

First Monitoring Report on the National Framework Strategy on Sustainable Development 2013-2014

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Executive summary

Purpose of the National Framework Strategy on Sustainable Development

Pursuant to resolution 18/2013 (March 28th) of the Parliament, the Framework Strategy (NSSD) is intended to

- contribute to developing a common agreement on the definition of sustainability;
- promote the determination of the first steps of the transition to sustainability; and
- determine the public policy decision preparation and making system

NSSD is intended to define a system of political and policy goals and means that helps maintain (the quality and quantity of) our national resources on a level

- insuring Hungary's solid and sustained ability to successfully compete with other nations;
- facilitating the protection of our natural and cultural heritage for future generations; and
- ensuring appropriate enhancement of resources that may be increased.

The Framework Strategy defines responsibilities for the period until 2024.

NSSD has set out 34 strategic objectives and 77 tasks (instruments) for the four – human, social, natural and economic – resources.

Purpose of the monitoring report

This regular biennial monitoring report has been designed to

- monitor our national resources through indicators and qualitative analysis;
- review social responses and actions initiated and implemented in the last two years (the Government's complete report on government actions in 2013-2014 to promote the implementation of the Framework Strategy is included in *Annex 1*);
- provide feedback for the public about the size of progress made in sustainability transition, which areas have improved substantially and which areas require more intense efforts.

It is important to stress that the impacts of actions for sustainability typically appear with relatively long delays – occasionally after some decades – therefore the first monitoring report evaluating a period of less than two years is not appropriate to definitively assess government actions.

This report reviews the period from the adoption of the Framework Strategy in March 2013 until 31 December 2014.

Assessment of national resources as reflected by 16 key indicators

Resource	Indicator	2012	2013	2014	Current state	Trend	EU average	V3 average
R1.1 Population	Total fertility rate	1.34	1.34	1.41	poor	↗	1.58	1.36
R1.2 Knowledge	Expenditure on education as % of GDP	4.08	3.93	N/A	poor	↘	N/A	N/A
	Early school leavers (%)	11.8	11.9	11.4	average	↔	12.7	N/A
R1.3 Health	Healthy life expectancy at birth (years) male/female	59.2 / 60.5	59.1 / 60.1	N/A	below average	↗/↔	61.3 / 61.9	N/A
R1.4 Cohesion	Severe material deprivation rate (%)	25.7	26.8	23.9	poor	↗	9.6	9.6
R.2 Social capital	General trust scale (ESS, scale of 0 to 10)	4.8	N/A	N/A	below average	↗	N/A	N/A
	Corruption index (Transparency Int., on a scale of 0 to 100)	55	54	54	below average	↔	64	54
	Number of non-governmental organizations (thousand)	65.3	64.5	63.9	average	↘	N/R	N/R
E.3 Natural capital, environmental conditions	Biologically inactive areas (as % of total area)	68	67	N/A	poor	↔	N/R	N/R
	Natural resource productivity (GDP/DMC, €/kg)	1.14	1.00	N/A	below average	↔	1.93	0.92
	PM(10) pollution (µg/m3)	28.8	27.3	N/A	below average	↗	24.9	31.0
E.4.1 Business capital	Employment rate for population aged 20-64 years (%)	61.6	63.0	66.7	below average	↗	69.2	68.6
	Investments: gross fixed capital formation (GFCF/GDP)	19.4	20.5	21.7	average	↗	~19	21.4
	Total R&D expenditures (as % of GDP)	1.30	1.44	N/A	below average	↗	2.07	1.20
E.4.2 Macroeconomic stability	Public debt (gross) as % of GDP	78.3	76.8	76.2	below target	↗	85.4	50.9
E.4.3 Generational balance	Old age dependency ratio	24.6	25.1	25.8	above average	↘	28.1	22.0

ADDITIONAL INFORMATION TO THE TABLE:

Twelve out of the sixteen indicators are included in the regular biennial publication of the Central Statistical Office (KSH) on indicators of sustainable development. In addition, two other indicators (expenditure on education, material deprivation) may also be calculated based on KSH data. The general trust scale has been derived from data in the European Social Survey and has been provided by TÁRKI Social Research Institute. The corruption perceptions index is from the reports of Transparency International.

The **Current state** is evaluated on a scale of five as poor – below average – average – above average – good.

Reference point: where an indicator has an optimal level (e.g. fertility rate) in terms of sustainability, the indicator's present value has been referenced to that level; where there is no such optimal level, EU and V3 averages have been used as reference points. Public debt has been referenced to the 50% target set forth in the Constitution.

Trend is evaluated on a scale of three as declining – no change (or change has no trend pattern) – improving. Firstly, changes in the period between 2012 and 2014 have been reviewed but data from the last decade have also been considered.

Biologically inactive areas: built-up areas + arable land

GDP: gross domestic product; GFCF: gross fixed capital formation; DMC: domestic material consumption; PM: particulate matter

EU and V3 averages – unless otherwise indicated – the latest available data from the period between 2012 and 2014

V3: the three countries apart from Hungary in the Visegrad Group (“V4”): the Czech Republic, Poland and Slovakia

N / A: not available

N / R: not relevant, comparison can be misleading due to varying capabilities of each country or to the nature of the indicator

Overview of progress toward achievement of the national sustainability objectives

C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
1.1	Human resources / Population	Promotion of family values	Only 50% of the adults of reproductive age are married with 48% of children being born out of wedlock. (consistently with general European trends.)	The number of marriages slightly increased between 2010 and 2013 interrupting a steady decline that started in 1990. The number of abortions has fallen by 20%. Government has decided to implement a 5-component action programme to support families.
1.2		Reduction of migration from Hungary (competitive wages)	Migration continues with dominantly young graduates (of reproductive age) leaving Hungary. The majority of people finding employment abroad are younger, more qualified and potentially more productive workers	Despite some partial results (e.g. Momentum Programme of the Hungarian Academy of Sciences), an overall successful response has not yet been found. Wages in occupations affected by migration continue to vary largely between the EU's western part and Hungary. The business sector has also set out to increase workers' income: in BCSDH's Action 2020 programme.
1.3		Reduction of the rate of population decline	The number of Hungarian people continues to fall, the population is currently 12 million (including Hungarian people living in Hungary, in the Carpathian Basin and in many other places around the world). If the current trend persists, Hungary's population is expected to shrink to 7.9 million by 2060.	A number of measures have been introduced to support child rearing: <ul style="list-style-type: none"> • Introduction of Child Care Allowance Extra • Expansion of personal income tax credits • Start of increasing capacity of day care facilities for children under 3 • Tax credits to businesses employing mothers with young children • Continued protection to expectant mothers in the Labour Code
1.4		Development of immigration policy	Our net migration rate is negative (the number of Hungarians leaving the country to live elsewhere is higher than that of those foreigners arriving to live in Hungary). The rate of Hungary's foreign-born population is 4.5% (the EU 27 average is 11.3%), 70% of which are from neighbouring countries. In Hungary, 40% oppose immigration without condition with only 10% accepting immigrants without condition and 50% of the population are hesitant.	In autumn 2013, the Government adopted a migration strategy but it has only partially been implemented since then. Many Hungarians living beyond the borders of Hungary have been naturalized. Migration stress growing since 2014 has shifted the focus on actions related to irregular/illegal migration while other components of the strategy (e.g. reduction of prejudices) have faded.
1.5		Improvement of employment of	The major source of income for the elderly (retired people) is almost exclusively their pension payment	Employment Protection Programme and funds from the Social Renewal Operational Programme for businesses

		elderly population	(from public transfers), yields from private capital (private savings) and financial support within the family are insignificant.	to support employment of the elderly. The pension system does little to support employment of the elderly.
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Note: BCSDH Action 2020: Business Council for Sustainable Development in Hungary is the association of domestic businesses committed to sustainable development. Their programme (Action 2020) is a short term action package for businesses to promote the achievement of sustainability objectives.

C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
1.6	Human resources / Knowledge	Quality education	Competencies in reading, mathematics and science in children aged 10-14 are below the OECD average and are declining. Tertiary graduation rates are below the OECD average.	Improvements: <ul style="list-style-type: none"> • mandatory preschool education • full-day school • school district system • public education assessment system • higher wages for teachers Factors not in favour of sustainability transition: <ul style="list-style-type: none"> • sustained and steady decrease of expenditure on education for a decade (-28%/10 years) [2003-2012] resulting in Hungary having the lowest education budget in the EU • decrease of school leaving age to 16 years • reduction of programmes providing general certificate of secondary education • reduction of development of general competencies in dual vocational education
1.7		Increase of period of formal learning	Early school leaving rate has slightly risen (while the EU average has been steadily improving).	The action making the payment of family allowance subject to school attendance (introduced in 2010) has contributed to decreasing unexcused absence by students but failed to improve the early school leaving rate. The decrease of the school leaving age may result in shorter time spent in education.
1.8		Reduction of selectivity within the education system	In European perspective, Hungary has an extremely selective education system where original differences in social background and income levels between students are preserved until the end of education to the largest extent.	Mandatory preschool education has had benefits; the centralization of the school system is complete (Klebsberg Institution Maintenance Centre (KLIK)) but no substantive action to reduce selectivity within the education system has been taken. Nevertheless, a major part of the country's population are in favour of the present system.
1.9		More efficient use of	Among the OECD countries, the rate of students with	No substantial changes have occurred.

		knowledge within the society	outstanding competencies continues to fall in Hungary leading to lower numbers of highly qualified workers to be engaged in high level R&D activities.	(The impacts of the establishment of the National Research, Development and Innovation Office (NKFIH) in 2015 could be reviewed in the next monitoring report.) The BCSDH Action 2020 programme is intended to improve the efficiency of transition from school to work.
1.10		Sustainability introduced in lifelong learning	Very few people participate in lifelong learning (fifth worst score in Europe); Very few people speak foreign languages (worst score in Europe).	New regulation (law on adult training) to improve labour market prospects through improved efficiency of training. Related services of cultural institutions, multifunctional community centres have been expanded. Lifelong and quality learning are also included in BCSDH's Action 2020 programme.
C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
1.11	Human resources / Health	Health consciousness	Hungary is considerably below the EU average; smoking and alcohol consumption rates are high. Fifty-four percent of Hungary's adult population are overweight or obese. 50% of Hungary's adult population are not engaged in physical activity at work and two-thirds of the population do not participate in any physical exercise in their leisure time for at least 10 minutes a day.	Health Communication Centre (EKK) that is primarily responsible for public health communications and public health campaigns. Legal restrictions to limit smoking – indoor air pollution has dropped by 90%. Expansion of anti-smoking institutions/programmes. "Chips tax" on unhealthy food items New regulations on public food services Restrictions on trans fat content in food Daily physical education classes in public education institutions
1.12		Reduction of chronic disease rates	The relevant indicators reflected a negative trend for the years preceding the period under review. This trend has continued for the period under review with the prevalence of several of the diseases expected to further rise lowering the chances to meet the desired targets.	Efforts to strengthen primary health care, to improve the efficiency of secondary care, to establish a modern emergency health care system and to develop the rehabilitation system have failed to deliver the expected results. Direct government control has also failed to improve efficiency and quality in health care institutions to the extent expected.
1.13		Reduction of mortality rate (aiming to reach the EU average)	With a breakthrough nowhere in sight, progress toward the strategic objective has been minimal if any. Despite a recent positive trend in deaths preventable by timely and effective medical care, Hungary remains the last among OECD countries.	See above.

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C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
1.14	Human resources / Cohesion	Social solidarity – reduction of social exclusion	Following an increase 2010 and 2012, inequalities slightly decreased between 2012 and 2014. The Roma population totalling around 7% of Hungary's population remains the poorest, the most excluded, consequently the most vulnerable group within the society.	Public transfers are now better targeted with funds more efficiently reaching those in need. Funds from the National Development and Territorial Development Concept financed by the EU. Slum neighbourhood programmes. Micro-regional Work Start model programmes. Incorporation of values of Roma history and culture into the National Curriculum. Mandatory preschool education. After school development programmes and scholarships. Public employment.
2.1	Social capital	Rearrangement of the social structure	An important fact for social capital is that poverty and social exclusion had been constantly increasing (from 2008) until 2013 but started to decrease in 2014. Nevertheless, severe material deprivation still affected nearly 25% of the population in 2014.	Development of the National Social Inclusion Strategy. Employment rates helped more people to generate income from work. Funds to support those in need are now better oriented.
2.2		Demonstration of good examples	(Certain methodological obstacles prevent the quantitative or qualitative analysis of the implementation progress of this objective.)	A number of public and non-governmental campaigns have been launched to promote sustainable lifestyle strategies including the programmes 'Bike to Work' or 'Smart Heating'.
2.3		Support to intermediate institutions promoting sustainability	In Hungary, civil society participation is below the EU average, people typically expect the state or the market to solve our problems.	Lack of trust displayed by the central administration toward civil society actions has not improved. Nationalization and centralization actions in various areas have further strengthened market or state dichotomy.
2.4		Promotion of the infrastructure of trust	Hungary is in the lower middle section among European countries with trust levels below the EU average. General trust has slightly increased since 2008. Trust in the legal system started to rise again after hitting bottom low in 2008 but still remains below average.	The establishment of 'government windows' has made public administration services more efficient and comfortable for the people contributing to higher trust in the legal system. On the other hand, hectically changing laws and regulations have decreased investor and business confidence.
2.5		Reduction of stress at work	(Certain methodological obstacles prevent the quantitative or qualitative analysis of the implementation progress of this objective.)	The award Family Friendly Workplace given to recognize companies where modern and innovative policies are introduced to promote a healthy work-life balance. The business sector is not yet placing sufficient focus on this issue although BCSDH's sustainability programme, Action 2020 includes the objective 'establishment of an appropriate working environment' in the food industry value chain.

C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
2.6		Preservation of our heritage, strengthening our identity	The number of initiatives and programmes to preserve traditions and to strengthen the Hungarian identity is growing. Actions against discrimination and segregation in schools contribute to improved social cohesion.	The institution of minority spokesperson was introduced in the Parliament in 2014. Dual citizenship contributes to strengthening national cohesion. Magyarság Háza (House of Hungarians) project continued. School programmes to connect youth living in and outside of Hungary.
3.1	Natural capital / ecosystem services, environmental quality	Regard for ecological limits	Hungary uses more ecosystem services than what our available natural capital is able to yield although our ecological footprint is smaller than the global or the European average.	Review of catchment management plans. Development of maintenance plans for Natura 2000 sites. Fulfilment of objectives in the National Forest Programme. Development of National Biodiversity Strategy. The promotion of widespread use of low-carbon and water efficient technologies is included in BCSDH's Action 2020 programme.
3.2		Growth of sustainable production technologies	Typical sustainable technologies (ecological farming, use of renewable energies) are applied in Hungary at a rate lower than the European average. No substantive community actions or technology changes to promote respect for ecological limits have been started.	A National Action Plan for the Development of Ecological Farming (2014-2020) has been developed. Ongoing implementation of the National Environmental Technology Innovation Strategy. Increased supply of products manufactured using sustainable methods and promotion of sustainable consumption patterns is included in BCSDH's Action 2020 programme as an objective. Sustainable production of healthy food is also defined as an objective of the programme.
3.3		Optimal value of natural capital use	At present, natural resources are available for use at a cost lower than optimal for social welfare.	Although a number of new taxes have been levied on adverse externalities in health care, these opportunities have not been used at all or only been used in areas with marginal effect on environmental protection. Changes in waste management regulations have had a negative impact on the efficient use of natural resources.
3.4		Sustainable land use	The rate of built-up areas continues to significantly grow while the proportion of cropland in land used for agricultural activities is unfavourably high. The	Land use and ecological aspects lack the necessary focus in urban planning, in the construction of linear infrastructure, in agriculture and in rural development.

			fragmentation of biologically active surfaces is rising. The present forms of land use prevent successful adaptation to the impacts of climate change.	
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C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
3.5		Conservation of biodiversity	Biodiversity in the Carpathian Basin is substantially higher than the EU average (despite the fact that 90% of the original natural capital has already been used here too). Negative trends, practices in land use change have endangered most habitats expected to cause a potential decrease in biodiversity. Funding for the national park system is not adequately resolved.	The need for action is articulated in many government strategies (e.g. National Biodiversity Strategy) but it is disregarded in actual investment decisions or agricultural regulations.
3.6		Reduction of environmental impact on human health	Domestic emission rates of most pollutants having an adverse impact on human health are lower than the EU average. The rate of waste water treatment has considerably improved.	Waste water treatment programmes Improvement of the vehicles in urban and suburban community transport

C	Resource	Objective	Current state (2014 year-end)	Key social/government actions (2013-2014)
4.1	Economic resources / Business capital, innovation, employment	Balance of localization and international cooperation	The GDP/GNI gap has shrunk and GNI will likely exceed GDP in the years to come. Foreign direct investment shows a decline. Development capacities of Hungarian businesses are moderate; they are lagging behind bank lending capacities. (One-sixth of the business loans are non-performing.) The quantity of services available in small villages is decreasing.	The current GDP/GNI rate is mainly the result of the increasing influx of EU funds and remittances from a growing number of Hungarian people working abroad.
4.2		Promotion of local economic relations	Investments have risen in 90% of the sectors but such activity is lower in small businesses. Hungary's remains a largely open economy with significant export and import activities, however, the development of local and regional economic relations – despite the realization of some good local practices – remains moderate.	Supported by a Partnership Agreement. Supported by EU funds based on the National Development and Territorial Development Concept. Small scale regulations to promote local production have been introduced.
4.3		Reduction of rent seeking	Bid rigging has a high risk in public procurement. Massive government intervention into the economy (through regulations or supplying government and EU funds as financial grants) could lead to the emergence of rent seeking behaviour in many areas.	Government actions to eliminate the grey economy, to fight tax evasion, to expand the tax base and to effectively improve the efficiency of tax collection clearly show their impacts with an enormous progress made in this area. Anti-corruption government programmes have been launched. Stricter criminal laws have been introduced.
4.4		Reduction of business burdens, barriers	In the World Bank's <i>Doing Business</i> ranking, all the other V4 countries are ahead of Hungary. The legal environment promoting starting a business and enforcing contracts is better than average and borrowing conditions are appropriate. Protection of minority investors is cumbersome. Taxes are relatively high and tax administration is very costly. Tax laws are hectically changing.	Implementation of Simple State Programme (to reduce red tape) (114 actions). Expansion of electronic public administration. Favourable credit programmes have been launched. Business friendly changes have been made in the Labour Code, in the definition of accreditation criteria. SME Strategy to develop conscious behaviour among future business owners.

4.5		Promotion of innovation	<p>The slowly rising but still low potential growth is explained by a weak total factor productivity which is the result of insufficient innovation activity. The number of patents is highly variable with no obvious positive trend in sight. Compared to the EU average, public-sector research is considerably smaller than business research and the gap continues to grow. Innovation may not be strengthened in the long term if public education continues to perform below the average.</p>	<p>A National Research, Development and Innovation Strategy has been adopted that could promote R&D activities of innovative SMEs. The Parliament has adopted a decision to transform the public institution system supporting research and development.</p>
4.6		Increase of employment	<p>The employment rate grew significantly between 2010 and 2014 (66.7%) but it is still behind the EU 28 average (69.2%) and very far from the 2020 target of 75%. The rate of participants in public employment programmes compared to the working age population was 5.7%. Educational qualifications and employment continue to be closely correlated. The unemployment rate of young people aged 15-24 years is high (20.4%) but it is below the EU 28 average.</p>	<p>The review of eligibility for social benefits and the public employment programme played a key role in improving employment. External factors including the increase of capital costs and EU funds have also contributed to higher employment.</p>
4.7	Economic resources / Macroeconomic balance, sound budgetary process	Control of budget deficit, decrease of public debt, promotion of financial awareness	<p>Public debt has been reduced to a sustainable level since 2012. Hungary's net external debt is shrinking; the budget deficit has remained below 3% every year since 2010. Household foreign currency debt and personal indebtedness in general have been radically reduced. Household savings have been rising. Local governments on the other hand suffer from severe lack of resources.</p>	<p>Sound central budgeting policy, incorporation of debt limit regulation into the fundamental law. However, it is partly implemented through extremely high taxes and significant public redistribution.</p>
4.8	Economic resources / Generational balance	Gradual restoration of generational balance, promotion of long term stability of the pension scheme	<p>While 5 working age persons supported 1 retired person in 1990, this ratio is expected to be around 2 to 1 by 2050. Today's balanced pension scheme will face a 45% deficit based on expected population structures in 2050.</p>	<p>Taxation adjustments, tax levied on consumption instead of labour help maintain the sustainability of the public spending system. Meanwhile, further pension scheme reforms based on social consensus will be required in the long term.</p>

Assessment of the current state of the sustainability transition

The time since the Framework Strategy's adoption 2 years ago is too limited to identify any major correlations. However, currently available data and processes identified in this Report highlight the progress toward sustainability in Hungary in 2015 based on the values defined in the Framework Strategy.

General observations

- As the result of policies pursued in the last decades **not one of our national resources** (compared to the EU average as relative norm or to the desired national optimal level as absolute target) **is in good or above average condition** (with the exception of our old-age dependency ratio that is currently a slightly higher than the EU average but faces a clearly negative trend);
- 2013 and 2014 brought **dominantly improvements in human, social and economic resources** while previously apparent **negative tendencies in natural resources** continue to **pose challenges** for Hungary. Of the selected 16 key indicators, 9 show a positive and only 3 show a negative trend (the values of 4 indicators only minimally changed);
- Coordinated actions implemented in some minor areas and the resulting small scale improvements demonstrate that even poor progress of sustainability can be tackled and **our national resources can be enhanced through innovative solutions, strong commitment to public good and tireless efforts;**
- Even resources with partially positive developments present a number of contradictions; interventions are frequently selective, there is continued lack of high level political commitment and conscious, efficient government coordination, (articles 2 and 3.a of the 18/2013 Resolution of the Parliament) are frequently implemented incompletely or only in a formal, unsubstantial manner).

In **human resources**, the demographic trend is a well-defined sustainability issue. The government has recognized that in addition to financial assistance, the compatibility of work and family and opportunities to return to the labour market are crucially important for fertility. Experts expect the adjusted family support system to have a potential positive impact on fertility.

Another positive trend in human resources is that both life expectancy at birth and the number of healthy life years is constantly, although at a somewhat slow pace, growing both for men and women. It is important to note that there is a solid link between social inequalities and self-reported health status: people with higher income and educational qualifications report better health status.

Hungary's education system faces serious sustainability challenges. International surveys show a decline in the performance of Hungarian students in all of the key areas assessed. PISA results reflect that Hungarian students lack competencies required by the modern labour market (problem solving, scientific proficiency). The rate of students

lagging behind, underperforming is rising while the rate of early school leavers is not falling leading to increasingly severe problems in trainability and employability. People with the most potential benefits from adult training supporting successful employment participate in such programmes in the lowest numbers.

The active population includes a relatively high rate of workers in public employment programmes. Studies suggest that public employment fails to promote reintegration of participants into the labour market in the long term presenting a risk for sustainability but in the meantime it ensures them higher regard within the community (they work instead of living on benefits) supporting social sustainability. Furthermore, the share of public employment programmes in the expansion of employment continues to shrink, i.e. the employment potential of the private sector has significantly grown.

An important fact for **social capital** is that poverty and social exclusion had been constantly increasing (from 2008) until 2013 but started to decrease in 2014. Nevertheless, severe material deprivation still affected nearly 25% of the population in 2014.

It is a welcome development that general trust and confidence in the legal system have risen although its rate is still one of the worst in Europe. The resentment against foreigners wishing to settle in Hungary remains high.

Despite a number of government commitments, law amendments and programmes, international surveys show that corruption in Hungary continues to exceed the European average. Massive government intervention into the economy (through regulations or supplying government and EU funds as financial grants) could lead to the emergence of rent seeking behaviour in many areas.

Hungary's two most important **natural resources** are soil and fresh water supply. The degradation processes affecting both resources have not been effectively addressed since the adoption of the Framework Strategy two years ago. Inappropriate structure of land use has a key impact on both soil and fresh water supply. Positive processes in the area of natural resources are primarily related to forest management and sensible mineral resource management.

The leading challenge for natural resources is the growing rate of built-up areas and ecologically inactive areas. There is a strong negative detachment between the decrease of population and the growth of built-up areas that threatens natural, semi-natural and other green areas leading to shrunken habitats and reduced biodiversity. Cropland composing nearly half of Hungary's territory is also classified as ecologically inactive area – not only in terms of the preservation of biodiversity but also water retention ability linked to the problems of droughts and floods.

Effective response to the challenges connected to natural resources is prevented by the fragmented structure and inefficiency of the Hungarian institutional system of environmental protection. Environmental issues are managed by various ministries, concerns and criticism about the certification system are expressed by both businesses and non-governmental organizations and the level of horizontal integration is low.

Data from 2013 and 2014 suggest that the Hungarian **economy** is recovering from the economic crisis of 2008. GDP is rising, employment is growing, investment propensity has improved, savings are increasing while general government deficit steadily remains below 3% and the

public debt to GDP ratio is shrinking although at a slow pace. Meanwhile, the lending market has not yet recovered fully and low domestic productivity needs to be improved in order to increase the rate of economic growth. An increasingly serious challenge for sustainability is migration affecting at least 330 000 people based on officially published figures including Hungarian citizens younger and more qualified than the average population.

Positive demographic processes may have a spill-over effect on the sustainability of welfare systems, in particular the pension and health insurance systems. Meanwhile, as current trends indicate one retired person was supported by 5 persons of active working age in 1990, that ratio was reduced to 4 to 1 in 2014 and is expected to drop to 2 to 1 by 2050 unless some significant change occurs. In the meantime, the expansion of the economically active population as a result of economic incentives and the improvement of employment rates in recent years enhances the sustainability of the pension scheme to a large extent.

Recommendations to strengthen the sustainability transition

Based on the assessments of the Monitoring Report, the following recommendations are made to promote the sustainable development transition and to support the achievement of NSSD's objectives:

- The promotion of and support of implementation of values and moral norms facilitating the sustainability transition remains a priority. The dissemination and implementation of holistic thinking and knowledge in social networks should be strengthened.
- The transformation of the education system should include not only the regulation of the administration system but also efficiency improvements as surveys reflect a decline in student performance. To enhance employment prospects, the development of problem solving skills is indispensable.
- Public education, higher education, training and retraining are particularly important to promote successful labour market participation of social groups facing exclusion and segregation and to prevent the regeneration of extreme poverty. Public employment programmes offer only partial response to and fail to address the employment problems of low-skilled workers in the long term.
- Promotion of research and development contributes to improving the quality of human resources and to boosting economic productivity. In addition to enhancing the quality of public education, the improvement of the quality and quantity of domestic R&D activities represents significant added value as the basis of the development of the Hungarian society.
- Despite a slow improvement in demographics, Hungary's population continues to decrease. Further actions are required to improve our negative migration balance.
- Smoking and alcohol related diseases remain one of the leading causes of mortality in Hungary. Further campaigns and programmes are required to promote more sustainable lifestyle strategies.

