, resulting from inappropriate storage of blast cinder, waste heaps, red mud, fly-ash, and slag as well as from the mining of uranium are to be found across the territory of Hungary. There is an ongoing process of taking account of these areas, assessing their condition and carrying out the necessary remedial and rehabilitation actions in the framework of the National Environmental Remediation Programme.

Among Hungary's ***surface waters,*** the water quality of rivers is acceptable, that of our large lakes has been improving; however, the state of smaller water flows is less favourable, because sometimes their loads far exceed their self-purification capacities. The quantity of water is another important characteristic of Hungary's rivers and lakes. Maintaining the rivers' water carrying capacity is an important task, the importance of which is further increased by the threats entailed by the growth in the frequency and intensity of floods. In the near future we will have to carry out major investment projects to alleviate the risk of floods, to even out the flows of water, and to mitigate the impacts of draughts.

The quality of subsurface waters continues to be endangered by inherited agricultural and industrial pollution. A total of 4.4 million hectares of land is particularly susceptible to nitrate pollution in Hungary, of which 2.7 million hectares is agricultural land. The average quality of waters has been improved during the past decade and a half. At the same time, the quality of water in Hungary does not only depend on us, as much of the water comes from abroad. The decline in industrial cooling water consumption has had a favourable impact, as has regulations protecting living waters, the expansion of the sewerage networks, and increasing of water treatment and in certain areas the reduction of agricultural production (Lake Balaton area). Hungary's water reservoirs are still endangered, however, particularly in view of the expected increase in the frequency of droughts and the declining average precipitation as a consequence of climate change.

Hungary has adopted Government Decree No. 201/2001. (X. 25.) on the requirements concerning the quality of ***drinking water*** and its controlling system, as part of the process of legal harmonisation with EU legislation. The Drinking Water Improvement Programme integrated the aim of compliance in terms of the parameters laid out in the Accession Treaty (nitrite, boron, fluoride, arsenic) as well as, based on public health considerations, a goal of reducing the ammonium content to below the limit value as well. The Programme covers 908 municipalities and part municipalities in Hungary, with a total population of more than 2.5 million.

Substantial development projects have been launched during the past 10 years in communal ***wastewater*** treatment. A large number of municipal governments have started to construct sewerage and waste water treatment systems using earmarked and targeted state subsidy in recent years. In regard to these actual aspects of economic effectiveness (concerning the construction, maintenance and operation of the systems) and comprehensive environmental impacts should be consistently taken into account at least from this point on, assessing at the same time and in certain cases the economic effectiveness and comprehensive environmental impacts of other possible solutions. The expansion of the sewerage network - without construction of waste water treatment capacities - was, in some cases, accompanied by no change or even by a temporary expansion of the gap between the drinking water network and the sewerage network penetration.

The total ***waste*** output has been stagnating since 1997. The mass of communal solid waste has hardly changed during recent years, though its volume is steadily expanding, as a consequence of the growth in the proportion of lighter components.

The industrial waste output (including that of commerce and services) is between 20 and 25 million tonnes a year and is gradually declining. One reason for this was the economic downturn in the early 1990's, the other is the changing structure of the economy, entailing, in an economy that has been expanding again since 1995, the introduction of more up-to-date, less material and energy intensive technologies. However, only some 30 % of the waste output is utilised and about 60 % ends up in landfills or is stored in other ways.

The quantity of communal solid waste collected by organised services is on the increase, of which some 85 % is landfilled and about 12 % is utilised. Today some 13 % of the total communal solid waste output is selectively collected and the rate of the recovery of packaging waste is also clearly growing.

In 2005 there were 178 active landfills in all, of which only 53 may continue operating beyond 2009 in their current form or after capacity expansion. Besides operational landfills, a total of 2,435 landfills created, closed, and abandoned since 1950 have to be rehabilitated.

Changes have been introduced to the regulation of waste treatment as well. The new regulation provides incentives to businesses to reduce their outputs of hazardous substances and waste, which is most efficiently achieved by means of prevention and recovery. Nevertheless, Hungary is still significantly lagging behind in regard to the recovery of waste materials, partly as a consequence of shortcomings of the infrastructure and of low levels of environmental awareness.

The state of our ***man-made environment*** is declining, our historical architectural values that are worthy of protection are particularly endangered. Utilisation of the man-made cultural heritage in ways that provide for preserving their value has been started but such initiatives are not widespread yet, despite the fact that they are very useful both in preserving and in developing the traditional features of municipalities and landscapes. Increasing problems are caused in municipalities by rising emissions of certain air pollutants from transport, congestions, the increase of noise and vibration loads, and the inadequate technical state of the architectural environment, as well as the shortage of green areas. The proportion of green areas in our towns is below 'medium' by international standards. Brown field areas, industrial areas out of use or under-utilised in comparison to their potentials and former army barracks not only deteriorate the cityscape but also cause substantial problems in terms of land use, town operation, and the environment.

Development of the urbanised spatial structure has not always been adjusted to what could have been considered to be ecologically optimum spatial structure and aspects of ecology were neglected on account of a shortage of funds.

In parallel with remaining and, from a certain aspect even more intensive, social, and economic inequalities the environmental status parameters also show substantial territorial inequalities.

Natural values, biodiversity

Because of its natural conditions and resources (geological conditions, riches of surface waters, soil types, the climate) Hungary has very ***favourable and diverse natural and ecological conditions and resources, natural values, and natural areas*** even by international standards. Preserving and conserving our natural heritage, however, is a major challenge. In 2004 the Ministry of Environment Protection and Water Management adopted the Fundamentals of the National Strategy and Action Plan on the Conservation of Biodiversity.

Hungary has managed to maintain a higher than 20 % proportion of continuous natural and near-natural habitats and habitat systems in comparison to the country's total area. However, in comparison to 1999 the number of endangered plant species and the number of endangered animal species under protection has increased by 35 % and by 12 %, respectively. The reason for this increase has been - in addition to the environmental load and pollution - a substantial fragmentation of previously unbroken habitats. The most endangered places are wetlands and grasslands, whose fragmentation and elimination has continued even recently. As a

consequence of Hungary's EU accession, species and habitats of importance for the community (Natura 2000) are now under special protection.

Much of Hungary's natural values are linked to woodlands, wetlands. and to extensive farming and its locations, i.e. to agricultural habitats. Varied land use adjusted to different environmental conditions and resources - particularly forests managed in a quasi-natural way, comprising indigenous tree species - plays an important role in the riches of biodiversity in Hungary.

Fortunately, the total area of woodlands consisting of indigenous tree species increased by 115,820 hectares between 1999 and 2004, by more than 1.5 times the total increase of forest areas, i.e. tree populations have been replaced on considerable pieces of woodlands.

Since 2002 Hungary has been assisting a number of different environment preserving farming techniques in the field of what is known as Agri-Environment Management. From the aspect of agricultural land use with a focus on environment protection and nature conservation, there are horizontal and zonal measures and programmes. Environmentally aware farming techniques aligned to site conditions include - among others - what is known as ecological farming, the preservation and conservation of wetlands, and extensive grassland management. In the framework of the Agri-Environment Management scheme it is also possible to launch regional (zonal) programmes, aiming specifically at accomplishing the goals of soil and water protection in areas designated for this purpose. The Natura 2000 network and the related land use practices also contribute to preserving natural resources on almost 2 million hectares in Hungary.

The areas receiving agri-environment management and rural development support have been expanding steadily since 2002. The total area of Sensitive Natural Areas has increased from the 22,000 hectares in 2002 to 39,000 hectares by 2003 and to 117,000 hectares by 2004.

The Natura 2000 areas of importance for the European Community make up a total of about 1,96 million hectares, almost 21 % of the total area of Hungary. Some 38.5 % of the Natura 2000 areas in Hungary also enjoy a national level protection pursuant to other legislation.

Climate change: emissions and impacts

In the wake of the earlier economic setbacks and the subsequent major economic restructuring and modernisation, the emission of greenhouse gases - primarily that of carbon-dioxide - has declined substantially and the level of emissions has not increased even despite the recent trends of economic growth (apart for emissions from transports.)

According to expert estimates - even along with improving energy efficiency - ***demand for energy is expected to increase slowly*** in the forthcoming period ***which will entail an increase in emissions as well*** if the mix of energy sources utilised by the national economy remains unchanged.

In accordance with global trends, the ***annual surface mean temperature is on the increase*** in Hungary. There is a similarly clear trend of increasing daily minimum temperatures and in the number of warm nights. Certain meteorological and related environmental events have

become more frequent; for instance Hungary has had to fight record high floods on the rivers Tisza and Danube in recent years. Precipitation is declining - and its fluctuations are growing more extreme - which is particularly evident in the diminishing of winter precipitation and the decrease of the number of days with more than 5 mm of precipitation. However. the length of periods without any precipitation at all has not increased.

2.2.3. Economy

In the first half of the 1990's, the output of both industry and agriculture dropped substantially, and Hungary's GDP also showed a significant decline. The share of agriculture, industry, and construction dropped, while that of services increased dynamically. The decline of production and the expansion of the services sector made a great contribution to decreasing utilisation of resources and reducing air and water pollution and to the dramatic drop in the use of agricultural chemicals ('environmental gift effect').

Part of the earlier environmental 'threats' have, therefore, disappeared, either by the disappearance of the source of environmental damage (e.g. heavy industry) or their environmentally damaging impacts have been abated substantially (cleaner technologies, bypass roads, noise protection etc.). In the areas where mining and metallurgy have been downsized or closed down, pollution has also diminished, but at the same time a social deficit emerged.

In the late 1990's ***economic growth*** started anew but ***was not accompanied by an increase in traditional forms of pollution as had been witnessed before.*** This process of separation was a result of economic and technological modernisation and the application of new types of environmental regulations. In the way of voluntary undertakings, the application of the ISO 14001 environmental management system of the International Standardisation Organisation (ISO) became a dominant element in corporate management. Today there are more than a thousand certified companies registered in Hungary. Up to the date of Hungary's EU accession we had adopted the European Union's EMAS (Eco-Management and Audit Scheme) and built up its institution. To date a total of eight enterprises with 10 premises in all have been entered in the EMAS register.

In this way in the wake of the change in political system the general goal of segregating economic growth from increasing environmental loads was apparently accomplished in Hungary. The reason for this, however, was not a conscious environmental or economic policy, rather, it came about as a by-product of spontaneous processes following the change in political system. This is why some of the above trends are expected to slow down or turn around in the future (primarily as a consequence of increasing consumption).

As the date of Hungary's EU accession grew nearer, a number of advanced global service provider enterprises entered the Hungarian market. These companies not only brought substantial foreign direct investment to Hungary and made substantial contributions to expanding employment, but also introduced advanced technical and organisational technologies. At the same time, this process entailed certain risks and negative impacts on sustainability as well (e.g. accelerated spreading of consumer society behaviour patterns). Rapid development was assisted by the quickly growing modern financial and telecommunication sector supporting economic activities. Thanks to the strength of Hungary's training of IT experts, domestic IT undertakings have appeared that are capable of outstanding performance even by international standards.

Because of the availability of adequately trained labour and the market that is accessible for service provider undertakings, up-to-date investment projects generating technological

development concentrated in Hungary's more highly developed regions. This then contributed to an increase in the differences between the levels of development within the country.

Economic structure, innovation, SMEs

The ***economic restructuring process*** in Hungary ***was substantially assisted by the adoption of up-to-date organisational, financial, and technical experience*** and their integration in the day-to-day activities of businesses.

At the same time, economic development and innovation is substantially hindered by a low proportion of R&D expenditures relative to GDP, by international standards (0.95 % in 2005). Even this was to a large extent made up of state funds (49.4 % in 2005) with a smaller part (39.4 %) originating from private sources and the remaining 11.2 % coming from other domestic and foreign sources. There are still only few businesses in Hungary today that undertake research and development on their own and there are weak connections between research institutions and the business sector. At the same time, some multinational enterprises are utilising the Hungarian research basis and management, so there are some forms of cooperation between education institutions and research projects. The positive changes are backed by the Hungarian science sector's growing international integration, which is encouraged by the growing dependence on foreign funding sources, among other factors.

Small and medium-sized enterprises (SMEs) employ the largest number of workers in Hungary. Encouraging and promoting their development, and exploring and removing barriers are highly important tasks. The expansion of small enterprises is hindered primarily by their little knowledge of up-to-date management, organisation, financial and technical techniques, and their relatively large financial and administrative burdens. The ratio of administrative burdens relative to GDP is highest in Hungary (2006) among the EU countries, more than twice the EU average. The lower productivity of SMEs - in comparison to large ones - is explained by their weaker innovation performance, lower capitalisation, and their shortfalls in the application of IT as well as their restricted access to financial services.

