

# GREEN NEW DEAL SCORECARD 2014



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# INTRODUCTION

It has by now become an indisputable fact that solving the environmental crisis is among the gravest problems humanity faces. The most recent report of the IPCC<sup>1</sup> has made it clear that climate change is caused by human activity, and we are very close to the tipping point where the processes involved become unmanageable. In 2009, a comprehensive study<sup>2</sup> found that change is already irreversible in a number of areas – for example, the loss of biodiversity – far exceeding the limits of sustainability. One NASA-commissioned study which has just been published<sup>3</sup> clearly states that our civilization can not be stably maintained at the current rate of resource consumption and the present structure characterizing the distribution of goods. The UN's fifth Global Environmental Assessment (GEO5)<sup>4</sup> also painted a dramatic picture of the state of natural systems.

<sup>1</sup> <https://www.ipcc.ch/report/ar5/wg1/>

<sup>2</sup> <http://www.stockholmresilience.org/21/research/research-programmes/planetary-boundaries.html>

<sup>3</sup> <http://www.theguardian.com/environment/earth-insight/2014/mar/14/nasa-civilisation-irreversible-collapse-study-scientists>

<sup>4</sup> [http://www.unep.org/geo/pdfs/geo5/GEO5\\_report\\_full\\_en.pdf](http://www.unep.org/geo/pdfs/geo5/GEO5_report_full_en.pdf)

The more these and similar studies tell us about the state of the global ecosystem, the clearer three things become. First of all, we absolutely need to know more about the changes taking place in our environment and we have to become more accurate in our assessment and analysis. Second, the environmental, social and economic systems are closely related to each other. The causes and signs of the resource crisis are not only to be found in the natural systems; the social and economic functioning also reflects, and furthermore creates, the global problems. There is no separate environmental crisis. The third lesson we have to draw is that urgent action is called for. The time we have left to act is probably only a matter years, perhaps a decade or two so that we have a chance to halt these changes and keep them within manageable bounds.

This understanding is reflected by the next five year report of the European Environment Agency on the environmental status of Europe, to be completed in 2015. The report shares the approach taken by similar studies prepared earlier, analyzing the inherently intertwined socio-economic and environmental processes and making it clear that solutions they require are at least as complex themselves.

In recent decades, such exhaustive policy proposals and solutions were launched in developed countries under the label of the Green New Deal (GND). The Green New Deal is a series of economic, social and environmental measures designed to lead to the

creation of an equitable, just and democratic society while decreasing the consumption of resources and reducing our impact on the environment. It follows that the Green New Deal does not merely affect environmental or resource policies, but also directly impacts the such diverse issues as that of human capital, the economic structure and the state of our democracies.

However, in order to find real solutions to address these compound crises, we need to have reliable information as a first step. However, no analysis has so far been made available to assess the most important issues for the implementation of the Green New Deal in Hungary in a unified structure. Very little is known about where the country is at regarding the transition to a green economy, how it has started to deal with the challenges created by climate change, or what results it has achieved in creating a cohesive society. It has not so far been clarified which areas most urgently call for immediate intervention and thorough change and where is there more room to deliberate before taking action.

These are the questions the present publication, the first Hungarian report on the Green New Deal, wishes to answer. The indicators we were looking for are considered key elements for the Green New Deal by the international community of researchers specializing in the field. These indicators form three groups, covering the three main domains of the global crisis: economy, environment and society.

We were also aware that this was no small task. Grading performance is inevitably subjective – even if the grades given are based on the development of specific indicators. To that extent, this publication is also an experiment in itself. An unprecedented effort to take stock of the state of the Green New Deal in Hungary. But we do not think that this work has been completed in any sense: it is bound to generate controversy both on account of the simple methodology used and the fragmented nature of the data available. In fact, it would be desirable for our publication to generate controversy, as an indication that the situation is ripe in Hungary and in Hungarian public discourse to finally take the issue of the Green New Deal seriously.

In this respect, the Report on the state of the Green New Deal, is only the first step in a longer work process, which we hope will go a long way and in the course of which we will be able to periodically monitor the most important Hungarian economic, environmental and social indicators. We invite the reader to accompany us along this path, and if time allows, to help us pursue this commitment. Through the contact available at the website of the report ([www.greenscorecard.hu](http://www.greenscorecard.hu)), we welcome your opinions and feedback, which we also plan to use in preparing future versions of the publication. This participatory report-making process is consistent with the shared understanding of the authors: we can bring about the Green New Deal together!

The editor

# THE GREEN NEW DEAL IN HUNGARY IN 2014

GRADE:

2.6

The state of The Green New Deal in 2014 was assessed by evaluating the development of the relevant indicators in the period 2008 to 2013 in Hungary. Wherever feasible, we tried to rely on figures and quantitative evaluation. On their own, however, the data do not provide a lucid picture that would clearly convey the successes or failures of the Green New Deal to a wider public. Thus, following widespread

international practice also familiar from school, we used a 5-scale grading system to assess the state of specific processes. Where no change could be observed in comparison with the base, a grade of 3 (medium) was given.

Grades 1 and 2 mark degrees of decline, the former being the equivalent of failing in the methodology of the Report. A grade of 4 reflects slight but noticeable improvement, while elements of the Green New Deal that are innovative even among developed countries were rewarded by a grade of 5 (excellent). A totality of 156 indicators are presented both in the present publication and on the [www.greenscorecard.hu](http://www.greenscorecard.hu) site. Table 1 presents the "Certificate" consisting of these grades.

**Table 1 – The Indicators Graded**

Indicator 1 – The production of renewable energy in general	2
Indicator 2 – Renewable energy in electricity generation	2
Indicator 3 – Renewable energy for heating and cooling processes	3
Indicator 4 – Renewable energy in the transport and shipping	4
Indicator 5 – The share of renewable energy as compared to nuclear energy	2
Indicator 6 – Energy dependence	3
Indicator 7 – Energy intensity	2
Indicator 8 – Development of final energy consumption	4
Indicator 9 – Development of primary energy consumption	4
Indicator 10 – Co-generation, or combined heat and power (CHP) generation	2

Indicator 11 – Dynamics of residential electricity consumption	4
Indicator 12 – Decent working conditions	1.5
Indicator 13 – Green jobs	2.5
Indicator 14 – Employment related to renewable energy	2.5
Indicator 15 – Taxing consumption	2
Indicator 16 – Taxing capital	2
Indicator 17 – Taxing labour	2.5
Indicator 18 – The relative weight of environmental taxes in taxation	2.5
Indicator 19 – Taxes on energy	2.5
Indicator 20 – Taxing financial transactions	3
Indicator 21 – Taxes on pollution and resource use	3.5
Indicator 22 – Taxing pollution	3.5
Indicator 23 – Resource productivity	4
Indicator 24 – Green patents in the industrial and service sectors in general	3.5
Indicator 25 – Spread of eco-labels	2.5
Indicator 26 – Food-nutrient pollution	2.5
Indicator 27 – Metallurgical heavy metal pollution	2.5
Indicator 28 – Total organic carbon chemical (TOC) pollution in the chemical industry	2.5
Indicator 29 – Private investment rate of economic operators	1.5
Indicator 30 – International net investment position	2
Indicator 31 – Investment rate	2
Indicator 32 – Private debt	2
Indicator 33 – Government debt	2
Indicator 34 – Government investment rate	3
Indicator 35 – Household savings as a percentage of disposable income	3.5
Indicator 36 –Flow index of private lending	1.5
Indicator 37 –Changes in the value of the resources of the financial sector	2
Indicator 38 –The development of long-term interest rates	2
Indicator 39 –The development of short-term interest rates	2
Indicator 40 –Deflated property price index	2
Indicator 41 – The financial sector leverage	3
Indicator 42 – Promoting increasing renewable energy resource use	3
Indicator 43 – Promoting efficient energy consumption	2
Indicator 44 – Land ownership structure	2
Indicator 45 – The size of agricultural land	3
Indicator 46 – Use of chemicals	3
Indicator 47 – Water consumption	3
Indicator 48 – Areas under organic farming	2
Indicator 49 – Organic farming by branch	3
Indicator 50 – Organic livestock	2
Indicator 51 – Use of Chemicals	3

Indicator 52 – Soil protection	4
Indicator 53 – Plant health	3
Indicator 54 – Use of crop protection products	3
Indicator 55 – Residue trials	2
Indicator 56 – Animal Health	3
Indicator 57 – Wine products	4
Indicator 58 – Employment in agriculture	3
Indicator 59 – The infrastructure of agricultural production	3
Indicator 60 – Number of farms	3
Indicator 61 – Profitability and income	3
Indicator 62 – Amount of municipal solid waste	3
Indicator 63 – Landfill share	3
Indicator 64 – Recovery rate (packaging materials)	3
Indicator 65 – Share of reusable packaging	2
Indicator 66 – Environmental product tax revenue	2
Indicator 67 – Packaging emissions	2
Indicator 68 – Public utility water production	4
Indicator 69 – Wastewater treatment	4
Indicator 70 – Drilled wells, water extraction and reinjection	2
Indicator 71 – Portion of land area covered by forests	4
Indicator 72 – Ownership structure	3
Indicator 73 – Conservation status of forests	3
Indicator 74 – Health status of forests	3
Indicator 75 – Timber consumption and extraction	4
Indicator 76 – Species and age structure of forests	3
Indicator 77 – Reforestation	2
Indicator 78 – Protected Areas	4
Indicator 79 – the ecological status of the Natura 2000 sites	3
Indicator 80 – Protected species	4
Indicator 81 – Number of trips made	3
Indicator 82 – Transport expenditures	3
Indicator 83 – Commuting	2
Indicator 84 – Vehicle fleet	3
Indicator 85 – Promoting community transport	2
Indicator 86 – Number of trips made	3
Indicator 87 – Road and rail freight shipping	3
Indicator 88 – Fluvial freight shipping	3
Indicator 89 – Combined freight shipping	2
Indicator 90 – Greenhouse gas emissions	3
Indicator 91 – Mean surface temperature	2
Indicator 92 – Rainfall	4
Indicator 93 – The number of days with exceptional weather conditions	3