- To preserve our biodiversity and to mitigate the adverse impacts of climate change including damage caused by droughts and floods, much greater focus should be placed on sensible approaches to and transformation of land use as well as on prohibition of the alteration of biologically active areas. This should include a reduced pace of soil sealing (sound infrastructure investments, preference of brown field investments), the adjustment of land use rates shared among the various divisions of agriculture and also strengthened soil protection. The potential offered by ecological farming presently unused should also be exploited. In order to restore the good ecological condition of water, more efforts should be made to implement the EU's water framework directive. The means of regulation and assistance in agriculture and rural development should be revised in order to ensure they more efficiently promote the protection of biodiversity and soil as well as small scale sustainable local production and consumption.
- In order to achieve a fair balance between local and global economic relations, the autonomy of local communities with regard to decisions related to food, energy and to social and economic issues in general should be increased. To that end, the development of the relevant competences of the local communities should be promoted. Local communities should be given better access to local ecosystem services and natural resources where the rights of use could be granted to local communities should be selected and reviewed.
- The aspects to reduce material and energy use should be strengthened in public policies. One key method supporting that is the correct definition of the value of the use of natural resources that could stimulate a shift toward more resource efficient and environmentally sound structures and patterns in production and consumption. The broader use of renewable energy sources is a positive process but due to the conditionally renewable nature of biomass, fully renewable energy sources are recommended to be disseminated on a wider scale. A method needs to be developed to assess Hungary's total primary material consumption, the geographic distribution of the relevant emissions and the quantity of impact of the use on other countries.
- Stronger trust in communities could promote both social cohesion and the business environment. Reduction of corruption and possibilities for rent seeking remain a priority.
- In general, awareness about the definition of sustainability agreed to in the Framework Strategy needs to be further raised and the application of this definition in public administration should be improved. As objectives of the Framework Strategy have only selectively, inhomogeneously guided certain policy decisions, the commitment of high level political leaders toward the promotion of sustainability should be strengthened and the coordination of policies on ministerial level should assume a real, functional role in the implementation of NSSD. Sectoral policies should be constantly revised in order to promote the objectives and the philosophy of the Framework Strategy.
- In order to improve the long term impacts of public policy decisions, the institution of preliminary sustainability studies should be introduced for which a professional approach has been elaborated by NCSA.

- Education and visitors' centres on sustainable development should be established that help people understand the practices of a sustainable lifestyle, provide guidance and make plans supporting people to use available options.

In-depth analysis

I. Introduction

In order to promote sustainable development, to protect the possibilities of future generations and to ensure long term, responsible management of our national resources, as set out in the Fundamental Law of Hungary, in March 2013, the Parliament adopted the National Framework Strategy on Sustainable Development for the period of 2012-2024. Pursuant to resolution 18/2013 (March 28th) of the Parliament, the Framework Strategy (NSSD) is intended to

- contribute to developing a common agreement on the definition of sustainability;
- promote the determination of the first steps of the transition to sustainability; and
- determine the public policy decision preparation and making system

NSSD defines four national resources: human, social, natural and economic resources that are necessary to be preserved and increased in terms of quantity and quality in order to promote wealth and mental well-being of all generations. The promotion of transition toward the sustainability of these four resources is not only a political and government issue; it is the responsibility of the society as a whole – of each person, family, business and non-governmental organization as well.

The Framework Strategy defines three establishments to monitor the NSSD: the indicator report, the biennial parliamentary report (i.e. the monitoring report) and the review of the strategy every four years. Pursuant to articles 3. d) and 4. a) of resolution 18/2013 of the Parliament, the Monitoring Report is specifically mandated to

- inform about government actions promoting the implementation of the Framework Strategy every two years;
- monitor the implementation of the Framework Strategy, support the assessment of progress and provide information on implementation and progress to the Parliament every two years.

The government decree adopting NSSD mandates the National Council for Sustainable Development to draft the Monitoring Report.

The most important changes that occurred in the last two years in connection with the sustainability objectives of the Framework Strategy have been analysed and assessed separately for each resource. However, the changes occurring in the short period since the adoption of the Framework Strategy fail to objectively reflect the effectiveness of the Framework Strategy and progress made toward (or on the contrary, departure from) the sustainable development path due to lack of data in many cases or tendencies requiring a longer term to materialize. Summary analysis for each resource is composed as follows:

- Each resource analysis includes a general overview based on the most recent data.
- This is followed by the presentation of relevant key indicator values and the assessment of current trends. The key indicators presented in this Monitoring Report have been selected by NCSO based on available information to most accurately reflect changes in connection with the objectives of the Framework Strategy. It is important to note, however, that the set of indicators used may change in the future due to a higher number of available indicators or as a result of a broad professional agreement. We also want to

stress that the indicators are used to provide a general overview and not to evaluate the efforts of the parties affected.

- The objectives defined by NSSD for each resource have been identified first followed by the assessment of social and economic processes affecting sustainable development for each of these objectives. Some of the objectives have been combined while others have been analysed in more detail to highlight connectivity and interrelations. The assessment of social and economic processes included the identification of tendencies that affected the achievement of the specific objective. The role of the government, businesses, non-governmental organizations and individuals has been studied depending on the importance of their impact on the resource.
- Resource analysis also focused on the most important government programmes and strategies affecting the specific resource.
- Each chapter is concluded by the collection of the most essential positive trends and key risks for each resource.

The last chapter of the Monitoring Report includes conclusions and recommendations. This chapter

- describes the implementation process of the Framework Strategy and the key achievements,
- identifies sustainability issues and the potential methods to address those issues, the responsibilities of public and private players and – based on that – defines objectives that should be a priority in the next period in order to promote sustainable development, to protect the possibilities of future generations and to ensure long term, responsible management of our national resources.

Hungary has an internationally progressive institutional system in the area of sustainability. It is crucial to review the functioning and achievements of national institutions directly responsible for sustainability or affecting the transition toward sustainable development. However, this first Monitoring Report does not assess the activities of the government or public and private institutions as this period has been too brief for any institutional response based on the Framework Strategy to have any impact on the resources.

This Monitoring Report is based on the guidelines in the Monitoring Handbook written by Hétfa Research Institute (2013). Following its guidance, changes in each resource have been defined based on the following professional resource materials:

- Gödri, I. and Monostori, J. [2015]: Progress report on the implementation of the sustainability framework strategy in human resources and demographics. KSH Demographics Research Institute
- Csapó, B., Molnár, Gy. and Pelle, A. [2015]: Progress report on the implementation of the sustainability framework strategy in human resources. Tanulás és Tudás
- Dr. Oberfrank, F. [2015]: Progress report on the implementation of the National Framework Strategy on Sustainable Development in human resources and health. Integra Consulting Zrt.
- Fábrián, Z. and Szivós, P. [2015]: Social exclusion, poverty and social cohesion. Monitoring Report. TÁRKI Social Research Institute. Research Head of research: István György Tóth

- Medgyesi, M. and Gál, R. I. [2015]: Economic and human resources – social redistribution, generational accounts, family financing, pension system. TÁRKI Social Research Institute. Head of research: István György Tóth
- Pálvölgyi, T., Csete, M., Czira, T. and Simon, A. [2015]: Progress report on the implementation of the Framework Strategy on Sustainable Development in natural resources. Studies for NCSO on the progress of the implementation of the framework strategy on sustainable development 591/2014 Part 5: Natural resources. Env-in-Cent Kft.
- H-SOFT [2015]: Economic resources – Growth, R&D, capital stocks, macro-economic imbalance. NCSO Monitoring Report, resource study for NCSO on the progress of implementation of the Framework Strategy on Sustainable Development. 591/2014 part 6.

The Monitoring Report has been compiled with the support of Hétfa Research Institute.

II. Progress made in the achievement of the objectives under the National Framework Strategy on Sustainable Development.

2.1. Human resources¹

2.1.1. General overview

People are a nation's most important resource, however, they are unable to realize their full potential without the other resources. Negative trends in human resources have improved to some extent in the area of demographics and health but continued in the field of knowledge and social inequalities in the period reviewed in this Report.

The alarming rate of population decline in recent years seems to be interrupted. While obvious trends are not yet shown, 2014 was the first year after a long period when the number of births exceeded births in the previous year. Although a number of government actions have successfully promoted childbirth, several demographic processes (e.g. older average age of childbearing) are adversely affecting the growth in fertility rate.

Surveys show that Hungary is increasingly lagging behind in the field of knowledge that leads to negative spill-over effects in sustainability. The rate of students lagging behind, underperforming and the number of early school leavers is rising leading to increasingly severe problems in trainability and employability. School performance is strongly determined by social background; schools add little to the knowledge students acquire at home. Meanwhile, the rate of high achieving students is falling reducing the selection base of higher education and scientific research.

Perceived health status has improved and the number of healthy life years at birth has also been rising in recent years. In the meantime, sustainability continues to be challenged by the high rate of smoking and alcohol consumption leading to higher incidence of chronic, non-communicable diseases.

Social inequalities, poverty and social exclusion continue to significantly prevent sustainable development both in the area of education and health.

2.1.2. Changes in key indicators

Indicator	Score	Year	Evaluation of change since adoption ² of NSSD
Total fertility rate	1.41	2014	Upward trend but still significantly below level necessary to end/mitigate population decline.
Expenditure on education as % of GDP	3.93	2013	Declining trend compared to previous rates, low rate in international comparison.
Early school leavers (%)	11.8	2013	Downward trend with rates significantly varying by gender and region. Female dropout rate is much lower (11.1%) than the male dropout rate (12.5%). Regional gaps are even larger

¹ This chapter is based on studies by Fábián-Szívós (2015), Csapó-Mólnár-Pelle (2015), Integra Cónsulting (2015) and Gödri et. al (2015) and the proposal of the Ministry of Agriculture entitled Summary Information on government actions in 2013-2014 promoting the implementation of the National Framework Strategy on Sustainable Development.

² compared to data from 2012.

			and continue to grow.
Healthy life expectancy at birth (years, male/female)			
Severe material deprivation rate (%)	23.9	2014	Upward trend supporting strategic objectives but this rate is still high in international comparison.

2.1.3. Objectives and challenges defined in the Framework Strategy

The National Framework Strategy on Sustainable Development defines the following objectives for human resources:

1. Promotion of values related to partnership and family (education, institutions)
2. Promotion of competitive wages in professions challenged by high rate of migration
3. Reduction of the rate of population decline
4. Development of immigration policy
5. Promotion of possibilities for the elderly population for social participation
6. Quality education
7. Increase of period of formal learning
8. Reduction of selectivity within the education system
9. More efficient use of knowledge within the society
10. Incorporation of sustainability (values and practice) into lifelong learning as a whole
11. Establishment of health conscious behavioural patterns
12. Reduction of the number of chronic, non-communicable diseases
13. Alignment of mortality rate with Central European average
14. Social solidarity
15. Rearrangement of the social structure
16. Increase of employment

Similarly to the NSSD, these objectives will be discussed divided into four main categories: changes in objectives related to demographic trends; objectives related to education and knowledge; objectives related to the improvement of health and objectives related to social cohesion.

2.1.4. Social and economic developments affecting the objectives

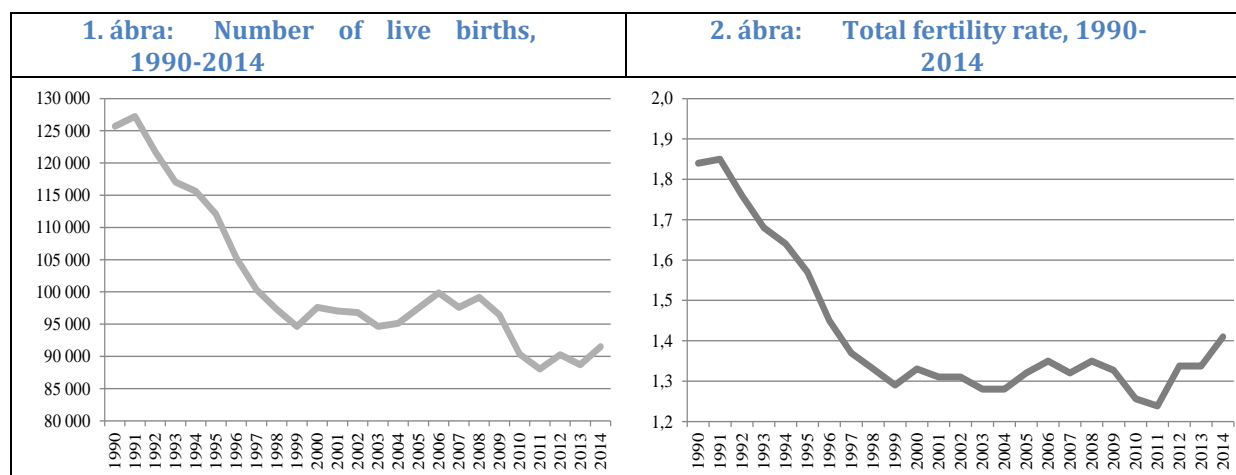
2.1.4.1. Demographic trends

Childbirth

Demographic trends are critically influenced by fertility rates and the number of live births. Similarly to Western societies, Hungary has also been facing a decline in birth rates since the 1980s.

The rate of live births remained steadily very low in the past decades and even further decreased with the onset of the global financial and economic crisis in 2008. This negative trend was interrupted in 2014 when 91 500 children were born in Hungary, 2800 more than in the year before being the highest number in the last five years while the number of abortions was the lowest in the last 60 years. However, it is too early to draw any extensive conclusions and refer to this as a turn in childbirth in Hungary as these are only variances that do not reflect any

long term change. This is confirmed by monthly birth rates that fail to show any steady increase between the historic low in the summer of 2010 and December 2014.



Source: KSH, Demographic Yearbooks

Total fertility rate (TFR) offers a refined and at the same time more precise method to represent fertility.³ TFR was 1.41 in 2014 (preliminary figure, Kapitány & Spéder, 2015) that is higher than in the previous years (the highest rate since 1997) but it is still significantly below the rate necessary to stop/mitigate population decline.

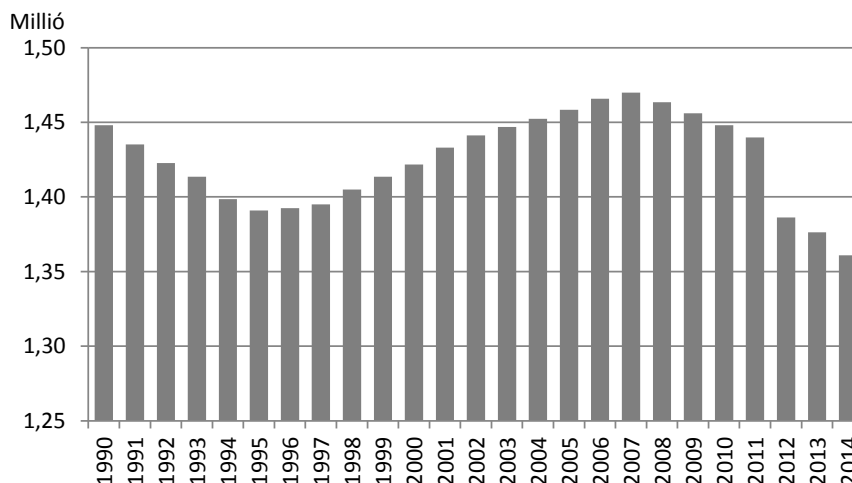
Comparison of TFR and the birth rate shows that changes in TFR reflect greater improvement in recent years than changes in birth rates. It is explained by a faster pace of decline in the numbers of women in childbearing age after 2011⁴. This also implies a larger gap between birth rates and TFR in the future than in the past decades.

The number of women of childbearing age is expected to decrease in the future when a large group of cohorts born between 1974 and 1978 turn 40 and exit their reproductive years.

³ This statistical index shows progress of processes independent from changes in population levels and certain structural transformations. It shows the number of children that would be born to a woman in her lifetime if she were to pass through her childbearing years conforming to the fertility rates of a given year. A value higher than two ensures sustained population levels and successful replacement. A value higher than two may also contribute to an increase in population.

⁴ If the number of women of childbearing age as statistically defined is lower while the fertility rate remains unchanged or exceeds that of previous generations, TFR remains unchanged or grows despite a steady decline in birth rates.

3. ábra: Change in female population aged 20-39 between 1990 and 2014



Source: KSH, Demographic Yearbooks

Fertility rates may be positively affected by a steady increase in the number of marriages since 2010 and by a decline in the number of divorces. Although 48% of children are born out-of-wedlock, marriage reflects a greater commitment by couples to have children.

In general, positive indicators generated by certain decisions made in recent years show a very subtle improvement but in order to preserve and strengthen the achievements in childbirth, further efforts will be necessary.

Family welfare system

Higher fertility rates can be promoted through an efficient family welfare system. A predictable model supports family planning and encourages parents to have more children. A number of population policy measures are available for that purpose, several of which have been introduced by the government since 2010 (re-introduction of the family tax benefit, payment of family allowance subject to school attendance). Important actions to further strengthen the support system have been taken in the period after 2013 as well.

These include the option to deduct the family tax benefit from the social contribution. This means that benefit not deductible from the personal income tax may be used to reduce the personal health contribution of 7% or the pension contribution of 10% normally deducted from gross wages. This measure benefits families with children where parents work but they could not fully use the family tax benefit earlier due to the low level of their income. Both international (see Gábos 2003) and national (see Gábos et al. 2009) literature suggests that higher cash grants have a positive impact on fertility in general and besides other important factors, welfare benefits may help improve childbirth rates.⁵ This measure is expected to raise fertility rates in the affected families to some extent.

Another group of the actions promotes the employment of parents with young children. On an international scale, the employment rate of women with young children is very low in Hungary requiring strong efforts to increase employment in this group. On January 1 2014, Child Care Allowance Extra (GYED Extra) was introduced allowing the parent to work unrestricted hours

⁵ However, the effective combination of the various forms of support (cash grants, tax and in-kind benefits) to most efficiently increase fertility still needs to be determined.

after the child's first birthday or enrol the child into a day care facility while still being eligible for child care allowance. Previously, parents receiving child care allowance were not allowed to work or if they wanted to work, the payment of the child care allowance had to be suspended. This encouraged parents with young children to be absent from the labour market for a longer period as they received a relatively high amount until the end of their eligibility (the child's second birthday). Eligibility rules for the child care benefit (GYES) related to work have also been amended allowing the parent to work unrestricted hours after the child's first birthday as opposed to the maximum period of 30 hours permitted previously. In 2014, over 29 000 people were working while receiving some form of child care support.

The previous system adversely affected families where children were born with short intervals as benefits paid for the younger child automatically cancelled benefits for the older child. In the current system, if a parent eligible for child care allowance or benefit for an older child has another child, the parent is eligible to receive child care allowance or benefit for the younger child as well. The one restriction is that maximum two benefits are payable simultaneously. In 2014, multiple benefits were paid simultaneously in nearly 17 000 cases. It is too early to see the impact of this measure on fertility decisions but it will certainly encourage the majority of parents planning more children to have their children in a relatively short time that will definitely promote easier entry into/return to the labour market after childbirth.

Child care allowance extra is also available for women with young children whose child was born while they were full-time students in an institution of higher education. In 2014, child care allowance extra was paid to 500 persons. It is too early to draw any extensive conclusions as long term decisions such as childbirth cannot be radically and immediately affected but their impacts will be more apparent in two to three years.

Government actions also focused on the demand side to promote the employment of women with young children. Businesses employing parents receiving or just finished receiving child care allowance or benefit are exempted from paying the so-called social contribution tax of 27% in the first two years up to a salary of HUF 100000 and are only required to pay 50% of the tax for one more year (for parents with 3 or more children, businesses are eligible for the higher rate of tax benefit for 3 years and the lower rate for another 2 years). This measure also improves the long term sustainability of intergenerational resource redistribution provided that contributions made during a lifetime grow to a larger extent due to an earlier labour market entry/re-entry than benefits received by a person. The impact of the mother's earlier labour market entry/re-entry on the child's development is also critical for long term effects. Expert authors say that a mother's labour market entry/re-entry after the child's first birthday does not have any adverse impact on the child's development, especially if she/he is attended by qualified caregivers. (see Benedek, 2007).

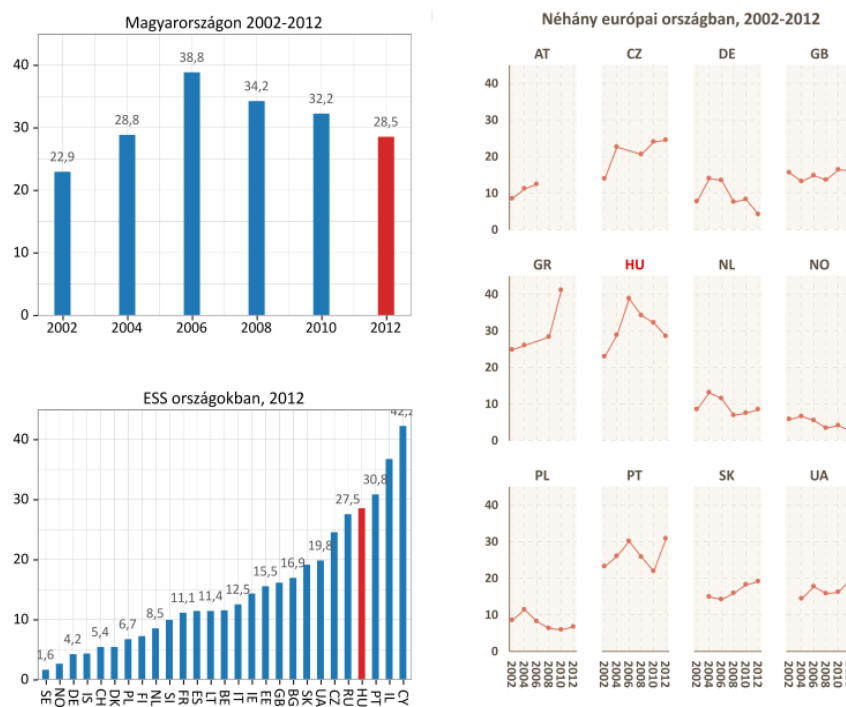
Migration

Migration is one of Europe's most pressing social and economic issues. For Hungary, both emigration and immigration pose tough challenges. Our net migration rate is presently negative: the number of Hungarians leaving the country to live elsewhere is higher than that of foreigners arriving to live in Hungary.

Public sentiment toward migration is rather negative in Hungary. Although data from the International Social Survey (ISSP) for the period between 1995 and 2013 demonstrate a slight

improvement in public opinion about the social impacts of immigration but Hungary is one of the countries surveyed where freedom of movement is broadly resented and the related cultural and welfare tensions are perceived as significant. Similar studies have been regularly conducted by TÁRKI Research Institute since the early 1990s. Based on the survey, the rate of the population unconditionally resenting any asylum seeker, migrant was nearly 40% in 2014 and only one in every ten Hungarian people is fully tolerant with foreigners. The rate of a 'hesitant' group is 50% whose majority (60%) would refuse to offer asylum to even a fictitious ethnic group if the decision were to be made based on ethnicity (Simonovits, 2014).

4. ábra: Percentage of people refusing to allow any people of a different ethnic group to find permanent residence in Hungary



Source: European Social Survey (ESS). Question: To what extent do you think [non-Hungarians] should be allowed to come and live in [Hungary]? Use the same card. Allow anyone to come and live here / Allow many / Allow a few / Allow none. The figure shows the percentage of respondents selecting the Allow none option.

Comparative and domestic studies show a high although declining rate of people unconditionally (without hesitation) resenting migrants in Hungary. However, migration stress growing since 2014 has shifted the focus within the government's migration strategy adopted in 2013⁶ on actions addressing irregular/illegal migration while other components (e.g. reduction of prejudices) have faded.

Emigration is a severe sustainability challenge for Hungary. Eurostat's mirror data (combined with data collected by the Austrian Statistical Office and Census Hub data based on the latest census of a few smaller target countries) show that the number of Hungarian citizens living in various European countries (officially registered) at the beginning of 2014 was 330 000 including: 38% in Germany, 23% in the United Kingdom and 14% in Austria. This is nearly three and a half times more than the number in 2011.

⁶ Migration Strategy adopted by Government decree 1698/2013 (Oct. 4th) and the seven-year strategic planning document related to the Asylum and Migration Fund to be established by the European Union in the 2014-2020 cycle based on the Migration Strategy

Studies⁷ suggest that the majority of people finding employment abroad are younger, more qualified and potentially more productive workers. Consequently, sustained emigration could cause a significant loss in Hungary's human capital. The rate of men is slightly higher (especially within the population living in Germany) while the proportion of highly qualified workers is notably higher than that of people in the native population. Out of the three main destination countries, the United Kingdom has the highest rate of young people (aged 20-39) and college or university graduates; the average age of those residing in Germany and Austria is somewhat higher with excessive representation of blue collar skilled workers. Commuting to Austria is also significant; the number of officially registered Hungarian workers was 58 000 in 2013.

It is important to stress that emigration could cause changes in the structure of Hungary's workforce, lead to deeper labour shortage in certain areas, could also impact the education sector due to its age-specific nature and influence future fertility rates as well.

2.1.4.2. Education and knowledge

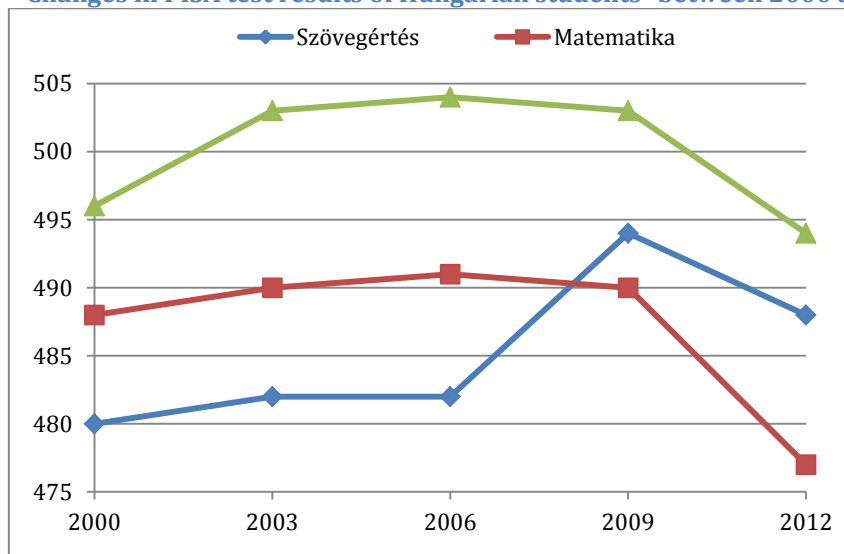
As education is the most important factor of socio-economic development, the efficiency of the school system also plays a key role in establishing the foundation of sustainable development. The quality of education, the knowledge base of the society affects development trends in many ways ranging from teaching environmentally sound behaviours through consumption patterns to research and innovation capacities or the design of more environmentally friendly technologies.

Changes in student school performance

PISA tests regularly conducted among OECD member states help analyse the differences between the participant countries and examine national trends. The international survey assesses change in student performance in three key subjects (reading, mathematics and science). These subjects are all essential for private life, secondary and higher education, labour market integration and employability.⁸ International surveys show a decline in the performance of Hungarian students in all of the three key areas assessed.

⁷ See e.g. Bodnár and Szabó (2014)

⁸ Reading and comprehension are not only prerequisites of any further studies but also indispensable for everyday life. Understanding mathematical interrelations is also crucial in everyday life and it is needed for further education not only in the field of natural science but also in social and economic studies.

5. ábra: Changes in PISA test results of Hungarian students⁹ between 2000 and 2012

Source: OECD, 2013

Analysis of the results should highlight that the rate of low performers¹⁰ is higher than the OECD average in all three subjects. It is important to note that in 2012 reading skills of 19.7% of the students, nearly one in every five students were so weak that they had difficulties in understanding even simple texts, i.e. they are functional illiterates. This is the most important obstacle for further training and employability causing severe problems for the whole society. Meanwhile, the rate of high achieving students is falling reducing the selection base of higher education and scientific research.

Apart from the three key education areas, PISA has a test to assess problem solving skills modelling modern labour market challenges. At this test, 35% of Hungarian students failed to reach level two which is the most basic level of any problem solving skills.