The use of IT applications is below European levels in the governmental and the business sector alike. There is a low proportion of corporate process integration and contents of high added value content and the synergies between knowledge, technology, and IT are not fully exploited. In recent years, however, the lag of SMEs in the use of information technology has been substantially reduced.

Energy

The structure of the use of ***sources of energy*** has altered in Hungary since the change in political system, natural gas consumption is on the increase. Hungary's total annual energy consumption has been around 1090 PJ for years.

Some businesses have already introduced ***energy efficient technologies,*** but the public sector and households have not made as much progress in this respect as a consequence of the high costs of conversion and lack of motivation. The per-capita energy consumption is significantly below that of developed countries but energy intensity (per unit of GDP) is still almost three times as high (or 1.5 times as high, in terms of purchasing power parity) as the average of developed countries. (In 1991 Hungary required energy which is the equivalent of 802.5 kg oil for generating an output of 1000 Euros, which decreased to 582 kg by 2003: by contrast, the energy efficiency of the EU15 countries is 190.8 kg/1000 Euros). The low energy intensity is, however, not only a matter of energy technology, but is also linked to the country's economic structure and level of development.

The predominant proportion of energy imports and the low level of use of renewable energy sources result in risks and strong external dependence in the energy system. Hungary's growing energy dependence also results in a security exposure: at present we are importing 72 % of our energy consumption and this may increase to 90 % by 2015.

The utilisation of ***renewable energy sources*** is low though it is on the increase: the proportion of the energy consumption originating from renewable energy sources increased from 3.6 % in 2003 to 5.2 % in 2005, while in some developed European countries - not independently of natural conditions - this proportion may be as high as 10-15 %. This relatively rapid growth was caused by an increase in the use of biomass for energy generation, which, besides its favourable features, entails a number of sustainability related risks (e.g. damaging the natural environment). We still have additional potentials in the use of renewable energy sources. The introduction of a guaranteed price for power generated from renewable energy sources is an important step towards a more sustainable energy system.

Transport

Demand for transport and the output of the transport sector have grown significantly in proportion to the growth of GDP since the mid-1990's. This has entailed detrimental social and environmental impacts alike, partly as a consequence of the fact that rail and to some extent water transport suffered a significant loss of market share despite the overall growth in the sector's output, while - in parallel with the decrease in Hungary's lag behind the EU average - road transport, which entails substantial environmental impacts, has grown dynamically, along with air transport, which is not so accessible for lower income social groups. Nevertheless, rail transport still accounts for a proportion of the total output of the transport sector that is about twice as high as the average of the EU25 countries.

Hungary has accomplished progress worthy of international recognition in the area of environment protection in relation to transport (the proportions of the various modes of transport are still favourable, Hungary's tax policy reflecting environmental features, regulation of car emissions, mandatory obligation to utilise and product fees charged on tyres, motor oils, and batteries, excise tax allowances, even tax exemption, for alternative - PB gas, natural gas - and bio-fuels, etc.).

Within the regions, the national railway and public road network provides access primarily to the centres, the quality of these networks is not quite up to the mark and there are shortcomings in the systems of links within regions. The radial structure of the network of main roads and railway lines with the Capital City in its centre, the insufficient number of bridges and river crossing services, and the inadequacies of their connections hinder the strengthening of regional links and various forms of cooperation, resulting in serious inadequacies in the standards of accessibility. Modern means of traffic control required for the Hungarian network to be integrated in the international network have not been installed and the quality of the tracks is not high enough either.

As a consequence of motorisation and the process of 'disurbanisation' following West European patterns, the earlier one-way relationship between towns and their regions are gradually changing, multi-directional links within micro-regions and conurbations are growing in importance. Public transport, however, has not been keeping up with the growth in traffic in agglomerations, its quality fails to meet increasingly diverse demand on the part of society, and this leads to increasing proportions of individual transport. As a consequence of increasing car use, roads are growing ever more congested, which, in turn, entails increasing environment pollution and social costs. The transport sector's emission of solid pollutants (atmospheric dust pollution) more than tripled between 1990 and 2002.

The present ***transport strategy*** is aimed primarily at improving the infrastructure of transit traffic, to make it easier to get across the territory of Hungary, to even out differences in the levels of development in the various regions of the country, and to improve the accessibility of regions, without, at least so far, paying adequate attention to sustainability and to the fact that we are living in a basin, a fact that entails a variety of restrictions. There are substantial shortcomings in Hungary's transport network and the state of roads and rail tracks. The dominance of motorway and road constructions helps strengthen international cohesion, resulting in little improvement in internal domestic cohesion. Developing crosswise, local, and lower level road capacities, however, is essential for internal cohesion as well. Hungary is not focusing adequate efforts and resources on developing public transport and fixed track transport modes - that are considered to be highly desirable in the medium and long run from the aspect of sustainability - yet their weight, partly owing to EU development projects, is growing. Crossing Hungary by rail or road is important, but in the medium and long term the domestic transport network should not be based exclusively on the corridors that have to be constructed across Hungary. Efforts have been made so far to abate the environmental impacts of transport primarily by tightening regulations but as a consequence of growing road traffic not much progress has been achieved. It will take additional means to reduce the environmental impacts of transport, such as economic incentives, info-communication technologies, ITS solutions, and measures altering consumer behaviour.

Infrastructure

The extent and quality of Hungary's technical infrastructure has grown and improved substantially since the change in political system. Telecommunication, pipelined gas, and water networks now cover practically the entire country - indeed, in some places there are excess capacities - however, in some areas, primarily in parts of municipalities with higher percentages of Roma residents and in Roma 'settlements' equality of access has not been provided for. The Hungarian power grid has been integrated in the West European systems.

The Hungarian telecommunication infrastructure is among the most advanced systems in Central and Eastern Europe, however, by general European standards we still have much to improve.

Shortcomings in accessibility are determined in essence by municipality structure, residents of regions with the smallest villages face severe disadvantages in terms of the communication infrastructure.

Agriculture

The ***Hungarian agriculture sector has changed immensely*** during the past decades, as a result of the transformation of the ownership and production structure, fundamental changes in the conditions of livestock production, changes in the structure of food consumption and new trends in foreign trade as well as a host of other factors. Consequently, a substantial part of land that had been farmed before the change in political system has been taken out of agricultural production.

Internal market and subsidy conditions have also changed substantially and the current resources and conditions are among the most fundamental consequences of Hungary's EU membership.

Eco-farming has become an important area in regard to the environmental aspects of agricultural production. Organic and eco-farming practices were introduced in Hungary in about 1993-1994, but its organised and controlled regime was launched only in 1996. The proportion of land under controlled organic farming - areas converted into organic farming and the ecologically managed lands together - is still small, but it is growing rapidly: it

increased by more than ten times between 1996 and 2004, from 11,400 hectares to 133,000 hectares, equalling about 2.3 % of agricultural lands, less than half of the EU average. In 2004 some 45.6 % of the ecologically managed area was made up of grasslands, meadows, and grazing lands for organic livestock production, 47.6 % was arable land. Most of the Hungarian organic farms sell their produce abroad, some 95-97 % of the qualified and brand-marked organic products end up in West European markets. The EU subsidies may further encourage those working in agriculture and family undertakings to turn increasingly towards ecological farming.

Environmental industry, investments, products

Adopting the EU environmental regulations has enabled ***effective environmental policy intervention***. This has lead to favourable changes on the side of production, but consumer behaviour has been only slightly affected.

Production and consumption of products and services meeting sustainability requirements began in Hungary after the change in political system in the mid-1990's, but no material progress has been observed to date, despite the fact that Hungary has substantial reserves for organic farming, given its good agricultural resources and indigenous livestock varieties. The low level of environmental awareness among residents and the low incomes of large groups of the population (leading to a price-sensitive consumer behaviour) coupled with large supplies of cheap mass products prevent environment-friendly products from becoming more popular and from making up increasing proportions of products available in shops.

Although domestic environmental policies have created the institutional framework required for the spreading of environment-friendly products and services, but in the social environment described above and without substantial resources no material progress has been achieved (though this applies to most European countries). At present the products of some 33 manufacturers carry eco-tags, and a total of 350 products had been tested and accepted by the first half of 2005. The first Hungarian European eco-label has been created in the wake of Hungary's EU accession, but the model has not been followed by other manufacturers or service providers so far.

Although economic restructuring has entailed what is referred to as the 'economic gift effect', this development has also been used as an argument in favour of privatisation: newly restarted production processes are based on much more up-to-date solutions, particularly in the case of investments implemented in Hungary by international enterprises. The projects resulting in environmental improvement, however, were price-driven investments with the aim of achieving competitiveness, rather than environmental sustainability.

A total of HUF 202 billion was spent on ***environmental investment projects*** in the national economy in 2005, equalling some 4.6 % of all investments. A large proportion - 82 % - of environmental projects was implemented in the way of direct environment protection projects. The state has been providing funding support from the Earmarked Appropriation for Environment Protection (Hungarian abbreviation: KAC) to public environmental projects, reimbursing of the costs of actions aiming at averting environmental damage requiring prompt intervention, and threats of such damage as well as to operations aiming at preventing, identifying, and eliminating environmental and natural damage.

Economic development and territorial differences

From among the countries that joined the EU in 2004, Hungary has the third largest per-capita gross domestic product (in terms of purchasing power parity), Hungary is now economically integrated in the European internal market. Though one of the main engines of the Hungarian economy is demand in the internal market and thus growth is predominantly determined by

trends in the West European economy, the growth rate of the economy of Hungary has been steadily higher than that of West Europe since 1997. The dynamic economic growth has, however, not been accompanied by catching up in terms of employment, since the employment rate in the Euro Zone and that of Hungary have both increased during the said period by almost the same rate.

Budapest and its agglomeration is the most rapidly growing region in Hungary. Other important venues of economic growth include the northern and western segments of Transdanubia (based on good access to western markets, good infrastructure, and high rates of foreign direct investment) along with certain county seats (primarily Győr, Székesfehérvár, Pécs, Szeged, Debrecen, and Miskolc). These, however, have not developed into regional centres of European standards for lack of adequate infrastructural and institutional decentralisation.

Foreign investments currently focus on relatively cheap labour and resources and prefer 'green field' projects causing environmental problems.

During the past 15 years, part of the Hungarian population has managed to adapt to new challenges and so between 1997 and 2006 (except for 2004) incomes and real wages increased steadily. This process was, however, accompanied by increasing inequalities within the population in terms of incomes and living standards, leading to the development of - even geographically clearly defined - segregated social 'enclosures'.

Macroeconomic stability

Central redistribution has increased slightly during recent years despite the fact that the convergence programme - that has been amended several times so far - prescribed gradual reduction of its rate. The budget deficit has increased and a widening gap has appeared between the budget estimates and the actual deficit figures. Monetary and fiscal policies have become increasingly harmonised but there is still much to be done. With the current structure of revenues and expenditures appearing to be unchanged, the current position of the budget and public finances not stable and not being able to be maintained in the long run, a number of measures have been introduced to improve economic equilibrium.

The prices of natural resources do not sufficiently reflect their scarcity and the costs of their ecological impacts. Labour costs are driven up by high taxes and contributions.

In many cases there are wide gaps between the planning time horizon and that of the actions to be taken towards sustainability. Short term - cyclic approaches prevail.

The ***large public service providing systems*** - education and vocational training, pension, and health systems - are in for urgent reforms, primarily as a consequence of demographic trends, as a result of which Hungary's age structure will change fundamentally by 2050. The proportion of people below 20 years of age will diminish, that of people over 65 will increase, and life expectancy at birth is expected to grow. This will impose substantial burdens on the pension scheme and on the health and social service providing systems. Though increasing social and economic activity of the elderly may cause temporary tensions in employment - complicating the reintegration of groups forced out of the labour market - owing to the decline of the number and proportion of young people, there is a need for increasing employment of the elderly in the long run, for otherwise the service providing systems will become less and less sustainable from budgetary and other aspects.

The economy of Hungary is growing in a relatively healthy structure, which helps catching up with more advanced EU Member States. (Based on data on a longer period of time, Hungary's GDP has been growing by an average of 2 percentage points faster each year than the Euro

Zone). Nonetheless, the proportion of services (primarily that of commercial services) is still low and that of industry and agriculture is still high within the sectoral structure.