Indicator 94 – Supporting the institutions for environmental protection and nature conservation	2
Indicator 95 – Environmental expenditures	3
Indicator 96 – Duties and competences of National Parks	2
Indicator 97 – National park areas	3
Indicator 98 – National Parks budget and headcount	2
Indicator 99 – The Life+ programme	3
Indicator 100 – Supporting environmental and nature conservation NGOs	2
Indicator 101 – Gini	3
Indicator 102 – Income ratio of first to fifth income quartile	3
Indicator 103 – Low work intensity households	2
Indicator 104 – At risk of poverty rate	3
Indicator 105 – Children at risk of poverty	1
Indicator 106 – Material deprivation	1
Indicator 107 – Share of the population unable to finance unexpected expenses	2
Indicator 108 – Share of population with payment arrears	1
Indicator 109 – EU2020 complex indicator: at risk of poverty or social exclusion (APORE)	2
Indicator 110 – Social protection spending	2
Indicator 111 – Employment of elderly workers	3
Indicator 112 – Share of population over 60 at risk of poverty	4
Indicator 113 – Effective retirement age	3
Indicator 114 – Pension savings	0
Indicator 115 – Public spending on pensions	3/4
Indicator 116 – Malnutrition of children	0
Indicator 117 – Material deprivation of children	0
Indicator 118 – Formal day care – children between 0-3	1
Indicator 119 – Kindergarten – children between 3-6/7	1
Indicator 120 – Pupil/teacher ratio primary education	4
Indicator 121 – Share of low performers in maths (PISA test)	1
Indicator 122 – Not in Employment Education or Training	2
Indicator 123 – Share of university students studying abroad	4
Indicator 124 – Share of 30-34 with a degree from higher education	5
Indicator 125 – Spending on education as a share of GDP	1
Indicator 126 – Overcrowded households	1
Indicator 127 – Bad quality housing	3
Indicator 128 – Pollution in residential areas	3
Indicator 129 – Share of households overburdened by households' costs	3
Indicator 130 – Share of households overburdened by households' costs living in household-owned accommodation	2
Indicator 131 – Expected years in good health, women and men	2/3
Indicator 132 – Self-reported health status	3
Indicator 133 – Unmet health-care needs because of barriers of access	3



Indicator 134 – WHO estimates on out of pocket spending on health-care as a percentage of total spending in health-care	2/3
Indicator 135 – Number of doctors per 1000 inhabitants	1
Indicator 136 – Number of hospital beds per 1000 inhabitants	4
Indicator 137 – Public spending on health care spending	1
Indicator 138 – Employment rate	2
Indicator 139 – Women's employment rate	2
Indicator 140 – Employment rate of people with low education level	1
Indicator 141 – Long-term unemployment	1
Indicator 142 – Unemployment trap	3
Indicator 143 – In work at risk of poverty	4
Indicator 144 – Gender pay gap	1
Indicator 145 – Share of young people with a temporary contract	3
Indicator 146 – Life-long learning	1
Indicator 147 – Democracy and participation	2
Indicator 148 – Trust in institutions	3
Indicator 149 – Voter turnout	1
Indicator 150 – Transparency of decisions	2

Taking a closer look at these grades, one arrives at average values of 2.67 for the economic, 2.96 for the environmental and a tragic 2.12 for the social indicators. There were about twenty grades of 1 or "Fail", sending a clear message that the governments of the period analyzed did not consider the issue of social progress important enough, while a large number of grades of four ("Good") testify that progress is in fact far from being impossible. Grades of 5 ("Excellent") could only be granted in one field, for the indicator of the share of graduates. This is, however, linked to a fact concerning the research methodol-

ogy adopted for creating the report: one should bear in mind that the consequences of the 2013 higher education reform will only become visible in the statistics towards the end of the decade, and the increasing mobility of students will even then mask some of the full-fledged negative impact.

When Hungary is assessed in the light of the totality of these grades, it becomes clear that that country is often on a path of regression, or at best, on a plateau, and not only in comparison with Western European standards, but measured by regional benchmarks.

# ECONOMIC INDICATORS

GRADE:

2.6

## I. ENERGY PRODUCTION

The goal we ought to set in the production of energy is to significantly increase the weight of renewables, which at the same time promotes a diversified and safe energy supply. Based on the above, Hungarian energy production is evaluated according to the six following indicators: (1) the production of renewable energy in general; (2) renewable energy in electricity generation; (3) renewable energy for heating and cooling processes; (4) renewable energy in transport and shipping; (5) the share of renewable energy as compared to nuclear energy; (6) and last, but not least, we'll also take a look at the evolution of energy dependency.

### Indicator 1 – The production of renewable energy in general

**Grade: 2**

Compared to the total energy generated in Hungary, the share of renewable energy in general is low. Though the ratio of renewables has been continuously increasing since 2008, the country is still quite far

from its 2020 objective of 14.65. While in 2012, the proportion of renewables was only 9.6%, Hungary was at that time below not only the EU average (14.1%), but also the average of the 4 Visegrad countries (10.5%). Based on these figures, considering the slight yearly increase as well, the Hungarian performance merits a grade of 2.

### Indicator 2 – Renewable energy in electricity generation

**Grade: 2**

The picture is not brighter when one considers the role of renewables in electricity generation. For the entire period 2008-2012, some improvement can be observed: the share of renewables increased from 5.3% to 6.1%. This was accompanied, however, by a slight decrease in the share of renewables following 2010, and Hungary's delay is conspicuous not only when compared to the EU average of 23.5%, but also to the 12.1% average figure of the Visegrad countries. Based on the above, Hungarian performance merits only a grade of 2 in this area as well.

### Indicator 3 – Renewable energy for heating and cooling processes

#### Grade: 3

The picture is somewhat brighter when one considers the role of renewables in heating and cooling processes. Though the Hungarian share amounting to 12.3 was significantly lower than the 15.1% EU average in 2011, it still slightly exceeded the average figure of the Visegrad countries, which was precisely 12%. With this consideration in mind, the Hungarian performance can be attributed a grade of 3.

### Indicator 4 – Renewable energy in the transport and shipping

#### Grade: 4

The picture is brighter when we evaluate the role of renewable energy in transportation and shipping. The 4.5% Hungarian share registered in 2011 does exceed both the EU average (3.8%) and the average of the 4 Visegrad countries (exactly 3%), thus Hungarian performance in this domain is judged to be good, meriting a grade of 4.

### Indicator 5 – The share of renewable energy as compared to nuclear energy

#### Grade: 2

Analysing the share of renewables compared to that of nuclear energy, the tendency is much more severe. Not only because the relative weight of this indicator (43.4% in 2012) is low in itself in Hungary, but also, because our lag behind the EU average (81% in 2012) dramatically increased just in the five years considered. In the EU at large, renewables are gaining ground to the expense of the share of nuclear energy. The fact that both Hungary and the countries of the Visegrad region failed to be part of this process (average for the V4 countries for this indicator amounts to 39.3%) is no excuse for the Hungarian performance. Based on the above, we judge the Hungarian performance to be weak, which merits a grade of 2.

### Indicator 6 – Energy dependence

#### Grade: 3

Finally, besides analysing the significance of renewables in energy production, it is also worthwhile to take a look at the context of energy dependency. Concerning this indicator, the Hungarian situation improved between 2008 and 2012: our energy dependency decreased from 63.2% (5 years ago) to 52.3% (current figure). Though this is still higher than the barely 42% average of the Visegrad countries, it is somewhat lower than the total indicator for the EU countries in 2012 (53.3%). It remains to be answered, of course, as to what extent can this improvement be accounted for by falling energy demand in the wake of the prolonged crises, while it is also obvious that a greater share of renewables could bring more prominent improvement. Based on the above, we judge the Hungarian performance to be weak, which merits a grade of 3.

## II. ENERGY CONSUMPTION

The objective we should set ourselves regarding energy consumption is to shift to the direction of an efficient and sparing use of energy. Based on the above, Hungarian energy consumption is evaluated according to the five following indicators: (1) energy intensity; (2) the development of final energy consumption; (3) the development of primary energy consumption (4) co-generation, or combined heat and power (CHP) generation; (5) and finally, the dynamics of residential electricity consumption.

### Indicator 7 – Energy intensity

#### Grade: 2

Energy intensity improved somewhat in Hungary, that is, the quantity of energy required to generate one unit of GDP improved slightly between 2008 and 2014. Energy intensity is measured in kilogram of oil equivalent/thousand euros (kgoe/1000 EUR). Our lag behind the EU average did not decrease: the value for 2012 was 268.9 kgoe/1000 EUR, while the EU average at the time was 143.2 kgoe/1000 EUR. The energy intensity of the Hungarian economy was somewhat better than the 2012 average of the Visegrad countries of 313.1 kgoe/1000 EUR, but the improvement in terms of energy intensity was slightly lower in Hungary for in the past five years. Thus Hungarian performance according to this indicator is judged weak, worthy of a grade of 2.

**Indicator 8 – Development of final energy consumption****Grade: 4****Indicator 9 – Development of primary energy consumption****Grade: 4**

The picture is significantly better when we look at the development of either final energy consumption or of primary energy consumption. Compared to the base year of 2005 for measuring energy savings and taking the value of energy consumption for that year to be 100, the level of final energy consumption was reduced to 80.9 and the level of primary energy consumption was reduced to 84.6 by 2012. This improvement is greater than what the values from 1992-1993 suggest either regarding the average of the EU or the V4 (Visegrad) countries. At the same time the objection can be raised that this improvement might be linked to a „forced“ decrease in energy consumption (which was much less manifest in either the entirety of the EU or the average of the V4 countries). Based on the both the final and primary energy consumption, Hungarian performance is evaluated as good (grade of 4).

**Indicator 10 – Co-generation, or combined heat and power (CHP) generation****Grade: 2**

The tendency in the area of Co-generation or joined heat and electricity production (CHP) has been negative on the other hand. The coverage of co-generation used to be particularly high, even in an EU comparison: in 2008, the proportion of CHP to all electricity generation reached 21.1, whereas the EU average was 11% and the average figure for the Visegrad countries was 19.1%. By 2011, however, the share of CHP in Hungary dropped to 16.6 – even if it is true that the EU average also did not increase significantly either. Thus Hungarian performance in this domain is judged weak, worthy of a grade of 2.

**Indicator 11 – Dynamics of residential electricity consumption****Grade: 4**

The development of energy consumption in the households, however, shows substantial improvement. Compared to base year 2005 – taking the 2005 value as 100 – the level of community electricity consumption was reduced to 95.6 in Hungary by 2012. This improvement is worthy of attention even when one considers the „forced“ drop in consumption, mentioned above, since the average EU figure compared to the base year from 7 years before is 102.3 and that of the Visegrad countries amounts to 101.9. Based on these facts, the Hungarian performance in the field of the dynamics of residential electricity consumption deserves a grade of 4 („good“).