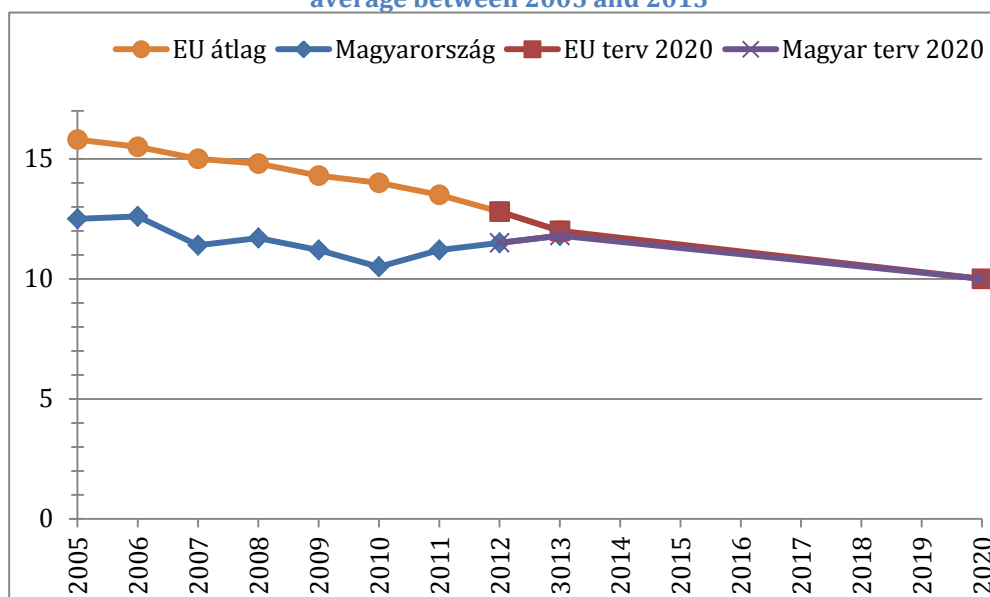
European Union's 2010 objectives included the reduction of the rate of low achieving students and one of the goals related to education to be met by 2020 is to decrease the rate of early school leavers. Targets defined for the previous period failed to be met and current trends also show a departure from 2020 targets. The EU proposed to reduce the rate of early school leavers to below 10% by 2020.¹¹ High risk students require complex, system-wide education measures.

⁹ Higher score means higher performance.

¹⁰ PISA classifies student performance into 6 levels of proficiency. Low performers are students reaching level 1 of proficiency.

¹¹ It is interesting to note by way of comparison that while the 2020 target both for the EU and Hungary is 10%, Poland reached 5.6% already in 2013 and has set to achieve 4.5% by 2020.

6. ábra: Changes in early school leaving rates in Hungary and in the European average between 2005 and 2013



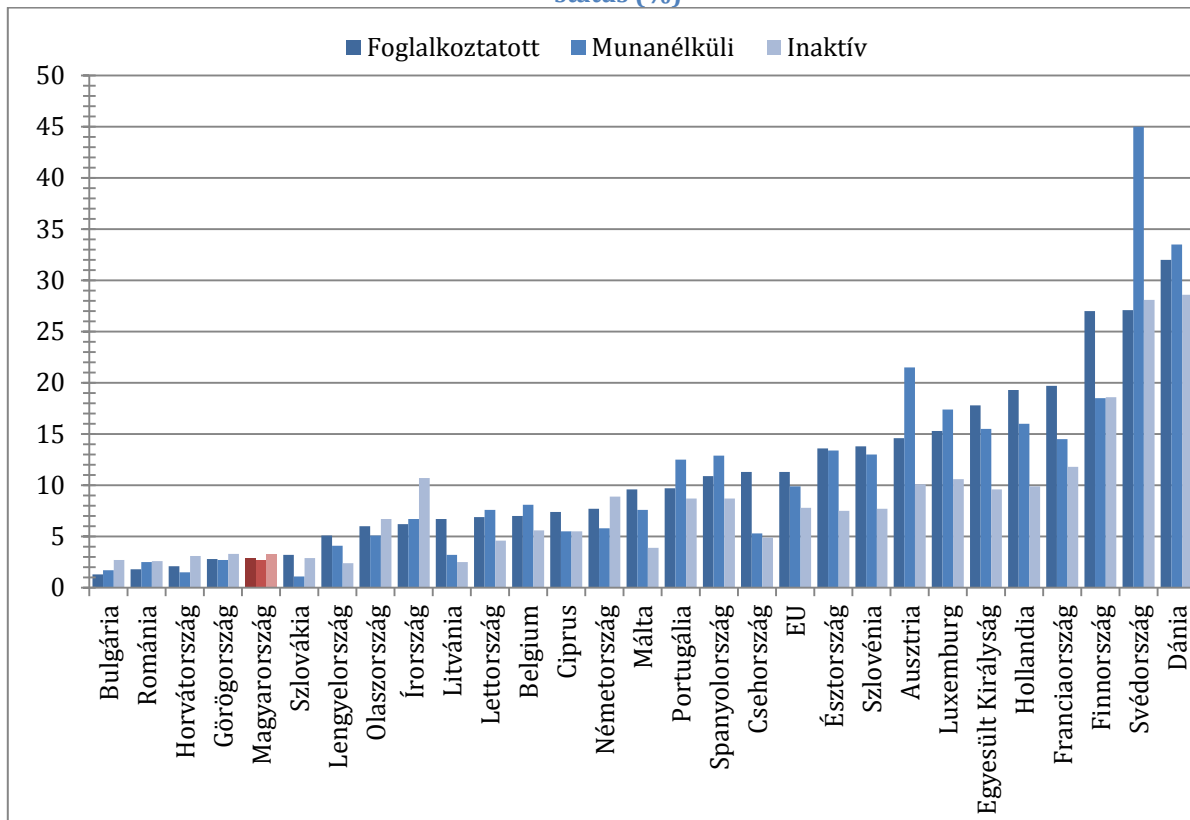
Source: EU 2020

Lifelong learning

Knowledge based society, learners' society and lifelong learning are not high-sounding phrases any more but are part of the normal routine in many developed countries. This means that the knowledge base of a society is not only shaped by its school system but also by adult learning. The expansion of education did not only result in longer time spent at school (in formal education) by young generations but also in increasing numbers of adults participating in various training, courses taking advantage of the possibilities available for non-formal and informal education as well.

International comparative data (e.g. Eurostat) show large variances among countries in terms of participation rates in various learning processes. These data highlight that the rate of adult learning in Hungary is low on an international scale and primarily the more highly qualified population tend to participate in training (e.g. college or university graduates acquire higher level qualification or receive some special training). However, people benefiting potentially the most from learning (who finish school with weak competencies, are low-skilled or unskilled) participate in adult learning in very low numbers. Participation rates are similar based on data divided by employment status.

7. ábra: Participation rates in education, training in EU countries by employment status (%)



Source: Eurostat

According to the latest European data from 2013, in Hungary 2.9% of the employed, 2.7% of the unemployed and 3.3% of the inactive population are learning as opposed to Austria for example where 21.5% of unemployed people participate in some kind of education or training improving their prospects for a successful reintegration into the labour market. In the area of adult learning, Central Hungary is significantly ahead of all other regions. This is the typical manifestation of the *Matthew effect*¹²: knowledge is growing to the largest extent among the most educated.

Foreign language skills are another key indicator. This shows that the rate of people not able to speak any foreign language is the highest in Hungary, 63.2% as opposed to the EU average of 34.1%. Even native speakers of the world languages Spanish, French and German have stronger foreign language skills than the adult population of Hungary.

Changes in Hungary's education system, efficiency improvements

A number of reforms and legislative changes have been made in public education in recent years that affect the efficiency of teaching and the improvement of social knowledge. Data to precisely

¹² One of the most frequent biblical metaphors in sociology is the Matthew effect that is used to describe phenomena based on the verse "for unto everyone that hath shall be given but from that hath not shall be taken even that he hath" when the institutional systems help the advantaged groups gain more advantage while disadvantaged groups suffer more disadvantages. The Matthew effect is noticeable in many aspects of education including the fact that schools are predominantly able to improve the performance of higher achievers while the performance of the majority of students with weaker skills further decreases despite every effort made.

determine their impacts are lacking in some areas but available professional data help predict the potential results.

Children of parents with lower educational levels in disadvantaged families start school with smaller vocabularies and less developed cognitive skills. The gap among children starting school caused by significant socio-economic differences may be reduced by mandatory preschool education from the age of 3 and the extension of time spent at school. However, both measures should importantly ensure that classes respond to different needs, are purposeful and designed to support individual development.

One of the “success stories” of the Hungarian public education is the establishment of the public education assessment system that includes the annual testing of students in grades six, eight and ten in reading comprehension and mathematics at the end of the school year. It is the only system in the whole world where student results may be connected longitudinally allowing precise estimates on the impacts of schools and educational added value. Introduction of computer based testing, addition of science to and inclusion of SNE student in the assessment system are positive efforts.

The impacts of the reduction of the school leaving age from 18 to 16 are expected to be dominantly adverse. The previous increase of the school leaving age failed to be supported by educational developments promoting the policy change and motivational teaching methods helping students efficiently reduce learning gaps and prevent failures. The reduction of the school leaving age fail to adequately tackle accumulating problems and may contribute to raising the rate of early school leavers on its own. However, there is still opportunity to devise and disseminate the teaching methods previously neglected that could help prevent premature school leaving.

Measures defined in the public education law for the public education system began to come into force in the 2013-2014 school year. Some of the measures were related to the operation, control of educational facilities; the government has taken control of all public educational facilities previously under local government control with the exception of preschool facilities (kindergartens). Organizational and financial autonomy of these educational facilities has been terminated; salaries for teachers are directly paid by the Treasury. The teacher career path model was introduced by the law that included salary raise for teachers and a new method to determine teachers' working hours. The proximity of these alterations prevents the accurate determination of the impacts of these structural changes on the long term effectiveness and cost-efficiency of public education. Nevertheless, changes potentially triggered by the measure and its future impacts are clearly positive as the model offers not only predictability but also improved social status and financial stability for teachers.

Another important development is the strengthened training programmes offered by secondary vocational schools and apprenticeship training. According to the public education law, vocational guidance in secondary vocational schools starts in grade 9 and simultaneously vocational school final exam has been made compulsory. Apprenticeship training programmes have been generally reduced to three years and these schools start working based on the so-called dual model with significantly decreased general education. The education research community reminds of the adverse impacts of the reduction of development of general skills and core academic subjects in these types of schools. (Hajdú et al. 2015). Experience shows that a

higher level of general skills offers a market labour leverage, improves the employee's adaptation skills, reduces the risk of loss of employment, consequently the decrease of such education adversely affects employability and threatens the sustainability of intergenerational resource distribution in the long term.

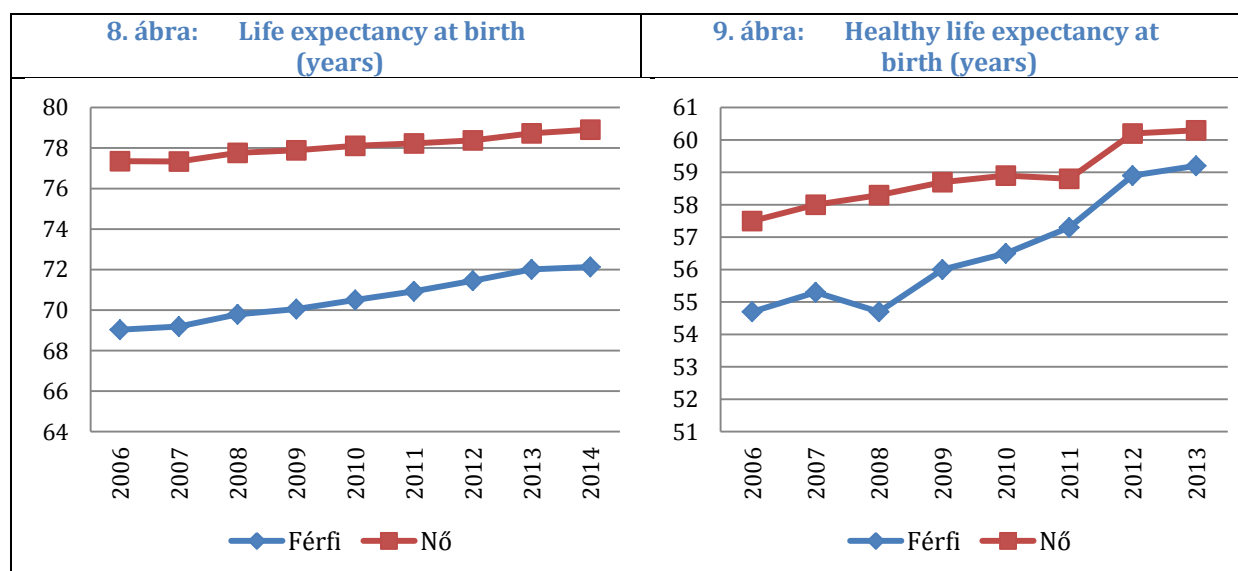
2.1.4.3. *Health*

Changes in various health indicators allow many conclusions to be drawn about a country's health status facilitating an in-depth analysis that could help prevent negative processes. One other reason for the top priority of health care in the national economy is that health expenditure makes up a major part of the budget. Expenditure can be most efficiently reduced by prevention, carefully planned education and the establishment and promotion of health conscious behaviours.

The basis of health conscious lifestyles is the correct self-perceived health status. The majority of Hungary's adult population are satisfied with their health status or perceive it as fair which contradicts reality. Men tend to have a better perception of their health while mortality rates and results of health behaviour studies suggest that women care more about their health in general and live trying to avoid risks (the prevalence of regular smoking, alcohol consumption and excess weight is significantly higher among men). On EU level, the rate of people with good self-perceived health status continues to grow in Hungary and throughout the European Union every year. Compared to the EU average, a smaller proportion of the Hungarian population perceive their health as very good or good (only 57.9% of Hungarians as opposed to the EU 27 average of 69.0%) but the rate improved at a faster pace between 2010 and 2012 in Hungary. This may require awareness raising that promotes correct perception of the health status increasing dissatisfaction with its level encouraging development of health conscious behaviours.

Changes in life expectancy and healthy life expectancy at birth

Besides being a key measure of a country's socio-economic development and the health status of the population, life expectancy also sheds a light on mortality patterns. Higher life expectancy means improved health and reduced mortality. Between 2000 and 2013, life expectancy at birth grew by 4.9 years for men and 3.1 for women. The larger increase in life expectancy for men reduced the gender difference from 8.5 years to 6.7 years which remains a sizeable gap at EU level.



Source: KSH, self-developed figure

In 2012, healthy life expectancy was 59.2 years among men and 60.5 years among women in Hungary. The value of this indicator is behind the EU average (61.9 years for women, 61.3 years for men) but continues to grow year by year with a slower pace among women than men. Comparing healthy life expectancies, women can expect a longer period of healthy life. However, the ratio of healthy life expectancy to total life expectancy is higher for men: they spend 80% of their lives in good health as opposed to 75% among women. This means that women spend a longer period both in good health and in poor health than men. Healthy life expectancy at age 65 is 2.4 years lower than the EU 25 average (8.8 years both for men and women). Official data for 2014 are not yet available but this trend is certain to continue and a moderate improvement is projected in all of the above indicators until the end of 2014.

In terms of reaching the Central European average, Hungary was not at the top in the rank of the former Socialist countries in the year preceding the period under review (2012)¹³. Considering that this trend has not changed for these countries in a long time and that Hungary does not notably outperforms the other countries, Hungary, similarly to the previous period, is not expected to join the “upper house” in the period under review (2013-2014) and will most likely remain at the top of the “lower house” in Central Europe. The gap between the former Soviet bloc and the other EU member states and the developed Central European countries (Austria, Germany) in particular, is moderately shrinking.

Data show that progress toward the strategic objective in the period under review will be minimal at best with a breakthrough nowhere in sight.

Smoking, alcohol consumption

Both smoking and excessive alcohol consumption as behaviours with adverse impact on health affect a massive rate of the population. Nearly one in three adults smokes occasionally or every

¹³ Country ranking (life expectancy at birth (years) in brackets): Czech Republic (78.1), Croatia (77.3), Poland (76.9), Estonia (76.7), Slovakia (76.3), Hungary (75.3), Romania (74.5), Bulgaria (74.4) Lithuania and Latvia (74.1)

day and the number of heavy drinkers ¹⁴ is minimum 400 000 in Hungary even at a conservative estimate.

According to WHO estimates, the standardized death rate (SDR) linked to smoking per 100 000 is over two times higher in Hungary (411.5) than in other EU member states on average (192.7). Data show that progress toward the reduction of regular smoking and the related consequences in the period under review (2013-2014) will be minimal at best with a breakthrough nowhere in sight. Differences between the two sexes are sizeable, i.e. the rate of female smokers is significantly lower than that of male smokers but as the number of male smokers is declining and the number of female smokers has not changed considerably in the past decade, the gender gap seems to be shrinking.

In 2011, death rates linked to alcohol consumption were nearly two times higher than the EU average. Current trends predict no improvement in the near future in regular and excessive alcohol consumption and in the related consequences.

Reduction of the number of chronic, non-communicable diseases

Based on a number of international comparisons, Hungary is mostly included in the group of “unhealthy” countries in several chronic diseases. Diseases with the highest prevalence are circulatory disorders with hypertension at the top but the rate of cardiovascular diseases and diabetes is also significant. The analysis of a number of indicators confirms that the prevalence of these diseases is growing. This trend did not stop even in the years directly preceding the period under review. In 2013, the majority of deaths were caused by circulatory disorders in Hungary followed by cancer-related deaths. These two causes of death contribute to 76% of all deaths.

Among students (aged 8-18), obesity is the leading disease (the rate among children examined is 120 per mille for boys and 111 per mille for girls), there is also high prevalence of asthma (31 per mille for boys, 24 per mille for girls) and hypertension (21 per mille for boys, 8 per mille for girls) suggesting the lack of any significant improvement in health even in the long term.

2.1.4.4. *Social structure and social cohesion*

Rate of people at risk of poverty or social exclusion

The proportion of people at risk of poverty or social exclusion as a statistical indicator is a key component of the EU 2020 strategy. Member States have agreed to reduce the number of people living in severe material deprivation and social exclusion and the number of people at high risk of poverty and social exclusion by at least 20 million throughout the European Union. To promote that objective, Hungary adopted the National Social Inclusion Strategy in 2011 committing to decreasing the number of the people affected by 450 000 compared to the base year of 2008 when 2.83 million people lived in poverty or social exclusion¹⁵.

¹⁴ Heavy drinkers are women and men who drank over a total of 7 and 14 units of alcohol respectively in the week preceding the interview. One drink/unit of alcohol is defined as half a litre of beer, 2 dl of wine and 5 cl of spirits. Heavy drinkers also include people drinking 6 or more drinks on a single occasion.

¹⁵In relation with the integration of the “Better Life for Children 2007-2032” strategy into the National Social Inclusion Strategy, Hungary's government decided that the target for relative income poverty would refer to families with children. In accordance with that, the percentage of households with children affected by income poverty was 16% (872 000 people) in 2008, the target was to reduce this rate to 12.8% (698 000 people) by 2020 (Strategy: 61).

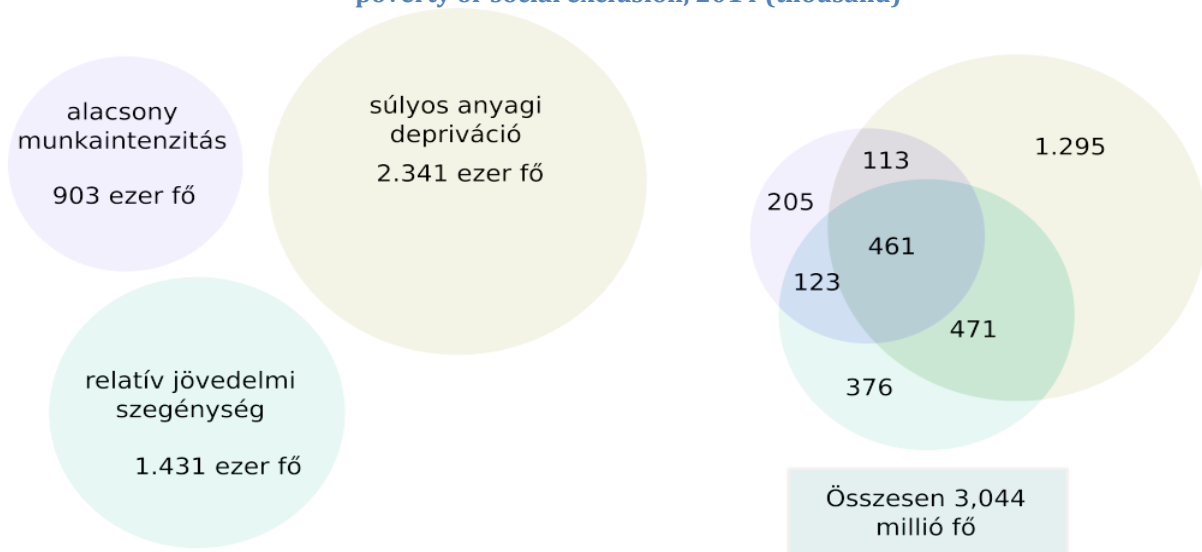
The target designed to measure the efficiency of the fight against poverty and social exclusion by the EU 2020 strategy has been defined based on three fundamental indicators. A person is defined as at risk of poverty or social exclusion if

- i. he/she is affected by relative income poverty, i.e. the annual equivalised disposable income of the household is lower than the poverty threshold, OR
- ii. he/she is at risk of severe material deprivation, i.e. the household is affected by problems defined by a total of nine fundamental indicators¹⁶ or the lack of assets, OR
- iii. he/she lives in a household with low work intensity, i.e. the working-age members of the household worked maximum 20% of their potential in the reference year.

The percentage of population affected by the EU poverty target was significantly and steadily growing from 28.2% in 2008 to 33.5% in 2013 but showed some decline in 2014 (31.1%). The total number of people in this category was 3.044 million. This trend did not only affect Hungary during the financial and economic crisis: EUROSTAT data show that the EU 27 average increased from 23.7% in 2008 to 24.5% in 2013.

The composition and number of people at risk of poverty and social exclusion may be demonstrated with the Venn diagram. This reveals that a total of 461 000 people live in households that are simultaneously affected by low work intensity, income poverty and severe material deprivation.

10. ábra: Single and multidimensional presentation of the number of people at risk of poverty or social exclusion, 2014 (thousand)



Source: KSH 2014 (Household living standards November 2014)

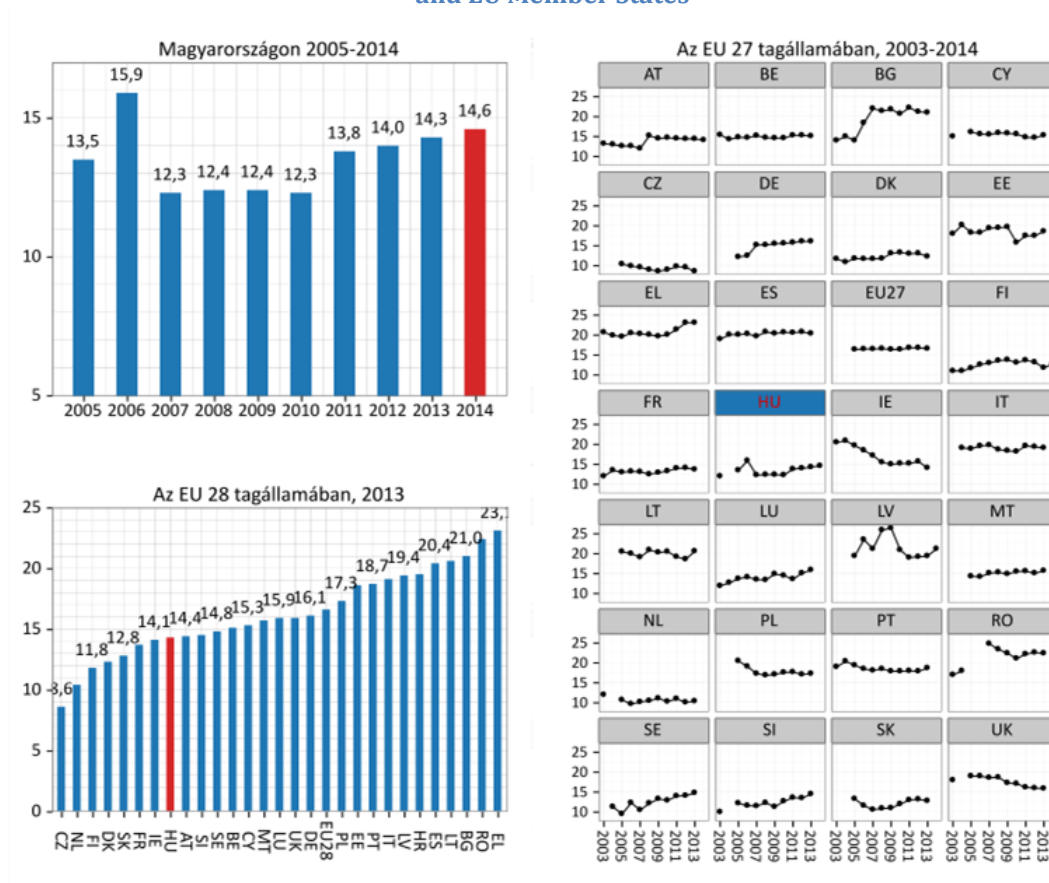
¹⁶The nine fundamental deprivation indicators assessed are as follows: i. Arrears on mortgage payment or housing expenses; ii. Lack of resources to cover unexpected expenses; iii. Cannot afford to buy a telephone; iv. Cannot afford to buy a colour TV; v. Cannot afford to buy a washing machine; vi. Cannot afford to buy a car; vii. Lack of one week's annual holiday away from home; viii. Lack of meal with meat, chicken, fish (or equivalent protein consumption) every second day; ix. Lack of heating to keep home adequately warm.

Income poverty

In statistics, relative income poverty is defined based on a relative poverty threshold. The most widely used indicator sets the threshold at 60% of the median of equivalised household income.¹⁷

Based on that indicator, both KSH and Eurostat data showed a steady increase in income poverty from 2007. In 2007, 12.3% of the total population was at risk of poverty while that percentage was 14.6% (1.4 million people) in 2014. This proportion is significantly lower than the EU 28 average of 17.3% in 2013 and Hungary ranks 8 in the EU for rate of poverty.

11. ábra: Percentage of total population at risk of relative income poverty in Hungary and EU Member States



Source: Eurostat (table tessi010). Share of persons with an income lower than 60% of the median equivalised disposable income.

Severe material deprivation

In contrast to the relative nature of income poverty, severe material deprivation offers a better understanding of the differences in living standards across countries. Compared with the rest of Europe, the Hungarian society is affected by a high degree of deprivation: In 2013, Hungary had the third worst indicator of 26.8% in the EU. By 2014, severe material deprivation dropped by nearly 3 percentage points to 23.9% (2 341 000 people). The proportion of people who could not afford one week's annual holiday away from home, a meal with meat, chicken, fish every

¹⁷ Using equivalence scales, the equivalised household income considers the variations in consumption needs of household members of different age as opposed to the per capita household income method. This indicator has been calculated based on the OECD-modified scale. This assigns a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child.