2.2.4. Institutional system and sustainable development

State and government institutions have outstanding responsibility in performing tasks of coordination and integration concerning sustainable development. Enforcing and applying the principles of sustainable development requires a number of changes and development in this area as well. Though some progress has been achieved in the recent period, for instance in the areas of legislation and public participation, lack of coordination and consultation between different sectoral policies - taking account of their relationships as well as conflicting interests - continues to raise a multitude of problems. The concept of sustainable development still hardly appears in strategies published by the various ministries.

Local governments have major duties and responsibilities in tackling problems relating to the lack of sustainability in society, ranging from education through health and social services to exercising powers of authorities and monitoring environmental damage. However, as a consequence of the above mentioned structural problems, many of Hungary's local governments do not have adequate capacities and resources for carrying out and exercising, in an adequate way, an increasing range of tasks and competences assigned to them. Indeed, in many cases they even find it difficult to operate basic local governmental functions. The existing local governmental structure is overly fragmented and does not have adequate capabilities to assert its interests under the existing system. Funding more in line with the tasks of local governments could be provided through increased state subsidies and to even out large differences among local governments' own revenues.

Forming and operating ***micro-regional associations*** is an important process from the aspect of sustainability. Although civil society organisations are not very strong in rural Hungary, quite a number of local governmental spatial development associations have achieved significant results. One advantage of micro-regional organisations is that they can manage local sustainability problems at the lowest possible level and in an integrated way, from water and sewerage services through social problems to economic development.

There is no dedicated institution representing or bearing responsibility for the issue of sustainable development. An inter-ministerial permanent committee for sustainable development was set up to identify domestic tasks stemming from programmes adopted and treaties signed after the 1992 UN conference and to coordinate their implementation. This committee had representatives from a number of bodies of nationwide competence and of civil society organisations. In September 2001, the committee renewed its activities in order to coordinate preparations for the 2002 World Summit on Sustainable Development in Johannesburg, to prepare the Hungarian strategy, and to assist preparations for carrying out tasks in Hungary resulting from the EU's sustainable development strategy in the framework of the European integration process. However, the legislative basis of the committee's operation was removed after a while and the committee has not been functioning since 2002. The operation of that particular body made quite a contribution to the appearance of certain principles and means of sustainable development in various sectoral and development plans in the past decade.

However, the principles and approach of sustainable development have not been generally accepted. This can be explained by a variety of reasons, including the spreading of a consumption oriented attitude, the restriction of the concept of welfare primarily to material goods, and increased exploitation of natural resources. Planning and governance with a view to the interactions between society, economy, and environment - one of the most essential requisites of sustainable development - have not been widely adopted, and the situation is

made even worse by the lack of an adequate measure of harmonisation within the administrative and institutional system that is broken down into sectors.

Environmental and nature conservation organisations were the first ones among Hungary's ***civil society organisations*** to take on issues of sustainable development. A number of civil society organisations initiated programmes with the aim of implementing sustainable development in practice. These programmes were implemented in the widest variety of geographical settings, most of them focusing on particular small municipalities or groups of municipalities. These programmes are based on local resources, drawing on local labour and expertise, experience, local materials, and traditional technologies. Furthermore, the conditions of public participation in elaborating various nationwide and regional sectoral and development programmes, and in the inter-sectoral and sectoral bodies dealing with those programmes has greatly improved.

3. PRIORITIES, GOALS, AND TASKS

3.1. SELECTION OF PRIORITIES

The assessment of the current situation in Hungary reveals relevant global trends, and those that are most contrary to long term sustainability and characteristic of the Hungarian situation which, accordingly, need to be addressed as priority areas.

Processes and trends threatening sustainability

- Climate change
- Declining environmental carrying capacity
- Acceleration of the diminishing and ageing of the population
- Low (registered) employment rate
- Declining average standard of public education by international comparison, failing to adequately support employment later in life and leading to amplified social inequalities
- Poor health status and a health care system with serious problems
- Growing social inequalities along the lines of income, health status, qualifications, and access to public services, appearance of social groups falling behind
- Unsustainable (material and energy intensive) consumer habits
- Shrinking and fragmentation of biologically active areas
- Expanding land use
- Endangered water reserves
- Weak SME sector
- Energy system that is highly dependent on external sources and is based on fossil fuels
- Pricing not reflecting scarcity of natural resources
- Public finances with tensions
- Slow and not sufficiently efficient official procedures and services in the public administration system

Setting priorities

Based on processes and trends threatening sustainability, we can identify priorities that affect more than one problem area and facilitate sustainability by positively affecting key processes. These priorities not only set directions and tasks for state bodies and local governments; their implementation takes close cooperation on the part of state, economic, and civil partners to reach the desired goals.

The first priority is to create a **sustainable population policy** that would encourage people to have children, ensure that children can be raised in the proper environment, and provide for the requisites for harmonious coexistence of different generations and Hungarians and migrants. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Population that is rapidly diminishing and ageing
- The state of public finances (in the long run)

The second priority is **to improve health status**, to enable Hungarians to live as long as possible and in the best possible health. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Growing social inequalities and poverty
- Low (registered) employment rate
- Poor health status and a health care system with serious problems
- The state of public finances

The third priority is **to strengthen social cohesion and improve employment**. Social cohesion is the basis of sustainability. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Growing social inequalities and poverty
- Population that is rapidly diminishing and ageing
- Low (registered) employment rate
- Unsustainable consumer habits
- Poor health status and a health care system with serious problems

The fourth priority is **to protect natural values**. Preserving the operability of national ecosystems is a fundamental prerequisite for the sustainability of both the economy and of social life. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Climate change
- Declining environmental carrying capacity
- Unsustainable consumer habits
- Shrinking and fragmentation of biologically active areas
- Endangered water reserves
- Expanding land use

The fifth priority is **combating climate change**. Reducing greenhouse gas emissions and adaptation to changing weather and climatic impacts has a positive impact on the following trends threatening sustainability and the underlying causes:

- Growing social inequalities and poverty
- Poor health status
- Climate change
- Declining environmental carrying capacity
- Unsustainable consumer habits
- Shrinking and fragmentation of biologically active areas
- Endangered water reserves
- Pricing not reflecting the scarcity of natural resources

The sixth priority is **sustainable water management**. Among environmental problems, this is a particularly important issue in Hungary, since water is a crucial requirement both for society (e.g. healthy drinking water for all) and the economy. Thrifty and value preserving management and getting prepared for preserving waters for future generations has a positive impact on the following trends threatening sustainability and the underlying causes:

- Growing social inequalities and poverty
- Poor health status
- Climate change
- Declining environmental carrying capacity
- Unsustainable consumer habits

- Endangered water reserves
- Pricing not reflecting the scarcity of natural resources

The seventh priority is **to strengthen competitiveness in a sustainable manner**. The competitiveness of the economy may be enhanced in the long run if, and only if, it integrates the concept, basic principles, and objectives of sustainable development. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Pricing not reflecting the scarcity of natural resources
- Low employment rate
- Energy system that is highly dependent on external sources and is based on fossil fuels
- Inadequate efficiency of public administration
- Weak SME sector
- Declining average standard of public education by international comparison, failing to adequately support employment later in life and leading to amplified social inequalities
- The state of public finances

The eighth priority is **to strengthen sustainable production and consumer habits**. Reducing the natural resource intensity of production and consumption in Hungary is one of the bases of the sustainability of society and economy, since we are consuming more of the Earth's resources than it is capable of reproducing. This priority has a positive impact on the following trends threatening sustainability and the underlying causes:

- Declining environmental carrying capacity
- Pricing not reflecting the scarcity of natural resources
- Energy system that is highly dependent on external sources and is based on fossil fuels
- Poor health status
- Growing social inequalities and poverty
- Climate change
- Unsustainable consumer habits
- Endangered water reserves
- Expanding land use

The ninth priority is **to transform Hungary's energy economy**. An energy system that does not generate greenhouse gases and satisfies increasing proportions of the total demand for energy from renewable - preferably local - energy sources has a positive impact on the following trends threatening sustainability and the underlying causes:

- Declining environmental carrying capacity
- Pricing not reflecting the scarcity of natural resources
- Energy system that is highly dependent on external sources and is based on fossil fuels
- Climate change
- Unsustainable consumer habits
- Low employment rate
- Weak SME sector
- The state of public finances

The tenth priority is to **create sustainable mobility and spatial structure**. A transport network performing functions stemming from demand for mobility, providing for accessibility, and strengthening cohesion, at minimum costs in terms of space used and environment loads, has a positive impact on the following trends threatening sustainability and the underlying causes:

- Declining environmental carrying capacity
- Pricing not reflecting the scarcity of natural resources
- Energy system that is highly dependent on external sources and is based on fossil fuels
- Climate change
- Unsustainable consumer habits
- Growing social inequalities and poverty
- Weak SME sector
- expanding land use

The eleventh priority is to use the means of **economic instruments** in the interests of sustainable development. If with economic instruments we can manage to create feedback to economic actors encouraging them to operate in a more sustainable way, **we can positively impact almost all of the trends** threatening sustainability **and their underlying causes.**

3.2. TACKLING UNSUSTAINABLE SOCIAL PROCESSES, STRENGTHENING SUSTAINABLE ONES

3.2.1. Addressing demographic problems

To address the problems of diminishing and ageing population, the **goal** of long term population and migration policy is **to encourage people to have children by ensuring that children can be raised in the proper environment and to provide for the requisites for harmonious coexistence of different generations and Hungarians and migrants.** Addressing the problem of a diminishing population is facilitated by increasing fertility, enabling immigration, and reducing mortality rates. This issue is to be dealt with as part of the priorities relating to the preservation of health. We do not create a separate area of action for this issue.

The most important fields of action – population policy (NP)

(NP-1) ***Fairer burden sharing.*** To provide the requisites for raising children in the proper environment and to encourage people to have children, social spaces providing for a more equal distribution of burdens should be created, in which people with children do not suffer material disadvantages, in which the future of adults is stable and predictable during the period of child raising, and in which goals of changing lifestyles can be achieved.

(NP-2) Harmonising ***society-wide services and goods*** with the composition and size of the population to ensure reproduction worthy of man, including more healthy nutrition, satisfactory basic medical services, adequate education, housing and work that does not degrade human dignity.

(NP-3) ***The requisites and conditions for harmonious coexistence of the local population and migrants must be created***. To this end, there is a need for:
- An attitude change, to create a more inclusive society that is not selecting among migrants. This - together with improving the conditions for mobility and change of residence, as necessary - will ensure labour market integration of the currently excluded local and migrant groups.
- Creating an integrated information system to support adequate shaping of the migration policy - as may be altered from time to time - and make it possible to monitor demographic,

migration, and social processes and to produce projections concerning Hungary's burden bearing capacity and its capacity to accommodate migrants.
- ***Undertaking an active international role*** to enable shaping economic and social policies in view of migration processes as well (including channels of migration, main sources of migrants, and trends in regional demand for labour).

3.2.2. Preserving health and developing healthy modes of life

Improving the health status of the Hungarian population is one of the most important goals related to sustainability, given its strong impact on all other economic and social processes. The current trends have to be turned around: **our goal is to enable Hungarians to live as long as possible, in the best possible health**. There are two main areas in which preservation of health and adopting healthy lifestyles can be encouraged: by influencing ways of thinking and attitudes relating to health and in the area of concrete possibilities for preserving good health. In addition to preventive type steps there is a need for efficient health care systems, effective governance and management, and adequate technologies and infrastructure in the area of medical services.

It should also be noted that health is a global issue and the spreading of epidemics has accelerated. In order to fight against health threats and hazards there is a need for quick and effective response, but there is a need for all countries to actively participate in preparations and protective measures if humankind is to succeed in this field.

The most important fields of action – preserving health (EÜ)

(*EÜ***-1)** In the framework of shaping ways of thinking and attitudes concerning health:
Spreading a holistic approach to health, dealing with physical and mental health by treating the individual as a whole.
Raising health awareness to encourage all of society to adopt healthy lifestyles and to improve the population's (physical, mental, and intellectual) health status.
Raising awareness of the importance of ***prevention*** in the society, popularising possible methods (in terms of both active measures and risk avoidance).

(*EÜ***-2)** In terms of the possibilities for preserving health:
Exploring the complex relationships between health, environment, economy, and society, coordinating research activities in this field in order to enable better understanding of the factors that can cause problems in physical, mental, and intellectual health and of the ways for preventing these as effectively as possible.
Providing access to collectively financed services, reducing territorial inequalities, and inequalities resulting from social/cultural backgrounds, in the standards of the accessible health services.
Relying on the means of taxation policy to encourage healthy lifestyles and the consumption of products and services assisting the preservation of good health.