**III. GREEN JOBS**

A substantial number of articles were published in recent years by political think tanks, NGOs, and scientific researchers on the issue of green jobs. Most of these articles however do not really measure the evolution of trends. Rather, they try to illustrate points or present concepts and/or guiding principles. This is no coincidence. Even despite the huge demand for green jobs, a reliable and valid measurement and in a technical and statistical sense is still highly problematic. In the context of optimal statistical measurement, green jobs could be specified according to three dimensions and their corresponding indicators: (i) in terms of the evolution of sectoral employment concerning goods and services related to the protection of the environment; (ii) the employment impact of pollution reducing and environmental technologies, and (iii) jobs providing quality, green jobs that are good for the environment and in general provide decent working conditions. This approach, however, is not yet technically feasible, especially not in the case of Hungary. For it is the case that even Eurostat data on employment in the environmental goods and services (EGSS) sector are not yet available for this country, though they are in fact available for a number of EU states. Therefore, we can only employ a substantially reduced approach here.

The general objectives one can formulate concerning green jobs is to dynamically increase the green sector, as well as ratio of green jobs providing decent working conditions. Based on this objective – without the available EGSS employment statistics – the evolution of green jobs in Hungary can be measured in terms of the next 3 indicators: (1) decent working conditions; (2) green jobs; (3) and finally, employment related to renewable energy.

**Indicator 12 – Decent working conditions****Grade: 1.5**

Decent work conditions are largely unmet in Hungary, provided this area is approached in term of the indicator of too many work hours. According to OECD data, 92.5% of the 25-54 age group worked more than 40 hours weekly in 2012, while the rate of overwork barely decreased compared to 2008 levels. In the 15 old member states that joined the EU before the 2004 enlargement, this figure is barely 52%, and even the figure for the other Visegrad countries is lower than ours. The average value for the V4 countries was 87.4 in 2012. Based on these factors, Hungary's performance is on the border between "Fail" (1) and "Sufficient" (2), and is thus given a grade of 1.5.

**Indicator 13 – Green jobs****Grade: 2.5**

The evolution of green jobs is assessed with reference to the indicator of the organizational coverage of the EMAS Eco-Management and Audit Scheme per million inhabitants. In this field, Hungary demonstrated slight improvement between 2008 and 2012: our indicator value grew from 1.69 to 2.92, which is significantly better than the V4 average of 1.49, measured in 2012. However, the Hungarian figure is significantly below the 8.87 EU value measured for the Union at large, and for this dimension, our performance is on the border of the sufficient and the mediocre, which merits a grade of 2.5.

**Indicator 14 – Employment related to renewable energy****Grade: 2.5**

Last but not least, the employment impact of green jobs in the environmental goods and services sector can be approached based on the data from the EurObserv'ER annual report. Since there is no room to sketch the temporal evolution of trends in the present context, we can only draw some conclusions based on the 2010 data. Thus there were 1155 jobs in the Hungarian EGSS sector per 1 million inhabitants. This is slightly better than the average for the Visegrad countries (1049), but is significantly below the value for the entire EU (2232). Thus in this

dimension, Hungary's performance is again on the border between the sufficient and the mediocre, and is given a grade of 2.5.

**IV. GREEN TAXATION**

The overall objective one can formulate in the sphere of green taxation is to shift the tax burden from labour and primary goods of consumption to the use of goods in common ownership and related taxes and benefits. For analysing this context, Hungarian taxation is assessed according to the eight following indicators: (1) taxing consumption; (2) taxing labour; (3) taxing capital; (4) the relative weight of environmental taxes in taxation; (5) taxes on energy; (6) taxes on pollution and resource use; (7) taxing pollution and shipping; (8) and finally, taxing financial transactions. Given the high number of indicators, we try to present our exposition in a condensed format.

**Indicator 15 – Taxing consumption****Grade: 2****Indicator 16 – Taxing capital****Grade: 2**

In a European comparison, taxes on consumption are relatively high, while taxes on capital are relatively low in Hungary. This trend even deteriorated further for both indicators between 2008 and 2011. Let us add that low levels of taxing capital is also a widespread phenomenon in the Visegrad countries, whereas the high tax burden on consumption is striking even in a regional context. Based on the above, we judge the Hungarian performance to be weak, which merits a grade of 2.

**Indicator 17 – Taxing labour****Grade: 2.5**

The situation is somewhat better as far taxing labour, the relative weight of environmental taxes and taxing energy is concerned. Given that the implicit tax burden on labour (38.4% in 2011) is still higher than the EU average (35.8%) and the average of the Visegrad countries (35.4%), overtaxing labour is being mitigated in Hungary and thus the difference compared to international levels also decreased since 2008.

**Indicator 18 – The relative weight of environmental taxes in taxation****Grade: 2.5****Indicator 19 – Taxes on energy****Grade: 2.5**

In a European comparison the relative weight of environmental taxes in Hungary is an average figure. Nevertheless, the period 2010-2012 brought about a decrease of this tax burden, which is not a positive development. There was no clear trend between 2008 and 2012 regarding the implicit tax burden on energy. Unfortunately, the lack of predictability nevertheless only grew due to a number of peculiar political steps (sectoral and other special taxes, as well as cutting energy consumption fees). Based on these factors, Hungary's performance is on the border between sufficient and mediocre, and is given a grade of 2.5.

**Indicator 20 – Taxing financial transactions****Grade: 3**

Taxing financial transactions, based exclusively on international comparative data might even appear favourable, especially in comparison with the other Visegrad countries. The lack of predictability, the ad hoc punitive character of introducing the taxes and the negative indirect impact due to the manner of implementation (among others, stimulating effect on liquid cash flow and the hidden economy as well as a negative impact on the stability of the financial system) warrant a grade not better than 3 ("Mediocre") for the performance of Hungary.

**Indicator 21 – Taxes on pollution and resource use****Grade: 3.5****Indicator 22 – Taxing pollution****Grade: 3.5**

The level of taxing pollution and shipping seems adequate especially in comparison with the average of the Visegrad countries. The Hungarian performance, however, cannot be judged clearly good, even in the cross section of these two tax kinds, whereas the

temporal evolution of the data reflects instability and a lack of predictability. Based on these two indicators, Hungarian performance is judged to be on the border of mediocre and good, and thus given a grade of 3.5.

**V. GREEN INDUSTRY AND SERVICES**

In contrast with the renewable energy or agricultural sectors, in a significant part of the industrial and service sectors, it is not obvious how they could grow in an environmentally friendly manner. In this area, the overarching general goal one can set is to increase the deployment of green technologies, and on the other hand, to implement the decoupling of the generation of added value from emitting pollutants. The realizations of these objectives could in theory be analyzed in terms of eight indicators, however, given that no data are being collected concerning the EGSS sector in Hungary, as mentioned above, we are unable to evaluate the evolution of the value added in this sector. Thus the assessment follows seven indicators: (1) resource productivity; (2) spread of eco-labels; (3) green patents in the industrial and service sectors in general; (4) construction industry patents improving energy efficiency; (5) food-nutrient pollution; (6) metallurgical heavy metal pollution; and finally (7) total organic carbon chemical (total organic carbon, toc) pollution. Given the high number of indicators, we try to present our exposition in a condensed format.

**Indicator 23 – Resource productivity****Grade: 4**

Resource productivity as well as the evolution of patents increasing energy efficiency in the construction industry presents a favourable image of the greening of the Hungarian industrial and service sectors. Since 2008, Hungarian resource productivity has improved continuously and significantly. Compared to the base year 2000, resource productivity grew by 52,63 percentiles by the year 2011, a growth which significantly exceeded the improvement of the EU or the average of the Visegrad countries (19 and 31 percentiles respectively). Among Hungarian patents, there is a high proportion of construction industry patents designed to improve energy efficiency. The share of 6.83% as published for the year 2010 in the OECD Green Growth Indicators Database is quite high in an international comparison. Based on these facts, the Hungarian performance deserves a grade of 4 („good”).



**Indicator 24 – Green patents in the industrial and service sectors in general****Grade: 3.5**

The dynamics of the growth of green patents shows a generally positive picture in Hungary. However since 2008, one can observe a halt in this process. Let us add that the favourable value of this influence could have been influenced by the choice of a remote base year (1990). Thus in this dimension, Hungary's performance is again on the border between mediocre and good, and is given a grade of 3.5.

**Indicator 25 – Spread of eco-labels****Grade: 2.5**

The spread of eco-labels shows a less favourable image concerning Hungarian trends. According to Eurostat data on the year 2010, There were no more than 0.6 eco-labels per 1 million inhabitants in Hungary as compared to a value of 2.14 for the entire EU. Furthermore, the dynamics of the Hungarian trend are not clearly positive either. True, eco-labels are still more widespread in Hungary than in the Visegrad countries, based on the V4 average of 0.45 for 2010. Based on these factors, Hungary's performance is on the border between sufficient and mediocre, and is given a grade of 2.5.

**Indicator 26 – Food-nutrient pollution****Grade: 2.5****Indicator 27 – Metallurgical heavy metal pollution****Grade: 2.5****Indicator 28 – Total organic carbon chemical (TOC) pollution in the chemical industry****Grade: 2.5**

Assessing the indicators on harmful emissions by the Hungarian industries with the major impact on pollution, based on the data of the European Environment Agency (EEA), the emerging picture is neither black nor white. Though food nutrient pollution levels decreased significantly by 2009, but they were still significantly higher than the EU average, so in this

respect the Hungarian performance can be evaluated as mediocre (grade of 3). The reduction of heavy metal pollution associated with metallurgical production activities was even more significant, and as a result, performance in this domain can be seen of mediocre and good, which merits a grade of 3.5. In less favourable light, TOC pollution by the Hungarian chemical industry increased between 2007 and 2009 according to EEA data. Nevertheless, it is still less than the average EU or V4 figures. Based on these factors, Hungary's performance in the latter field is on the border between sufficient and mediocre, and is given a grade of 2.5.

**VI. SUSTAINABLE SAVINGS**

The overall goal normally formulated in terms of investment and savings is to establish a favourable savings context for the investment needs of the Green New Deal, i.e. to make sure that necessary investments may realized along a path that is sustainable from a macroeconomic financial perspective. For our assessment, the context of Hungarian savings and investments is evaluated according to the seven following indicators: (1) international net investment position; (2) investment rate; (3) private investment rate of economic operators; (4) government investment rate; (5) household savings as a percentage of disposable income; (6) private debt; and finally, (7) government debt. Given the high number of indicators, we try to present our exposition in a condensed format.

**Indicator 29 – Private investment rate of economic operators****Grade: 1.5**

Currently one of the most vulnerable points of the Hungarian economy is the low willingness of investment of the private economic actors. Not quite independently of the problems related to legal certainty and taxation, the pre-existing low investment rate of the Hungarian private sector continued to decline between 2008 and 2012, by 13.6 per cent to 11.1 per cent as a share of the GDP. The current rate is clearly insufficient for renewing the capacities of a country hoping to catch up with the rest of Europe, and lags more and more behind the rate observed in the V4 countries every year. Thus in this field, Hungary's performance is seen on the border between insufficient and sufficient, and is given a grade of 1.5.