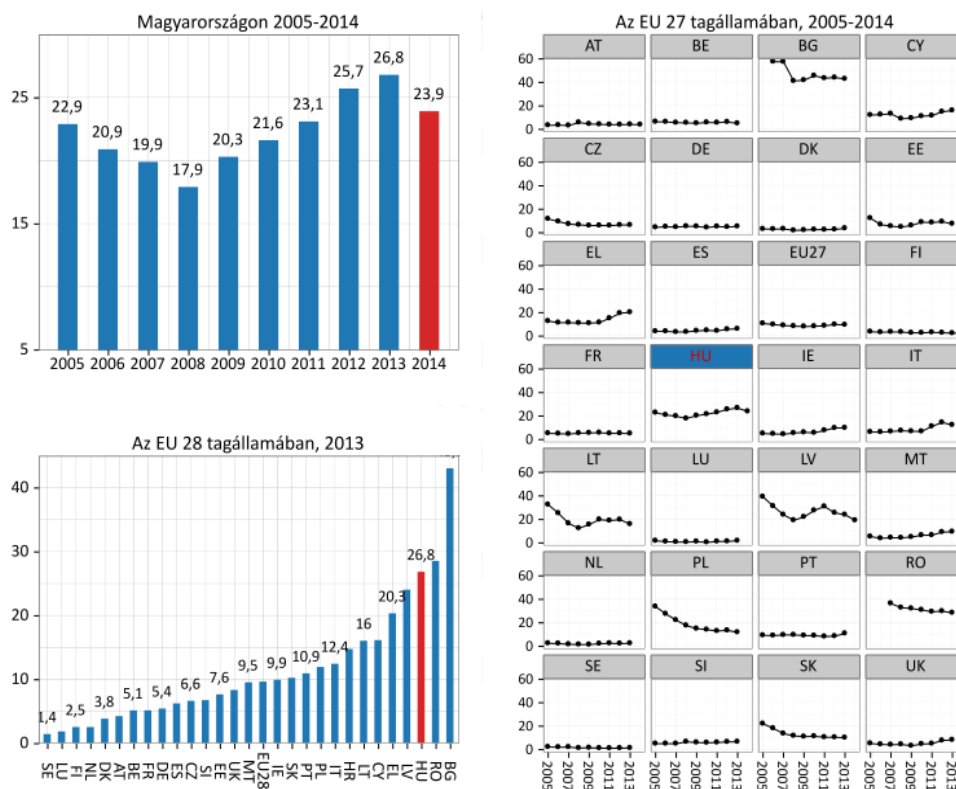
second day and heating to keep their home adequately warm was substantially reduced. A number of government actions could contribute to improved living standards including the government control of household energy prices, the transformation of the cafeteria benefit system and holiday bidding options within the Erzsébet programme to target groups including pensioners and families with 3 or more children.

1. Figure: Fundamental indicators of severe material deprivation in Hungary 2013-2014 (%)

	2013	2014
Arrears on mortgage payment or housing expenses	26.2	24.9
Lack of resources to cover unexpected expenses	74.2	75.2
Cannot afford to buy a telephone	2.0	1.7
Cannot afford to buy a colour TV	0.3	0.4
Cannot afford to buy a washing machine	1.0	0.9
Cannot afford to buy a car	24.6	23.9
Lack of one week's annual holiday away from home	66.6	59.6
Lack of meal with meat, chicken, fish every second day	33.0	27.2
Lack of heating to keep home adequately warm	13.7	11.2
Severe material deprivation	26.8	23.9

Source: KSH: Household living standards November 2014

12. ábra: Percentage of total population affected by severe material deprivation in Hungary and EU Member States



Source: Eurostat (table tsdsc270). The proportion of population that lack the resources to own or to have access to at least four items of durable goods or services of the nine items defined.

Child poverty

The differences in the rate of poverty among the various generations have an impact on the social structure. Child poverty has a long term adverse effect on children's performance at school and their labour market success therefore its reduction is one of the key pillars of sustainable welfare systems. Poverty studies have all found that the risk of poverty decreases with age in Hungary (Medgyesi 2002, Gábos, Szivós and Tátrai 2014). Based on Tárki's Household Monitor studies, children and young people are the generations at the highest risk of poverty. Compared to the average rate of poverty of 17% in 2014, the rate of poverty among people under 18 was 22%. In the adult generation, the rate of poverty among middle-aged people (aged 25-64) is close to the average, it is around 16%. The risk of poverty among the elderly population (65+) is below the average with the rate of poverty standing at 13%. However, compared to 2012, the rate of child poverty declined while the rate of poverty among the population over 65 showed a significantly rising trend.

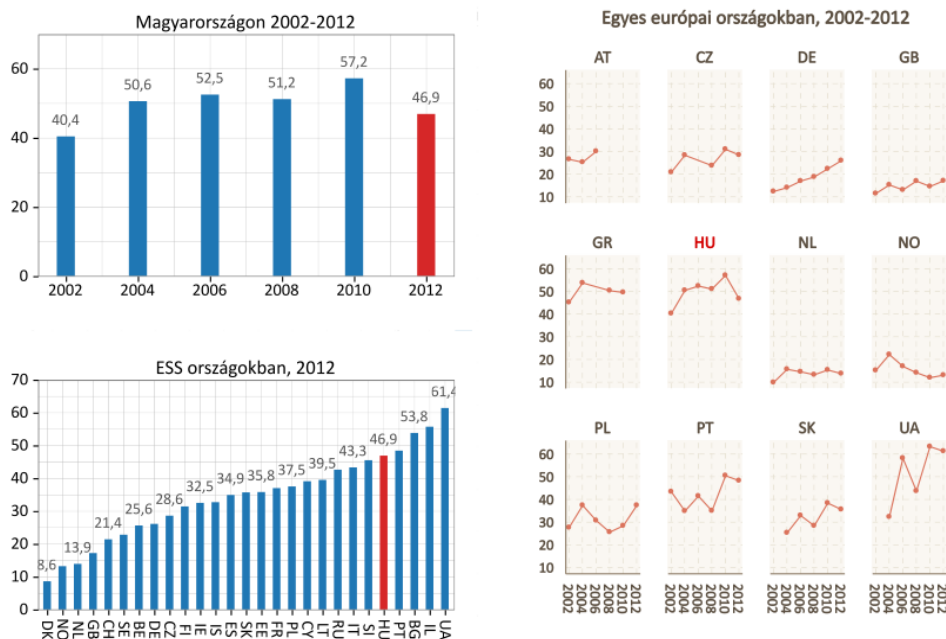
An action to reduce the rate of child poverty and to promote sustainability is the improved access to family tax allowances by families with lower income that helps decrease the risk of child poverty in these families and is suggested to have a positive impact on fertility by experts.

Public attitude toward differences in income levels

One striking characteristic of Hungary's society is the very low level of tolerance toward differences in income levels despite the fact that objective indicators of differences in income levels are not particularly high in the European Union (Fábián and Tóth, 2014).

Value analyses specifically conducted for Hungary, related to this topic and generally linked to demand for redistribution have shown that demand for public redistribution in line with trust trends toward institutions has become strongly overpoliticized in Hungary (Keller, 2014). In 2012, nearly 50% (46.9%) of the adult population "strongly agreed" with the statement that "the government should take measures to reduce differences in income levels". This is extremely high compared with the other countries surveyed; only four other countries had higher rates but the values for 2012 were much lower than in the previous period.

13. ábra: Percentage of people that “strongly agreed” with the statement that “the government should take measures to reduce differences in income levels”



Source: European Social Survey (ESS). Question: Using this card, please say to what extent you agree or disagree with each of the following statements. The government should take measures to reduce differences in income levels. Respondents could choose from five different grades. This figure shows the proportion of respondents strongly agreeing with the statement.

Household debt¹⁸

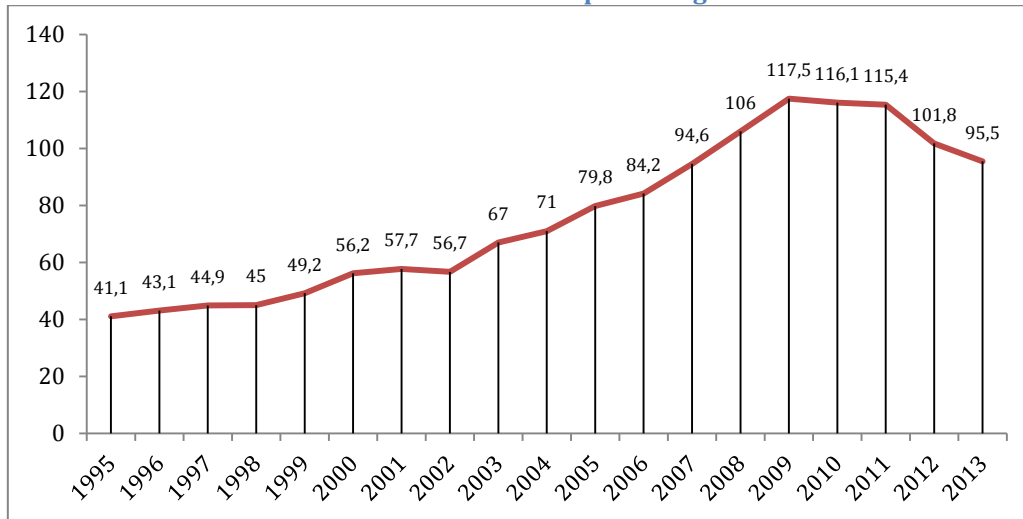
The assessment of household debt is extremely important as this is one of the indicators of deprivation measures where Hungary has quite bad results while it also presents sustainability challenges in terms of generational balance. Household debt showed balanced and slow growth between 1995 and 2002 but it rose at a faster pace between 2003 and 2008 reaching an outstandingly high debt-to-GDP level of 117.5% in 2009. As a result of a number of versatile interventions in economic policy, indebtedness started to decrease in 2010 reducing the debt-to-GDP level to 95.5%.

This positive change has led to higher propensity to save and has promoted the start of the transfer to a consumption and growth path through improving retail consumption¹⁹. For the majority of indebted households, spending was still strictly controlled by circumstances in 2014 that strengthened the precautionary deliberations of households.

¹⁸ Jó Állam Jelentés 2015 (Good Government Report). http://uni-nke.hu/uploads/media_items/jo-allam-jelentes.original.pdf

¹⁹ See details in analysis of economic resources.

14. ábra: Household debt as percentage of GDP



Source: Good Government Report

2.1.5. Government measures

All government strategies related to human resources have been revised since the adoption of NSSD.

- The Change of Pace in Higher Education²⁰ strategy defines development and competition options for Hungary's higher education until 2030. The strategy aims to implement specialization to help each institution of higher education to have a specific training profile where high quality, world class education is provided; also intends to strengthen research and development activities and expand capacities.
- The National Social Inclusion Strategy II²¹ defines long term inclusion policy aiming to reach a fundamental shift in policies fighting poverty and supporting the Roma minority. To that end, it introduces and broadly applies practical methods that support labour market integration (e.g. public employment) and access to empowering education and health care services, in particular to promote child empowerment.
- The "Healthy Hungary 2014-2020" Health Sector Strategy²² defines the development concept of health care until 2020 including prevention and improvement of recovery prospects as top priorities. It aims to improve the health of the Hungarian population, to increase healthy life years by two years, to enhance the private and social value of physical and mental health, to promote health conscious behaviours, to reduce regional differences in health and to improve access to a health care system based on social risk sharing.

²⁰

<http://www.kormany.hu/download/d/90/30000/fels%C5%91oktat%C3%A1si%20konceptci%C3%B3.pdf>

²¹

http://www.kormany.hu/download/1/9c/20000/Magyar%20NTFS%20II%20_2%20mell%20NTFS%20II.pdf

²²

http://www.kormany.hu/download/e/a4/30000/Eg%C3%A9szs%C3%A9ges_Magyarorsz%C3%A1g_e%C3%BC_strat%C3%A9gia_.pdf

- The Public Education Development Strategy²³ assesses the current situation in Hungary's public education and determines the development trends in the education sector for the period between 2014 and 2020. The key principles of the strategy include the expansion of public engagement to ensure quality public education; the promotion of the educational role of schools beyond teaching; and the enhancement of the reputation of the teaching profession.

2.1.6. Summary conclusions

Positive trends	Risks
<p>The number of live births remained very low in the past decades but this negative trend was interrupted in 2014 when more children were born in Hungary than in 2013.</p> <p>Government efforts to achieve the objectives defined in the strategy are beginning to show results (e.g. the introduction of the teacher career path model, family tax allowances).</p> <p>In 2012, healthy life expectancy was 59.2 years among men and 60.5 years among women in Hungary. Although the value of this indicator is below the EU average (61.9 for women and 61.3 for men), it continues to grow every year.</p> <p>The percentage of Hungarian population affected by the EU poverty target was 28.2% in 2008. This value continued to significantly and steadily rise in the following period reaching 33.5% in 2013 but it showed some decline in 2014 (31.1%).</p> <p>As a result of a number of versatile interventions in economic policy, indebtedness started to decrease in 2010 continuing at a faster pace in 2012 reducing the debt-to-GDP level to 95.5%.</p>	<p>The number of women of childbearing age is expected to decrease in the future when a large group of cohorts born between 1974 and 1978 turn 40 and exit their reproductive years.</p> <p>The employment rate of women with young children in Hungary is very low in international perspective.</p> <p>Based on European data from 2013, only 2.9% of employed people, 2.7% of unemployed people and 3.3% of the inactive population are engaged in some form of learning.</p> <p>The performance of Hungarian students in reading, mathematics and science continues to decrease. The rate of high achieving students is also falling reducing the selection base of higher education and scientific research.</p> <p>PISA results show that our education system fails to sufficiently develop problem solving skills that are essential for efficient work.</p> <p>The rate of students lagging behind, underperforming and the number of early school leavers is rising leading to increasingly severe problems in trainability and employability. The impacts of the reduction of the school leaving age from 18 to 16 are expected to be dominantly adverse.</p> <p>In 2011, death rates linked to alcohol consumption were nearly two times higher than the EU average.</p> <p>Compared with the rest of Europe, the Hungarian society is affected by a high degree of deprivation. In 2013, Hungary had the third worst indicator of 26.8% in the EU.</p> <p>One striking characteristic of Hungary's society is the very low level of tolerance toward differences in income levels despite the fact that objective indicators of differences in income levels are not particularly high in the European Union.</p>

2.2. Social resources²⁴

2.2.1. General overview

A nation's social resources include moral standards and values; relations between individuals and trust; organizations, networks established by individuals, institutions; cultural activities and cultural heritage.

Hungarian people widely distrust institutions but trust indices have been rising in recent years. In general, satisfaction with the legal system, the operation of the public sector and the government's economic policy is a highly politicized issue.

Personal happiness is extremely low compared with the rest of Europe but social collaborations and social inclusion are changing in a positive way.

Despite a number of government commitments, law amendments and programmes, international surveys show that corruption in Hungary continues to exceed the European average. Massive government intervention into the economy (through regulations or supplying government and EU funds as financial grants) could lead to the emergence of rent seeking behaviour in many areas.

2.2.2. Changes in key indicators

Indicator	Score	Year	Evaluation of change since adoption ²⁵ of NSSD
General trust scale (ESS, scale of 0 to 10)	4.8	2012	New data are not available but previous improvements signal a positive change.
Corruption index (Transparency Int., on a scale of 0 to 100)	54	2014	The score has not changed and that will have a negative impact on the strategic objectives.
Number of non-governmental organizations (thousand)	65	2013	No change is projected.

2.2.3. Objectives and challenges defined in the Framework Strategy

Objectives defined by the NSSD for social resources:

1. Rearrangement of the social structure;²⁶
2. Presentation of good examples to the general public;
3. Support to (civil, professional, religious) organizations representing favourable behavioural patterns for sustainability
4. Promotion of the infrastructure of trust
5. Increase of satisfaction with working conditions, enjoyment
6. Nourishment of our heritage, strengthening of identity

²⁴ This chapter is based on studies by Fábián-Szívós (2015), Medgyesi-Gál (2015) and Gödri et. al (2015) and the proposal of the Ministry of Agriculture entitled Summary Information on government actions in 2013-2014 promoting the implementation of the National Framework Strategy on Sustainable Development.

²⁶ The present social structure will be described in the human resources section.

2.2.4. Social and economic developments affecting the objectives

2.2.4.1. Sustainable lifestyles and life strategies (2-3 objectives)

Many government programmes have been launched to promote sustainable lifestyles and life strategies since the adoption of the Framework Strategy. In particular, the following government programmes deserve to be highlighted:

- “Bike to Work” bicycle campaign to promote cycling as a form of transportation;
- a joint tender announced by the Ministry of Environmental Protection and the Ministry of Transport for Bicycle Friendly Workplaces and Bicycle Friendly Communities;
- launch of an informative website, www.gmóterkep.hu targeting younger generations including an interactive map presenting the impacts of GMOs on health, the environment, the economy and the society through true stories from around the world;
- launch of the “Smart Heating” campaign using a website ([http: / /futsokosan.kormany.hu/](http://futsokosan.kormany.hu/)) and billboard messages to support reduction of pollution by household heating systems.

Postgraduate environmental studies programmes are now available in a number of higher education institutions and faculties. In 2014, the National University of Public Service introduced a further study course for public servants as part of their mandatory public service further training programme entitled “Sustainable development, responsible use of resources”.

2.2.4.2. Role of non-governmental organizations

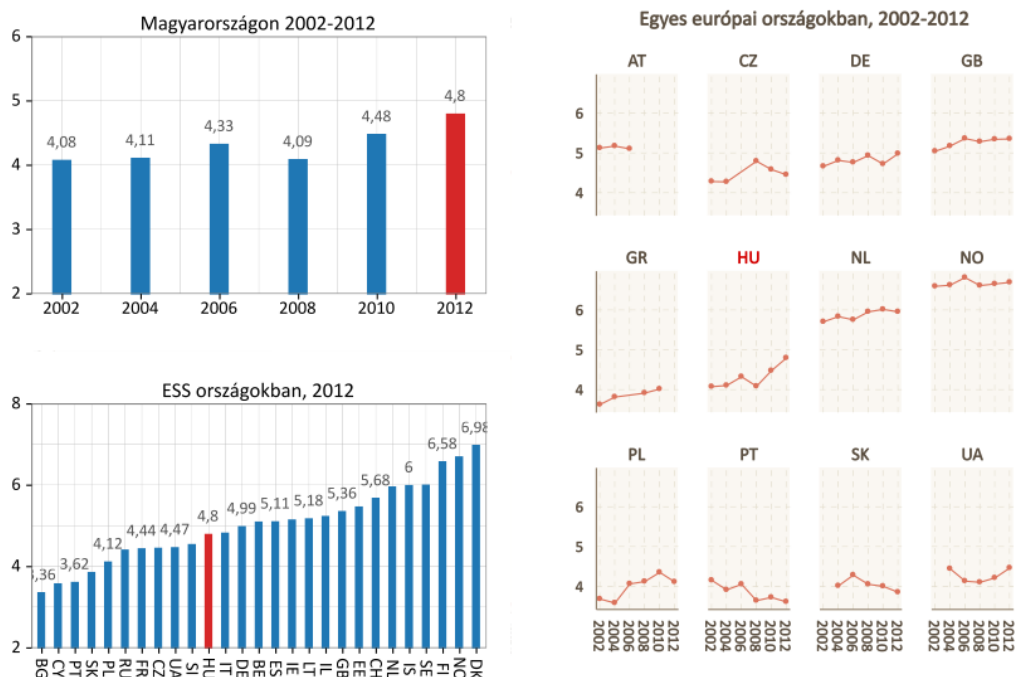
The influence of the civil society is reflected by the number, the degree of organization and activities of NGOs. As a result, changes in the size, the social and economic power of the non-profit sector are shown by the number of non-profit organizations, the real value of revenues and the number of employees. In Hungary, civil society participation is below the EU average. In 2013, a total of 64 500 – 700 less than in the previous year – NGOs and other non-profit organizations were active in Hungary with over 30% (22 500) operating as foundations. Similarly to previous years, 62% of the foundations were engaged in three areas: education (32%), social care (16%) and culture (14%). Public benefit purpose entities represented 55% of all the organizations.

2.2.4.3. Infrastructure of trust

Generalized trust and trust in the legal system

Generalized trust, i.e. our general view of other people's trustworthiness is one of the key components of social capital. Scientific literature on social capital suggests that generalized trust promotes collective political participation, supports civil society organizations and improves social tolerance (Stolle, 2002). However, the direction of the cause and effect relationships may be questioned and some say that higher levels of cooperation generate higher trust (Dang, 2011). Trust surveys in the Hungarian society have all found very low level of trust. In terms of generalized trust, Hungary ranks in the lower middle section among the – mostly European – countries surveyed. In 2012, average generalized trust was 4.8 on a scale of 0 to 10 after a moderate increase starting from 2008. Scandinavian countries have the highest levels of trust while trust is lower in countries in the Balkans, Eastern Europe and the Mediterranean region.

15. ábra: General trust in people on a scale of 0 to 10 in Hungary and in other countries participating in the European Social Survey



Source: European Social Survey (ESS). ESS question: Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10 where 0 means you can't be too careful and 10 means that most people can be trusted. Higher average score on the graph represents higher level of trust.

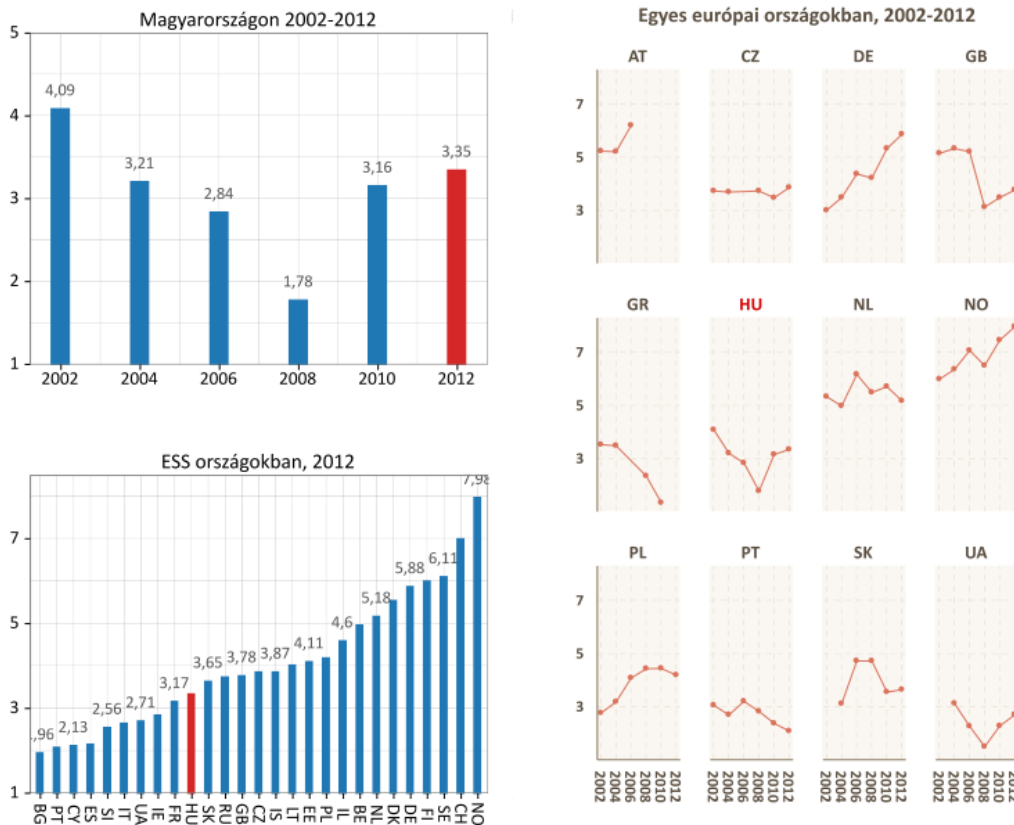
Similarly to generalized trust, Hungarian people's trust in the legal system fell between 2002 and 2008 from an average of 5.1 to 3.7 and started to rise again after 2010 reaching a score of 4.7 in 2012.

Satisfaction with the state of the economy

Satisfaction with the state of the Hungarian economy gradually decreased between 2002 and 2008 from 4 to 1.78 on a score of 0 to 10. Satisfaction improved to some extent after 2010²⁷ but the score was still only 3.4 in 2012. It is interesting because people were mostly dissatisfied with the state of the economy although two objective economic indicators, the GDP and real household income were growing until 2006. It is important to note that economy is a highly politicized issue in Hungary that prevents impartial judgement by the society. Not all European countries reacted adversely to the economic crisis in 2008, however, it did cause some stall even in Norway and Germany where people are generally satisfied.

²⁷The positive trend with some volatility in private economic expectations is reflected by GKI's study on economic growth as well. The consumer confidence index was significantly higher in 2014 and 2015 than in the period before 2010. This index is calculated based on responses to questions regarding expectations about household income, the country's economic and unemployment conditions and savings prospects.

16. ábra: Satisfaction with the present state of the economy in Hungary and in countries participating in the European Social Survey



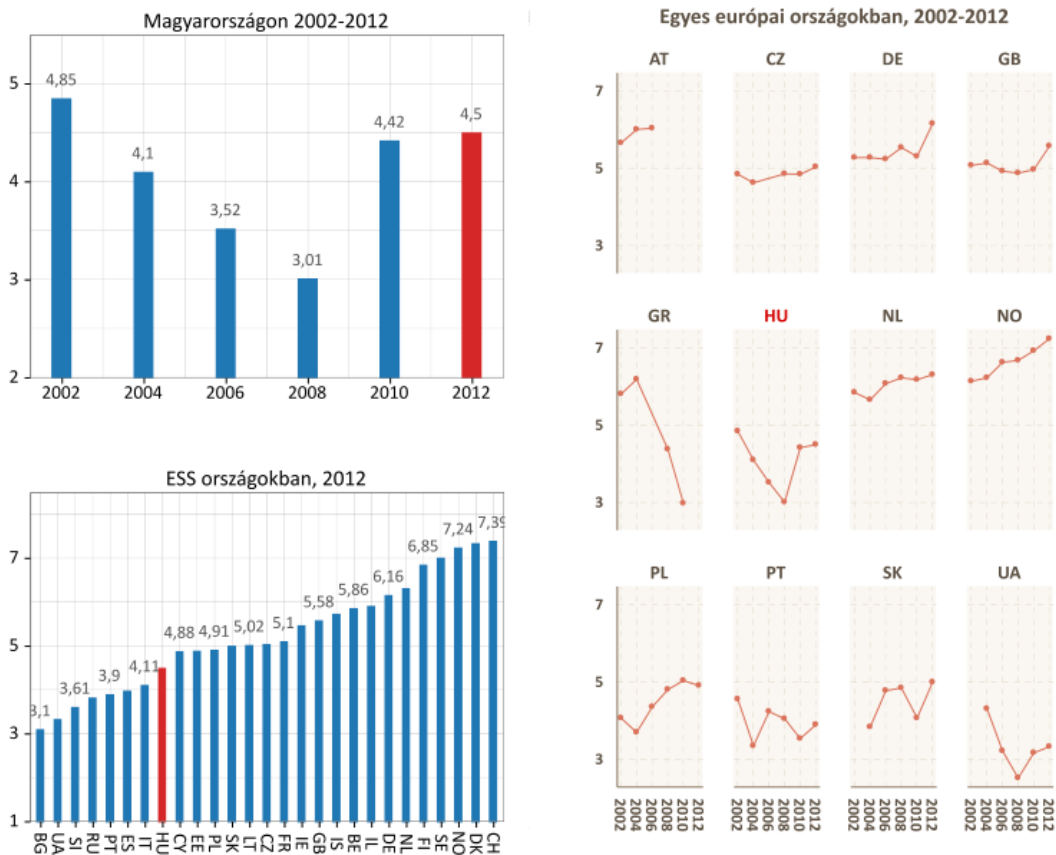
Source: European Social Survey (ESS). ESS question: *On the whole, how satisfied are you with the present state of the economy in Hungary? Please answer using this card where 0 means extremely dissatisfied and 10 means extremely satisfied. Higher average score on the graph represents higher level of satisfaction.*

Satisfaction with the democratic system

Simultaneously with growing dissatisfaction with the state of the economy, satisfaction with the way democracy works in Hungary started to fall as well. It dropped from a medium level (4.85) in 2002 to a low level (3.01) by 2008. This indicator also began to rise after 2010 but failed to reach the 2002 level even by 2012 (4.5).