3.2.3. Improving social cohesion and employment

A sustainable society is characterised by peace and security, where cohesion and improving a country's competitiveness are in close interaction. **Our goal is to strengthen social cohesion, achieve social security, and eradicate poverty and social exclusion.** This is not limited to

raising low incomes: it includes employment, housing, mobility, health services, access to communication and information services and, primarily, to education and vocational training meeting today's requirements. A large proportion of the Hungarian population is facing the threat of poverty. Child poverty is a particularly acute issue.

Creating and strengthening social cohesion requires circumstances in which all individuals have, in the long run, the basic requisites for social and economic participation; where paths of mobility are created and kept open for the individual. One central element of this is reducing inequalities of opportunities in life, reducing social exclusion right from childhood and, as a particularly important requisite, gender equality. The poverty eradication and the strengthening of social and territorial cohesion as well as helping disadvantaged groups and regions to catch up take concerted action involving different sectors.

Strengthening social cohesion requires developing small communities and assisting the experience of collective existence through developing learning, cooperation, participation, decision making and adaptation skills and capabilities. Alive communities also guarantee cultural diversity. The diversity of communities operating on the basis of collective values and the practice of their cooperation has important roles in cohesion, adaptation, equalising and balancing. Strengthening community awareness helps following norms and legal compliance and stabilises the society.

Protection of the most important social values and adequate encouragement of social partners to respect moral and legal norms and to comply with the law are essential requirements for strengthening social cohesion and solidarity.

Employment is one of the most important means of poverty eradication, though in itself it is not sufficient. To this end, it is essential that those facing difficulties are offered opportunities and that they are enabled to participate in the labour market. Inactive persons can, however, not only be helped to find existing jobs, but also to create the conditions and requisites for his own employment.

The most important fields of action – Social cohesion (TK)

(TK-1) Strengthening social cohesion in the development of social systems
- Providing a social minimum that is accessible for all, creating equal opportunities to access to resources, goods, rights, and services to avoid marginalisation and social exclusion.
- An integrated approach to reducing social disadvantages such as poverty, low education levels, cultural exclusion, unemployment and disability, instead of the currently applied approach of addressing problems in sub-systems.

(TK-2) Community development and strengthening of social solidarity. *This involves*
- Encouraging, by legal and economic means, **self organising groups and voluntary activities** to take up increased roles in society.
- Providing public service functions in the media to **values of importance from the aspect of sustainable development**, giving mandatory role in terms of content and form in education, organising and/or evaluation function in the subsidy policy applied to civil society groups.
- Assisting the development of **capabilities required for participation** in individual learning situations and in organisations' learning processes alike.

- Conducting further studies and research on **surviving and sustaining communities** and encouraging cooperation for instance in sharing knowledge base, in developing collective systems of values and norms or in development.

(TK-3) Providing for social peace, security, and the frameworks of the rule of law
-, Improving the quality of laws and regulations and ensuring public participation **in the legislation process**.
- **To improve compliance,** emphasis must be laid on prevention, controlling, and supervision, on improving the system of sanctions, and on criminals' reintegration into society.
- **In law enforcement,** the requirement of lenient treatment must be observed and applied and cooperation between the relevant authorities should be strengthened

(TK-4) Assisting earning income and social integration
- **To provide access for all to work and other activities recognised as such,** besides increasing employment, non-market related activities that are indispensable for society's healthy operation should also be recognised as work; opportunities must be provided for part time jobs and like activities, along with participation in other alternative forms of employment; furthermore, actual working hours should be limited and even reduced.
- People who cannot be integrated into the labour market must be **protected from social exclusion** partly through the system of social benefits and partly by providing cultural, health, or other public goods.
- **To minimise the increase of pension burdens borne by society,** efforts should be made to make it worth for people to continue working beyond retirement age.

3.3. PRESERVATION OF THE ENVIRONMENT'S CARRYING CAPACITY

3.3.1. Protection of natural values

Our goal is to preserve the viability of natural ecosystems. This goal hinges on preserving biodiversity and it also necessitates limiting the utilisation of natural resources only to an extent where the ecosystems concerned remain stable and resilient and can continue functioning - providing their services - in the long run.

The strategy of protecting natural values has changed already in the 1990's, making clear that isolated protection of natural habitats is no longer feasible: various areas must be linked (by ecological corridors) and an external near-nature habitat and environment, which has been affecting their functioning for quite some time now, must be provided for. By means of nature conservation, agri-environmental protection and environment management, it is necessary and possible to guarantee the operation of ecosystems in the long run, thus helping the maintenance of all of the resources on which even human society is so dependent.

The following main tools have to be used in preserving the viability of natural systems: active protection of natural values, integration, institutional protection, and change in way of life and attitude, as well as public participation.

The most important fields of action – natural values (TE)

(TE-1) ***Active protection of natural values.*** Hungary has forests, grasslands, and wetland habitats that are highly valuable by European standards, along with major geological values and rich agro-biodiversity (e.g. indigenous Hungarian livestock varieties, traditional crop

varieties, related wild species). Preserving these - and in the case of the natural flora, creating seed banks - is an important and urgent task, which is assisted by providing legal protection, encouraging economic partners and the owners of areas of natural value as well as the development of sustainable land use. It is possible to identify the ways for the various types of habitats in which the above goals can be attained. The application of environmentally aware farming methods are assisted by horizontal and zonal programmes, including the system of Sensitive Natural Areas (SNA). In the wake of Hungary's EU accession, the sustainable land use of the Natura 2000 areas also helps this process. In such areas voluntary restrictions may have a more substantial positive impact on environmental factors than those ordered on a mandatory basis. To this end, vertical and zonal programmes should build on one another.

(TE-2) ***Integration*****.** The viability of biocenosis - ecological communities - and biodiversity may be preserved and natural resources may be sustainably used only through an active effort on the part of all players of the economy and all members of society. So-called 'institutional nature conservation' alone is not capable of attaining sustainability. Observing the aspects and requirements of conserving nature must be achieved in all sectors of the economy, particularly in those placing the greatest loads on the natural environment. Techniques aligned to the natural conditions should be applied in a large proportion of land used in agriculture and forestry. Agriculture must turn out healthy and safe foodstuffs. Agriculture not or not heavily hindering the functioning of natural processes preserves soils, the drinking water reservoirs, surface waters, and life in general, along with land and man, human communities and culture. Near-natural techniques of forest management should be increasingly used in the forestry sector. Areas designated by the Forest Reserve Programme must be given protected status. The required actions and steps in the areas of spatial development, tourism, hunting, mining, and fisheries must be taken on the basis of the objectives set out in the Strategy and Action Plan for Preserving Biodiversity.
Integration requires close links with institutional protection, since sectors' active participation in working towards the goals of sustainable development can be best ensured by means of regulations.

(TE-3) ***Institutional protection*****.** To slow down and stop degradation processes in nature, sufficient funding must be provided for institutional nature conservation. Using the law and enforcing the law to regulate the use of nature is just as important.

(TE-4) ***Change lifestyle and attitude*****.** The success of efforts aimed at preserving the natural environment depends on whether people regard biodiversity valuable and whether people grasp the complex relationships involved and the interdependence of nature, society, and economy, to what extent they are willing and able to choose lifestyles and consumption habits that do not lead to destroying our still viable and functioning natural systems. Strengthening environmental awareness, facilitating the process of understanding and encouraging people to adopt sustainable modes of life are crucial requirements.

(TE-5) ***Participation*****.** The concept of nature conservation cannot be legitimated without society's acceptance of the required interventions, people's active participation in the implementation of actions, and their contribution of their knowledge. The practice and institutional infrastructure for involving stakeholders need to be created and continuously improved.

3.3.2. Reducing activities enhancing the threat of climate change and adaptation to climate change

Climate change entails a wide variety of impacts and fighting it also takes concerted interventions in a wide variety of areas. Climate change has a major impact on the future of agriculture and on the profitability of many other economic sectors. It also has substantial impacts on society, because serious meteorological events such as floods and draughts often have disproportionately severe impacts on social groups and regions that are already in disadvantaged status.

In relation to climate change, **our goal is to reduce emissions of greenhouse gases into the atmosphere**, to increase sinks; and we also **have to prepare for and adapt to the impacts of changing weather patterns and climate,** which involves preparations for expected changes, forecasting, prevention, mitigating damage, and improving effectiveness of restoring damage. The goal of mitigation and adaptation must be simultaneously incorporated in plans and actions to ensure as effective action as possible.

Steps taken in order to prepare for climate change not only impact the abatement of emissions and benefit adaptation, but they may also help reduce unsustainable trends. Transforming our energy consumption may not only reduce the emission of greenhouse gases but will also entail substantial savings. Replacing fossil fuels by renewable energy sources will offer opportunities for businesses in a new high technology industry; the emmission trading system in CO_2 will encourage industrial operations to reduce their emissions in the least costly ways. Furthermore, action taken against climate change can - through synergetic links - result in increased security of energy supplies, reduced emission of other pollutants, development relying more on local resources, and high quality jobs.

The most important fields of action – climate change (KL)

(KL-1) ***The emission of greenhouse gases should be regulated and ultimately reduced primarily by changes in energy consumption, construction patterns, transport needs, and industrial activities.*** The regulation - and consequently the prices - in the **energy sector** and the **transport sector** should encourage changes to be introduced in sectors generating demand. Such regulations include the EU's emission trading system placing economic pressure on economic actors to reduce greenhouse gases (the EU ETS also aims at the same time to minimise the costs of emission regulation). In this field:
- In energy management, carbon-dioxide emissions have to be reduced **by improving energy efficiency and by increased utilisation of non-fossil fuels and energy sources,** while the flexibility of energy systems should be enhanced.
- The tasks in transports include cutting carbon-dioxide emissions, encouraging the use of more efficient **means of transport that use less energy**, spreading **alternative fuels,** mobile machines, and motor vehicles using such fuels, and **maintaining the state of the transport infrastructure** under the changing weather conditions.
- In municipalities, **improving the efficiency of heating and cooling** is the most important task (e.g. insulations and introduction and spreading of passive houses etc.)

(KL-2) Different sectors' tasks of getting prepared for the impacts of climate change must be coordinated.
- In agriculture and forestry, preparations should be made for changing climate conditions. Central elements here may include tillage in view of the changes (soil has a

substantial capacity for storing water and absorbing CO_2), creating 'dual purpose' (waterlog/draught) water regimes and forestation. In forestation it is crucial that tree species matching habitats are chosen, giving preference to indigenous tree species. In managing indigenous forest communities' preference should be given to forest management techniques ensuring unbroken forest cover.
- In **water management**, preparations should be made for extreme hydro-meteorological events and conditions of extreme precipitation which may lead to increased threats of floods as well as droughts. Flood safety must be improved, including protection against flash-floods in smaller watershed areas and municipalities. Efforts should be made to create more efficient irrigation systems and ***retain water and water retaining capacities*** in the territory of Hungary should be enhanced.
- Changes in climate conditions and in threatening factors should be kept abreast of in **construction conventions** and standards and in the shaping of municipal structures.
- Preparations should be made for expected climatic and more extreme meteorological impacts in environmental health.
- In disaster protection - and in regard to the relevant forecast and alarm systems - preparations should be made for ***changes in climate features***, particularly for ***more extreme meteorological and hydro-meteorological events*** expected to develop as a consequence.
- In insurance, an adequate financial background should be developed to be able to manage consequences of an increasing number of environmental disasters resulting in ever greater damage and losses.

(KL-3) ***Observations and research*** relating to factors triggering climate change, their regulation, the process and domestic impacts of climate change, the possibilities for adaptation, ***utilisation of their findings in improving meteorological forecasting, and alarm systems*** should be encouraged.

(KL-4) Awareness of climate change should be strengthened along with the disseminating and encouraging the utilisation of knowledge concerning possibilities for reducing emissions and for adapting to the new conditions.

3.3.3. Creating sustainable water management

The sustainability **goals** relating to waters include **economical and value preserving ways of water management and preservation of waters for future generations.** This includes coordination of natural and artificial water cycles in terms of quality and quantity, developing primarily a regime of sustainable management of renewing subsurface water reserves, providing healthy drinking water, provision of adequate sewerage and waste water treatment services, avoidance of water pollution, and providing enough water for natural habitats. To this end, Hungary should also make significant progress in creating and operating a regime of integrated water management.