**Indicator 30 – International net investment position****Grade: 2****Indicator 31 – Investment rate****Grade: 2****Indicator 32 – Private debt****Grade: 2****Indicator 33 – Government debt****Grade: 2**

As a result of the low investment activity in the private sector, the investment rate of the entire Hungarian economy is low, and showed a declining trend between 2008 and 2012: it fell from 21.7 percent to 17.4 percent as a percentage of GDP, increasing its lag behind V4 countries by 3-4 percentage points yearly. The Hungarian economy remained vulnerable even with the significant adjustment packages. This is indicated by the fact that Hungary's net international investment position is much worse than both the EU and the V4 averages. Our financial exposure amounted to 103% of the GDP in 2012 (the EU average being 32.5% and the V4 average amounting to 70.8%). This is related to the fact that both government debt and Hungarian private debt levels are high. In 2012, national debt came frighteningly close to 80 percent of the GDP, while private debt reached 131% of the GDP – and the direction of the trend to come is still unclear for both indicators. The average EU private debt level is slightly higher, the average national debt is slightly lower than Hungarian figures. On the other hand, the average indebtedness of the reference group of the Visegrad countries is significantly lower on both counts. As a result, Hungarian performance according to these four indicators (the total investment rate, the net international investment position, government debt and private debt) is judged only sufficient, and thus given a grade of 2.

**Indicator 34 – Government investment rate****Grade: 3**

In comparison, the government's investment activity levels, which reached 3.4% as a share of the GDP in 2012, is relatively favourable – above the EU average, reaching the average of the Visegrad countries. Thus the Hungarian performance in this field deserves a grade of 3.

**Indicator 35 – Household savings as a percentage of disposable income****Grade: 3.5**

Finally, there is one indicator left which contributes somewhat positively to the savings/investment position of the Hungarian economy. After 2008, the saving rate of the Hungarian population as a percentage of disposable income rose over and has since remained steadily over 10 percent. In this context, however, it is only fair to object that these developments occurred in a landscape of extremely unequal income distribution levels, i.e. the share of households with saving capacities is limited. In recent years, the Hungarian household savings rate, amounting to 10.4% in 2012, significantly exceeded the V4 average of 8.5%, although it still lags behind the EU average 13%. Based on these two indicators, Hungarian performance is judged to be on the border of mediocre and good, and thus given a grade of 3.5.

**VII. SUSTAINABLE FINANCIAL SYSTEM**

**A** financial renewal is a key element of the Green New Deal. One reason has to do with the fact that the recent global crisis started out as a global financial crisis, and a large part of the sources of the crisis can be traced back to problems in the financial system (cf. real estate bubbles related to real estate lending practices). Thus, an overall objective in this domain is to ensure a stable and sound financial environment that operates at sufficiently low interest rates and poses low financial system risk. The analysis of the Hungarian financial environment is based on the six following indicators: (1) changes in the value of the resources of the financial sector; (2) deflated property price index; (3) flow index of private lending; (4) the financial sector leverage; (5) the development of long-term interest rates, and finally (6) the development of short-term interest rates. Given the high number of indicators, we try to present our exposition in a condensed format.

**Indicator 36 –Flow index of private lending****Grade: 1.5**

The poor functioning of the Hungarian financial system is poignantly shown by the evolution of the private sector lending; which, again in line with the problems of legal certainty and taxation, is reflected by the unprecedented low ratio of private investment described above. After an earlier frenzy of activity, Hungarian banks introduced a sudden credit stop in the wake of the crisis in 2009, without any consolidation taking place later on: even in the years 2012-2011, loans showed extreme volatility and instability, in contrast with the average of the EU or the region. Based on these factors, Hungary's performance is seen on the border between insufficient and sufficient, and is given a grade of 1.5.

**Indicator 37 –Changes in the value of the resources of the financial sector****Grade: 2****Indicator 38 –The development of long-term interest rates****Grade: 2****Indicator 39 –The development of short-term interest rates****Grade: 2****Indicator 40 –Deflated property price index****Grade: 2**

It is also a negative process that the resources of the financial sector in Hungary decreased significantly in 2011, but especially in 2012. During this period, the banking sectors of the European countries largely already showed signs of consolidation, assets and liabilities growing in the EU and in the Visegrad countries as well. Decreasing funds made available by the Hungarian banking sector only failed to completely uproot financial stability for the reason that assets and liabilities had steadily increased in earlier years, even between 2008 and 2010. Although Hungarian interest rates decreased significantly both for long-term government bonds and for the short-term, as

measured by the three-month interbank interest rate index, a significant premium was preserved for both indicators compared to the EU average and the other Visegrad countries. This is shown by the fact that the average yield levels of long-term government bonds in the Visegrad countries was 3.81% in 2012 compared to 5.92% in Hungary, while the V4 average for three-month interbank interest fell to 1.97% in 2012, compared to 4.18% in Hungary. Meanwhile, the real value of Hungarian real estate fell continuously between 2008 and 2012 at a rate exceeding both the EU and the V4 average. Since all four of these indicators show increased risk along with volatility and instability significantly higher than normal in the Hungarian financial system, the Hungarian performance along these dimensions is marked only by a grade of 2 ("Sufficient").

**Indicator 41 – The financial sector leverage****Grade: 3**

Finally, the leverage ratio of the financial sector reflects a relative degree of stability. Between 2008 and 2012, the credit/own capital ratio of the Hungarian banking system debt-to-equity ratio decreased only moderately, in line with European trends. In this area, the deterioration observed in the crisis period was not exceedingly irregular, and did not significantly differ from the trend characterising the Visegrad countries either. Based on these factors, Hungarian performance is evaluated as weak, reflected by a grade of 3.

**VIII. INVESTING IN THE GREEN NEW DEAL**

**T**he Green New Deal obviously requires significant public funds. Potential funds for green economic developments in Hungary mainly include the European Regional Development Fund and the Cohesion Fund as well as the corresponding Hungarian state subsidies. Technically, this is realized from the financial sources of the the EEOP (Environment and Energy Operative Programme, "KEOP" in Hungarian).

In this area, the general objective is to provide adequate financial resources for developing renewable energy sources and the investments required for more efficient energy use. For the assessment of this objective, we have used two indicators based on grant data related to priority axes nos. 4 and 5 of the EEOP:

(1) promoting increasing renewable energy resource use and (2) promoting the efficient energy consumption.

### **Indicator 42 – Promoting increasing renewable energy resource use**

#### **Grade: 3**

Promoting increasing renewable energy resource use can be evaluated according to the value of the projects that received funding. Proportionally to the funds of Priority 4 of the EEOP, the number of grants awarded grew at an acceptable pace until 2011, but this growth came to a halt in 2012, mainly owing to administrative reasons. Based on these facts, Hungary's performance in the field of promoting increasing renewable energy resource use warrants a grade of 3 („Mediocre”).

### **Indicator 43 – Promoting efficient energy consumption**

#### **Grade: 2**

Promoting efficient energy consumption can also be evaluated according to the value of the projects that received funding. Proportionally to the funds of Priority 5 of the EEOP (Environment and Energy Operative Programme, "KEOP" in Hungarian), the number of grants awarded grew rapidly until 2010, while the large number grant proposals submitted clearly indicated the demand exceeded the proposed framework by several orders of magnitude. However, instead of the adapting to these needs, the years 2011-2012 were largely characterised by hesitation, which, over and beyond the lack of financial resources, was also due to administrative reasons. Based on these facts, the Hungarian performance in the field of Promoting efficient energy consumption only deserves a grade of 2 ("sufficient").



## ENVIRONMENTAL INDICATORS



GRADE:

2.9

### IX. LAND

#### Indicator 44 – Land ownership structure

##### Grade: 2

Due to the characteristic way the land register is organised, there are no reliable statistical data available on land ownership conditions in Hungary which that could also be used for tracking changes in trends. The key reference source is Magyarország mezőgazdasága, 2013 – Gazdaságszerkezeti összeírás – előzetes adatok ("Agriculture in Hungary, 2013 – Structural business survey – preliminary data"), a publication by the Central Statistical Office (CSO), comparing data from 2010 and 2013. The figures show that unhealthy processes took place in the holding structure in the period of the Orbán administration: the process of land concentration continued; the proportion of small farms was reduced while the share of large farms increased. These developments further deformed a land structure which was already distorted and unsustainable. According to Bertalan

Andrásfalvy, a former Minister in the Antall government, the structure created is similar to what can only be found in the colonies.

According to data collected by former Secretary of State for Rural Development József Ángyán, "half of the land comprises capitalist latifundia, while the other half consists small and medium private farms. Cultivating the same size of land – about 3.4 million hectares – corporations provide wage labour to only around 85 thousand people, while the employment capacity of small and medium private farms – taking account of full and part-time self-employment and wage employment as well – is about 358 thousand people, as calculated in annual labour full time equivalent (1800 work hours/year)."

During the period examined, the number of family farms declined as well.

For developments to take a healthy and sustainable direction, the estates that are in a European context identified as family farms, i.e. farms between 10 and 60 hectares would have to increase. The actual trend, however, is just the opposite.<sup>1</sup>

<sup>1</sup> [www.ksh.hu/docs/hun/xftp/idoszakai/gso/gso\\_elozetes\\_2013.pdf](http://www.ksh.hu/docs/hun/xftp/idoszakai/gso/gso_elozetes_2013.pdf)

**Indicator 45 – The size of agricultural land****Grade: 3**

Approximately 75 percent of Hungary's territory is suitable for agriculture. Since the regime change, the trend has been a decline in the actual size of the land that is in fact used for agricultural production, and this process has continued in recent years – among other reasons, because it is relatively easy and cheap to officially reclassify arable land into land used for other purposes, and thus to withdraw them from cultivation. The government majority did adopt a so-called "Land Protection" Act in the 2010-2014 period, but it contains a number of loopholes, for example, permits even the best quality arable land to be reclassified as land for mining or urban development purposes, which – given the limited nature of the environmental resource involved – is an unsustainable regulatory practice.

**Indicator 46 – Use of Chemicals****Grade: 3**

No significant change occurred in this field in the past few years, thus there was no progress or regress in the context of a state of affairs that was, essentially unsustainable to start with, characterised by the dominance of land use patterns designed to serve the goals of monoculture arable crop production.