It is interesting that this indicator shows much smaller variations in other European countries with maybe the only exception of Greece most badly hit by the economic crisis and the Ukraine teetering on the brink of civil war where this indicator is also declining or hectically changing. The Hungarian pattern of data is very similar to that of the Ukraine (but Ukrainian data are on a lower level). Swiss, Danish and Norwegian citizens are the most satisfied with the democratic system where the average score is above 7.

17. ábra: Satisfaction with the democratic system in Hungary and in countries participating in the European Social Survey



Source: European Social Survey (ESS). ESS question: On the whole, how satisfied are you with the way democracy works in Hungary? Please answer using this card where 0 means extremely dissatisfied and 10 means extremely satisfied. Higher average score on the graph represents higher level of satisfaction.

Corruption and rent seeking

Based on a Eurobarometer survey in 2013, 89% of Hungarian people see corruption as a major problem and 19% experience corruption in their daily lives. 13% of the respondents say they were asked or expected to pay a bribe in the last year. Progress in the field of corruption has been made by the adoption of an anti-corruption strategy to prevent corruption focusing on public administration (European Commission, 2014).

Transparency International (TI) determines the Corruption Perceptions Index (CPI)²⁸ every year that measures public sector corruption in a country based on interviews of experts and businesspeople examining the degree of infection in public institutions, the economy and the society. Compared to 2013, Hungary was one point down, scoring 54 points thus ranking 47th of the surveyed countries. Hungary's performance is also weaker in regional comparison. In 2013, Hungary only ranked behind Estonia, Poland, Lithuania and Slovenia in Central and Eastern Europe but in 2014 it was also preceded by Latvia. In EU comparison, Hungary fell back one place ranking 21st remaining in the bottom third of the European Union. Similarly to previous

²⁸ <http://transparency.hu/INDEXEK>

years, top ranks in the latest survey of 175 countries have been taken by Scandinavian countries²⁹.

TI concludes that corruption is predominantly driven by non-transparent government decisions creating an unpredictable legal environment while specific business groups are provided benefits and accountability of public leadership remains weak.³⁰

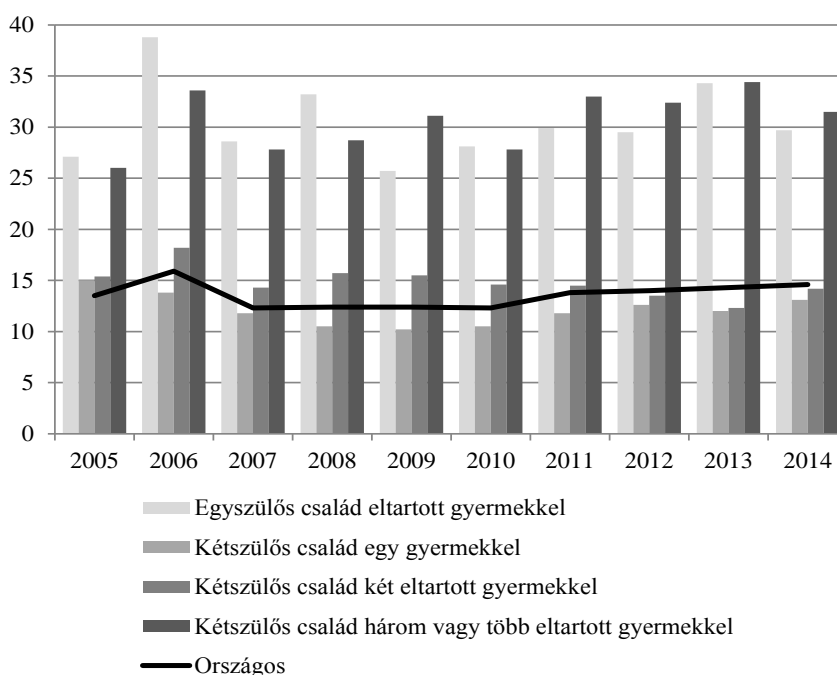
2.2.4.4. *Compatibility of work and family*

Family allowances

In European comparison, Hungary's family support system³¹ is rather generous as families with young children receive some kind of allowance for a period of three years regardless of the family's financial situation and the mother's previous position in the labour market. This is a rather unique system in practice for long decades in Hungary as eligibility for maternity benefits is subject to availability of social security insurance, i.e. the mother's former participation in the labour market in most countries and these benefits are paid for a much shorter period than in Hungary.

Nevertheless, fertility trends and analyses of the financial situation of families with children show that certain components of the national system are quite inefficient as fertility rates have remained low for a long time and the at-risk-of-poverty rate of families with children is above average. In particular, families with three or more children and single parent households are at high risk of poverty.

18. ábra: At-risk-of-poverty rate by type of households with children



²⁹ Denmark is the first with 92 points, New Zealand is second with 91 points. Finland (89 points), Sweden (87 points), Norway and Switzerland (86 points) are also at the top and Holland has again qualified as one of the ten least corrupt countries.

³⁰ http://transparency.hu/A_korrupcio_2014-es_vilagterkepe?bind_info=page&bind_id=76

³¹ For the description of the various components of the Hungarian family support system see a paper written by Makay (2015).

Source: EUROSTAT.

The prosperity of parents with children and their families is significantly influenced by the labour market position of the mother before birth and the length of her employment as the amount of family allowances greatly varies depending on those two factors. Since 2013/2014, many adjustment efforts have been made in the Hungarian family support system in order to stimulate a positive change in these trends, to improve fertility rates, to support families with young children and to ensure compatibility of family and work. These adjustments will be described in more detail in the section about human resources.

The growth of atypical forms of work may help promote compatibility of family and work.³² However, Hungary has a typically low number of people working part-time or in other atypical forms of work. A key step in interventions to increase part-time employment was the introduction of a requirement for employers in the public sector in 2010 to offer part-time employment for employees with children under 3 upon the employee's request. Since 2012, this requirement has been applicable to the private sector as well.

Daytime child care services

Labour market activity of women with young children is substantially influenced by the availability of daytime child care services.³³ At the time of the regime change, Hungary had a very large network of day care facilities for children under 3 totalling over 1000 in 1990. After the regime change, the number of these facilities run by businesses for employees or local governments decreased totalling 724 in 2013 with over 37 000 children.

2. Figure: Ratio of the number of children aged 0-2 years to capacity of day care facilities for children under 3

year	number of children aged 0-2	capacity of day care facilities	ratio in %
2011	284 938	35 450	12.4
2012	274 265	36 635	13.4
2013	266 971	37 654	14.1
2014	268 122	38 614	14.4

Source: KSH, self-developed figure

Fees to be paid by parents of children in a day care facility have risen in recent years. In 2013, parents had to pay for the care provided in 42% of the facilities. This included nearly 10 000 children per month, i.e. one-third of the children attending these facilities.³⁴

The other form of daytime care for children is family day care centres. In 2013, a total of 6 899 children were on roll in family day care centres with over 50% older than 3 which means family day care centres work as preschools rather than day care facilities for children under 3.

³² However, the growth of part-time employment is not entirely positive. The economic and financial crisis forced many employers to reduce the employment of a number of employees from full-time to part-time.

³³ For the description of institutions providing daytime care services for children see Makay 2015.

³⁴ Certain groups of children are not required to pay for daytime care services. These include children receiving regular social welfare child benefit, living with a chronic illness or disability, from families with three or more children and children registered as at-risk. In 2013, over 11 000 children were not required to pay for daytime child care services.

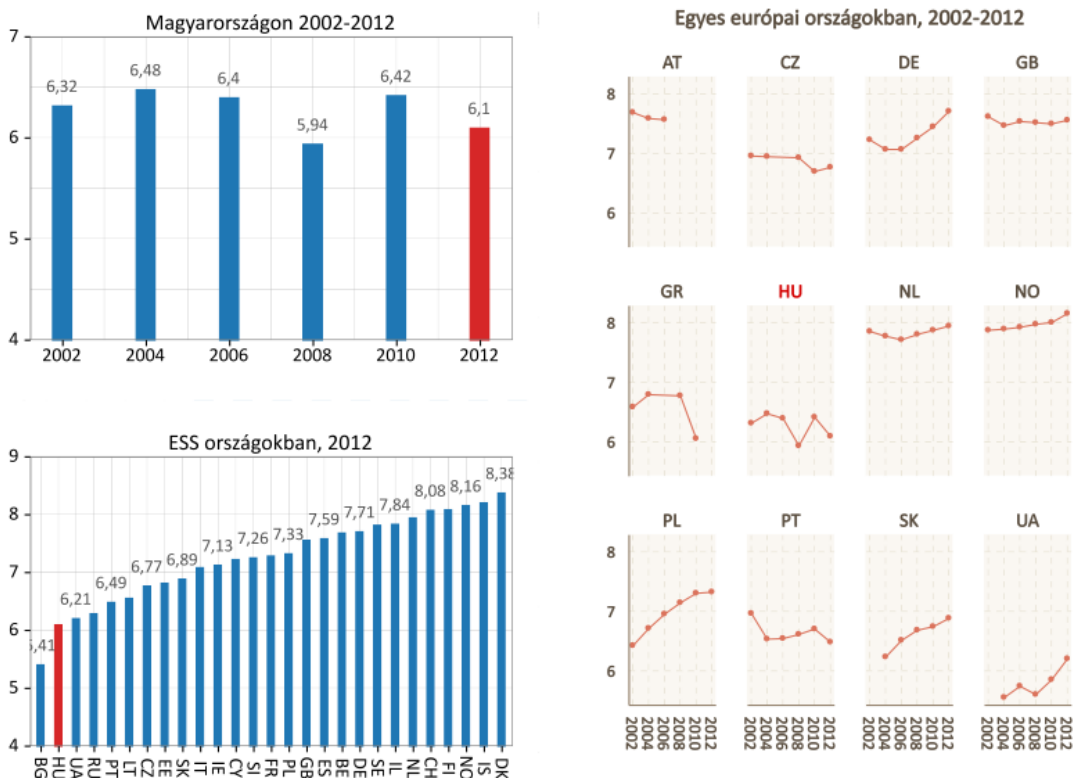
Since 2015, children over 3 have been required by law to attend preschool that is most importantly expected to promote inclusion of segregated social groups. Mandatory preschool education will likely to have little or no impact on the labour market.

In conclusion, access to day care facilities for children under 3 and family day care centres (in terms of available capacity and the amount of fees to be paid) is a serious challenge and a major obstacle preventing women with young children from working especially in Budapest and in larger cities around Hungary.

Personal happiness

Hungary scores around 6 in personal happiness on a scale of 0 to 10 which is a strikingly low value among the mostly European countries surveyed.³⁵ Although it is a well-known argument that economic growth does not automatically improve personal happiness, there are countries where personal well-being continued to steadily grow in the period under review (2002-2012) in contrast to the Hungarian trend.

19. ábra: „How happy would you say you are?“ Average scores in Hungary and in countries participating in the European Social Survey



Source: European Social Survey (ESS). ESS question: Taking all things together, how happy would you say you are? Please use this card. On the scale of responses, 0 means extremely unhappy and 10 means extremely happy. Higher average score on the graph represents higher level of satisfaction.

³⁵ The average level of happiness in the majority of the ESS countries is above 7, only Bulgaria has a worse average than Hungary and we are followed by the Ukraine, Russia and Portugal.

2.2.4.5. Culture and national cohesion

For national policy, one of the most important measures is the introduction of the simplified naturalization procedure by Act XLIV of 2010 helping nearly 670 000 people to take the oath of citizenship by 2015.³⁶

Another key action strongly promoting national cohesion is the House of Hungarians project launched in 2011 designed to support the development of the ability of Hungarian people to preserve their values and traditions and to feel responsible for one another. The law adopted as one of the first decisions after the new government was formed in 2010³⁷ serves the same purpose designating 4th of June as the National Cohesion Day.

In the area of protection of cultural heritage, the Forster Gyula National Centre for Cultural Heritage Management plays a key role. In its National Palace Programme,³⁸ the centre is going to design, develop and implement a total of 35 cultural heritage projects between 2014 and 2018 with an estimated funding of HUF 43 809 million. In 2015, the Rómer Flóris Plan³⁹ was also adopted designed to help protect, introduce, conserve and promote built-up cultural heritage of Hungarian relevance located beyond the borders of Hungary. From 2016, a total of HUF 200 million is planned to be spent on renovation of buildings of cultural or historic interest beyond the borders of Hungary.

2.2.5. Government measures

The government has adopted the National Social Inclusion Strategy II aiming most importantly to reduce the rate of people at risk of poverty and social exclusion, to prevent the regeneration of poverty and social exclusion, to improve equal access to social and economic assets and to strengthen social cohesion. These goals overlap to a large extent with objectives defined by the NSSD to strengthen social cohesion.

Based on the National Anti-corruption Programme (2015-2018) adopted in 2015, one of the government's top priorities is to increase trust in the state and to improve the resilience of public administration against corruption. In addition, there is a government portal dedicated to the presentation of anti-corruption measures and results⁴⁰.

2.2.6. Summary conclusions

Positive trends	Risks
<p>The programme to increase the use of bicycles for transportation as part of the programmes designed to promote sustainable life strategies included infrastructure investments as well.</p> <p>Since 2013/2014, many adjustments have been made in the Hungarian family support system that contributed to improving the compatibility of family and work.</p>	<p>In European comparison, Hungarians have very low level of trust in the way the economy and democracy work.</p> <p>Access to day care facilities for children under 3 and to family day care centres is very difficult and a major obstacle preventing many women with young children from working.</p> <p>Based on Transparency International's survey, corruption has slightly increased while Hungary's</p>

³⁶<http://www.kormany.hu/hu/a-miniszterelnok-helyettes/nemzetpolitikaert-felelos-allamtitkar/video/eddig-710ezer-kulhoni-magyar-adott-be-egyszerusitett-honositasi-kerelmet>

³⁷ Act XLV of 2010

³⁸ <http://koh.hu/fejlesztések/fejlesztés-es-tervezés>

³⁹ <http://koh.hu/hirek/kiemelt-hirek/elfogadta-a-kormany-a-romer-floris-tervet/882>

⁴⁰ <http://korrupciomegelozes.kormany.hu/magyarorszag-eredmenyei>

The availability of atypical forms of work has improved.

Dual citizenship contributes to strengthening national cohesion.

performance in the region has also weakened.

2.3. Natural resources⁴¹

2.3.1. General overview

Hungary's natural resources are widely versatile and unique contributing significantly to the natural capital assets of the European community. The National Framework Strategy on Sustainable Development reminds of the gradual degradation of our natural resources. In general, Hungary's biodiversity and natural capital wealth is above the EU average but economic development policies pursued since the regime change have caused the slow but steady decrease of this wealth with currently around 20-25% of the species listed as endangered. This negative trend is most importantly explained by the exponential growth of built-up areas, the isolation of ecologically significant territories and imbalanced use of land (e.g. excessive size of cropland in agriculture).

Soil and land is unique in Hungary, the size of productive land per person is one of the largest in Europe but soil fertility is degrading similarly to other countries.

Based both on their quantity and quality, underground reserves – not including groundwater – are one of our most significant natural resources but inappropriate land use in the Carpathian Basin reduced water retention capacity to a low level leading to higher risk of floods and droughts.

Forest stands and timber yields are constantly rising and are of good quality but optimal forest and wildlife management conditions are threatened by the impacts of climate change, the higher rate of alien species and other circumstances (desertification, acid rain, diseases, pests etc.). In the meantime, raw materials and sources of energy are scarce, the availability of renewable and alternative sources of energy is very varied and their use occasionally implies spill-over effects and sustainability issues.

2.3.2. Changes in key indicators

Indicator	Score	Year	Evaluation of change since adoption ⁴² of NSSD
Biologically inactive areas (as % of total area)	68	2013	No change and this has an adverse impact on target to be achieved.
Natural resource productivity (GDP/DMC, €/kg)	0.98	2013	Slight decrease, a positive trend for sustainability.
PM(10) pollution (µg/m ³)	28.8	2012	Recent data not available but positive trend is experienced.

2.3.3. Objectives and challenges defined in the Framework Strategy

NSSD defines six objectives for natural resources. Transition to sustainability to achieve these objectives may be assessed through seven different natural resources of primary importance for Hungary.

⁴¹ This chapter is based on studies by Pálvölgyi et al. (2015) and the proposal of the Ministry of Agriculture entitled Summary Information on government actions in 2013-2014 promoting the implementation of the National Framework Strategy on Sustainable Development.

⁴² compared to data from 2012.



The most important processes affecting natural resources are described below based on the current state of each key sustainability area.

2.3.4. Social and economic developments affecting the objectives

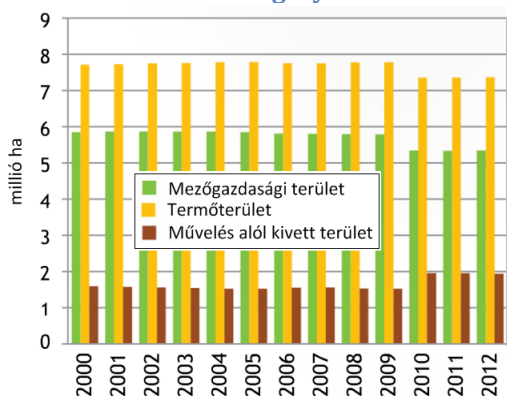
In general, data on natural resources from the last two years since the adoption of the Framework Strategy are very scarce. As a result, this Monitoring Report describes changes in previous trends and the potential impacts of major socio-economic processes and presents the most recent data on relevant key indicators.

2.3.4.1. Green areas, biodiversity and land use

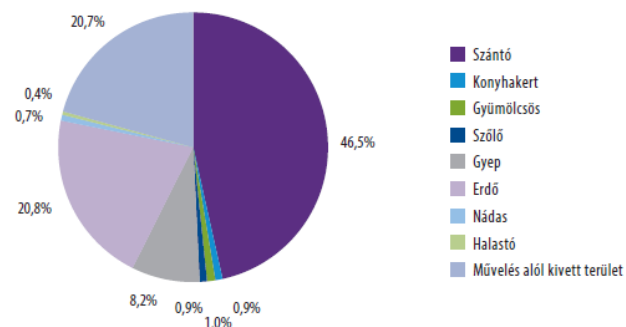
As a general tendency, the size of cultivated land continues to fall; at present 20.7% of the country's area is uncultivated while every year 5000-6000 ha are removed permanently from production.

Only forest area is growing; by 2013, 21% of Hungary's total area was covered by forests. Grassland degradation is a special problem for nature conservation and biodiversity as these lands permanently covered by grass are typically home to many protected, rare species.

20. ábra: Changes in land use in Hungary

Source: NEKI, 2013⁴³

21. ábra: Land use distribution (2013)

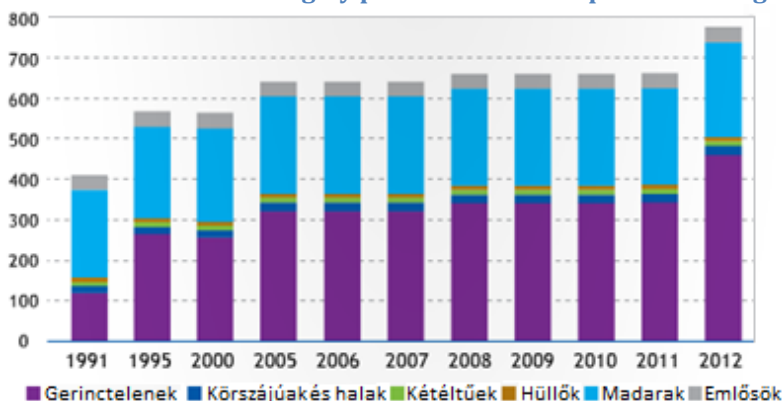
Source: KSH (2015)⁴⁴

The share of cropland in agricultural land is high. However, cropland represents an intensive form of agriculture that causes the loss of habitats for plant and animal species in a large area which means it may be included in biologically inactive areas together with built-up, i.e. uncultivated areas. As a result, the share of biologically inactive areas is 68% of Hungary's total area.

Land use is not always based on natural conditions. Various land use needs have led to changes in natural conditions of ecosystems, to the reduction and fragmentation of natural or semi-natural biologically active areas.

The quality of natural habitats is decreasing in general that has caused the number of protected animal species to nearly double in the last 20 years. Based on the EU classification, nearly 60% of the habitats have an unfavourable status but the rate of habitats and species with a favourable status shows a positive trend in Hungary.

22. ábra: Protected and highly protected animal species in Hungary

Source: NEKI, 2013⁴⁵

⁴³ NEKI, 2013 State of nature in Hungary 2013. National Institute of Environment. (http://issuu.com/holndonnerpeter/docs/neki_konyv_web)

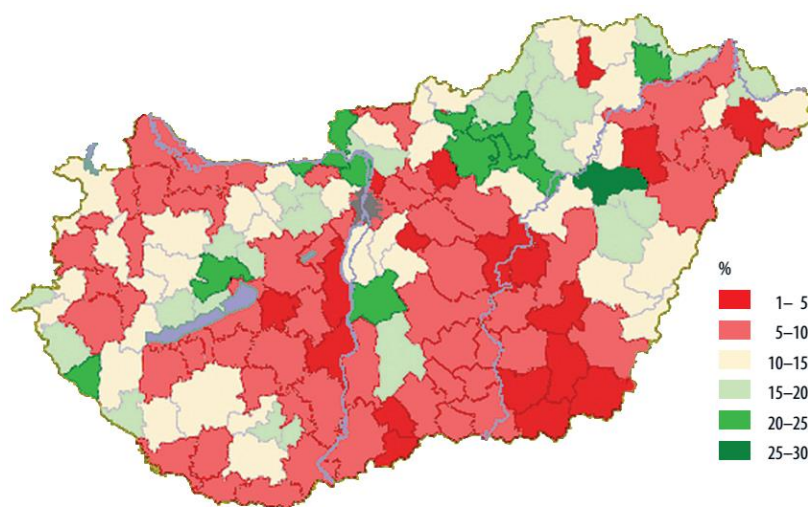
⁴⁴ KSH (2015): Indicators of sustainable development in Hungary, 2014 © Központi Statisztikai Hivatal, 2015 ISSN: 2064-0307

Compared to 1990, the rate of built-up areas has shown exponential growth since 2000 leading to reduced biodiversity and higher sensitivity to climatic impacts. This growth is mostly the result of the spread of urban development (*urban sprawl*) and green field investments.

A positive development in the application of restrictions on the use of natural resources to control land use and the growth of built-up areas is the adoption and renewal in 2015 of the so-called "Shopping Mall Stop" law by the government restricting green field projects constructing or extending commercial facilities larger than 400 m².

Changes in vegetation-based natural capital are critically important.⁴⁶ Hungary's vegetation-based natural capital index is 9.9% which means we have lost or converted the use of 90% of the natural ecosystem services.

23. ábra: Vegetation-based natural capital index of Hungary's micro-regions between 2003 and 2007



Source: Hungarian Academy of Sciences (MTA) Institute of Ecology and Biology (in: KSH (2015)⁴⁷)

Our natural vegetation is primarily threatened by the impacts of cultivation activities (e.g. intervention into natural groundwater regimes, creation of reservoirs, excessive size of wildlife populations) and in recent years also by the spontaneous spread of alien species (e.g. Acacia, common milkweed etc.)

The idea of economical and sound land use is embraced by a number of national strategic documents (e.g. National Biodiversity Strategy, National Development and Territorial Development Concept, National Environmental Protection Programme 4). Monitoring of the implementation and spatial distribution of economical and sound land use could significantly support planning of the transition to sustainability.

⁴⁵ NEKI, 2013 State of nature in Hungary 2013. National Institute of Environment. (http://issuu.com/holndonnerpeter/docs/neki_konyv_web)

⁴⁶ The Natural Capital Index (NCI) measures the quality and quantity of native species – mostly plants – remaining in their original condition within an area.

⁴⁷ KSH (2015): Indicators of sustainable development in Hungary, 2014 © Központi Statisztikai Hivatal, 2015 ISSN: 2064-0307

2.3.4.2. Mineral resource management

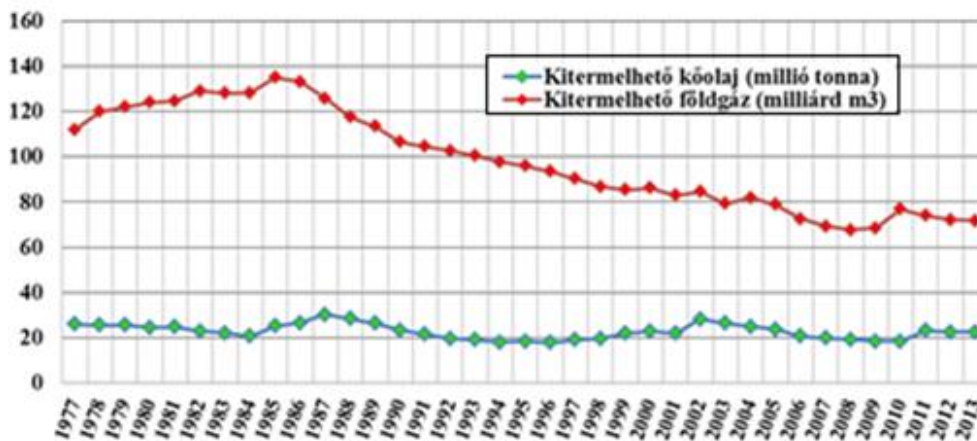
Hungary carefully and rationally manages its mineral resources including a solid system of institutions responsible for control, administration and research in the area. Compared to needs, mineral resources are scarce and simultaneously mining has been adversely affected by environmental regulations and world market prices.

The extraction of metallic minerals is constantly decreasing. To meet rising demand, extraction of non-metallic raw minerals (e.g. construction aggregate, cement etc.) rose from 2012 to 2013 and it is expected to have continued in 2014 as well. Raw materials are available to meet demand but the quantity of construction, demolition waste together with mining waste is projected to rise while a relevant complex waste management plan is lacking.

Hungary's coal mining industry has only one lignite surface mine left in Gyöngyös-Visonta as the brown coal mine in Márkushegy closed down in 2015. Nevertheless, one of the objectives defined in the National Energy Strategy is to use Hungarian coal and lignite assets to generate power in an environmentally sound way.

Extracted volumes of petroleum and natural gas are growing but remain significantly low to meet domestic demand. Over 80% of the explored and extractable petroleum reserves and over 75% of the explored and extractable natural gas reserves have already been used.

24. ábra: Tendencies in extractable hydrocarbon reserves in Hungary



Source: Hungarian Office for Mining and Geology (MBFH) mineral asset records, as at January 1st 2013

62% of Hungary's energy demand is met by fossil fuels. The growing number of households replacing natural gas by less environmentally sound technologies (e.g. wood/coal burning furnaces, wood burning furnaces) to heat houses is a risk for sustainability.

Material consumption⁴⁸ in Hungary has been constantly decreasing since 2009 as a whole while resource productivity, i.e. the ratio of domestic material consumption to GDP shows a growing tendency. This shows that the role of the use of natural resources to achieve economic growth is decreasing but Hungary's resource productivity is still significantly below the EU average.

⁴⁸ Material consumption measures the total amount of materials directly used by an economy: mineral assets, biomass and mineral oil resources. In the context of environment, this indicator is used to measure the environmental impact of the use of these materials by the economy taking into account the complete life cycle of these materials regardless whether the environment is affected within the country or in the country the product is imported from.