In particular surface waters can be protected by regulating water extraction and by eliminating sources of water pollution. Abatement of periodical water shortages of smaller water flows can be achieved by regulating the internal water management practices of users of water and/or by reallocating water reserves.

The aim is to develop complex water management regimes, including water retention, in the various particular watershed areas - in addition to meeting quality and quantity requirements - with the aid of Community and national regulation.

The most important fields of action – water management (VG)

(VG-1) ***Creating a quantitative balance in artificial water circulation*** and spreading techniques of economical and pollution-free water use.
- **(a)** Making decisions on land use with a view to ensuring balanced water regimes.
- **(b)** Encouraging and assisting practical changes in agriculture and drainage of excess water from waterlogged fields as required for protecting water reserves and water quality.
- **(c)** To stop excessive exploitation of waters, introducing measures for more efficient water use.
- **(d)** Developing regulation to enforce the principle of recovery of water service costs including environmental costs and those relating to the water reserves.

(VG-2) In concert with the provisions of the Water Framework Directive embodying the water policy of the European Community, ***surface and subsurface waters must be restored to a good state*** by 2015 and this state must be rendered sustainable. The good state of waters must be accomplished by means of management planning of watershed areas and with the involvement of wide groups of stakeholders.
The most important tasks in this field:
- (a) ***Reduction of water pollutant emissions,*** including liquid waste ***into waters*** and minimising the hazardousness of chemicals emitted into waters.
- (b) ***Protecting and rehabilitating wetland and aquatic habitats, providing adequate water supplies,*** and achieving a good ecological state in line with the relevant EU objectives.
- (c) Enhancing ***flood safety***. Based on flood risk maps and by applying the principle of 'room for the river', floodwaters must be enabled to pass through at lower water levels. These goals can be accomplished by constructing reservoirs in view of terrain conditions and by expanding high water riverbeds. Regulating small water flows and constructing reservoirs in hilly regions are also crucial tasks if municipalities are to be made safer from floods.
- (d) Reviving farming modes matching the landscape (e.g. traditional floodplain farming). Assisting ***agricultural practices more in line with local conditions and resources***
- (e) Protecting particularly favourable features and resources (e.g. natural medicinal factors), ensuring their reproduction, ***preserving and maintaining health and tourism resources.***

3.4. ECONOMIC DEVELOPMENT MEETING SUSTAINABLE DEVELOPMENT REQUIREMENTS

3.4.1. Competitiveness and sustainable development

Economic development has a dominant impact on the ways of applying and observing the strategic principles of sustainable development and on the ways of attaining the relevant objectives. ***The competitiveness of the economy may be enhanced in a long run if, and only if, it is based on the concept, basic principles and objectives of sustainable development***. Accordingly, in assessing and improving Hungary's competitiveness, besides factors of economic structure, modernisation and performance, account must be taken, among other things, of Hungary's historical, intellectual and scientific as well as cultural and educational values, the system of democratic institutions, the level of social welfare and the country's natural conditions, resources and other values. The riches of Hungary's flora and fauna biodiversity and the diverse landscape are major values to be preserved from the perspective of sustainable development, to be regarded even as a factor of comparative advantage, taking a broader interpretation of Hungary's competitiveness.

From society's angle economic development is sustainable if it relies on a broad social basis, and as many people participate in producing goods and enjoying their benefits as possible. Accordingly - like in the European Union, in the framework of the Lisbon Strategy - the **improving competitiveness together with increasing employment** (reaching full employment as set out in the European employment strategy, meaning that 70 % of the economically active age population have jobs) **is a** fundamental strategic **goal**.

This is the broad-based approach by which we have to address the need to strengthen economic competitiveness, whose most important short and medium term tasks are set out in the 'domestic Lisbon strategy'.

The most important fields of action – competitiveness (VK)

(VK-1) In the continued development, evaluation and review of the '***national Lisbon strategy***' the closest possible coordination with the National Sustainable Development Strategy and with the goals and tasks set out for the rest of the priorities of this Strategy has to be achieved.

3.4.2. Sustainable production and consumption patterns

The natural resource intensity of Hungary's production and consumption processes must be reduced. This objective can be attained by improving the ***eco-efficiency*** of production and by further developing waste management. Investments in ***eco-efficient*** technologies and in ecological innovation will not only promote environmental sustainability but also help attain and retain competitive advantage in future technologies. Ensuring eco-efficiency may enable satisfying growing demand in the market for consumer goods at lower environmental costs.

Another way to reduce material intensity is through developing waste management. This requires introduction of productive techniques with a smaller waste output, the utilisation by other production processes of materials so far dealt with as waste, along with increasing recovery (industrial ecosystems). For materials that cannot be utilised in any way, methods of environment preserving disposal and treatment must be found. This is in line with the order of priorities adopted by the European Union: prevention, reuse, recycling, treatment. The most suitable methods to be applied in any given case must, however, be selected on the basis of wide ranging assessment and evaluation with the involvement of stakeholders, taking alternative solutions into account.

This is accompanied by spreading sustainable consumption patterns satisfying demand with lower energy and material input and more community service and intellectual products, along with the prevention of waste generation by means of education, spreading examples and change in values. People should acknowledge and should be made to acknowledge the fact that sustainability cannot be achieved without cutting down on consumption, without which the other planned actions are doomed to failure.

Consumption patterns cannot be separated from the population's general cultural level and the standards of education. Increased demand for cultural goods may reduce people's quest for material welfare and this would, at the same time, reduce the load on the environment. Education and awareness raising from the earliest possible age play a generally acknowledged positive role.

Providing adequate information may be very helpful by letting producers and consumers about the impacts of products and services, enabling them to make optimum decisions. The media (can) play a crucial role in shaping consumer patterns in the right way.

The government can assist the achievement of these goals by creating a predictable long term regulatory framework rewarding ecological innovation and thereby assisting businesses working on developing sustainable operations. State institutions for instance (such as central bodies and authorities, local authorities, schools, hospitals etc.) purchase goods and services for amounts equalling 10-15 % of GDP. Such a scale of public procurements is enough to generate the critical mass for commercial success of sustainable technologies.

The most important fields of action – natural resources, production and consumption (TF)

(TF-1) Demand for natural resources must be guided: ***in transforming the taxation system in a medium and long run*** priority will also have to be attached to encouraging eco-innovation and to assisting the expansion of the market of ecological technologies, while providing help - by banking and financial means - to quickly placing eco-innovations on the market and to investments in eco-technologies.

(TF-2) In ***public procurements*** preference should be given to the ecologically most effective and the most environment-friendly technologies, for instance in infrastructure development projects or in purchasing means of transport ('green vehicles'). In addition to market impacts examples set by high profile state figures may also catalyse changes.

(TF-3) ***Research*** and ***technology development*** should be encouraged in key areas such as future energy sources (e.g. manufacturing of hydrogen and fuel cells) and material and energy saving production techniques.

(TF-4) The development of a ***sustainable production and consumption culture*** should be encouraged, building on already existing initiatives in the areas of resource and waste management policy, integrated product policy and norms, environmental management systems as well as innovation and technology policies.

(TF-5) ***Preventing waste output*** in the area of waste management can be achieved by applying production processes and by replacing them with services, utilising less materials - and primarily recovered waste materials - more efficiently.

(TF-7) ***Setting up industrial ecological systems.*** Waste generation may also be reduced by assisting the coordination of economic activities along material and energy flows: material and energy waste output from one production process should be the input for another industrial process (which, in fact, would eliminate the concept of 'waste'). Crucially, policies and actions (e.g. designing logistics parks) should increasingly adopt this industrial ecological approach.

(TF-8) ***Environmentally aware product design.*** Environmentally aware product design expands the principle of prevention to the entire life cycle of products and services, aiming to turn out goods of low environmental loads throughout their entire life cycles (production/extraction of raw materials, processing/manufacturing, consumption, recovery, treatment). To this end, designing long life products that are easy to repair and that contain the

highest possible proportion of components that can be recovered having turned into waste, should be assisted.

(TF-9) ***Strengthening reuse and recovery; development of secondary raw material markets.*** Reuse and recovery are the most important requirements to be met in regard to waste. To promote reuse the manufacturing of more durable consumer goods should be assisted and demand for disposable products should be discouraged. To promote recovery the process of turning recovery technologies economical and the strengthening of the market of secondary raw materials should be assisted by means of consumer price subsidies and by cutting the tax contents of the production costs.

(TF-10) ***Altering consumers' behaviour.*** Consumer behaviour may be pushed towards increased environmental awareness by a variety of techniques. Information, communication and education are the most important means, along with monitoring the flows of materials and energy in the economy as closely as possible. A waste marking system should be adopted that draws attention to the fact that products and packaging turn into waste, distinguishing and advertising environment-friendly products. Regulations and taxation should be converted in a way as will reflect products' environmentally friendly or harmful nature in their prices. Household recovery and selective waste collection schemes are also important in changing consumer behaviour. Trade should be encouraged to undertake a more substantial role in making consumer habits more sustainable. Increasing the proportion of products meeting the requirements of sustainability within the total turnover of products should be encouraged, along with providing information for customers, using environment-preserving packaging materials and operating selective waste collection systems. Such actions may have a positive impact on consumers' decisions and can, at the same time, improve corporate image.

(TF-11) A consistent system of '***green marketing***' should be elaborated along with the requisites for spreading such as system, including preference of '***green accounting***' entailing state subsidy to measuring environmental performance.

(TF-12) ***Environmentally sound treatment of waste that cannot be recovered.*** Environmental and social damage caused by waste that cannot be recovered must be minimised. The size of land required for waste disposal must be reduced and the integration of waste in the natural environment (decomposition, lithogenesis) must be improved. Waste should be treated locally, as much as possible. With a view to balanced spatial development it is important that less advanced areas are protected from being turned into more developed regions' waste dumps.

(TF-13) ***Sustainable management of mineral resources.*** The management of mineral resources needs to be regulated in detail, paying particular attention to sustainability and environmental awareness. Landscaping of mining sites should be continued, along with implementing goals of rehabilitation in line with the local environmental and natural conditions.

3.4.3. Transformation of energy management

Energy is not only a matter of supplies and environment, it is also a national security issue and one of long term competitiveness. Our energy consumption imposes excessive demands on renewable and non-renewable energy sources and the environment's absorption capacity

while competition for resources causes economic, political and social tensions. For this reason - based on assessing and planning various alternative energy supply options in an integrated way, taking account of long term impacts as well - **Hungary's energy management regime must be transformed in a way as will enable reducing the emission of greenhouse gases and supplies the highest proportion of the demand for energy from renewable energy sources, preferably from local ones.** In a longer run the use of fossil fuels and the proportion of imported energy should be minimised or - ideally - eliminated.

Actions relating to sustainable energy supply and consumption do not only improve the safety and security of energy supply, abate climate change and air pollution. Renewable energy generation involves smaller scale operations than conventional techniques, these operations can rely on local resources and conditions and consequently they will have a positive impact on local and regional development, alleviation of poverty, creation of high quality jobs and - through satisfying demand for energy locally - on security in the broader sense of the term. The use of geothermic energy reserves, solar energy and biomass for generating energy may also make a significant contribution to transforming the production structure, to maintaining farmers' income generating capabilities and thereby to retaining rural jobs.

The most important fields of action – energy (EN)

(EN-1) ***Cutting energy consumption*****.** Consumption of energy that is currently derived predominantly from fossil fuels must be reduced. The most important tasks in this aspect include the following:

- (a) reducing the energy intensity of production by cleaner production, prevention and technology change;
- (b) changing the economic structure by increasing the weight of less energy intensive sectors. This is affected by a variety of factors, including among other things the availability of natural and human resources;
- (c) improving energy efficiency by avoiding conversion losses. Instead of satisfying all energy demand with power from the grid, generated through multiple conversions and consequently at great losses, generating energy from local primary sources is a lot more efficient solution;
- (d) cutting household and community energy consumption by improved heat insulation and by operating more energy efficient machinery and equipment and by altering consumer behaviour in favour of goods and services requiring less energy.

(EN-2) ***Increasing the use of domestic non-fossil fuels.*** In the course of transforming and further developing the energy sector - besides increasing knock-on effects- adequate steps towards using renewable energy sources will also make a predominant contribution to regulating the emissions of greenhouse gases in a long term. Various additional environmental impacts must be fully taken into account in choosing and using renewable energy sources. The proportion of renewable energy sources must be increased, primarily in areas of use where there is no need for conversion (e.g. geothermal heating) and where there are large available capacities (geothermal energy generating systems, ground heat pumps, solar energy collectors, biomass utilisation etc.) The EU aims to increase the rate of renewable energy sources by 2020 to 20 % of the total energy consumption and Hungary must participate in this project in an adequate proportion and way, in view of domestic conditions and resources.