**Indicator 47 – Water consumption****Grade: 3**

Patterns of essentially rainfall-dependent water consumption are affected by the share of land that can potentially be irrigated, which has been growing gradually in recent years. Unsustainable trends are to be found in this area as well: the Orbán government has legalized the drilling of soil wells and underground water wells without licensing, but has not taken any steps to ensure the spread of water-saving (dripping and other) irrigation techniques. At the same time, even the Orbán government's own water strategy describes the present situation as untenable, as it is characterised by certain areas regularly or permanently flooded as well as recurrent droughts (and wasteful water consumption in irrigated areas).

**X. SUSTAINABLE AGRICULTURE****Indicator 48 – Areas under organic farming****Grade: 2**

The number of organic farmers and the land they farm increased significantly in Hungary until around 2005 (and rather conspicuously after the National Agricultural Environmental Program was launched in 2002). At the peak there were more than 130 thousand hectares of organically cultivated land and nearly 1,600 controlled organic farmers. However, since 2004, volatility and decline can be observed both regarding the size of organically controlled land and the number of controlled operators, and since 2009 the decline has been sizeable, primarily due to the changes in the system of regulations and subsidies. If we take into consideration that Hungary is lagging behind almost everybody else in Europe regarding the share of organic farming, then this "achievement" is disappointing: 130.6 thousand hectares were farmed organically by 1,560 producers in 2012, which is roughly equivalent to the figure from a decade earlier. The decline experienced in Hungary is unparalleled and unique in Europe and in the region of the Carpathian Basin.

**Indicator 49 – Organic farming by branch****Grade: 3**

More than half (57 percent) of Hungary's controlled area of organic farming consists of meadows, pastures, extensive grassland, fallow land, fish ponds and uncertified reeds and woods. On nearly fifty thousand hectares (49,119 ha, 38 percent) of the controlled area cereals, sunflower, rapeseed, industrial crops and potato was grown. Part of this was animal fodder. The total controlled area of pastures, fallow land, fish ponds, reed, woods and arable crops is 123,376 hectares, which is 94.6 percent. Fruits, grapes, berries are farmed on 5,311 hectares, while fresh vegetables, melons, strawberries and cultivated mushrooms are grown on 1,656 hectares. The two product categories make up 5.4 percent of the total area. The area of plantations (berries, orchards, vineyards) is comparable to the size of the fish ponds.

Organic farming, optimally, is about high(er) added value, local products and sales directly benefiting producers. In Hungary fodder and agricultural raw

materials are produced instead, complemented with the up-qualifying of otherwise unused fallow land, grasslands, reeds, etc. into the organic category in order to receive higher subsidies. This (unintentionally) improves the statistics.

### Indicator 50 – Organic livestock

#### Grade: 2

75 percent of all livestock is cattle. Including the buffalo stock of 933, which is 4.2 percent of the total population, there are 17,607 ruminant animal units of the total 22,216 livestock units, i.e. or 79.2 percent of the total. The vast majority of this stock is in national parks (held for gene preservation and presentation purposes), not involved in food production. Another unfavourable phenomenon is that the size of the livestock in ecological husbandry is continuously declining (except for poultry). The decline is particularly striking in the field of organic beekeeping, which was previously one of the most successful organic livestock sectors in Hungary.

### Indicator 51 – Use of Chemicals

#### Grade: 3

In our country the amount of crop protection products sold has dropped by 15 percent since the economic crisis, but the quantity sold is still double compared to the 2000 level. 44 percent of crop protection products sold to the producers in 2011 were herbicides. The amount of fertilizer sold increased steadily until 2007, and since then it has dropped significantly. The consumption is dominated by nitrogen fertilization and farmers primarily reduce the amount of phosphorus and potassium used in case of financial difficulties. The ratio of nitrogen was 73 percent in the total composition in 2011. The reduction of the amount of fertilizers is favourable no matter the cause, the shift of ratio towards nitrogen however – considering the nitrate content of the soil – can be regarded as harmful. It should be noted that in Hungary the phosphorus balance of the soil between 2000 and 2011 has been negative each year, which could already jeopardize the efficiency of production.

## XI. FOOD SAFETY

In 2012 the National Food Chain Safety Office (NÉBIH) was established by integrating the Hungarian Food Safety Office into the Agricultural Administration Office, achieving, according to the intention of the government, a system based on risk analysis, focusing on public health and food security goals, but this did not go hand in hand with the increase of the official control and inspection capacity. This transformation also meant the change of control practices, making the comparison to previous years difficult.

### Indicator 52 – Soil protection

#### Grade: 4

In 2011 out of 2,269 official soil protection controls, in 219 cases the controlled object did not meet certain soil protection requirements (9 percent) and were followed by additional action. This rate has slightly changed in 2012, because in 126 cases (7 percent) out of 1,575 inspections the soil protection inspectors found the checked area not to meet the requirements. The nature of the infringements in the last two years has not changed. In most cases the obligations related to soil protection – in particular the obligations by law and not the soil protection requirements included in the permits – were not respected. To a smaller extent, misdemeanours arising from the nitrate directive have been committed.

### Indicator 53 – Plant health

#### Grade: 3

The obligation of phytosanitary inspection applies to the full range of the products under control (i.e., propagation material), their producers and wholesale distributors. The number of tests performed on products that require inspection (export, import, controls related to production and distribution of plant propagation materials) decreased by 12 percent in 2012, the number of non-conformities, however, increased by 36 percent (although the increase was mainly among the less serious irregularities sanctionable by imposition of fines; the overall number of restrictions of activity was 56 percent less than the previous year). The number of laboratory tests increased by 20 percent, while the number of infected samples increased in a greater proportion, by 42 percent.



**Indicator 54 – Use of crop protection products****Grade: 3**

Within the control of the use of crop protection products in 2012 the number of inspections carried out at the producers – also due to the official controls related to aerial crop protection- has increased slightly. The crop protection product inspectors have checked producers' storage places and the use of the licensed products at the production site and at the headquarters in 3,801 cases. The number of malpractices continued to increase compared to the previous years (76 cases). As in previous years, most of the problem was with the spraying logs and other records (44 cases). Inappropriate storage of pesticides is a new element (this was not a problem of concern in previous years) and malpractices were found in several cases (7). A relatively large number of problems were experienced regarding the proper use and spraying of crop protection products complying with the permit documents (16 cases). The number of reported cases has continued to grow over the previous two years, which is also supported by the fact that the crop protection inspectors had to record complaints or damages in 308 cases. In 67 cases the inspections found malpractices, which is double compared to the previous year. During inspections conducted ex officio and based on reports unlawful uses of the products subject to licensing were found in 143 cases. The number of detected cases has increased one-and-a-half-fold compared to 2011. For these the total of crop protection fines imposed by the county administration organs was 10.6 million HUF in 2012, which is the double of the amount from the previous year. The growth trend is continuous: while in 2010, 0.5 percent of the inspections by the authorities found some kind of malpractice, in 2011 1.77 percent of the controls and in 2012 2 percent. In 2012, on the basis of controls based on reports of complaints and damages the proceeding authority has found proportionally more malpractices compared to 2011, at the same time the proportion of irregularities was identical with the one experienced in 2010 (22% in 2010, 17% in 2011, while in 2012 the irregularity rate was again back to 22 percent compared to the checks performed).

**Indicator 55 – Residue trials****Grade: 2**

During testing for crop protection product residues in fresh vegetables, fruits and grain, samples from exports, imports, cultures from the production site and the market are analysed. In this round no clear trend can be read from the long-term retrospective data, but the proportion of items containing residues above the limit remains extremely high in the studied samples – it reaches 40 to 60 percent. This proportion was 45 percent in the case of the domestic products and 58 percent for import products in 2012.

**Indicator 56 – Animal Health****Grade: 3**

The NÉBIH (National Food Chain Safety Office) veterinary diagnostic laboratories received a total of 911,308 samples for examination in 2012 (vs. 948,865 samples in 2011). Nearly two million examinations were made on these samples, about 30 percent more than in 2011. As a result of the program to eradicate classical swine fever in the wild boar population resulted in 2012, as well as in the previous three years, in no virus-positive case found. The last detection of virus-positive individuals was in 2009. In the case of domestic swine herds both virological and serological tests yielded negative results. Micotoxicological tests of the fodder suggest that in 2012 aflatoxins were produced in the domestic corn, which has not been experienced before. 45 percent of the fodders tested between October and the end of December 2012 were found to be contaminated with aflatoxin.

**Indicator 57 – Wine products****Grade: 4**

During the inspection of the wine products in 2012 inspectors carried out 4,685 official investigations during which 2,569 official samples were taken. Based on the laboratory test results of the control samples objections were identified in the case of 475 wine items, which is equivalent to an 18 percent rate. In 2012 the NÉBIH laboratory has examined a total of 13,485 wine product samples (on client request and due to the controls mentioned above). 690 items were objectionable (a 6.3% objection rate).



## XII. RURAL DEVELOPMENT

### Indicator 58 – Employment in agriculture

#### Grade: 3

Agribusiness firms reported more than 78 thousand permanent and nearly 38 thousand peak season temporary employees. The former number is slightly less than in 2010, but the latter is 36 percent higher. Both figures show negative changes because the sustaining capacity of agriculture and the rural areas is declining and the percentage and vulnerability of those who can find only seasonal work is growing. Individual farms employed nearly 12 thousand permanent and close to 86 thousand peak season temporary employees, both of which show increase compared to 2010. In addition, at individual farms about 987 thousand family members did more or less unpaid agricultural work. This is an 8 percent decline compared to 2010 and it also reflects the decreased sustaining capacity of the sector. 31 percent of farmers are over the age of 65, while the proportion of those under the age of 35 is only 6.1 percent. This is a clear indicator of the aging of the agricultural population and the unfavourable changes in the age composition. In 2013 nearly 3 percent of the farmers had a higher education degree, more than 7 percent had vocational education; however, the vast majority (nearly four fifths) can only rely on their practical experience.

### Indicator 59 – The infrastructure of agricultural production

#### Grade: 3

The last stock assessment of farm buildings in our country happened in 2000. Since then, in parallel with the reduction of the number of farms, the number of buildings and structures has also decreased, however, their average capacity increased significantly. There were 1.2 million places in the cattle barns and 5.1 million places for pigs in 2013. The former was 1.4 million in 2000 while the latter amounted to 8.9 million. There were 163 thousand places available for keeping horses, 10 thousand less than in 2000. The total capacity of poultry barns increased with 500 thousand m<sup>2</sup>, being 11.5 million m<sup>2</sup> in 2013. 1.8 million places have been reported in the sheep farms, which is somewhat lower than 13 years ago. Of the livestock production places the number of pig barns (309 thousand) and the number of cattle barns (39

thousand) decreased most. In 2013 barely one third of the stock counted at the millennium was counted in these two categories. Mechanization of the industry also developed very similarly to this, most types of machines decreasing in number, but their average and full capacity is significantly bigger than in 2005, the year of the last count. The number of tractors decreased by 6 percent, combines by 11, trucks by 2 percent since 2005. In case of tractors (120 thousand) primarily the use of the less powerful decreased. The changes show the disintegration of the infrastructure of the small, family farms and the strengthening of the large agricultural holdings. Otherwise this tendency is supported by the system of subsidies and land-lease.