2.3.4.3. Climate and energy management

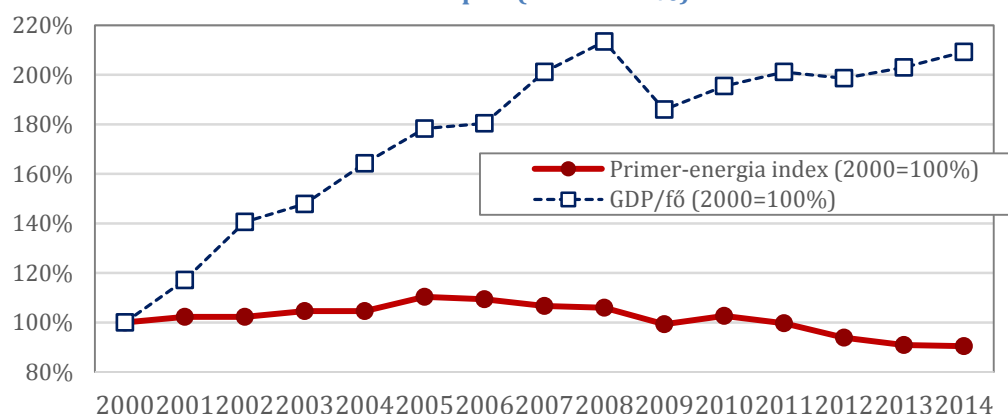
Changes in climatic conditions affect the whole world. Changes in Hungary are demonstrated by following tendencies:

- Temperature in Hungary rose 1°C between the beginning of the 20th century and 2012 exceeding the global increase of 0.81°C.
- The amount of precipitation slightly decreased between 1963 and 2012 and extremely volatile weather conditions – floods and droughts – will become increasingly frequent.
- Since the beginning of the 20th century, the number of summer days ($T_{max} > 25\text{ °C}$) and extremely hot days ($T_{mean} > 25\text{ °C}$) has grown by 10 and more than 6 days respectively. The highest increase that is in excess of two weeks at times is seen in the central regions and the southern part of the Great Plain.
- In the meantime, the number of frost days ($T_{min} < 0\text{ °C}$) has fallen – on average by 10 days – since the beginning of the 20th century.

The impacts of climate change are different from region to region, similarly to environmental sensitivity but Hungary on the whole is extremely vulnerable to climate change. 22% of Hungary's total area is at risk of droughts and aridification as a result of climate change. One-fourth of the population live in areas affected by very high or high risk of heat waves. Vulnerability significantly varies from region to region and affects Hungary's disadvantaged areas to a larger extent.

Energy production and consumption are key drivers of the climate change. In Hungary, energy intensity (in parallel with domestic material consumption) is steadily improving: energy used for the production of one unit of domestic product has fallen by 50% in the last 15 years. Experts project a further decrease of 7% between 2013 and 2020 as a result of continued restructuring in the economy and planned actions to improve energy efficiency.

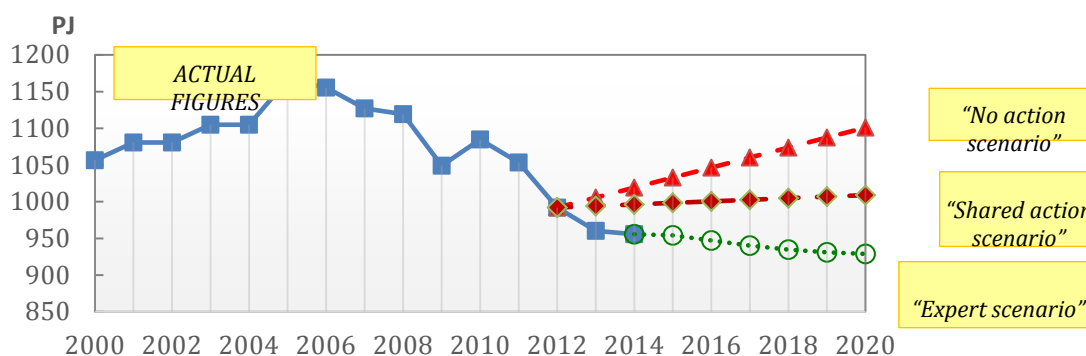
25. ábra: Gap between primary energy consumption index (2000=100%) and GDP per capita (2000=100%)



Source: National Energy Strategy revised⁴⁹, Hungarian Energy and Public Utility Regulatory Authority (hereinafter: MEKH), developed by MEKH

⁴⁹ Resolution 1160/2015 (March 20th) of the Government on updated energy consumption forecast of the National Energy Strategy

26. ábra: Estimated mid-term primary energy demand (until 2020)



Source: National Energy Strategy revised⁵⁰, MEKH, developed by MEKH

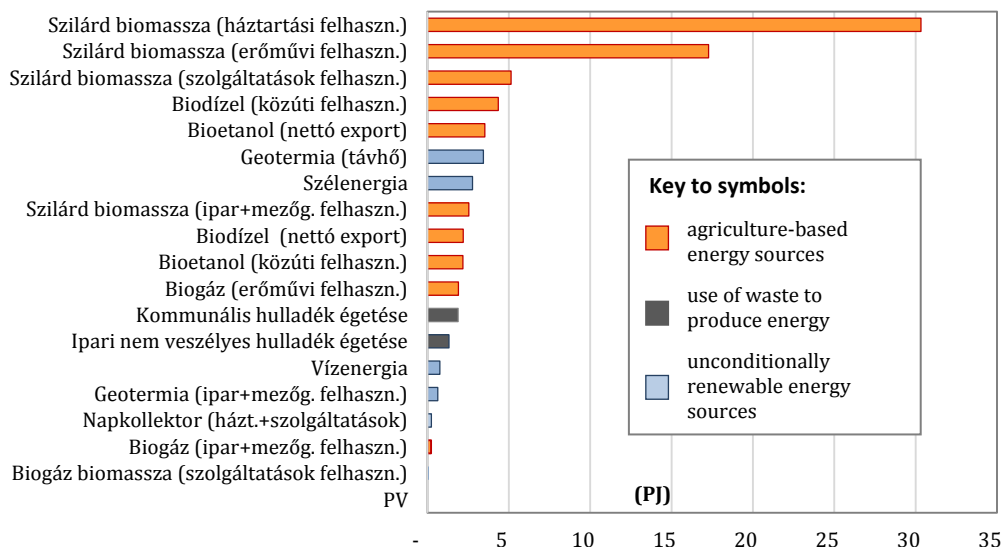
Higher price of fossil fuels stimulates significant actions to improve cost efficiency primarily in the agriculture and the food industry but in the meantime it could most severely hit rural population at risk of impoverishment using fossil fuels for heating. This could also lead to the illegal use of natural resources (forests) for heating in disadvantaged rural regions.

The share of energy consumption from renewable sources is expected to fulfil the requirement of 14.65% in the EU's RED Directive by 2020. The Environmental and Energy Efficiency OP provided significant funds to stimulate the use of renewable energy sources in the reporting period; non-refundable public funds of over HUF 26 billion were paid in total in 2013 and 2014. In addition, a sizeable budget was available to make energy efficiency investments in public institutions.

However, it is a risk for sustainability that four-fifth of renewable energy sources are produced in the agriculture – mostly biomass and that over 50% of renewable energy sources are used in power plants and as firewood in households. Based on targets on the whole, the share of biomass in renewable energy used for heating/cooling is expected to decrease from 86% in 2010 to 69% by 2020, the rate of solid biomass used for heating single households will remain extremely high while other uses of renewable energy sources will have a much lower share.

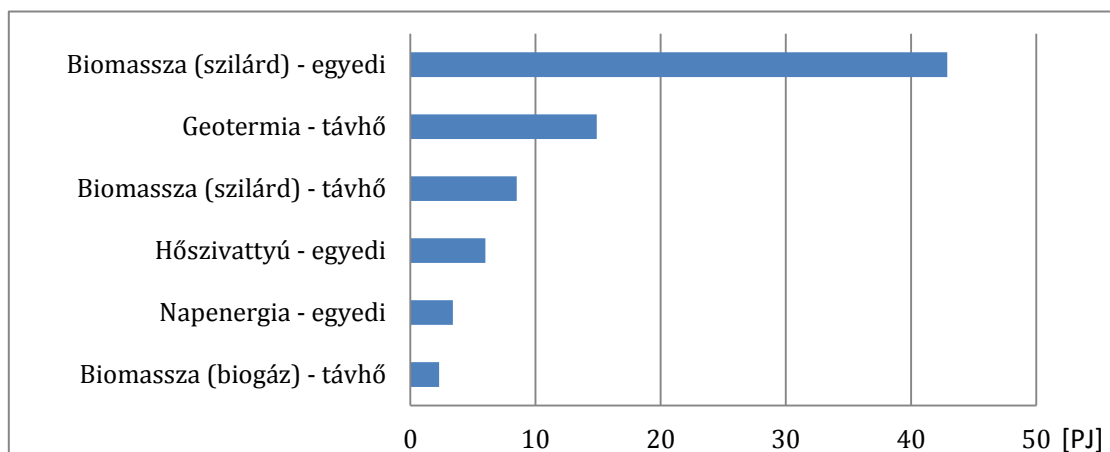
⁵⁰ Resolution 1160/2015 (March 20th) of the Government on updated energy consumption forecast of the National Energy Strategy

27. ábra: Use of renewable energy sources by sector, 2012



Source: developed by NCS D (based on MEKH's energy balance)

28. ábra: Renewable energy use targets (2020): heating and cooling of buildings



Source: developed by NCS D (based on M-NCST)

Biomass: pros and cons

The most important reason for the widespread use of biomass is that this renewable source of energy matches Hungary's capabilities to the highest extent contributing to reduced dependence on the import of primary energy sources, to improved price stability and to higher security of energy supply. However, it should not be forgotten that biomass is a conditionally renewable source of energy.

Life cycle oriented energy balance studies reveal controversies connected to the energy demand of other inputs required to generate energy. The strategic analysis of the Hungarian Academy of Sciences on the utilization of renewable sources of energy⁵¹ suggests that decentralized, renewable heating plants should be established instead of large scale biomass power plants but only in locations where the necessary quantities of biomass are and will be available in close proximity.

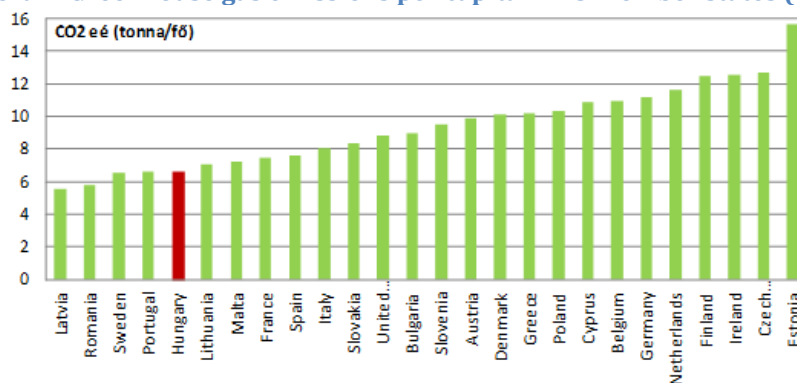
Another sustainability risk is that biomass energy plantations generate intensive monocultures requiring extensive application of nutrients to the soil while reducing biodiversity of the area.

⁵¹ MTA, 2010. MTA Strategic Programmes. Utilization of renewable sources of energy (authors: Gergely Büki, Rezső Lovas) ISBN 978-963-508-599-6, MTA, Budapest, 2010

Having recognized the advantages and disadvantages of biomass, the Action Plan on Renewable Sources of Energy in Hungary offers priority to projects designed to generate second generation agrofuels (potentially contributing to stabilizing agricultural product paths and marketing of products processed to a higher degree) and also to projects proven to provide positive material and energy balance and sustainable production.

Hungary's per capita greenhouse gas emissions are one of the lowest in the EU and further decarbonisation may be achieved mainly through higher energy efficiency and the growth of renewable sources of energy. 72% of greenhouse gas emissions is connected to energy production and consumption.

29. ábra: Greenhouse gas emissions per capita in EU member states (2012)

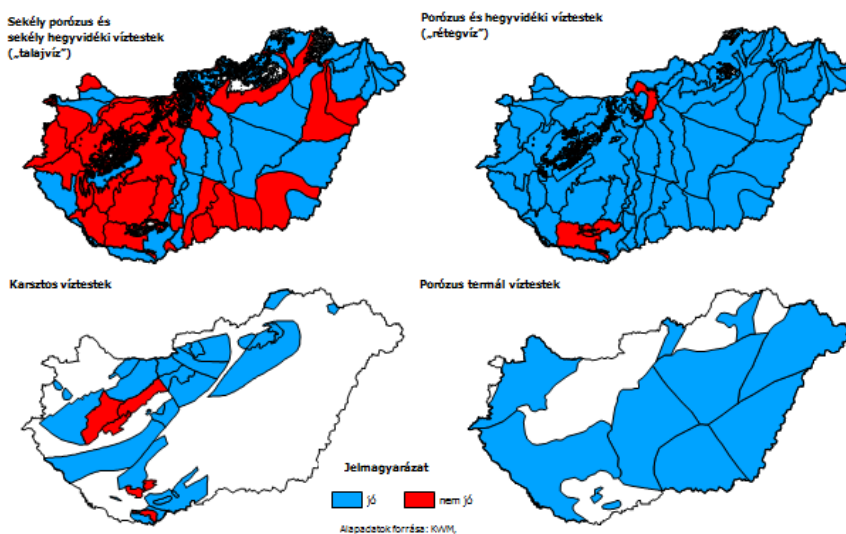


Source: EEA⁵²

2.3.4.4. Freshwater supply, water management

Based both on their quantity and quality, underground water reserves – not including groundwater – are one of our most significant natural resources. Data reflecting the quality of surface and underground water reserves after the adoption of NSSD are not available. Based on earlier surveys (2009), the ecological and chemical status of underground water reserves is “good”.

30. ábra: Chemical status of groundwater bodies based on WFD assessment, 2009



⁵² EEA greenhouse gas data viewer (<http://www.eea.europa.eu/pressroom/data-and-maps/data/data-viewers/greenhouse-gases-viewer>)

Source: Pálvölgyi et. al, 2013

The condition of our two main rivers is described below. Based on physical and chemical parameters, the water quality of the Danube is fairly good to Budapest but it is poorer below the capital city. The maximum level of organic pollution (BOD5 and COD) is measured to the river section below Dunaföldvár where quality starts to improve again. One of the key problems causing degradation of water quality in the Danube is eutrophication. Despite significant waste water treatment investments, negative trends have unfortunately continued in recent years. Based on the latest data from 2013, BOD5 values are constantly rising reaching 4.6 mg/l thus substantially exceeding the baseline value measured in WFD in 2009 (3.5 mg/l).

Water quality in the upper section of the Tisza is mainly influenced by pollution coming from abroad including landfill sites, mines and areas lacking sewers. During floods, pollution is even higher from abroad including large quantities of organic hazardous substances, heavy metals and hydrocarbons collected from flooded areas affecting other Hungarian rivers apart from the Tisza as well. Organic substances are the main problem in sections under Lake Tisza and all types of phosphates and petroleum products have also had an adverse impact on water quality. Overall, there has been a slight increase in biochemical oxygen demand in recent years but there has been improvement between the incoming and outgoing sections of the river. Based on the latest available data from 2013, chemical oxygen demand in the Tisza has been continuously improving from the WFD baseline data of 14.4 mg/l in 2009 to an average value of 8.7 mg/l in 2013.

Positive impacts on water supply since the adoption of NSSD are as follows:

- the share of communities with waste water collection services is constantly rising simultaneously with the rate of households supplied with waste water treatment services;
- household and industrial water consumption is decreasing;
- as a result of technology improvements and the closure of the plants in industries causing the highest pollution (sugar and paper mills), industrial water consumption is falling;
- funds to improve water quality are available from the Environment and Energy Efficiency OP.

However, previous problems still exist. Excessive use of groundwater (for irrigation mainly) has caused a major problem in the water regime of the Danube-Tisza Interfluvium. Eutrophication is a typical problem for water quality caused by a high concentration of nutrients (pollutants containing phosphates and nitrates) and having an adverse impact on oxygen supply of water and the vital conditions of aquatic ecosystems. Pollutant run-off (nitrates and ammonia) caused by inappropriate agricultural land use practices remains a problem although stricter regulations and modernisation funds have helped reduce the pollution.

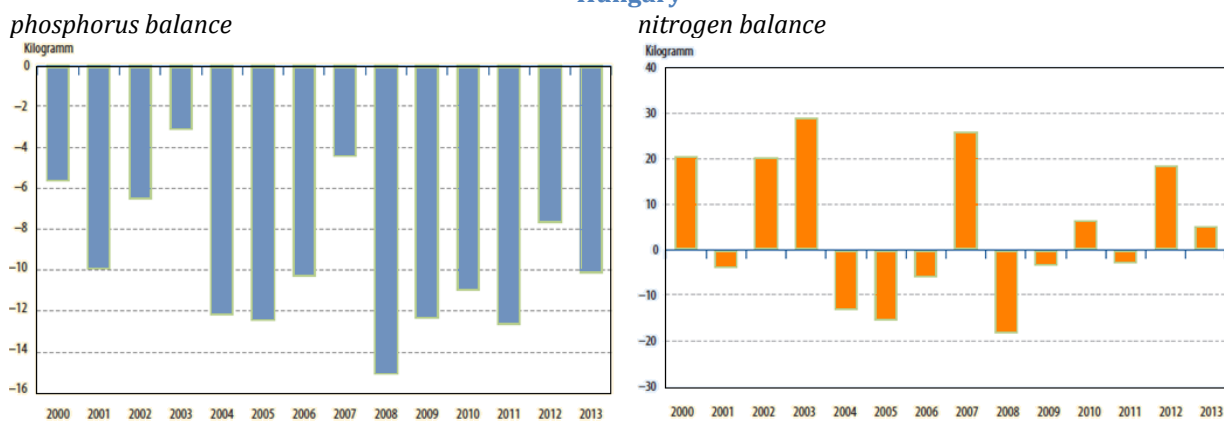
Sustainability in the area of water supply and household energy consumption is challenged by the lower cost of utilities. On the one hand, falling prices fail to stimulate consumers to save energy and on the other, they may threaten investments made by the service providers.

Nevertheless, lower cost of utilities contributes to the prices financing the real value of the services and the investments.

2.3.4.5. *Soil and agriculture*

Soil is one of Hungary's most important conditionally renewable resources. As a fundamental and dominant element of terrestrial ecosystems, soil is increasingly affected by human activities potentially threatening many soil functions and leading to soil degradation. Sustainability is challenged by the increased amount of fertilizers used causing negative amounts of phosphate every year between 2000 and 2013 and problems also include soil acidification, increase of nitrates and the accumulation of toxic elements. Fertilizer (active agent) use per one hectare has grown by 47% since 2009.⁵³

31. ábra: Phosphorus and nitrogen balance per one hectare of agricultural land in Hungary



Source: KSH, 2015⁵⁴

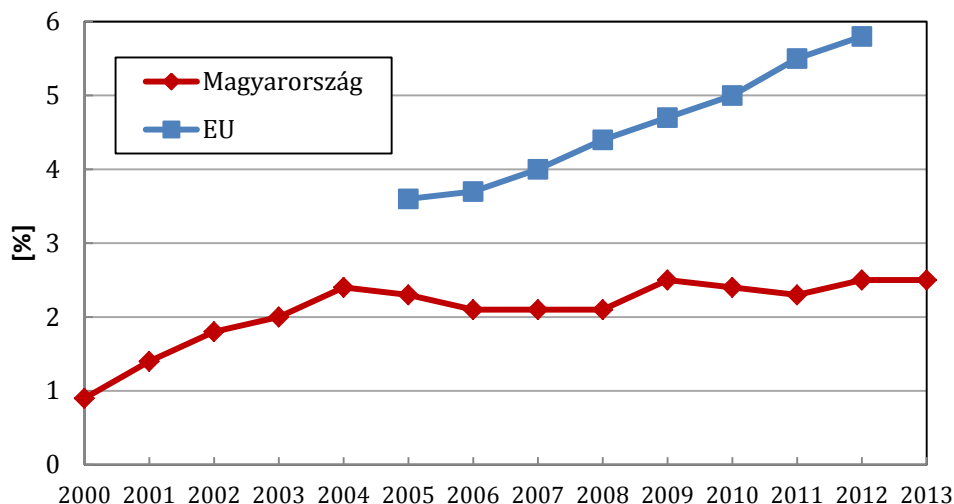
Together with increased fertilizer use, the quantity of pesticides (crop protection products) per one hectare has also been constantly growing since 2008 while the use of insecticides is expanding as well.

In contrast with European trends, the size of agricultural land used for controlled organic farming has not grown significantly, at present having a share around 2% (131 000 ha).

⁵³ KSH (2015): Indicators of sustainable development in Hungary, 2014, p40

⁵⁴ KSH (2015): Indicators of sustainable development in Hungary, 2014, p43

32. ábra: Organic agricultural area as a percentage of agricultural land in Hungary



Source: KSH, 2015⁵⁵

Organic farming – identified but yet unexploited opportunity

In the European Union, organic farming is an agricultural production method regulated by strict rules with a strong focus on the protection of the natural environment stressing in particular the protection of soil, surface and underground water, the maintenance of biodiversity and food security. Still largely unexploited in Hungary, organic farming has strong positive sustainability impacts on natural, economic and human resources while the ecological and other conditions (legal background, landforms, indigenous species, monitoring and certification system, GMO prohibition) would be readily available here. Demand for products from organic farming is relatively low on the domestic market with 80-85% of the products sold in other countries.

The National Action Plan for the Development of Organic Farming (2014-2020) was adopted by the Ministry of Rural Development in 2014. As an objective on the supply side, the Action Plan aims to duplicate the size of land used for organic farming and the number of controlled livestock by 2020 while on the demand side, it expects to increase of the share of organic raw materials used in public catering services by at least 30%.

2.3.4.6. Forests and forest management

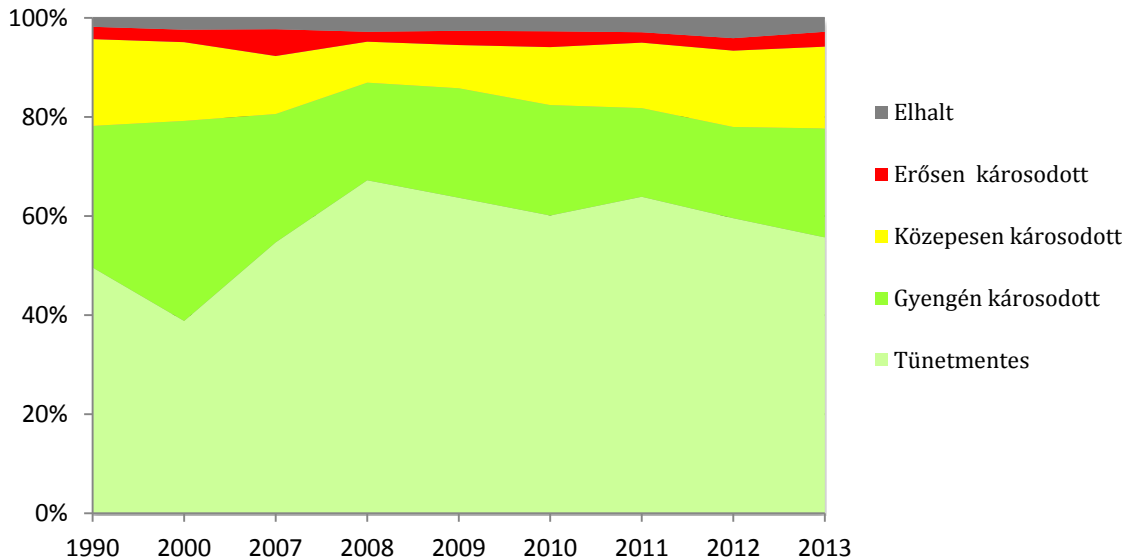
As a result of a positive tendency of long decades, forests at present cover 20.8% of Hungary's total area. As a long term objective, the National Afforestation Programme intends to increase the share of forested land to 27% presently defined as optimal through planting new forests on 686 000 hectares including agricultural areas with less favourable conditions in the next 35 to 50 years. This also aims to increase forest biodiversity and ecological value. The share of indigenous species in forests is 63% while the rest includes non-native or invasive species (acacia, northern red oak, some species of pine tree) and hybrid trees (*Populus x. Euramericana*). The share of native species declined by nearly 2% between 2000 and 2013. In addition to their worth as a natural resource, community and other functions of forests (e.g. their role in soil or flood control) are also increasing.⁵⁶ **In order to ensure sustainability in forest management, the selection of tree species for forests should consider the potential impacts of climate change.**

⁵⁵ KSH (2015): Indicators of sustainable development in Hungary, 2014, p47

⁵⁶ In 2013, 1.1% of forests were used for functions of public interest, 36.5% were used for protective and 62.4% for productive functions.

Compared with other European countries, Hungary's forests may be classified as moderately damaged. External socio-economic processes affecting the health of forests include changes in ownership, EU funds available for logging and use of wood, higher price of fossil fuels, illegal forest use and poverty (e.g. timber theft, illegal waste trade and waste incineration).

33. ábra: Forest health based on defoliation (2013)

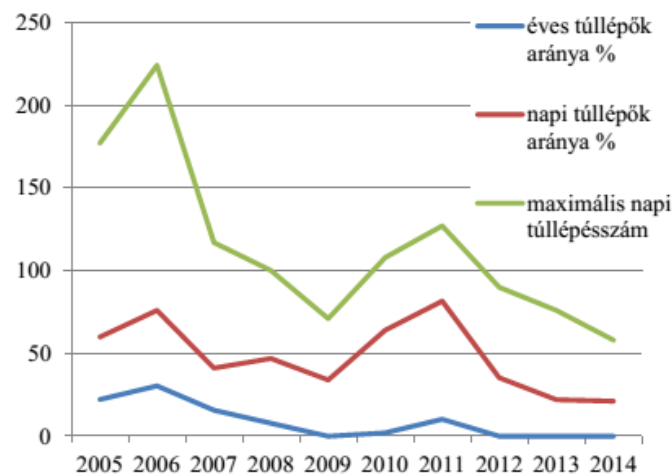


Source: KSH, 2015⁵⁷

2.3.4.7. Air quality and health

At present, air quality is primarily affected by pollution caused by transport and residential heating. The EU has set a limit value for the concentration of particulate matter (PM₁₀) in ambient air to protect human health. Values higher than the limit value have been decreasing since 2011. However, exposure of humans to particulate matter in ambient air in Hungary is higher than the EU average: PM-related illnesses reduce the statistical lifetime by over one year in Hungary.

34. ábra: Data on stations exceeding PM₁₀ limit value



Source: Report on the 2014 Intersectoral Action Programme on the Reduction of Particulate Matter (PM₁₀) adopted by Government Resolution 1330/2011 (Oct. 12th).

⁵⁷ http://www.ksh.hu/docs/hun/xstadat/xstadat_éves/i_ome005.html

The objective of NSSD to reduce environmental impact on humans may be achieved through government actions to promote green economy reforms and more sustainable technologies. The main source of PM10 is residential heating (combustion) where duality is present as the government intends to replace non-renewable sources of energy (firewood, biomass) by partially renewable sources of energy but these decentralized heating systems cause higher air pollution. In some areas (e.g. Sajó Valley), coal and wood furnaces, burning of garden waste and the use of illegal fuels (e.g. household waste) cause local air pollution problems which is the indirect “sign” of the disadvantaged socio-economic conditions in these regions.

The other main source of air pollution is transport. The volume of road freight transport has risen while rail transport has fallen. Not even lower emissions of air pollutants by motor vehicles are able to compensate for this environmental impact.

The share of users of community transport services is higher than the EU average (22% against the EU's 12%). Actions to reduce the environmental impact of community transport include programmes to buy electric railway carriages and the (ongoing and planned) upgrade of buses operated by Volán bus companies.