(EN-3) ***Conditions and requisites of transforming and developing the energy system relating to costs, technical requisites and operational safety*****.** The costs of production must be

reflected by energy prices and external environmental costs must also be increasingly taken into account. This is how the polluter pays principle can be put into practice, fostering the development of an energy saving attitude among consumers. At the same time the energy sector must be rendered capable of taking over power generated from renewable energy sources in terms of prices, technical facilities and operational safety.

(EN-4) ***Transport energy consumption must be reduced***, to this end, preservation and improvement of the shares of more environmentally friendly transport modes must be ensured in the systems of passenger and freight transport by improving their quality and competitiveness. Energy efficient development and replacement of the vehicle stock must be achieved by regulation and by means of economic incentives.

(EN-5) ***Increasing the proportion renewable energy sources and replacement of fossil fuels in transport must be encouraged*** (e.g. second generation biofuels, GTL fuels produced from biogas, experimental hydrogen fuelled vehicles). The necessary regulatory background must be developed further, drawing on means of economic incentives (tax breaks and exemptions, subsidies, preferential loans) for promoting research and development and for developing the production and distribution of alternative fuels and particularly for the development of the vehicle stock itself. The EU aims to increase the share of bio-fuels to at least 10 % by 2020 in transport.

(EN-6) ***Research and development in international coordination and in cooperation with energy sector partners***. Transforming energy production and consumption takes lots of technical development and innovation as well. These tasks should be carried out in international cooperation to enable the widest possible utilisation of the achievements. Enterprises operating in the energy sector should also be involved: on the one hand, changes pose challenges to them and they may also be major contributors to change. Sustainable development may be achieved only with the involvement of all stakeholders, through a collective planning process and this does not only apply to individuals and communities but also to economic actors.

(EN-7) ***Transforming customs and norms of construction***. Unit energy requirement can be reduced by environmentally aware and energy saving design, transformation and upgrading of individual buildings - and their energy systems - and by improving the energy efficiency of heating systems.

3.4.4. Sustainable mobility and spatial structure

Transport at affordable prices is required for the maintenance of both economic and social relations. The negative impacts, however - such as traffic congestions, health impairment, environmental damage - are detrimental to all. *Economic growth entails increasing demand for transport. Faster growth results in increasing negative impacts despite major improvements in vehicles' environmental performance, and the current trends are not sustainable.*

Our goal in a medium and in a long run is to create a **transport network that fulfils the functions stemming from the demand for mobility, ensures accessibility and strengthens cohesion, and at the same time its use of space and environment is minimised.** Transports can be transformed only together with spatial structure for the latter is the source of transport

needs. The spatial structure - the location of economic and social activities - will change in accordance with the requirements of sustainability if it results in reduced demand for transport and smaller environmental loads, with increased social cohesion.

Mobility entailing reduced economic, social and environmental impacts may be achieved by reducing demand for transport, by altering the spatial structure and distribution of transport processes in time and by altering modes of transport (e.g. developing fixed track transports instead of public road developments, cycling or walking in smaller distances and development of public transport), by reducing the environmental load (cleaner vehicles, alternative fuels), and by supplementing and renovating existing facilities.

Sustainable transport and spatial structure offer a host of benefits: developing public transport and fixed track transport modes; eliminating traffic congestions helps cut businesses' costs, saves time, improves access to regional and local workforce and development, abates climate change and environmental loads and, since it reduces dependence on oil, it improves energy safety and security; it develops local environment and reduces adverse impacts on health, creates a more liveable environment particularly in urban areas.

The most important fields of action – mobility and spatial structure (MO)

(MO-1) ***Strengthening local systems of connections*** is the most important principle in creating a sustainable transport system, along with adjusting long distance connections (services) to local networks. This principle leads to creating a spatial structure that ***reduces demand for transport***. The aim is that some of the targets (community services, daily shopping, entertainment, sports facilities) within a municipality be located within walking distance. Possibilities for making transport unnecessary by communication should also be noted here (e.g. e-administration, teleworking). Creating pedestrian-friendly public areas and zones with restricted traffic, suitable for cycling as well, may be an important tool. These need to be organised in terms of traffic technology in a way as will make these zones undesirable for transit traffic. Additional possibilities include creating P+R parking spaces, creating and promoting intermodal junctions offering a wide range of services as well as creating and giving preference to agglomeration/inner city railway/public road public transport services without having to change lines.

(MO-2) ***Altering the spatial distribution of transport.*** Bringing destinations closer makes it possible to create dense local systems of connections, thereby reducing the need for longer distance travelling and carrying. As a consequence of the enhancement of local connections local transport links grow in importance, while long distance transport links become less important. Accordingly, the importance of elements covering local roads also increases. Placing (educational, commercial, institutional) functions entailing high rates of mobility in suburban agglomerations - preferably with land use characterised by high rates of built-up areas - in transport hubs, automatically reduces individual use of transport means and the total mobility output. In parallel with and helping this process it is possible to reduce the construction of additional shopping centres outside transport hubs by means of spatial planning and development (e.g. by restrictions) as well as to restrict the expansion of areas destined to be built up.

(MO-3) Changing the distribution of transport processes in time. The distribution of the processes of transport in time can be altered with the aid of advanced information technology, by applying tariffs proportionate to mileage in the case of road transport, differentiated in time

(e.g. urban toll, motorway toll, supplemented by introducing toll systems on lower level roads). These may help reduce congestions. Other, already functioning regulatory means, such as **temporary prohibition of heavy freight vehicle traffic**, are also useful; temporary traffic restrictions may be justified from time to time.

(MO-4) ***Changing the composition of transports*** - adopting more environment preserving modes in a medium and long run. **In the transport of goods** instead of air and road transport rail and water transport may be facilitated by the following: tariffs reflecting environmental costs, shifting road freight transport gradually onto rail, construction of logistics centres, i.e. organising and coordinating transport branches in a common system, application of up-to-date technologies in the operations of rail transport, improving precision, safety and reliability. In **passenger transport**: development of intercity and long distance public transport and of fixed track transport modes; creating longer lines, adequate positioning of stops and stations, creating simple changing opportunities between lines within short distances, organisation of different technical facilities in a common system (transport associations). Sophisticated and high quality - not necessarily cheap - services need to be provided by a system if it is to attract today's motorists to go and use public transport services.

(MO-5) ***Reducing environmental loads arising from transports***. Environmental load is the sum of pollution (including noise loads), land use, and resource use. These should be primarily prevented (by giving preference in a long run to fixed track transport over road transport etc.). With the aid of up-to-date technologies, loads that can must be reduced, e.g. by operating catalysers and more fuel-economical engines, not forgetting about the threats resulting from rebound effects, i.e. that the reduction of unit material and energy use can, through relatively low prices of products, lead to an overall increase in material and energy use as well as environmental loads. Though cleaner vehicles and alternative fuels do not in themselves resolve sustainability problems of transport, yet their use is indispensable for abating the environmental load originating from it. In addition to rationalising demand for transport, it is also necessary to have an increasing proportion of demand satisfied by environment-friendly alternative modes of transport, using environment-friendly alternative fuels.

(MO-6) ***Appreciating, complementing, renewing existing facilities***. Part of economising with resources is using, exploiting, and keeping existing facilities in an adequate state. The operation of transport is based predominantly on using earlier constructed facilities and means, with new development accounting for only a small percentage. In initiating new projects it, must be authentically assessed whether it is possible to attain the desired goal by improved maintenance and renewal of existing facilities. Consequently, rendering existing networks for satisfying today's requirements is of utmost importance (electrification of railway lines, development of tracks to bear acceptable train speeds, substantial reduction of slow down signs, construction of public roads to bear permitted axle pressure, etc.). To resolve these, particular attention has to be paid to renewing and improving existing technical infrastructure in the course of determining the allocation of resources under programmes relating to transport development.

(MO-7) The application of ***regulatory means and traffic technology measures*** to reduce excessive car traffic in overburdened and in threatened areas, giving preference for instance to urban public road rail transport (tram) lines and bus lines by means of traffic technology (with the aid of separate track, lane, right of way at junctions, active phase schedule).

3.4.5. Economic instruments

The most important elements of economic sustainability include adequate economic instruments, upkeep of financial processes, avoiding indebtedness, and ensuring the possibility to finance state function. The government can make a very useful contribution in this area by elaborating an environment and innovation friendly system of regulation that is also suitable for reducing social problems. The **goal is to create, by means of economic instruments, the essential feedbacks for the economy** (restrictions and incentives) **that force it operate in a more sustainable way.**

The most important fields of action – economic instruments (GS)

(GS-1) ***Structural changes while preserving balance.*** According to the requirement of financial sustainability, the regulations concerning public finances have to guarantee equilibrium between revenues and expenditures. This takes restructuring of sources and spending alike.

The directions of the transformation of taxation and subsidy policy are based on ***shifting burdens from labour to environment use.*** The transformation of the taxation policy must be guided by the requirement that burdens should be focused on material and energy intensive activities, those that deteriorate the environment and harm human health. This should shift production and consumption towards less energy and material intensive modes, reduces the cost of labour and increases employment along with the use of local resources, and can generate funds for investment projects aiming to achieve sustainability. (Part of the changes will be disadvantageous for people of lower income as a consequence of special features of the structure of consumption, therefore they must be compensated. This must be taken into account when altering the taxation system.) Open and covert support of environment polluting and socially harmful operations must be terminated in subsidy policy and support must be given to environment preserving and socially useful activities.

(GS-2) ***Reflecting external costs by regulation.*** The market can incorporate the costs of the use and loading of the environment only if coherent tax policy and regulation provides the required conditions for this. The principle - that the user should pay for external costs as well - should be laid out in the Constitution, if possible, and thereafter it would be easier to gradually introduce this principle in taxation rules and to transform the system in the medium and long run.

(GS-3) ***Preventive approach in regulation*.** In business this means spreading the concept of 'eco-efficiency'. In this sense, eco refers to both economy and ecology, eco-efficiency being 'integration of sustainable development and business interests'.

(GS-4) ***From cradle to cradle principle.*** In environment prevention, emphasis is gradually shifted from the production process to the entire life cycle of a product (from design and procurement of raw materials up to the end of the product's useful life and to recovery). This is also largely a result of the spreading of the 'from cradle to cradle' principle covering the entire life cycle of products, in economic instruments as well.

(GS-5) ***Spreading of self-regulation and voluntary agreements***. Increased room should be given to self-regulation in the business sector as well, for example by assisting the spreading of the responsible enterprise concept, which - international experience shows - is not only the

cheapest but also the safest solution from the aspect of both environment protection and society. Creating the social requisites for self-regulating enterprises will constitute a fundamental change in attitudes in environmental and social policies, therefore their results will take somewhat longer to materialise.

(GS-6) ***Governance and organisation solutions*****.** This will take shifting focal points from technology to governance and organisation solutions, based on the recognition of adequate technology being only a necessary but not a sufficient requisite for improving environmental and social performance. Standardised governance systems that have proven to be highly effective in quality improvement during the past two decades have been developed in environmental management as well. To this end, in 1993 the European Union adopted the EMAS, while the International Organisation for Standardisation (ISO) introduced in 1996 the now widely known ISO 14 000 standard series to help improve environmental management systems.

(GS-7) ***Combined application of a broad range of tools*****.** Experience shows that developed countries have not managed to accomplish the desired goal - that is, actual abatement of environmental loads - by direct regulations or by means of economic instruments either, therefore they are making efforts to apply an increasingly wide range of different tools simultaneously. Such a new generation tool is for instance eco-labelling, the EMAS system, or voluntary agreements in the European Union.

4. OVERARCHING TASKS AND MEANS OF IMPLEMENTATION

The above goals can be accomplished only by conscious activities on the part of all members of society. To this end, there is a need for cooperation involving public sector, economy, and social partners alike. Interventions and operations aiming to support sustainability can be implemented only in a holistic approach, with the following main areas of activities: enhancing our knowledge base; spreading and sharing knowledge relating to sustainable development as widely as possible; publicity, actions of civil society organisations; developing and transforming public policies; transforming the institution system; assessing and monitoring changes.