### Indicator 60 – Number of farms

#### Grade: 3

In 2013 8,442 economic organizations were carrying out agricultural activities. At the beginning of the last decade there has been a considerable decline, and then from 2003 to 2005 the number of organizations engaged in agriculture increased. 2007 brought again a decline and in 2010 their number exceeded 8.6 thousand. Since the turn of the decade the number decreased again, in 2013 being 2 percent fewer organizations than in 2010. According to preliminary data, on June 1, 2013 nearly 485 thousand individual farms performed agricultural activities. The number of individual farms is steadily decreasing since the turn of the millennium, having halved since 2000. The managers of the farms discontinued between 2010 and 2013 were typically over 65 and farming alone. Women are heavily represented among the managers of discontinued farms. Besides this, the lack of agricultural education had also a negative effect, of the farmers still working in 2010 many unskilled producers gave up farming.

### Indicator 61 – Profitability and income

#### Grade: 3

47 percent of individual farms only produced for their own consumption, 19 percent of them sold their surplus, while the percentage of farmers producing mainly for sale was 34 percent. The proportion of farmers producing for their own consumption fell by 13 percentage points compared to 2010. There was a slight decrease in the number of producers selling the

surplus (1.4 percentage points), however the number of farms primarily producing for the market increased by 15 percent. The income of the production factors was 6 percent and that of the entrepreneurs 10 percent higher in 2013 than in 2012. Thus the real income per labour unit of the factors of production increased 4 percent, mainly due to the better weather conditions in comparison to the extremely unfavourable 2012. That said, the net earnings in agriculture still remain extremely low: the 117,000 HUF level corresponds to the 2010 figure, and of the large industries of the national economy only the income indicators of the health sector and social care are worse.

### XIII. WASTE MANAGEMENT

#### Indicator 62 – Amount of municipal solid waste

**Grade: 3**

The municipal solid waste per capita in Hungary was similar between 2000 and 2007. It dropped significantly starting from 2008, partly due to the decrease in consumption caused by the economic crisis. Its value was 413 kilograms in 2010 and amounted to 389 kilograms in 2012. The recovery rate of packaging waste has shown a tendency to grow since 2004, with the exception of two years' minor decreases and some fluctuation, and reached 60 percent in 2012 according to the data of the National Waste Management Agency (OHÜ), while the emitted per capita packaging waste was 81 kg. With this Hungary is in principle roughly on the level of similarly developed European states, such as the Czech Republic. It should be noted, however, that the reliability of the data is questionable, according to the calculations of the National Environmental Council and the Tax Office based on the emission data and environmental product tax receipts the actual recovery rate is only 40 percent.

#### Indicator 63 – Landfill share

**Grade: 3**

Dumping to the landfill of the municipal solid waste is considered a less sustainable way of management that should be minimized as much as possible. Its share in waste management is steadily decreasing due to selective collection and the spreading of recycling, but it is still very high: it is estimated to be close to the two-thirds of the total amount.

#### Indicator 64 – Recovery rate (packaging materials)

**Grade: 3**

According to Eurostat data, the proportion of packaging waste recycling increased from 43 percent in 2004 to around 59.3 percent in 2014. Since then though it is stagnant at around 60 percent, and based on the experience so far it cannot be increased significantly either with collection islands or a system based on separate collection at the domicile.

#### Indicator 65 – Share of reusable packaging

**Grade: 2**

It is in the beer and wine packaging industry that the multi-cycle systems have been retained in a relatively higher proportion in Hungary. In the case of wine the share of returnable bottles in the offer was 60 percent and 40 for beer in 2011 – instead of 76 percent in 2000. At the same time both values are decreasing year by year, furthermore only a smaller part – typically half – of the quantity sold with a deposit is actually redeemed.

#### Indicator 66 – Environmental product tax revenue

**Grade: 2**

Given that the environmental product tax system was modified along with the modifications of the regulations on waste management, the continuity of the data was interrupted. According to the latest data regarding 2012, the product revenue from the packaging was 45.5 billion HUF, of which HUF 7.5 billion was spent in the budget on waste recovery in 2012. This amount is less than even 20 per cent of the income, if we take in consideration that the National Waste Management Agency covered its operating expenses also from the same source.

#### Indicator 67 – Packaging emissions

**Grade: 2**

In 2008, considered the previous peak year, the packaging emission was 880 thousand tons in Hungary, but as a result of the economic crisis it has significantly declined in 2011 to 820 million tons, then in 2012 it increased to 1,146,311 tons, showing a significant

increase. This significant change might also be caused by the measurement methodology involved because such a leap cannot be accounted for by economic processes.

## XIV. DRINKING WATER, WASTEWATER

### Indicator 68 – Public utility water production

**Grade: 4**

Yearly public utility water production per capita gradually decreased between 2003 and 2012 (by a total of 15% during the whole period). This can primarily be accounted for by high water prices and an equally high increase in the fees of wastewater collection in residential areas with a sewage system. Comparing the amount of public utility water production per capita (60m<sup>3</sup>/per capita in 2012) with that in EU member states, the Hungarian indicator belongs in the second quintile from below, which indicates a sparing use of water. Since the regime change, residential water consumption decreased by approximately 40%, while consumption by businesses fell to one-third of the original value, clearly owing to the rise in prices.

### Indicator 69 – Wastewater treatment

**Grade: 4**

Between 2000 and 2011, the value of the community wastewater treatment index fell by 35 percentiles, as a consequence of deploying high efficiency (at least biological grade) wastewater treatment facilities. (The community wastewater treatment index indicates the level of development of community wastewater treatment, considering the efficiency grade of water purification. The lower the value, the more efficient the purification.) The total quantity of wastewater conducted through the public utility wastewater effluent network has been continuously decreasing since the regime change, having dropped to barely half of the starting value (436 million cubic meters). Out of the total quantity, treated wastewater amounts to 430 million cubic meters, while 317 million cubic metres are further treated by mechanical, biological and grade 3 purification methods (the latter procedure involves the removal of the inorganic materials in the end product of biological grade treatment, such as such nitrates and phosphates). In Hungary, the 74.5% of households were connected to the sewage system by the end of 2012. Compared to the access

of households to public utility drinking water supply, which can practically be considered as complete (94.2% in 2012), connection to public utility sewage was approximately 20.1% lower (Central Statistical Office data). The difference between the two utility services is the smallest in Budapest and Győr.

### Indicator 70 – Drilled wells, water extraction and reinjection

**Grade: 2**

Concerning the geothermal utilization of thermal waters, the placement of the water used is problematic. Until 2013, the water exploited for energy purposes and used in closed systems was required by law to be pressed back into the aquifer supply. The new legislation repeals this requirement and only mentions that the construction permit shall provide for the method of placement. The significant amount of salt contained in thermal water drilled and then reintroduced to surface waters has led to water-quality problems, and results in the transformation of the aquatic ecosystem. About 120 thermal recovery wells are operating without reinjection. Also in 2013, a change in the law has ruled that the creation, operation and termination of wells not exceeding 50 metres in depth, used for agricultural irrigation purposes, exclusively relying on groundwater resources and bank filtration, but not aquifers or Karst layers, shall be registered with the water authority. This was justified by the purported need to simplify the procedure of registration with the water authorities for wells to be established or post facto legal endorsement for wells already in operation, and thus reduce the burden on farmers. All this happened despite the fact that the 2012 National Water Strategy called for a tightening of the licensing procedure and introducing a fee for exploiting water.

## XV. FORESTS

### Indicator 71 – Portion of land area covered by forests

**Grade: 4**

According to CSO data, the share of Hungarian soil under forest management continues to rise. This includes, in addition to the areas covered by forests, forest roads, clearings and tree nurseries as well. 2,056 hectares of forests in 2012 meant an increase

of 7.8% (148 thousand hectares) compared to 2000, with further continuous growth in recent years. Forests are located in concentrated areas of the country. Extensive forests – primarily due to geological and climatic conditions – have emerged in the hilly regions of Northern Hungary and Southern Transdanubia. Borsod-Abaúj-Zemplén is the county with the largest forest areas (217 thousand hectares), amounting to 11 percent of the national forest stock. Significant forest areas are equally to be found in Somogy, Bács-Kiskun and Pest counties. The forest coverage rate – the ratio of forest land as compared to the total area – is highly variable depending on regional characteristics. Both forest areas and the forest coverage rate (31%) are the highest in Northern Hungary, as a large portion of the area is made up of mountains and hills. The least forested region is the Northern Great Plains, with major agricultural areas. The Transdanubian regions have relatively balanced forest coverage. Among the counties, the share of forest land is extremely high in Nógrád (over 40 percent), but it is also significant in Veszprem, Zala, Somogy, and Borsod-Abaúj-Zemplén. The forest coverage rate is the lowest in Békés County (5 percent).

### Indicator 72 – Ownership structure

#### Grade: 3

The main trend of the changes is a gradual decrease in state and community-owned forests, though the rate of the decrease is low and diminishing. Nevertheless, the role of the state is still the most important. In 2012, the 56% of forests were owned by the state, 43% was privately owned and 1.1% in community ownership. Compared to 2009, these rates changed only slightly in favour of private forests. The ownership structure in each county is different: while in most of the counties the state forest area is the largest, while some counties in the Great Plains – Hajdú-Bihar, Jász-Nagykun-Szolnok, Szabolcs-Szatmár-Bereg, and Bács-Kiskun – the share of private property is larger. It is interesting that the share of community-owned forests areas exceed privately owned ones in in Budapest.

### Indicator 73 – Conservation status of forests

#### Grade: 3

22 percent of Hungarian forests are located nationally protected conservation areas. This proportion has

remained largely unchanged since the designation of protected areas in the 1990s. The largest protected forest area – in line with the size of the total forest area – is in Borsod-Abaúj-Zemplén county (72.4 thousand hectares), whereas the smallest area is located in Békés county (2.3 thousand hectares). The mid-2000s saw the designation of the Natura 2000 areas, which involved a further 420 thousand hectares. Today 42 percent of the forests enjoy some kind of conservation protection status.

### Indicator 74 – Health status of forests

#### Grade: 3

The health status of Hungarian forests is largely attributable to weather conditions (drought, frost, ice, wind) and some biotic pests (fungus, insects). In addition, in close connection with the previous factor, damage due to the impact of climate change and to the impact of the game stock is also significant. Based on all the damage in Hungary in 2012, 59.5 per cent of trees are healthy, whereas 18 percent are in a slightly impaired, 15 percent in a moderately impaired, and 2.5 percent in a strongly impaired state. The proportion of dead trees is 4.1%, higher than in previous years.