2.3.5. Government measures

Below is the collection of more important strategies and programmes relevant for natural resources that have already been adopted by the government.

The Fourth National Environmental Protection Programme ⁵⁸ (NKP-4) the basic strategic document defining Hungary's environmental policies for 6 years has already been adopted by the government but it is still being debated by the Parliament. A long term objective of NKP-4 is the promotion of the environmental conditions facilitating sustainable development. NKP-4:

- Precisely identifies land use problems, contributes to the promotion of land use methods safeguarding resources and serving energy and resource efficiency.
- Distributes objectives connected to raw minerals across the various areas. Equally includes objectives related to adverse impacts of extraction, objectives aiming to protect and objectives promoting recycling.
- Intends to manage waste materials left at mine sites including the recultivation of uranium ore tailings in Mecsek and the reclamation of abandoned hydrocarbon wells and adjacent areas.
- Encourages the increase of waste recycling to include construction and demolition waste.
- Fundamentally aims to protect soil fertility, to prevent and mitigate soil degradation and pollution processes and to protect the quality and quantity of cropland (e.g. through planned nutrient replacement preferably using organic fertilizers; support policy promoting integrated nutrient management).
- In the area of potable water, aims to improve the quality of potable water, reduce wasteful network losses and close gaps in drinking water supply. In the area of waste

⁵⁸ Strategic policy proposal (November 2013)

water treatment and management, aims to ensure access to sewage systems in communities with over 2000 population equivalent and at least biological treatment of 100% of the collected waste water.

- Precisely identifies air quality issues and intends to reduce PM10 and PM2.5 pollution indicators. Actions to achieve these objectives are designed to reduce the quantity of particle matters emitted by residential heating appliances and to decrease particle pollution caused by road transport.

The National Biodiversity Strategy (NBS) (2014-2020) aims to end the decline of biodiversity and the degradation of ecosystem services while preferably improving their current status. NBS highlights the strong connection points between land use and biodiversity, in particular the conservation and adequate management of areas less affected by intensive land use.

The strategy on the conservation of plant genetic resources for food ⁵⁹ is also connected to the maintenance of the level of biodiversity. This strategy has been designed to define key objectives to insure the conservation and sustainable use of domestic plant genetic resources for food together with the measures to achieve those objectives until 2020. It aims to set up, finance and operate an integrated gene conservation system that includes complex gene conservation districts within various regions and agro-ecosystem based model farms where land management may be combined with agritourism.

The National Forestry Strategy (2014-2020) defines potential take-off points and opportunities in forest management in Hungary. Key target areas of development in forest management until 2020 are increase of forested land and areas covered with trees to protect biodiversity; improvement of public welfare and tourist services of forests; and improved accessibility of forests including through the development of forest roads. Another objective in forest management is to promote generation of renewable energy using wood supplied by local farmers to meet local demand.

The National Waste Management Plan (OHP) (2014-2020) describes the current status of each waste stream, identifies gaps and defines the objectives and the actions, instruments required to achieve those objectives. One of OHP's main objectives is to cancel the correlation between environmental impacts caused by demand driven and sensible economic growth and waste generation.

The Parliament adopted the National Energy Strategy in 2012. However, the related planned action programmes – with the exception of the National Building Energy Strategy – have either not been developed at all or are awaiting adoption by the Parliament.

Based on the United Nations Framework Convention on Climate Change and the act on the implementation framework of its Kyoto Protocol, Hungary's mid-term climate policies are defined by the Second National Climate Change Strategy (NÉS-2) (2014-2025). NÉS-2 encompasses the National Decarbonisation Roadmap including the targets, priorities and action trends for the reduction of greenhouse gas emissions until 2050 and the National Adaptation Strategy assessing the potential impacts and social, economic and environmental consequences of climate change as well as the vulnerability of ecosystems and sectors to climate change.

⁵⁹ I.e. genetic resources for field crop, grape vine, fruits, vegetables, medicinal plants, herbs, volatile oil crops and important micro-organisms for food and agriculture.

2.3.6. Summary conclusions

Positive trends	Risks
<p>Hungary's share in the EU's total greenhouse gas emissions is lower than 1.5% and based on per capita emissions, Hungary is at the top ranking 5th among member states. In the last 20 years, Hungary's greenhouse gas emissions were reduced by nearly 40%, primarily the result of economic restructuring.</p> <p>Hungary has abundant supplies of water even in European comparison due to the large volume of surface inflow, the extensive surface water network resulting from the basin location and the immensely rich deep karstic and porous layers filled with water. Based on quality criteria of surface waters, Hungary ranks in the middle among EU member states by aggregate values for surface water bodies. Hungary is among the first third of countries based on ecological status.</p> <p>One of Hungary's conditionally renewable resources is soil totalling 22% of all national resources according to expert estimates.</p> <p>Mineral resource management in Hungary is based on careful, rational and long term planning including a solid system of institutions responsible for control, administration and research in the area.</p> <p>The share of forested land in Hungary has grown from 11.8% in 1920 to 20.8% in 2013. In 2013, total growing stock in Hungary was 370 million m³ on an area of over 2 million ha which is a growth of 14% from 2000.</p> <p>Over 75% of the trees are free from symptoms or are slightly damaged; this means that Hungary's forests compared with other European countries qualify as moderately damaged.</p>	<p>There is a strong negative detachment between the decrease of population and the growth of built-up areas clearly signalling a tendency that threatens the share of natural, semi-natural and other green areas.</p> <p>Our vegetation-based natural capital index is 9.9% which means that 90% of natural ecosystem services have already been lost.</p> <p>Hungary is highly vulnerable to climatic conditions among EU member states. Areas extremely or highly vulnerable to permanent droughts and aridification potentially caused by the climate change cover 22% of Hungary's total area.</p> <p>Water bodies classified as poor, i.e. where withdrawals cause constant decrease in water reserves, are traditionally critical issues in Hungary's water management.</p> <p>Eutrophication is a key problem for water quality caused by a high concentration of nutrients (pollutants containing phosphates and nitrates) and having an adverse impact on oxygen supply of water, on vital conditions of aquatic ecosystems and on use for tourist functions. Based on nutrients discharged into waters, the majority of Hungary's surface waters are not in a good ecological condition with 60-70% affected by a high level of eutrophication potentially leading to serious challenges in water use (irrigation, tourism, fishing).</p> <p>The quantity of phosphorous was negative each year between 2000 and 2013 posing a threat to sustainability of production.</p> <p>Until the beginning of the 21st century, production concentration and intensity in agriculture together with production practices adversely affecting the environment, in particular the quantities of pesticides used, were decreasing. In the last decade, however, the use of pesticides has doubled.</p> <p>Hungary has so far failed to exploit opportunities offered by organic farming with hardly 2% the total agricultural area used for organic farming which is lower than 50% of the EU average.</p> <p>While indigenous tree species total 63% in Hungary's forests, their share has dropped by 2% between 2000 and 2013.</p> <p>Risk of human exposure to particulate matter in ambient air in Hungary is higher than the EU average: PM-related illnesses reduce the statistical lifetime by over one year in Hungary. "Unsustainability problems" linked to energy poverty, lifestyles and housing conditions jointly cause the degradation of local air quality.</p>

2.4. Economic resources⁶⁰

2.4.1. General overview

Hungary's GDP has again started to rise: the growth of 1.5% in 2013 increased to 3.6% in 2014 and further improved by 3.5% in the first quarter of 2015 according to KSH data. The European Commission's country report forecasts a GDP growth of 2.4% for 2015 and 1.9% for 2016. Simultaneously with GDP growth, labour market conditions and the general business environment have also improved: the employment rate, investments and savings have all risen.

External circumstances generally affecting the sustainability of Hungary's economic resources include the ongoing recession following the economic crisis in 2008. Output rates in the majority of the affected countries remain below the pre-crisis levels, in particular in Europe. Nevertheless, the global market sentiment has improved significantly caused by the relief measures of the central banks of developed and emerging countries. Simultaneously, the assessment of Hungary's economy by foreign countries has also improved: our 5-year sovereign CDS spreads (credit default indicator) have plunged to levels last reached in 2008 indicating more positive international views about the sustainable growth and functioning of Hungary's economy. Good market sentiment allows larger room for manoeuvre within national economic policies and supports the financing of public debt.

2.4.2. Changes in key indicators

Indicator	Score	Year	Evaluation of change since adoption ⁶¹ of NSSD
Employment rate (KSH)	61.8%	2014	Rising value (a growth of over 5 percentage points compared to 2012), positive trend for sustainability
Gross fixed capital formation (as % of GDP)	19.9	2013	Average value but slightly negative trend with regard to the implementation of the strategy
R&D spending as % of GDP	1.41	2013	Value rising at a pace lower than desired to achieve target, favourable but suboptimal trend
Public debt to GDP ratio (MNB)	76.9%	2014	Declining value, positive trend for sustainability
Old age dependency ratio	25.8	2014	Value showing rising trend indicating increasingly severe challenges for sustainability of the pension system

2.4.3. Objectives and challenges defined in the Framework Strategy

Economic resources are aimed to be increased not only preserved. In order to do so, NSSD defines the following objectives:

1. Balance of localization and international cooperation: Creation of a business friendly environment – in combination with the termination of special benefits offered to foreign investors;
2. Strengthening of local economic relations (e.g. a town and adjacent areas);
3. Strengthening of the infrastructure of trust in the economy;
4. Reduction of burdens on businesses
5. Increase of innovation spending
6. Increase of employment

⁶⁰ This chapter is based on studies by H-SOFT (2015), Medgyesi-Gál (2015) and the proposal of the Ministry of Agriculture entitled Summary Information on government actions in 2013-2014 promoting the implementation of the National Framework Strategy on Sustainable Development.

⁶¹ compared to data from 2012.

7. Sound budgetary management
8. Gradual restoration of generational balance

These objectives are affected by the following socio-economic processes. As objective 1 and 2 are closely related, they will be jointly discussed.

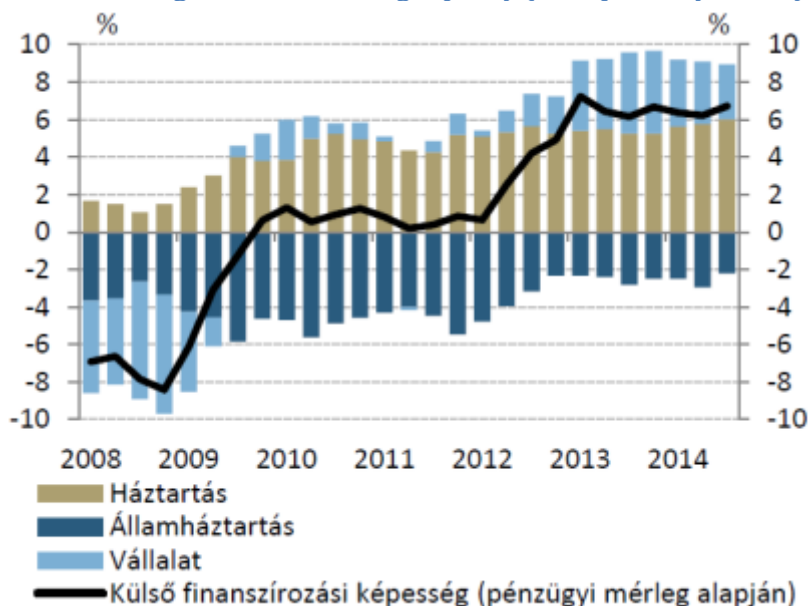
2.4.4. Social and economic developments affecting the objectives

2.4.4.1. Budgetary management

The economic crisis required governments to walk a thin line between budgetary management and economic growth: certain countries chose to accelerate economic growth during the crisis by increasing their budgetary deficit. However, that option was not available in Hungary due to the high amount of public debt and budgetary deficit. Hungary's economic growth was (initially) lower than that of our competitors in the region, however, with finding the right balance and keeping the budgetary deficit steadily below 3% of the GDP, Hungary has made enormous progress toward sustainable economic growth lowering the economy's vulnerability.

While stressing the importance of austerity and frugality, the Framework Strategy gives priority to savings over consumption. Consumption in itself is not a threat to sustainable development only if it implies depletion of savings and borrowing money. In 2014, consumption expenditure was below the pre-crisis levels. Nevertheless, financing capacity in the private sector has been improving since the third quarter of 2009 explained by fast reduction of the high debt levels of households and businesses. Between 2011 and 2013, the private sector's debt-to-GDP ratio has fallen from 115% to 95%.

35. ábra: Changes in net financing capacity (four quarterly values)



Source: MNB

The largest sum in shared goods and services was the financing of welfare systems that poses serious challenges in sustainability, i.e. generational balance. Hungary is the only country among OECD member states where the share of public social spending as a percentage of the GDP has not risen since the beginning of the economic crisis. The transformation of the social benefit

system is closely connected to the engagement of the working age population in the labour market and creates a more sustainable and more transparent budgetary structure.

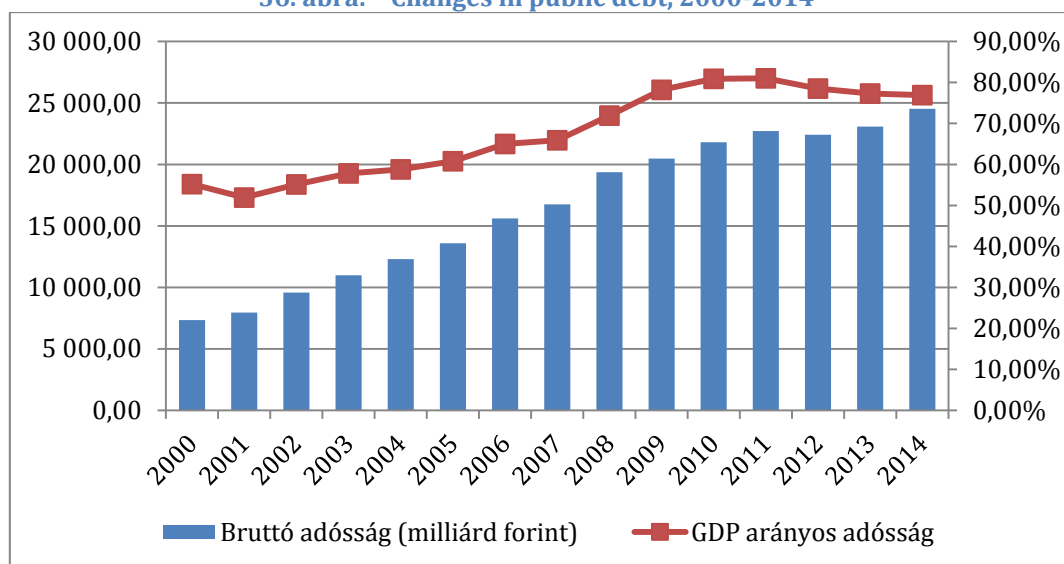
Figure 3: Social expenditure to GDP ratio, 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
Sick pay, maternity benefits or temporary disability benefits	1.8%	1.8%	1.6%	1.4%	1.6%	1.5%	1.4%	1.4%	1.3%
Retirement payments	10.0%	10.0%	10.0%	10.1%	9.4%	9.5%	9.2%	9.0%	8.6%
Other social security payments	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Unemployment benefits	0.4%	0.5%	0.5%	0.4%	0.2%	0.2%	0.2%	0.2%	0.1%
Family allowances and child benefits	2.0%	2.1%	2.0%	1.9%	1.8%	1.7%	1.7%	1.6%	1.5%
Other social benefits	1.0%	1.0%	0.9%	0.8%	1.7%	1.4%	1.3%	1.2%	1.1%
Social and welfare services	0.3%	0.3%	0.3%	0.3%	0.4%	0.7%	0.8%	1.5%	1.5%
Social security and welfare services	15.9%	16.1%	15.6%	15.1%	15.3%	15.2%	14.7%	15.1%	14.3%

Source: Hungarian State Treasury and based on draft state budget acts Policy Agenda (preliminary data for 2014, data in draft state budget act or budget act for 2015-2016)

Objectives in the NSSD include not only sound budgetary management but also the reduction of public debt and elimination of processes leading to high level of indebtedness in future generations. Following a strong rise after 2002, the public-debt-to-GDP ratio started to slightly decline in 2010 and debt is projected by the European Commission to continue to decrease at a slow pace.

36. ábra: Changes in public debt, 2000-2014



Source: Figure based on data from Public Debt Management Centre

It is important to note that under the current financing conditions the government deficit-to-GDP ratio of 3% may only be further decreased if the public debt-to-GDP ratio is 75%. Based on

the ratio of public debt of 76.9% in 2014 and deficit forecasts of 2.4-2.7%⁶² for the next years, public finances are on the border of a rising and declining debt trajectory.

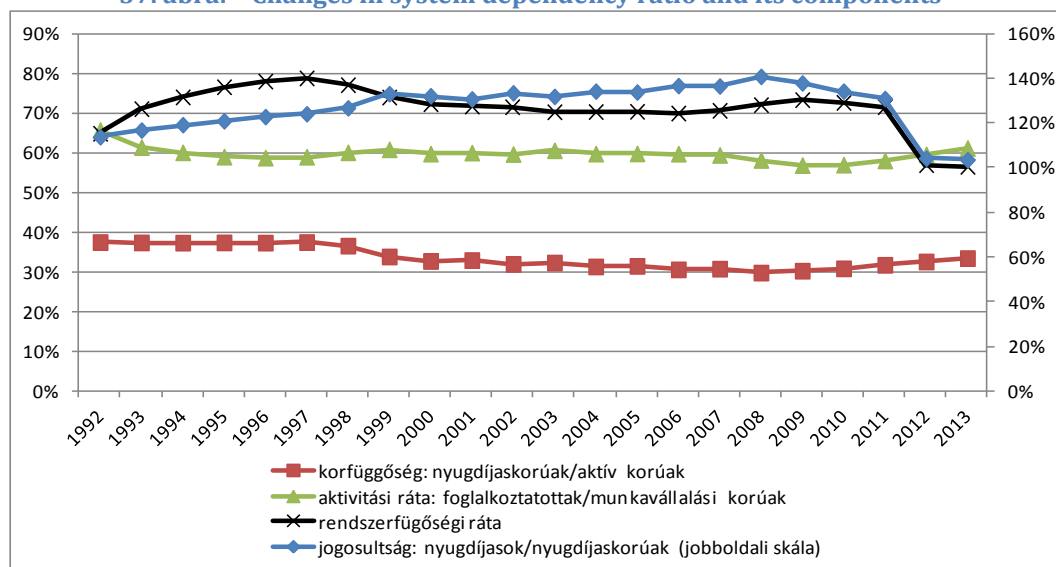
2.4.4.2. Changes in generational balance

In the long term, the revenues and the expenditure of any welfare state are most importantly determined by the rules of the welfare programmes as well as demographic and labour market processes. Government actions aiming to increase the share of economically active population in the total population in the long term – including through higher fertility rates, improved immigration balance of working age persons and higher healthy life years – help enhance the balance of intergenerational resource redistribution. Labour market actions to raise the rate of employment and work productivity in the long term also contribute to sustainability.

Generational balance is expressed by the old-age dependency ratio⁶³ showing the rate of various generations. This ratio is growing every year which means working age population will find increasingly harder to support the elderly population. In 2014, the old-age dependency ratio was 25.8%. This means that while 5 working age persons supported 1 retired person in 1990, this ratio has fallen to 4 by 2014. In case current demographic trends continue, it will drop to around 2 by 2050.

The indicator of generational balance for the pension system is system dependency ratio that shows the ratio of pensioners to contributors. System dependency ratio has fallen from 79% in 1997 to 56% in 2012. This decrease is primarily explained by the decrease, transformation of benefits paid to people younger than the retirement age (e.g. revision of disability retirement benefit and reduction of early retirement schemes) and by the higher number of workers.

37. ábra: Changes in system dependency ratio and its components



Source: National Pension Fund Statistical Yearbook 2013, KSH Demographics Yearbook 2013, KSH Statistical Yearbook 2013

⁶² For 2015, forecasts for government deficit to GDP ratio by the European Commission and MNB are 2.7% and 2.4% respectively.

⁶³ Shows the ratio of the elderly population (65-X years) to the working age population (15-64 years).

The two indicators that help quantify the long term sustainability of welfare systems are generational imbalance⁶⁴ and implicit pension debt⁶⁵ also included in NSSD as potential key indicators of sustainability. As the calculation of these indicators is costly and complex, recent data are not available to reflect changes.

These two indicators also fail to fully reflect the complete intergenerational resource redistribution system as implicit debt may be found in, for example, the health care and elderly care systems while the family welfare system and education offer implicit savings. As a result, changes in socio-economic processes play a more important role in the analysis of processes determining the sustainability of intergenerational resource redistribution than these quantitative indicators.

Within government actions related to the pension system, the raise of the retirement age, the introduction of stricter criteria to allow early retirement and the cancellation of the upper limit of contribution had an overall positive impact on the long term sustainability of the pension system while it was adversely affected by the deconstruction of private pension funds and early retirement of women after 40 years of service.

2.4.4.3. *The infrastructure of trust in the economy*

Although the financing capacity of the government and the private sector has improved, it is important to note that normal lending in the economy has not yet been restored after the crisis. The corporate sector does not have or does not want to have access to loans required for their operations and growth signalling trust issues affecting the corporate sector. While MNB's Funding for Growth Scheme has enhanced the opportunities for corporate borrowing, this could further reduce unsubsidised lending.

The reason for lending problems is the rate of non-performing loans (i.e. in default in excess of 90 days) which was 18.8% for retail loans and 16.8% for corporate loans in the second quarter of 2014. The high rate of non-performing loans is (partly) explained by the long time problems of debtors with foreign exchange loans. Based on the European Commission's country report, relief schemes adopted by the government and regulatory adjustments have deteriorated the payment culture among borrowers while helping less distressed households and the National Asset Management Agency is unable to buy dwellings matching the number of problematic borrowers.

Payment discipline is generally poor in Hungary. Relevant problems include the lack of a factoring market, the nearly total absence of foreclosures, the low efficiency or sluggishness of

⁶⁴ This indicator shows the difference between the account of unborn generations and the account of the generation born in the year when the indicator is computed, in other words, it reflects the surplus a future generation has to eventually pay compared to the new-born generation to set off liabilities accrued for a long time.

⁶⁵ Experts recommend three alternative methods to compute implicit debt (Holzmann, Palacios and Zviniene (2004)).

The first is accrued-to-date liabilities (IPD1): the current value of pensions to be paid in the future on the basis of accrued pension rights.

The second is closed-system liabilities (IPD2): implicit debt to be paid in a closed system excluding new entrants. This represents the current value of net liabilities between the liabilities paid to date and payable in the future of every person with pension rights accrued to date and the pension of every such person.

The third method is the open-system liabilities (IPD3) that includes in addition to IPD2 the current value of the net liabilities of people acquiring pension rights in the future.

debt collection procedures in or out-of-court and the low return rate of the accounts receivable of lenders. This soft lending market in Hungary has a negative impact on trust within the economic sector and significantly threatens the sustainability of economic growth.

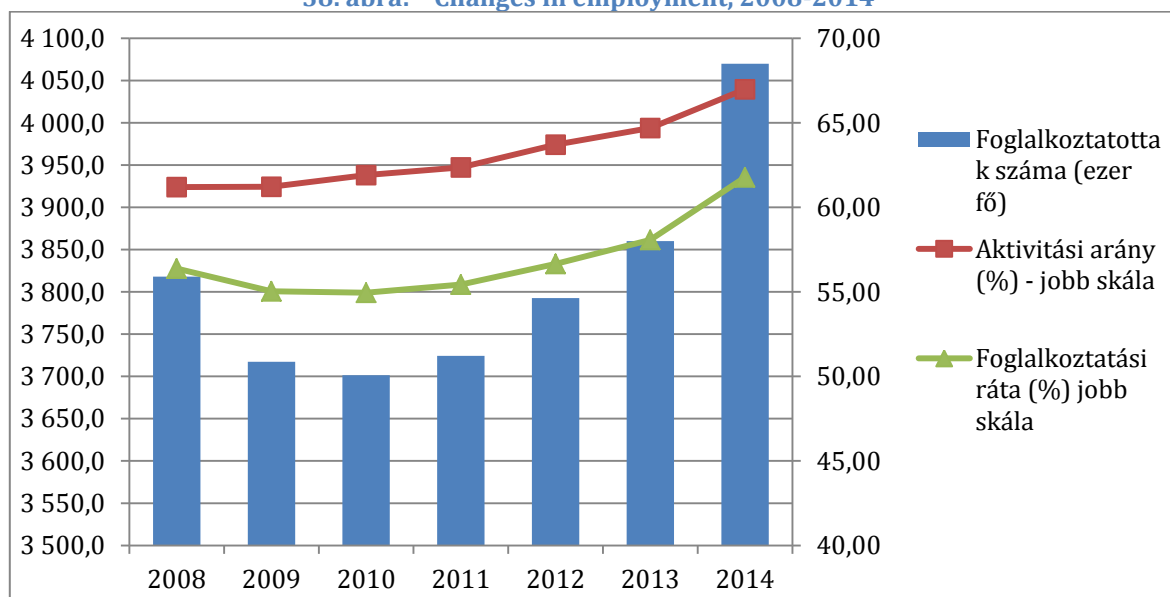
Financial awareness of the population is typically weak that led to a level of indebtedness threatening the sustainability of Hungary's economy. Having recognized this problem, based on the National Youth Strategy adopted by the government in 2014, both the Ministry of Human Capacities (EMMI) and the Ministry for National Economy (NGM) have committed themselves to developing financial culture within the society. In May 2014, NGM, the Hungarian Central Bank and the State Audit Office of Hungary signed a cooperation agreement designed to improve the level of financial education. Actions under the cooperation include the development of financial education programmes in schools and organization of awareness raising and information campaigns.

The infrastructure of trust has also been strengthened by the reduction of rent seeking activities since the adoption of NSSD: the impact of government actions to eliminate the black market, to reduce tax evasion, to expand the tax base and to improve efficiency of tax collection is already reflected in public finance figures, e.g. enhanced efficiency of VAT collection lowered the government borrowing requirement already in 2014.

2.4.4.4. Employment

Employment figures have continued to improve since the adoption of the Framework Strategy. Based on KSH data, the number of employed persons was in excess of 4 million in 2014 representing an employment rate of 61.8%, the highest value since the regime change. Unemployment rate decreased to a pre-crisis level of 7.8% in 2014. In the meantime, the rate of economic activity rose indicating higher labour market participation. Improved employment figures contribute to sustainability by ensuring generational balance, enhancing the individual's image within the society, preventing social exclusion, preserving and expanding the value of human capital.

38. ábra: Changes in employment, 2008-2014

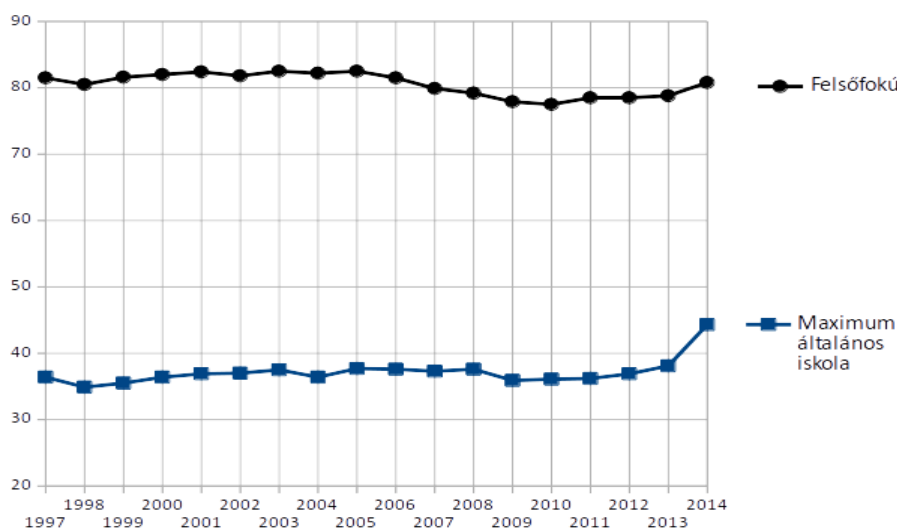


Source: KSH, self-developed figure

It is also important for sustainability that the employment rate of young people aged 15-24 years has also increased (as early unemployment may have a highly adverse impact on stable employment and on the amount of potential income in the future⁶⁶) but still only one in four young persons was classified as employed including young people working while learning or in school breaks.