4.1. ENHANCING THE KNOWLEDGE BASE, SHARING KNOWLEDGE

As a consequence of strengthening scientific research and as research findings are becoming accessible, our **knowledge base** concerning sustainable development and the processes threatening it, along with the necessary change of values - together with the spreading of a more sustainable system of values and attitudes - **should also grow.**

Enhancing the knowledge base and sharing knowledge are two closely processes. Knowledge concerning sustainability can be **widely spread and shared** through education, the system of cultural institutions, the media, and other channels.

The most important fields of action – knowledge base (TB)

(TB-1) ***Research and development*** concerning sustainability - including state funded projects - must be placed on firm foundations, they must be strengthened and supported, and research activities must be coordinated. A domestic research strategy must be elaborated and incorporated in domestic strategies. Firm foundations must be created for monitoring systems as well.

(TB-2) ***Scientific results*** must be linked to ***social knowledge.*** Important and relevant information should be made available in a form making it possible for members of society to understand it.

(TB-3) ***Themes and values of sustainability must be presented more prominently in the contents and forms of education.*** Sustainability must become a fundamental requirement in order to enable accommodation of new knowledge and to help people find their way around under changing social and economic conditions. Spreading and developing knowledge concerning all aspects of sustainability is a crucial requirement (preschool education, education in the schooling system, training, education and extension training outside the schooling system, culture, dissemination of knowledge, and publication of books).

(TB-4) The spreading of a ***holistic and practice-oriented*** form of education should be accelerated and it must be incorporated in day-to-day practices (a schooling system based on analytical knowledge, fragmented into 'subjects' is not really suitable for bringing up a society having a systemic approach). Practical knowledge of 'life', methods of conflict management and global knowledge should be given more emphasis in education and

instruction. Education should lead to exploring relationships between problems and to authentic presentation of solutions.

(TB-5) A programme based on a holistic approach has to be introduced in the Hungarian public education system - affecting the entire structure of education and training - that would comprise the teaching of development improvement and human rights, education towards peace and prevention of conflicts, intercultural education and environmental education (so-called ***global education***). Such education and instruction of young people should be started in the pre-school age, for this is the only way to develop commitment that will be a dominant motive later on. Global education prepares people for democratic and responsible citizenship in line with the global dimensions of sustainable development.

(TB-6) ***Supporting the non-formal and informal activities*** of learning is crucial, where cultural public institutions may also play an important role. Informal learning at the work place creates values for both the employer and the employee. In the framework of the process of informal learning about sustainability, the activities carried out by the media towards enhancing economic, social, and environmental awareness should be strengthened and the media should be assisted in conveying the system of values relating to sustainable development.

(TB-7) To raise general levels of ***culture/education*** and to improve the quality of cultural socialisation, there is a need for improved access to basic cultural services through developing community spaces and cultural infrastructure; furthermore, the role of culture and community activities in education and training needs to be strengthened.

(TB-8) To ***develop responsible behaviour of citizens,*** the role of self-teaching and self-improvement must be strengthened. Publicly accessible knowledge must be enhanced and its transfer must be improved.

(TB-9) ***Attitudes concerning production and consumption must be altered,*** and culture and knowledge intensive consumption should be encouraged instead of material and energy intensive activities.

(TB-10) ***Consumer protection*** must be strengthened, and syllabus and media contents assisting consumer attitude change must be identified. Consumers must be informed about the natural and social impacts of products and services as well. ***Access to reliable sources of information*** must be provided for people, to balance the opinion leading activities of the media motivated by commercial interests.

(TB-11) ***Dialogue*** facilitating ***society's*** understanding of sustainability must be started and sustainability must be kept permanently on the agenda. This dialogue is closely related to the increasing of citizens' activities, the two mutually strengthening one another. More room must be provided for the sustainability dialogue and to ***self-regulation,*** which relies on it, in the ***business sector*** as well.

4.3. INCREASING CITIZENS' ACTIVITY AND COMMITMENT

The activity and commitment of citizens can be increased on the basis of sharing knowledge, with particular involvement of civil society organisations**.**

The most important fields of action – public participation (TR)

(TR-1) ***Cooperation fora*** must be created and operated. In order to improve the institutions of participation, cooperation fora ensuring continuous dialogue between sectors involved in sustainability programmes must be created. Methods of participation that have been tested in international practice must be introduced in international planning programmes and the best practices must be spread. Information of those intending to participate must be facilitated on both the national and the local governmental level.

(TR-2) The requisites for the ***social recognition/rewarding of*** active ***public participation*** must be created to make it truly worth adopting this behaviour pattern instead of turning away from community life and participation.

(TR-3) Local level self-determination and ***networking*** must be assisted. In order to operate subsidiary in the widest possible area instead of central reallocation, self-determination based on local resources and voluntary cooperation must be assisted.

(TR-4) ***Participation*** must be strengthened through central and local programmes. Strategies and programmes must be adopted to help develop the culture and structures of participation and involvement. The development of 'Local Agenda 21' programmes is particularly important, along with encouraging responsible corporate behaviour, developing means to assist public participation, integrating governmental information systems, and providing access to data as well as improving the receptiveness of administrative organisations.

(TR-5) There is a need for a change in views in politics and public administration. To this end: training programmes should be started for decision makers and for those engaged in executing policies about international and domestic opportunities, frameworks and experiences concerning ***participation***; the methodology of public consultation and participatory democracy must be elaborated and improved continuously; local governmental operation seeking for partnership and cooperation with local communities must be assisted.

(TR-6) To ***support effective participation***: ***training programmes*** must be assisted primarily for civil society representatives and for people working in the state administration system or in local governmental administrations; the possibilities and the best practices of exercising the right to participate must be presented; service provider organisations capable of providing legal aid and their activities must be assisted (for the benefit of persons whose right to participate has been violated).

(TR-7) Harmonised regulation of and institutional requisites for social cooperation must be created in order to achieve ***harmony between the individual and the community*** in accordance with the principles of 'good governance'. People must be enabled to decide about their own affairs in view of their rights, opportunities, and obligations.

4.4. DEVELOPMENT AND TRANSFORMATION OF PUBLIC POLICIES

Relying on an adequate knowledge base and citizens' participation, it is possible to ***develop and transform public policies based on a sustainable approach,*** observing the following principles.

The most important fields and directions of action – public policies (KP)

(KP-1) ***Long term strategic planning.*** Short term cycles are not favourable for strategic planning going beyond parliamentary election cycles, based on broad social consensus. The economic, social, and environmental goals have to be coordinated, increasing social welfare should be identified as a goal, the state of the environment should be defined as a requisite and economic tool, which will help improve social welfare in long run.

(KP-2) ***Coordinating sets of goals.*** The sets of goals of economic, social, and environmental policies need to be integrated in the processes of planning and coordinating politics from its earliest possible phase.

(KP-3) The Government should produce ***a schedule and biannual action plans for the tasks ensuing form the*** National Sustainable Development ***Strategy*** in which the government presents the tasks it is planning to carry out and the deadlines by which those tasks are to be completed in order to help achieve the goals of the Strategy. Every ministry must produce ***work plans*** exceeding the annual budget cycles in which the planned activities are harmonised to the long term strategy integrating economic, social, and environmental aspects.

(KP-4) The domestic ***development policy must be harmonised with the National Sustainable Development Strategy***. To this end, in addition to national funds, EU co-financing must also be used for implementing the actions in Hungary. This requires: coordinating the Hungarian sustainable development strategy with the regulation of the EU's cohesion policy; the operational programmes include program elements and actions directly assisting the achievement of the objectives of the sustainable development strategy.

(KP-5) ***Impact assessments.*** Legislative and institutional conditions and requisites must be created and improved to make it mandatory to assess the economic, social, and environmental - i.e. sustainability - impacts of the possible alternatives, before every major planned intervention of material impacts. In preparing legislation relating to the budget and other areas and in preparing concepts, sector policies and programmes strategic sustainability assessments (SSA) should have to be carried out. In the case of plans and programmes of major environmental impacts, the SSA assessments should cover - besides the environmental dimension analysed and assessed today in any environmental assessment - two other dimensions of sustainability (society and economy). In other areas, SSAs should be aligned to the specific features of the project on hand.

(KP-6) ***Cost effectiveness.*** In formulating public policies, the ***entire*** - *economic, social, and environmental* - ***cost and benefit*** of interventions ***must be taken into account.*** Various policies must be so designed as to make it possible to minimise economic, social, and environmental costs together. Application of supporting market mechanisms should be strongly relied on in implementing the goals of the Strategy.

(KP-7) ***The precautionary principle*** *must be applied in policy making*. This is one of the most important elements of sustainable development. It is particularly important in cases where we cannot clearly identify the consequences of our actions with scientific certainty. In such cases the likelihood of the unfavourable option must be assumed as long as the contrary is not proven.

(KP-8) ***Prevention***. Instead of 'end-of-pipe' solutions, in the management of social, economic, and environmental problems efforts should focus on prevention and on altering the factors causing problems.

(KP-9) ***Preservation***. Local culture and local production and consumption patterns that have evolved in the course of adaptation to the local environment and that have provided for the coexistence of the local community and the environment in a long run must be preserved. All actions relating to environment use must be carried out at the level where addressing the problem results in the largest environmental and other benefits and the lowest environmental risk and damage. The principle of using ***local resources*** must be strengthened and assisted because this is the most efficient support of the interests of the local community.

(KP-10) ***International cooperation.*** Policies must be adjusted to international level sustainability policies, since this is the only way to ensure their effectiveness, owing to global dependencies. To this end:

- (a) We must participate in international cooperation with a view to the fact that sustainability is a global issue and it may be achieved only through close international cooperation. We must contribute to the effective work of multilateral organisations dealing with issues of sustainable development and to the implementation of the relevant programmes and treaties. Our commitments assumed in international programmes and treaties relating to social, environmental, and international economic goals must be fulfilled.
- (b) We must actively participate in EU cooperation. We must contribute to ensuring coherence between the EU development support policy and the other Community policies.
- (c) We must facilitate reducing poverty in view of the UN Millennium Development Objectives. According to the conclusions confirmed by the 2005 July European Council, we have to show a trend of increase even as a new EU member state in helping developing countries by financing International Development Cooperation. Accordingly, we are making efforts to ensure that by 2010 and by 2015 the official Hungarian ***development support*** reaches 0.17 % and 0.33 % of GNI, respectively. Hungarian development cooperation should be focused primarily on sectors an areas - i.e. transferring experience concerning system change, education, health, agriculture, etc. - in which Hungary has comparative advantages.

(KP-11) ***Transparency and accountability*** are crucial criteria of effective democratic governance, which necessitates the elaboration of direct and indirect public participation and operation forms in planning, decision making, execution, and control processes.

(KP-12) Observing the requirements of ***regeneration, substitutability, and assimilation*** in policies affecting the environment must be ensured and ***irreversible processes must be avoided***. Enabling regeneration means that long term regeneration imposes a limitation on the utilisation of renewable energy sources. According to the principle of substitutability, non-renewable resources should, as much as possible, be substituted by renewable energy sources and other forms of capital. The levels of emission of hazardous materials and pollutant must not exceed the environment's assimilation capabilities. The principle of avoiding irreversibility provides that irreversible negative impacts of human activities on ecosystems, biogeochemical, and hydrological cycles must be avoided: this, however, also applies to the preservation and protection of **biodiversity** (species occurring in the wild, traditional species bred or cultivated by man, near-natural habitats) and inanimate natural values, along with the preservation of **architectural, landscape, and cultural values**.

(KP-13) ***Territorial equalisation.*** In forming policies, preference must be given - to a reasonable extent - to possibilities resulting in reduced social and economic inequalities between areas by improving disadvantaged areas.

(KP-14) In ***land use*** the size of the areas that can be used must be taken as a strictly set upper limit, so in development projects solutions of minimum land use must be preferred.

(KP-15) In policy forming, instead of material and energy intensive solutions efforts must be made to adopt ***culture and knowledge intensive*** solutions.

4.5. TRANSFORMING THE INSTITUTIONAL SYSTEM

To apply an approach of sustainability and to increasingly coordinate public policies, there is a need for developing and improving the institution system besides transforming the policies themselves. The most important considerations here are as follows:

The most important fields of action – institutional system (IN)

(IN-1) ***Development of the public administration system*** - transforming the public administration system into a cost effective service provider type of organisation based on the principle of subsidiarity supports the goals of sustainability; to this end in the course of transformation, attention must be paid to the basic principles and aspects of sustainability as well as to ensuring that the development process should efficiently ensure coordination of public policies in the interest of sustainability both in the course of planning and execution.
The results of scientific research of sustainability must be integrated in the process of policy making to make it more effective and accountable. In this aspect, creating fora for dialogue between administrative apparatus, decision makers, and science is crucial.