### Indicator 75 – Timber consumption and extraction

#### Grade: 4

In 2012, 7.7 million cubic meters of timber was exploited in Hungary. This is 4.3% lower than in the previous year, but 14% higher than the 2009 figure. The yield varies greatly depending on the current energy consumption of the country, as an increasing proportion of the timber produced is used up in originally coal-based power plants that were switched to heating by timber or mixed heating. 64 percent of the harvested timber was hardwood, 22 percent softwood, and 14 percent was pine in 2012. These rates have not changed significantly in the period examined. Despite the fact that the share of oaks is the largest in the living tree stock of the country, most of the timber was harvested from black locust, the proportion ranging from 20 to 24 per cent in the period under review. This is a favourable trend as locust or acacia is invasive species, playing a crucial role in driving away the natural plant coverage. Poplars came second after locusts, followed by oaks, turkey oaks, beeches and pines.

**Indicator 76 – Species and age structure of forests****Grade: 3**

In 2012, 89 percent of the forest area consisted of deciduous tree species (73 percent hardwood, 16 percent softwood), 11 percent of conifers. These rates have not changed significantly in the period discussed. In 2012, the overall area covered by hardwood plantations increased by 2.5 percent, softwoods remained unchanged, while conifers decreased by 4.9 percent compared to 2008. The proportion of the stock younger than 10 years declined between 2008 and 2012, reflecting a pitiful decline in afforestation. Forest areas have increased with the exception of the age groups of 41-50 and 61-70 year old trees. The biggest increase occurred among the trees over 100 years of age (12.5%), since they are often to be found in protected forests, with strong restraints on logging.

**Indicator 77 – Reforestation****Grade: 2**

One of the main objectives of Hungarian forestry policy is to increase forest areas by afforestation until the desired forest coverage levels (26-27%) are reached. The area of completed afforestation in the 2011-2012 cultivation years reached a total of 13.5 hectares, and decreased by 32 percent as compared to 2008-2009. Hardwood plantations decreased by 32%, softwoods by 33%, conifers by 45%. This is mostly due to the modification of the system of subsidies, and indirectly to the lingering effects of the economic crisis. The trend indicates an increasingly unsustainable pattern. Among the counties, it was only in Borsod-Abaúj-Zemplén and Zala that there was a growth in the size of the reforested areas in the given period. In the 2012-2011 cultivation year, 40 percent of reforestation was provided by non-native acacia, 19% by oak, 12% by domestic poplar soft foliage species, 11% by other hard foliage trees, 9.8 percent by selected poplar and osier, 5.9% by beech, as well as 2.6 percent by conifers. Compared to 2008-2009, the size of land covered by forest only increased due to reforestation for domestic poplars and other soft foliage trees, whereas the area actually decreased in the case of hard foliage species and conifers (the largest relapse occurring in the case of beech, partly owing to climatic reasons).

**XVI. BIODIVERSITY****Indicator 78 – Protected areas****Grade: 4**

The pace of placing areas under the protection has slowed down considerably in recent years after the completion of the Natura 2000 designations. In the last five years, a total of two conservation areas have been established: the Körös-éri (2012) and the Nyugat-Mecsek conservation areas, the two of them representing 70 percent of the newly declared protected areas. The number of locally protected natural areas only increased by 81 new designations for the period indicated. Thus there are 2,014 units of land registered as protected natural areas. The coverage of nationally protected natural areas grew by 13,760 hectares since 2009: 12 new protected areas were established, and 7 protected areas were expanded. This is only half the previous rate of establishing protected areas, the fact that there are, among others, bogs and caves that are only protected ex lege, on paper, as well as a lack of buffer zones around the National Parks indicates that there would be plenty more to be done. The total extent of natural areas protected by separate legislation currently reaches 894,279 hectares, or about 9 percent of the total surface area of the country.

**Indicator 79 – the ecological status of the Natura 2000 sites****Grade: 3**

During the period 2009-2013, the designation of the Natura 2000 network has been completed. Over and beyond the sites protected by specific legislation, there are over 1.2 million hectares of land in the Natura 2000 network, which makes the total extent of Natura 2000 sites a total of 1.99 million hectares. The conservation status of habitats of community interest is unfavourable or bad in the case of four-fifth of the total area. In the case of protected species, the negative rating affects about 60 percent of the species concerned. Between 2007 and 2013, conditions improved for both habitats and species (with a favourable status currently for 19.6 and 36.5 percent, respectively), the share of unknown condition was reduced – in fact to zero in the case of habitats. It is, however, a fundamental problem that the majority of the areas are lacking the necessary management and



conservation plans needed to achieve good ecological status, and the monitoring of habitats and species has practically not been implemented.

### Indicator 80 – Protected species

#### Grade: 4

There has been an increase in the number of protected and strictly protected species by a total 13 for plants, 32 for lichens and mushrooms, 173 for animal species between 2009 and 2013. The number of strictly protected species increased by 49. There are currently 733 plant and 1,168 animal species listed as protected species. Among these, the number of strictly protected species includes 87 plant species, 186 animal species, 58 fungi, 17 lichens. 6 anthills are also under protection as homogenous populations. All reptile and amphibian species are protected in Hungary. Attempts have been made by the government and the hunting lobby in the 2010–2014 parliamentary cycle to introduce a major expansion of the list of huntable species by protected species including the Common Pochard, weasels, martens, pine thrushes, turtle doves and quails; these attempts failed however due to the resistance of conservation professionals and NGOs. Eventually, the greylag goose was the only species which became huntable. On the basis of a slow but steady population growth, it was possible for the relevant competent professional forums to support this measure. A way forward would be provided by the ongoing population monitoring, especially for vulnerable species as well as the ones appearing or reappearing in to the territories (beavers, wolves, golden jackals etc.), where overpopulation may be a problem just as the immediate shooting of strayed animals is.

## XVII. COMMUNITY TRANSPORT

### Indicator 81 – Number of trips made

#### Grade: 3

Preceding the most recent survey taken in 2012, KSH measured “the transport performance” of the Hungarian population in 2009. Between these two periods, the number of trips made by community transport during one day decreased by 8% and fell back to 2.7 billion. Both community transport and the use of cars decreased while the number of people using bikes increased. As far as the distance travelled

by community transport is concerned, the passenger number travelling in cars showed a more significant decrease, it fell back by 13%, while in case of community transport this tendency was less drastic, accounting for only 3%.

### Indicator 82 – Transport expenditures

#### Grade: 3

The monthly transport expenditure per capita has increased by one-fifth at the current price in the last three years that were examined, exceeding HUF 7600. The expenditure spent on community transport increased by 17% and the cost of using automobiles grew even more significantly, by 24% in households where it was applicable. While the consumer price index of community transport by road between 2009 and 2012 only grew by 17%, an extent hardly exceeding average inflation rate, petrol prices and the price of lubricants increased by 57%. In 2012 the population spent HUF 732 billion on transport, of which 71%, that is, HUF 519 billion accounted for the use of automobiles, which includes highway tolls and parking fees besides petrol costs but does not include taxes, insurance fees and the cost of purchasing a car. HUF 212 billion was spent on community transport. When contrasting these figures with the distance travelled by each means of transport, it is evident that the cost of using automobiles (HUF 25/passenger km) significantly exceeds the average cost of community transport (HUF 15/passenger km). There is great discrepancy between the data characterizing the capital and the national average: the population living in Budapest spend more on transport but in their case the proportion of using community transport is higher. In 2012 people living in Budapest spent HUF 96 billion on using automobiles and HUF 69 billion on community transport, thus specific expenditure in their case amounts to HUF 30 and HUF 24 per passenger km. The population living in Budapest spend 42% of their transport expenditure on community transport, while people living in other regions of the country spend much less, 21–32%, depending on the size of their home town.

### Indicator 83 – Commuting

#### Grade: 2

During 30% of daily travel the population leave the administrative border of their place of residence. In

almost all cases when there is a motivation to commute, there is a tight inverse correlation between the size of the town and the tendency to commute, that is, the smaller the town, the more typical is commuting. Therefore, for this reason commuting to work plays a significant role since 36% of the employees have to leave their place of residence for work on a daily basis. In Budapest and in other larger towns having a population of more than 100 000 residents this proportion amounts to 7-8% but this phenomenon becomes more determining when looking at smaller and smaller towns. The great majority of people living in villages do not find work in their villages, thus they have no other option than commuting.

An extreme divergence can be observed related to shopping as well. In case of bigger towns having a population of more than one thousand residents there is no significant commuting with the objective of shopping, however, the population living in small towns and villages often have to leave their place of residence. Due to the fact that most hypermarkets are located on the outskirts of Budapest (e.g. Budaörs, Fót, etc) the residents of the capital do 8% of their shopping outside Budapest, travelling there typically by car.

On a national level the greatest differences can be observed in trips made to resort to medical services. The national average figures show that people have to leave their place of residence on every third occasion and this proportion is significant in case of small towns having a population of 10-50 thousand residents (25 %) and in case of villages counting less than 2000 persons this proportion amounts to almost 100%.

### Indicator 84 – Vehicle fleet

#### Grade: 3

The stock of buses in Hungary has not significantly changed in 2012 (17.3 thousand). Mercedes, MAN, Volvo and Iveco are constantly gaining ground while Ikarus has continuously been losing its dominance in the country. The average age of buses was 13.4 years in 2010, 13.9 years in 2011, 14.5 years in 2012, the age of the most popular brands increased compared to the previous year in all cases. 98% of the vehicle fleet runs on diesel petrol. The number of buses that were first commissioned in Hungary tends to decrease from year to year, this number was 572 in 2012 which accounts for 88% of the previous year's

figure, and 87% of the 2010 figure. 36% of the buses that were first commissioned in Hungary (123) are Mercedes and Volvo buses (82). Regarding rolling stock, the number of engines fell by 2 % in 2012. The number of railway carriages decreased by 1% while the number of wagons fell by 9% as opposed to the previous year. In 2012 the number of underground and suburban railway vehicles did not change, the number of trams increased by 18, the number of underground carriages – with the commissioning of Alstom carriages – increased by 23, while the number of trolley buses fell by 7. Compared to 2011 there has been a significant change only in the tram network where the total length of tram lines increased by 9 kms and that of the tracks by 12 kms – as a result of tram transport development implemented in Szeged.