Employment is closely linked to the level of educational attainment: people with higher levels of educational attainment find a job and learn new competences more easily ensuring better adaptation to changes in labour market demand. While the employment rate of people with primary education as highest educational attainment is only a little over 40%, such rate for people with tertiary level of educational attainment is more than 80%. Under the EU2020 Strategy, targets agreed to by Hungary's government include to raise the rate of people with tertiary or equivalent level of educational attainment to 30.3% in the population aged 30-34 years by 2020 and to reduce the rate of people not participating in any education or training programme with lower secondary education as highest level of educational attainment in the population aged 18-24 years to 10%.

39. ábra: Employment rate of people with low level and high level of educational attainment aged 20-64 years (%), 1997-2014

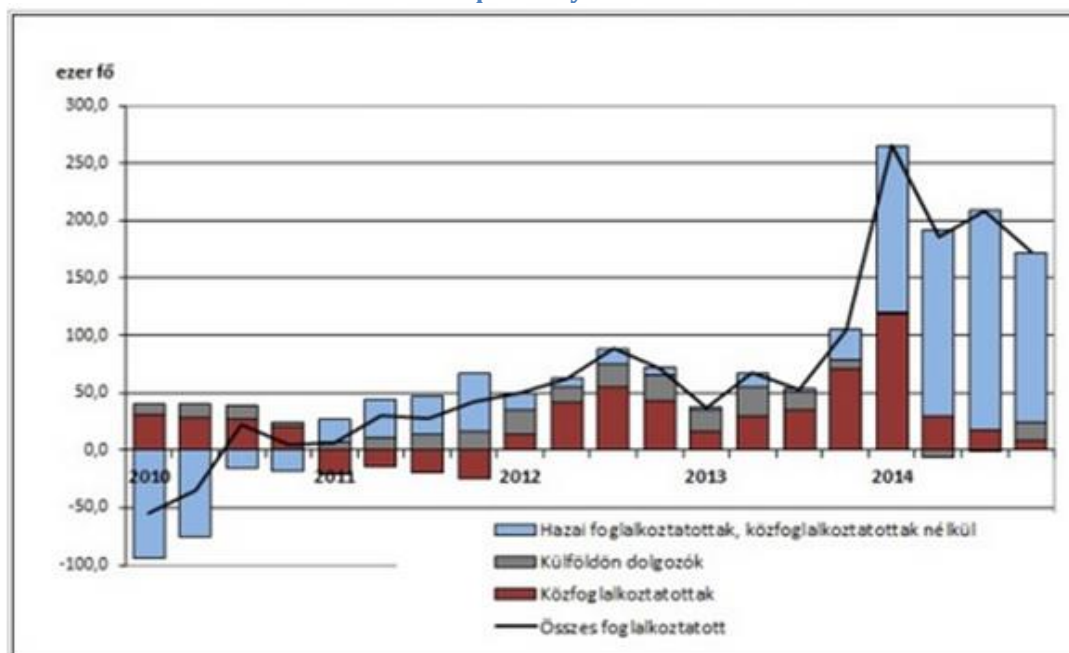


Source: Eurostat (table tsdsc270). Primary education includes ISCED 0-2 categories, tertiary education includes ISCED 5-8 categories

In particular in 2013, the public employment programme played a key role in the improvement of employment figures. In 2014, 183 000 people participated in the public employment programme on average every month, 41.5% more than in 2013. However, it must be noted that the yearly increase in the number of employed persons was much less affected by the public employment programme and employment in other countries and much more influenced by higher demand on the labour market.

⁶⁶ See e.g.: Szepesi-Luksander (2012): Exploring the socio-economic context of developments under the National Strategic Reference Framework promoting reduction of youth unemployment. Hétfa Research Institute.

40. ábra: Annual change in number of employed persons (thousand); 2010-2014, on a quarterly basis



Source: Central Statistical Office (KSH), Workforce assessment, Department of Public Employment Statistics and Analysis at Ministry of Internal Affairs

By 2015, 213 000 people will have been worked in the public employment programme. It is a challenge for sustainability that based on some recent studies⁶⁷ the programme works with poor efficiency: only 13% of participants find a normal full time job subsequently while 80% repeatedly register as unemployed.

Emigration of economically active workers poses an increasingly severe challenge for Hungary.⁶⁸ In order to stop this process, wages should be raised, in particular in occupations affected by high rate of emigration. Government actions intended to address this issue (e.g. career path model for teachers and law enforcement workers) may only be successful if they are trustworthy and wages are predictable and are not only raised temporarily from time to time. In general, while employment is relatively inexpensive, capital (i.e. financing) has become costlier leading to reduced labour productivity.

2.4.4.5. Development of business capital, reduction of burdens on businesses

Business capital in Hungary may be promoted by stronger business culture and improved business and administration conditions. The Simple State Programme was announced in 2011, before the adoption of the Framework Strategy. This Programme encompasses a total of 114 actions – the majority scheduled for 2012 and 2013 – including the reduction of tax related administration, the simplification of the operations of authorities, faster and more predictable permission procedure for capital investments, the mitigation of administrative burdens related to employment and the termination of data provision duplications as well as of institutional mechanisms triggering distrust and punishment. Despite the Programme's achievements, a number of new burdens have been imposed on businesses, primarily as the result of actions to

⁶⁷ See e.g. Cseres-Gergely and Molnár: Post-public employment labour market integration, Munkaerőpiaci Tükör, MTA-KTI, 2015.

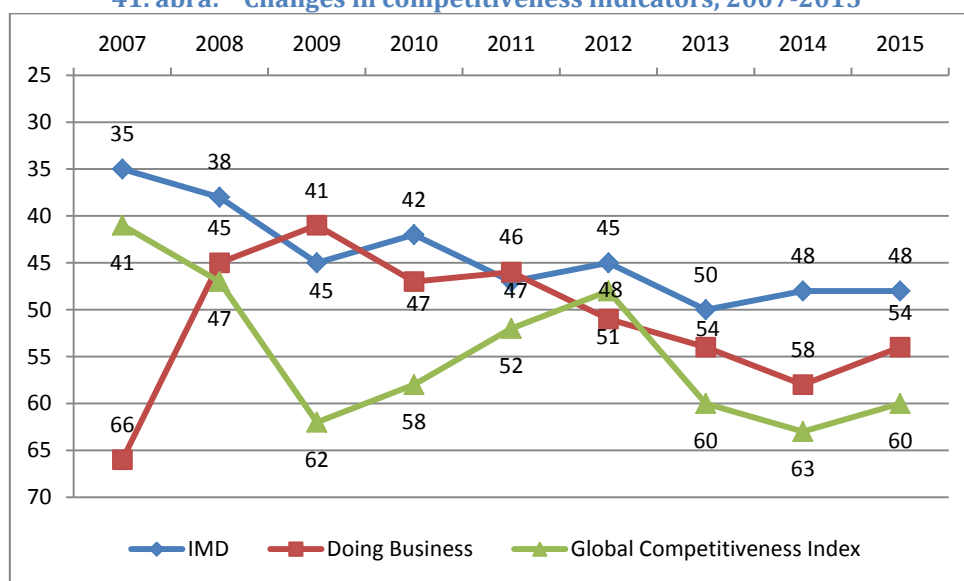
⁶⁸ Emigration is described in more detail in the chapter on human resources.

reduce the black market (e.g. introduction of cash registers or the electronic road freight monitoring system in freight transport).

A measure offering international comparison on the business environment of economies is the yearly Doing Business⁶⁹ ranking. In the report in 2015, Hungary ranked 54th improving four places compared with the previous report. Out of the sub-indicators, last year Hungary made the biggest progress in its getting credit ranking. It moved from place 55 to rank 17th.

In addition to the Doing Business ranking, other competitiveness indicators are also available to assess the quality of a business environment. These all suggest that previous negative tendencies turned into a small improvement in competitiveness by 2013 and 2014.

41. ábra: Changes in competitiveness indicators, 2007-2015



Source: IMD, figure based on data from World Bank and World Economic Forum

It is important for sustainability whether young people have the ambition, courage to start and run businesses. Bridge Budapest has been surveying business ambitions and vision of young Hungarian people aged 20-35 years since 2013. Based on the survey of 2015, a dominant part of young people believe that entrepreneurs are the driving force of the economy. While fifty percent of the respondents have thought about starting their own business, the majority (81%) imagine their future working as employees. This contradiction suggests that independence is an attractive idea in principle but their future is overall determined by choosing security over risk.

2.4.4.6. Localization, local economic relations and international cooperations

At the time of the adoption of the Framework Strategy, foreign capital contributed to the generation of added value to a larger extent than domestic economic players (i.e. GNI⁷⁰). Based

⁶⁹ World Bank's Ease of Doing Business survey jointly analyses administrative burdens on businesses by aggregating ten different components (sub-rankings) of business operations. The survey gathers specific, quantitative data to evaluate the quality and the level of business regulations. In the latest Doing Business survey, World Bank has ranked 189 countries and regions.

⁷⁰ Gross national income is computed based on the GDP. To compute GNI, gross wages, property income and net production and import taxes paid to foreign residents are first deducted from GDP. This value is then increased by the gross wages, property income and net production and import taxes paid to national residents from abroad.

on the extrapolation analysis of available data, this trend has since reversed and GNI is expected to exceed gross domestic product (GDP) in 2015. This is mainly the result of the growing influx of EU funds and rising remittances of migrant workers.

Export market share started to grow after 2013, primarily the result of higher production capacity of the automotive industry. Overall, 80% of Hungary's export is shared among approx. 5% of the businesses indicating that small and medium-sized enterprises play an insignificant role in exports. Positive processes of export growth are overshadowed by the low level of added value generated by domestic businesses in national exports.

While exports have grown, imports have declined, explained by the reduction in foreign capital investments. Hungary's gross fixed capital formation as a percentage of GDP markedly declined after the economic crisis but has been increasing to nearly match the rate of other V4 countries since 2013. In addition to the growth of GFCF, flawed investment decisions as a risk for sustainability are important to note as these will have to be financed from savings in the long term.

42. ábra: Hungary's gross fixed capital formation rate in international comparison



Source: Eurostat, calculation by NGM

As a result of investment activities, the capital stock grew in all sectors excluding education from 2012. The processing industry achieved the highest growth while agriculture and waste management also significantly expanded.

Productivity in the SME sector markedly lags behind that of advanced technology large corporations. In the processing industry for example, their productivity only reaches 20 to 50% of the productivity of large companies. Along with private investments, public investments also increased starting from 2011. Public investments dominantly included infrastructure projects that are necessary for sustainable economic growth.

A key objective in the Partnership Agreement, the core document for development funds in the 2014-2020 European Union planning cycle, is the development of the local economy incorporated into regional and sectoral objectives as well. In National Development Priority 5, objectives related to the development of the local economy, in particular the ones linked to the improvement of employment and rural areas, are represented as direct development goals.

Priority of these objectives is also reflected in regional developments: the Territorial and Settlement Development Operational Programme provides customized support to restore and improve local economic systems and local employment capacity. One of the priorities in the Operational Programme is the development of cooperations between urban and rural areas and of the local economy based on specific needs and planning.

2.4.4.7. Innovation

Hungary's R&D spending is significantly behind the EU average (1.41% of GDP compared to 2.01% in the EU) which could not only prevent Hungary to align its economic development with other countries but also stimulate the migration of highly qualified workers to foreign countries.⁷¹ A positive step is the adoption of the National Research, Development and Innovation Strategy (2013-2020) that includes actions specifically targeted at innovative SMEs.

The level of innovation is also related to total factor productivity as this indicator is affected by changes in technical, technology advancement. The lack of productivity growth in Hungary also indicates the long time weak performance of research and development. However, total factor productivity remains an obstacle for domestic potential GDP⁷² – which is predicted by the European Commission to be around 2%.

The Framework Strategy says that “International studies show a very strong link between the number of highly qualified young people and the number of research employees”. This projects the future human resource challenges of the research and development sector as the number of young people studying for a master's degree has been declining since 2011. Another risk for innovation is that while the number of students in higher education has tripled in the last 25 years, the teacher headcounts have not changed.

2.4.5. Government measures

The government has adopted the **Small and Medium-sized Enterprises Strategy** for the period between 2014 and 2020. This strategy identifies three key issues in the development of SMEs that are also highlighted by NSSD in the area of economic resources. The strategy also defines the goals and funds to address these issues that are also in harmony with the Framework Strategy. The table below demonstrates the links between the issues, the goals and the means.

4. Figure: Issues, goals and means defined in SME Strategy

Issue	Goal	Means
Unsupportive business environment	Development of domestic and export market	Development of institution system and public incentives
	Differentiated business development	Refundable and non-refundable grants (Economic Development and Innovation OP)
Difficulties in getting financial resources	Promotion of financial awareness	Training programmes
	Improvement of access to financial	Development of institution

⁷¹ There is a measurable correlation between the share of GDP invested into research and development and the development of an economy: the higher the investment, the more developed is the economy (i.e. the higher the GDP per capita purchasing power parity). Changes in R&D investment in the public sector also shape the innovation scene. As not only the companies with successful innovations benefit from R&D activities, their investments – in particular in basic research – are usually below the macro-economic optimal level.

⁷² Potential economic growth is defined as growth that may be achieved assuming the optimal use of capital and labour and the lack of significant inflationary pressures.

	resources	system and public incentives on supply and demand side
Low growth potential of SMEs – mainly result of low level of innovation and competitiveness problems	Improvement of business environment	Development of administrative environment, counselling
	State serving businesses	Reduction of administrative burdens, development of regional cohesion

Source: *Small and Medium-sized Enterprises Strategy*, figure developed by NCSD

Having recognized the issues in the domestic lending market, the Hungarian Central Bank launched the **Funding for Growth Scheme** (NHP) in June 2013. Based on MNB data,⁷³ until the end of October in 2014, over 16 000 micro, small and medium-sized businesses participated in NHP receiving a total of HUF 1 153 billion representing one-sixth of all corporate loans and one-fourth of all SME loans. According to surveys, NHP has contributed 0.3-1% to GDP growth. According to a questionnaire-based survey conducted by MNB, nearly 40% of the amount of the loans paid under NHP would not have been paid at all and another nearly 30% would have been paid only partially without NHP. In general, NHP and NHP+ launched as a continuation are successful means for economic development that contribute to growth but may not be used as a replacement for normal lending in the long term. Having recognized this, the government engages commercial banks in financing and tries to offer additional incentives for banks to assume higher risks.

The government adopted the National Research, Development and Innovation Strategy (2013-2020) in 2013 that envisions Hungary to have a sustainable knowledge-based economy by 2020 as a result of the means and funds used by the strategy as well as international processes. The goals of this strategy, whose achievement is supported by the necessary instruments, are in line with NSSD.

2.4.6. Summary conclusions

Positive trends	Risks
<p>Hungary's economy started to grow again from 2013 while government deficit remained under 3%. Although the rate of growth is below the pre-crisis level, growth is now on a more sustainable path.</p> <p>Consumption is growing simultaneously with the reduction of excessive debt previously accumulated by households.</p> <p>The pension payments to GDP ratio is expected to decrease from 10% to 8.6% by 2015.</p> <p>Between 2012 and 2014, child poverty rate slightly fell leading to smaller generational differences in poverty in recent years.</p> <p>Employment indicators show a positive trend. Based on KSH data, the number of employed persons has been constantly growing since 2010, exceeding 4 million by 2014 representing an employment rate of 61.8%, the highest value since the regime change.</p>	<p>The growth of capital investments is fragile; investments are expected to decrease in the next few years.</p> <p>Foreign trade is highly concentrated but shows a positive balance.</p> <p>Sustained growth is challenged by poor payment discipline preventing stronger trust infrastructures between market players.</p> <p>Growth is restricted by the low level of productivity explained by the poor performance of the research and development sector.</p> <p>In particular in 2013, the public employment programme played a key role in the improvement of employment figures.</p>

⁷³ <http://www.mnb.hu/letoltes/novekedesihitelprogramazalso18honap.pdf>

The SME strategy adopted by the government is in harmony with the objectives of NSSD expected to stimulate strong development in economic resources.

III. Conclusions and recommendations

3.1. Summary of the report's key observations

The time since the Framework Strategy's adoption 2 years ago is too limited to identify any major correlations. However, currently available data and processes identified in this Report highlight the progress toward sustainability in Hungary in 2015 based on the values defined in the Framework Strategy. In general,

- 2013 and 2014 brought dominantly improvements in human, social and economic resources while previously apparent negative tendencies in natural resources continue to pose challenges for Hungary. Of the selected 16 key indicators, 8 show a positive and only 2 show a negative trend (the values of 6 indicators only minimally changed);
- As the result of policies pursued in the last decades **not one of our national resources** (compared to the EU average as relative norm or to the desired national optimal level as absolute target) **is in good or above average condition**

In **human resources**, the demographic trend is a well-defined sustainability issue. The government has recognized that in addition to financial assistance, the compatibility of work and family and opportunities to return to the labour market are crucially important for fertility. Experts expect the adjusted family support system to have a potential positive impact on fertility. However, currently there are no signs of a positive trend in childbirth.

In addition to low fertility rates, an increasingly serious challenge for sustainability is migration affecting at least 330000 people based on officially published figures including Hungarian citizens younger and more qualified than the average population. Preferred target countries include the United Kingdom, Germany and Austria.

Another positive trend in human resources is that both life expectancy at birth and the number of healthy life years is constantly, although at a somewhat slow pace, growing both for men and women. It is important to note that there is a solid link between social inequalities and self-reported health status: people with higher income and educational qualifications report better health status.

Hungary's education system faces serious sustainability challenges. International surveys show a decline in the performance of Hungarian students in all of the key areas assessed. PISA results reflect that Hungarian students lack competencies required by the modern labour market (problem solving, scientific proficiency). The rate of students lagging behind, underperforming and the number of early school leavers is rising leading to increasingly severe problems in trainability and employability. People with the most potential benefits from adult training supporting successful employment participate in such programmes in the lowest numbers.

An important fact for **social capital** is that poverty and social exclusion had been constantly increasing (from 2008) until 2013 but started to decrease in 2014. Nevertheless, severe material deprivation still affected nearly 25% of the population in 2014. In addition to sustainability issues in social (and human) resources, this also challenges natural resources as typical problems in areas at risk of poverty include widespread use of firewood for heating having an adverse impact on air quality, timber theft, activities damaging forests and illegal trade of waste.

It is a welcome development that general trust and confidence in the legal system have risen although its rate is still one of the worst in Europe. However, the personal happiness level of the population is one of the lowest in the EU. The rate of xenophobia remains high.

Despite a number of government commitments, law amendments and programmes, international surveys show that corruption in Hungary continues to exceed the European average. Massive government intervention into the economy (through regulations or supplying government and EU funds as financial grants) could lead to the emergence of rent seeking behaviour in many areas.

Hungary's two most important **natural resources** are soil and fresh water supply. The degradation processes affecting both resources have not been effectively addressed since the adoption of the Framework Strategy two years ago. Out-of-date agricultural practices including the increasingly widespread use of pesticides and fertilizers have a major impact on soil and water supply. Positive processes in the area of natural resources are primarily related to forest management and sensible mineral resource management.

Rising share of built-up areas and ecologically inactive areas is a challenge for sustainability. There is a strong negative detachment between the decrease of population and the growth of built-up areas that threatens natural, semi-natural and other green areas leading to shrunken habitats and reduced biodiversity.

Risk of human exposure to particulate matter in ambient air in Hungary is higher than the EU average: PM-related illnesses reduce the statistical lifetime by over one year in Hungary.

Data from 2013 and 2014 suggest that the Hungarian **economy** is recovering from the economic crisis of 2008. GDP is rising, employment is growing, investment propensity has improved, savings are increasing while general government deficit steadily remains below 3% and the public debt to GDP ratio is shrinking although at a slow pace. Meanwhile, the lending market has not yet recovered fully and low domestic productivity needs to be improved in order to increase the rate of economic growth.

Developing positive demographic processes may have a spill-over effect on the sustainability of welfare systems, in particular the pension and health insurance systems. Meanwhile, as current trends indicate one retired person was supported by 5 persons of active working age in 1990, that ratio was reduced to 4 to 1 in 2014 and is expected to drop to 2 to 1 by 2050 unless some significant change occurs. In the meantime, the expansion of the economically active population as a result of economic incentives and the improvement of employment rates in recent years enhances the sustainability of the pension scheme to a large extent.

The active population includes a relatively high rate of workers in public employment programmes. Studies suggest that public employment fails to promote reintegration of participants into the labour market in the long term presenting a risk for sustainability but in the meantime it ensures them higher regard within the community (they work instead of living on benefits) supporting social sustainability. Furthermore, the share of public employment programmes in the expansion of employment continues to shrink, i.e. the employment potential of the private sector has significantly grown.

3.2. Messages, recommendations

Based on the assessments of the Monitoring Report, the following recommendations are made in addition to NSSD's objectives to promote the transition to sustainable development.

- The transformation of the education system should include not only the regulation of the administration system but also efficiency improvements as PISA surveys reflect a decline in student performance. To enhance employment prospects, the development of problem solving skills is indispensable.
- Education, training and retraining are particularly important to promote successful labour market participation of social groups facing exclusion and segregation and to prevent the regeneration of extreme poverty. Public employment programmes offer only partial response to and fail to address the employment problems of low-skilled workers in the long term.
- Despite a slow improvement in demographics, Hungary's population continues to decrease. In order to insure sustainability of the welfare systems, the introduction of a carefully planned and controlled immigration policy should be considered.
- Smoking and alcohol related diseases remain one of the leading causes of mortality in Hungary. Further campaigns and programmes are required to promote more sustainable lifestyle strategies.
- To preserve our biodiversity and to mitigate the adverse impacts of climate change including damage caused by droughts and floods, a much greater focus should be placed on sensible approaches to and transformation of land use. This should include a reduced pace of soil sealing (sound infrastructure investments, preference of brown field investments) and also the adjustment of land use rates shared among the various divisions of agriculture. The potential offered by ecological farming presently unused should also be exploited.
- The broader use of renewable energy sources is a positive process but due to the conditionally renewable nature of biomass, fully renewable energy sources are recommended to be disseminated on a wider scale.
- Promotion of research and development contributes to improving the quality of human resources and to boosting economic productivity.
- Stronger trust in communities could promote both social cohesion and the business environment. Reduction of corruption and possibilities for rent seeking remain a priority.
- In general, awareness about the definition of sustainability agreed to in the Framework Strategy needs to be further raised and the application of this definition in public administration should be improved. As objectives of the Framework Strategy have only selectively, inhomogeneously guided certain policy decisions, the commitment of high level political leaders toward the promotion of sustainability should be strengthened and the coordination of policies on ministerial level should assume a real, functional role in the implementation of NSSD.

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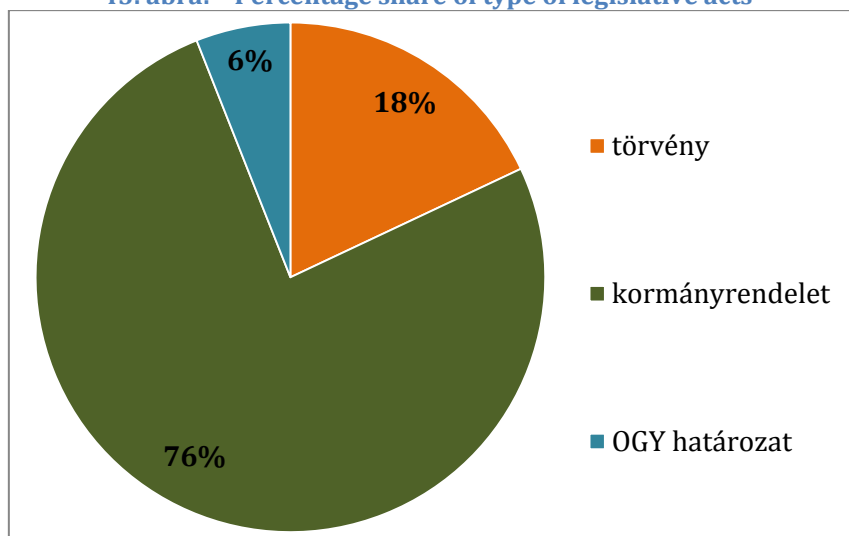
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A/II: List of legislative acts made by the government about NSSD's implementation measures – Brief statistical analysis

	Human resources	Social resources	Natural resources	Economic resources	All legislative acts	Percentage share
law	24	11	34	5	74	18%
government decree	92	35	128	62	317	76%
resolution of Parliament	1	17	5	3	26	6%
Total	117	63	167	70	417	
Percentage share	28%	15%	40%	17%		

The Parliament adopted the resolution on the National Framework Strategy on Sustainable Development in 2013⁷⁴. To support this strategy, numerous legislative acts were elaborated in 2013 and 2014 attached in the annex to this study. The laws, decrees and resolutions totalling over 400 are variably connected to the resources (in some cases a legislative act promotes several resources that was included in our evaluation in all relevant places).

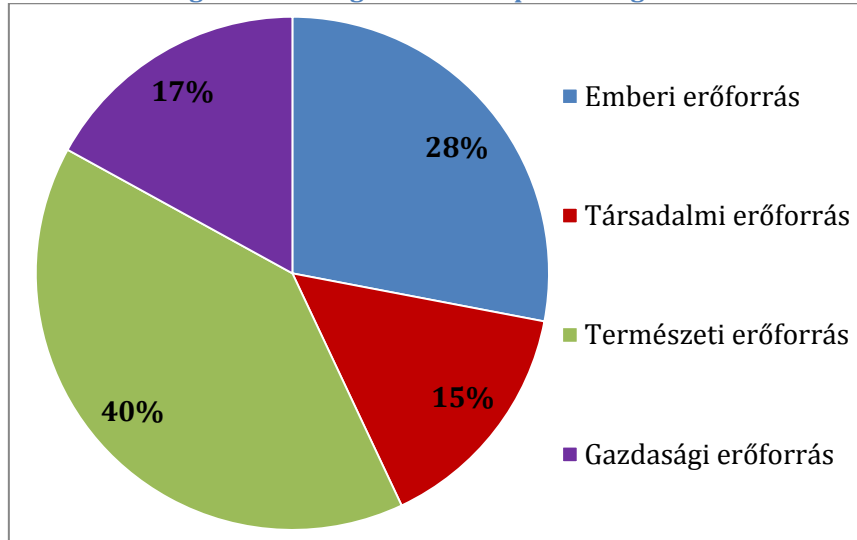
43. ábra: Percentage share of type of legislative acts



The aggregate list of legislative acts shows that the Framework Strategy is dominantly supported by government decrees (76%). These are followed by laws representing a share close to 20% (18%). Resolutions adopted by the Parliament to promote the objectives defined have the lowest share (6%).

⁷⁴ 18/2013 (March 28th) resolution of Parliament

44. ábra: Percentage share of legislative acts promoting the various resources



The highest rate of legislation activity was connected to natural resources (40%) followed by human resources (28%). Nearly equal priority has been given to social and economic resources (15 and 17% respectively).