(IN-2) ***Development of the legislative environment*** – to enable drafting and introducing new legislation supporting sustainability and the enforcement of existing rules and the conditions of sustainability, domestic legal frameworks should be further refined and developed.

(IN-3) ***Asserting the concept of sustainability in legislation, in the implementation of laws and in activating governmental policy, and in regard to local governmental activities and public institutions*** - steps enabling the asserting of sustainability need to be established within the process of legislation and in implementing laws, in activating governmental policy, and also with respect to local governmental activities and public institutions. The possible elements in this area:

- **(a)** in the course of the work of the committees of the ***Parliament,*** efforts should be made to ensure observance of the frameworks and basic principles laid out in the Strategy*;*
- **(b)** ***in the process of preparing new legislation,*** in addition to presenting social, economic, and environmental impacts linked to the proposals separately, efforts should be made to ***clearly describe*** material relationships and interactions among such ***impacts***;
- **(c)** setting up the institution of the ***ombudsman of the 'Future Generation'*** to make it possible to assert and enforce, as much as possible, the need for protecting the interests of future generations in the course of decision making;
- **(d)** assisting the roles undertaken by ***public institutions*** (e.g. schools, etc.) in implementing the strategy and in facilitating the necessary change of attitude.

4.6. EVALUATING CHANGES AND FEEDBACK ON RESULTS

In 1996 the UN Sustainable Development Committee made a proposal for a list of 134 indices based on the Agenda 21 objectives. The indices were tested in a number of countries. Thereafter the UN issued a revised set of 59 basic indicators. In 2001 Eurostat assembled a list of 63 indicators and then continued to improve this set of indicators on an ongoing basis.
The set of indicators shows the state of the implementation of sustainable development with respect to ten areas (economic development; poverty and social exclusion; ageing society; health; climate change and energy; production and consumption patterns; natural resources; transport; good government; global partnership). This may be suitable for use as a basis of later biannual reports and to keep tracks of the implementation of the various national strategies as well, in a comparable way.

The indicators of the European set of indicators are arranged in a hierarchic system on three levels. The indicators on the **first level** provide a comprehensive picture of the main trends in the various areas. The **second level** contains indicators - together with those of level one - measure progress in accomplishing the main objectives. The indicators of the **third level** (analytical indicators) enable more in-depth analysis of various specific themes. The first draft of the updated EU indicators is expected to become available in the second half of 2007. The range of applied indicators must be reviewed on an ongoing basis.

4.6.1 System of basic indicators of sustainable development

The establishment of the system of sustainability indicators must be based on the principle of horizontality in line with EU recommendations and the inter-sectoral nature of sustainability. Accordingly, horizontal aspects have to appear in the entire system of indicators of a given target area (the EU, a Member State, a region etc.) in a way that will make it possible to

derive the most important indicators of a given aspect - in this case those of sustainability - in the form of a horizontal cross-section.

Accordingly, a smaller set of the sustainability indicator systems - including complex sustainability indicators - form separate parts of the various statistical systems, and the relevant data have to be generated within these systems. Another, wider segment of the same, however, is not based on separate data collection: its indicators can be obtained as a horizontal cross-section of earlier data captures (e.g. a substantial proportion of its indicators correspond to the system of indicators of the New Hungary Development Plan), and they are provided primarily by the Central Statistics Office (CSO)and the statistics systems of the various ministries.

The development of the domestic Sustainable Development Basic Indicator System (Hungarian abbreviation: FAIR) is in progress, in a process coordinated by Eurostat.

Accordingly, the set of sustainability indicators presented as an annex to the Strategy is but a working draft.
A first version of the renewed EU indicator system is expected to come out in the second half of 2007.

The concept of the Hungarian FAIR sustainable development indicator system is based on two pillars:
a.) the first pillar is the implementation of the EU sustainability indicator system supported in detail in terms of methodology, formulated jointly with Eurostat; this is a predominantly horizontally based set of indicators comprising indicators that are suitable for international comparison, presenting economic, social and natural processes (see Annex to the Strategy).

b.) the second pillar comprises some indicators that support the information of the general public along with the development of a sustainability-based attitude, indicators that can be particularly effectively communicated, such as carbon footprint, ecological deficit, or the Live Planet Index. These indicators - though methodologically not quite completely refined - may demonstrate Hungary's position in terms of sustainability and its trends. Thus sustainability can be made easier to understand for people and for education, easier to communicate by the media, and easier to trace.

It must be ensured as far as possible that the elements comprised in the FAIR system can be methodologically adjusted to the EU's sustainable development indicators. It should be stressed, however, that on account of the specific features of the Hungarian strategy no complete match can be achieved. The range of applied indicators must be reviewed on an ongoing basis.

4.6.2 Relationship between the Strategy and indicator system

The system of indicators and the Strategy mutually support one another.
Accordingly, the system of indicators must be based on the criteria underlying the Strategy. It must provide information on areas of society, economy, and environment that are identified by the National Sustainable Development Strategy as priority issues.
In parallel with reviewing the indicators, the indicators make it possible to modify the Strategy according to new criteria.

The changing Strategy, in turn, necessitates developing, shaping and refocusing the system of indicators.
Thus the Strategy and the related system of indicators are in a permanent interaction with one another.

ANNEX

Annex 1: basic sustainable development indicators[1]

Theme 1: Economic development *

1 Growth of per capita GDP
- 2 Investments as a percentage of GDP, by economic sector
- 2 GDP volume index
- 2 Value of output per working hour (productivity)
- 2 International price competitiveness - Real exchange rate
- 2 Full employment change (growth)
- 2 Unemployment rate by region

Level 3 indicators contain the following:
per capita GDP at purchasing power parity, per capita GDP by region, total consumption spending as a percentage of GDP (consumption spending), net national product as a percentage of GDP, inflation, net savings as a percentage of GDP by income owners, growth of unit labour cost in industry and overall, proportions of participation in lifelong learning, innovation-related sales revenue as a percentage of total sales revenue by sector, total research and development spending as a percentage of GDP, education spending as a percentage of GDP, change in employment, its level by gender and highest schooling attainment, unemployment by gender, age group, highest schooling attainment.

Theme 2: Poverty and social exclusion

1 Those living below the poverty line
- 2 Those permanently living below the poverty line
- 2 Those living below the poverty line by gender, age group, highest schooling attainment, and type of household
- 2 Long term unemployment
- 2 Proportion of those prematurely leaving the schooling system

Level 3 indicators contain the following:
relative chance of dropping below poverty line, inequality of income distribution - quintiles of income distribution, long term unemployment, those living in unemployed households by age group, those living below the poverty line by typical activity, those with low schooling attainment by age group, housing conditions

Theme 3: Ageing society

1 Sustenance rates of existing and expected elderly population
- 2 Ratio of average income of those above 65 years of age to those below 65 years of age
- 2 Life expectancy at the age of 65, by gender
- 2 The consolidated gross debt of the central budget as a percentage of GDP

Level 3 indicators contain the following:
proportion of people over 65 living under the poverty line, total fertility rate, migration difference by age group, state (and private pension fund) pension spending as a percentage of GDP, total employment by age group, average age upon leaving the labour market, spending on sustenance of the elderly as a percentage of GDP

Theme 4: Public health *

1 Expected healthy lifetime by gender
- 2 Percentage of overweight individuals by age group
- 2 Resistance to antibiotics
- 2 Mortality caused by food poisoning
- 2 Salmonella infection in the population

[1] This list of indicators relies on the EU's set of indicators and should be regarded as a first working draft.

2 Output of chemicals by degree of poisoning
2 Population threatened by air pollution
2 Population threatened by ozone pollution

Level 3 indicators contain the following:
healthy life expectancy at 65 years of age, health spending as a percentage of GDP, tumours by gender and type, number of suicides by gender and age group, percentage of smokers by gender and age group, work under heavy stress, serious accidents at work, dioxin and PCB content of foodstuffs and food preparations, heavy metal and mercury content of fish and shellfish, chemical residues in foodstuffs, consumption of chemicals with foodstuffs by poisoning category, proportion of population in households threatened by noise and/or air pollution, property damage caused by air pollution as a percentage of GDP.

Theme 5: Climate and energy

1 Total emission of greenhouse gases
2 Greenhouse gas emission by sector
1 Gross domestic energy consumption by energy source
2 Economy's energy intensity
2 Final energy consumption by sector
2 Power generation by type of power plant

Level 3 indicators contain the following:
carbon-dioxide intensity of energy consumption, absorbed carbon-dioxide, production of renewable energy sources, by source of energy, share of cogenerating power plants in total power output, energy intensity of manufacturing, proportion of consumption of bio fuels as a percentage of total energy consumption of vehicles, external costs of energy use, energy tax at unchanged price, costs of energy use, high radioactive content waste and burnt-out nuclear fuel elements to be stored.

Theme 6: Production and consumption

1 Domestic material consumption and GDP at unchanged price
2 Emission of compounds causing acidification or ozone damage and GDP at unchanged price, by sector
2 Amount of waste output, by economic sector and households
2 Per capita collected communal waste
2 Lighting and household power consumption per home
2 Public procurements for environmental purposes
2 Areas receiving agro-environmental support as percentage of total agricultural land
2 Livestock density

Level 3 indicators contain the following:
composition of household waste, households' material use by type of material, modes of communal waste treatment, hazardous waste output by economic activity, number and sizes of households (households' composition), per capita meat consumption, consumption of products with domestic or EU label, extra nitrogen input, land used for organic farming as a percentage of the total agricultural land, use of classified chemicals, proportion of manufacturing products produced by undertakings applying sustainable management, undertakings with environmentally aware management, ethic financing, products with environment-friendly label, by country and by product group.

Theme 7: Natural resources

1 Biodiversity
1 Trends in populations of birds on arable land
1 Fish stocks harvested outside 'safe biological areas'
2 Quantity of water from underground reservoirs as a percentage of total underground water reserves
2 Land use, by category
2 Built-up areas a percentage of total land area
2 Overburdening of Sensitive Natural Areas by compounds causing acidification and by nitrogen

Level 3 indicators contain the following:
size of fishing fleet, structural subsidies for environment-friendly fishing, proportion of population supplied with sewerage services, organic matter output increasing rivers' biochemical oxygen requirement, threat of wet

environment by toxic contamination, proportion of land threatened by soil erosion, proportion of are threatened by soil contamination, proportion of forests damaged in the course of the abscission of leaves, damage to residential buildings by transport.

Theme 8: Transport

1 Vehicle kilometre and GDP at unchanged price
1 Vehicles' energy use and GDP at unchanged price
- 2 Proportion of road vehicles in domestic transport
- 2 Proportion of public road network as a percentage of total domestic road network
- 2 External cost of transport
- 2 Transport's emission of pollutants (particles; ozone damaging compounds
- 2 Greenhouse gases from transport
- 2 NO_x emissions from road vehicles (petrol, diesel)

Level 3 indicators contain the following:
composition of passenger transport, composition of freight transport, freight transport performance value and GDP at unchanged price , energy use by type of transport, availability of public transport, freight transport tariffs by type of transport, transport investments by type of transport.

Theme 9: Good governance

1 Population's confidence in EU institutions
- 2 Proportion of environment-friendly supports
- 2 Infringements submitted to European Court by area of competence
- 2 Administrative fines imposed
- 2 Participation in national parliamentary elections
- 2 Number of cases answered in the course of community level Internet consultations

Level 3 indicators contain the following:
weight of main findings proposed by the Commission in legal and work programme, community regulation, by area of law, participation in EU parliamentary elections by gender, age group and highest schooling attainment, development of e-government, use of e-government by population.

Theme 10: Global partnership

1 Official Development Assistance (ODA) as a percentage of gross national income
- 2 Import from developing countries (total and agricultural products), and agriculture's budgetary subsidy
- 2 Sale of certain products assigned to the 'fair trade' category
- 2 Bilateral development supports by category
- 2 Material imports from developing countries by product group

Level 3 indicators contain the following:
total import from developing countries by income group and by product group, EU development supports by type, access to public transport, ODA and FDI by income group an geographical distribution, per capita ODA by EU donor, by recipient, contribution to developing countries for creating clean development mechanisms and for reducing greenhouse gas emissions, per capita carbon-dioxide emission at the level of the EU and the developing countries