### Indicator 85 – Promoting community transport

#### Grade: 2

The state spends less and less on promoting community transport, the expenditure in this sector decreased by HUF 16 billion in 2012 as opposed to 2011. The state achieves the decreasing expenditure by diminishing consumer price completion. The support provided for bus and railway tickets decreased but the support for passes in the capital and other larger towns valid for community transport did not change in 2012. It is a serious problem that the state – the primary procurer of community transport services – does not pay the price of the ordered services, thus fails to fulfil its contractual obligations and the service providers make up for the accrued loss by neglecting developments. Parallel to this, great service providers (Volán companies, BKK) continuously conclude agreements with external service providers which on the one hand makes it possible to renew the vehicle park, on the other hand creates a disadvantageous market position for companies of the local authorities and enhances capital extraction from the sector.

## XVIII. FREIGHT SHIPPING

### Indicator 86 – Number of trips made

#### Grade: 3

Freight transport performance exceeds economic development. While the GDP increased by 23 percent between 2000 and 2011, the freight transport



performance, measured in ton-kilometers, more than doubled. Harmful from the point of view of sustainability, the trend where the economy shifts from storage towards flow-based production has continued. The average growth rate of the GDP and of freight transport was growth was 2.1 and 8.6%, respectively. Growth was not even. In 2009, due to the crisis in the previous year, both indicators declined, followed by a new increase. The quantity of goods transported domestically had, however, been declining steadily since 2008, when 250 million tonnes of goods were transported, to drop by nearly 100 million tonnes by 2012.

### Indicator 87 – Road and rail freight shipping

#### Grade: 3

Though the Hungarian freight shipping sector is still dominated by road freight, its steady increase since 2004 was broken in 2009. Simultaneously, the share of rail transport decreased from 1995 until 2009, and then started to increase slightly. The share of inland water freight shipping negligible. The changes took place in 2000-2007 amid growing shipping performance (in terms of ton-kilometers). From 2008 to 2010, shipping performance decreased due to the economic crisis. Signs of a recovery became visible in 2011, but the performance is still below the 2007 level. The share of road freight shipping was an average of 71 percent in Hungary between 2000-2010. The share of rail freight has been close to the 20 percent level for many years, with a minimum increase. Around 79 percent of the volume of goods transported by road was shipped domestically in 2012, which is 3 percentage points lower than in 2011. However, the share of domestic freight shipping only reaches 27 percent once distance is considered within performance. The average freight transport distance was 70.4 for domestic and 702.1 for international shipping. Measured in tons, the amount of domestic road freight shipping decreased by 13 percent compared to 2011. The weight of goods as transported for international freight shipping was 5% higher in 2012 than the year before. The share of international shipping is growing: 21 percent of the goods crossed the border (the figure was 14% for 2010 and 18% for 2011). The performance of international freight shipping, as measured in ton-kilometers, increased by 2 percent. Hungary's major partners in the export market – the same order as last year – are Austria, Germany, Italy, Slovakia and Romania. In the rail freight service, there were more than 38

companies which had a valid license for using the domestic railway tracks in 2012. More than 75 percent of companies were active in freight shipping activities as well as in towing, maintenance and repair services. In addition to the traditional railway companies, the market share of smaller firms grew steadily to reach 16% by the end of 2012. The overall market share of alternative operators registered abroad reached 25 percent.

### Indicator 88 – Fluvial freight shipping

#### Grade: 3

The Danube, Europe's second longest river, provides in principle great opportunities for environmentally friendly freight shipping by inland waterways of the Hungarian Danube section. Nevertheless the share of this means of transport is much higher in EU member countries with favourable natural conditions. While the share of inland water freight shipping compared to land freight shipping, as measured in tonne-kilometers, reached 11% in Germany, 18% in Belgium, and 35% in the Netherlands in 2011, it did not exceed 4% in Hungary. The freight transport data apply to the Danube only, as this is the only Hungarian river suited for international ship traffic. Beyond the Hungarian operators, the Hungarian section of the Danube is mostly used mainly by Romanian, German, Dutch, Ukrainian, Austrian and Bulgarian-flagged ships. The volume of inland water shipping (8 million 135 thousand tons) was 13.4% higher in 2012 than the year before, whereas its performance (1982 million ton-kms) exceeded the 2011 levels by 8 percent. Exports increased by 41%, while the amount of transit grew by 6%; on the other hand, the weight of goods shipped in domestic freight transport and imports transport decreased by 16 percent and 19 percent, respectively.

### Indicator 89 – Combined freight shipping

#### Grade: 2

The size of unaccompanied combined flow of goods in recent years was between 5.3 and 7.3 million tonnes and showed a downward trend. In 2012, the combined traffic in railway freight transport was 5.3 million tons, while the Hungarian Logistics Service Centres Association estimated in 2013 that this figure could be up to 8.3 million tonnes higher under the same infrastructural conditions. The rail transport of transit trucks was practically eliminated in Hun-

gary in 2012, as the government has not taken the initiative to prolong support for (in practical terms, to extend the previously existing discounted fees for) this transport branch with the European Commission. This increased the number of trucks passing through the country by 30000 trucks yearly.

## XIX. CLIMATE CHANGE

### Indicator 90 – Greenhouse gas emissions

#### Grade: 3

Between 1990 and 2010, the total greenhouse gas emissions (GHG amount) by various sectors of the Hungarian economy dropped from 97 thousand tons of CO<sub>2</sub> equivalents to 68 thousand tons of CO<sub>2</sub> equivalents. Among the sectors investigated, emissions declined in all sectors except for transport. In the latter sector, there was a 45 percent increase between 1990 and 2010. 25 percent of the amount of greenhouse gas emissions in 2010 came from the energy producing industries. As a result of the dismantling of the heavy industry in the two years after the regime change, greenhouse gas emissions declined dramatically in Hungary, and remained steady in the following decade. Emissions decreased significantly again between 2005-2009, owing in part to the modernization of large heating plants, and in part to the 2008 financial crisis and the ensuing economic crisis. Emissions increased slightly in 2010, and decreased again significantly in 2011, (CO<sub>2</sub>: 56,527 tons in 2008; 51,055 tons in 2009; 51,608 tons in 2010; 49,740 tons in 2011).

### Indicator 91 – Mean surface temperature

#### Grade: 2

Although the weather changed from year to year in a time span of 110 years, the temperature has continued to rise. According to the linear trend in the series of the annual mean temperature values of Budapest, the degree of warming in the capital has reached 1 centigrade, partially owing to the increasing urbanization effects. Despite the variability, an overall temperature increase over the last thirty years can clearly be observed. According to National Weather Service data, the warming trend is mainly reflected by summer temperatures, with an increase of 1.17°C from the beginning of the last century until today. Winter temperatures increased by 0.65°C since 1901,

but this change is not significant from a statistical perspective, and the last 30 winters show no clear change either, although the trend is positive.

### Indicator 92 – Rainfall

#### Grade: 4

The amount of rainfall varies from year to year, with up to three times as much of precipitation in the wettest years than in the driest years. However, the variable annual precipitation amount shows a downward trend, the value at Budapest, decreasing by 0.7 millimetres yearly. However, no clear changes in rainfall trend can be clearly demonstrated at a national scale even for a longer period of 50 years.

### Indicator 93 – The number of days with exceptional weather conditions

#### Grade: 3

The number of frosty days, i.e. when the daily minimum temperature is less than 0°C, decreased minimally during the past hundred years. The number of hot days, however (when the daily maximum temperature equals or exceeds 30°C), has shown a slightly faster pace of growth, with substantial fluctuations. The reduction in the number of frosty days and the increase in hot days both indicate a warming trend. Cooler and warmer periods are also manifest in the index values. A striking increase in extreme hot weather conditions has been conspicuous since the eighties. Trend values reflecting changes in extreme temperature suggest that changes in climate is accompanied by a clear increase of hot extremes and a decreases in cold extremes in the period covering the entire last century. Approaching the present, the average number of rainy days increases nationally. Days with a precipitation exceeding 20 millimetres, however, show a slight increase, and the length of dry periods when the daily rainfall is less than 1 mm has greatly increased since the beginning of the 20th century. The daily intensity, or average daily precipitation – the amount of rainfall in a given period divided by the total number of rainy days – has also greatly increased in the summer. The rise in average daily precipitation values suggests that the precipitation falls in the form of increasingly short periods of intense rain and storms.

## XX. INSTITUTIONS AND RESOURCES OF ENVIRONMENTAL PROTECTION AND CONSERVATION

### Indicator 94 – Supporting the institutions for environmental protection and nature conservation

#### Grade: 2

The budget of the Environment, Nature and Water Inspectorates:

- HUF 10.96 billion in 2009 (of which own revenue projected at 2.45 billion – the rest from the national budget)
- HUF 9.1 billion in 2010 (own revenue: 3.83 billion). HUF 11.42 billion would have been required for inflation-adjusted funding preserving the real value, of which 2.32 billion was not allocated.
- HUF 6.9 billion in 2011 (own revenue: 3.83 billion) – 11.98 billion, with a minus of 5.08 billion
- HUF 7.3 billion in 2012 (own revenue: 2.81 billion) – 12.45 billion, with a minus of 5.15 billion
- HUF 6.8 billion in 2013 (own revenue: 3.36 billion) – 13.04 billion, with a minus of 6.24 billion (based on an estimated annual inflation rate of 4.7 percent for 2012)

### Indicator 95 – Environmental Expenditures

#### Grade: 3

Environmental investments in the national economy amounted to HUF 138 billion in 2012. 14 percent of this involved direct subsidies and the remaining 86 percent took the form of process-integrated environmental investments. The level of investment varied between HUF 120 billion and 15 billion in the period 2008–2012; the changes do not follow a clear trend or pattern. Compared to the previous year, the total amount of environmental investments in 2012 increased by 4.0 percent. The volume of direct environmental investments rose by 14 percent, while the integrated investments fell to approximately two-thirds of previous values. The share of economic activities of economic organizations in the public administration was the most significant: their investments provided

51 percent of the total investment in environmental protection in 2012, which was a dramatic increase from the 29 percent share of the previous year. 89 percent of environmental investments by organizations classified as public administration were directed to wastewater treatment, a significant proportion consisting in projects by local governments to develop public sewerage networks. Economic organizations outside the public administration implemented 70 percent of their environmental protection investments at the expense of their own financial resources, 14 percent thereof from direct state financing and 13 percent from EU-funded support.

### Indicator 96 – Duties and competences of National Parks

#### Grade: 2

The duties and competences of national parks have been continuously reduced in the past years. They lost much of their official powers which were deployed with the environment and nature protection inspectorates. Their headcount and on-location presence have been reduced. As a culmination of the process, the Minister for Rural Development commissioned the newly appointed Secretary of State in charge of the national land programme to supervise the exploitation of "land areas managed under in the trusteeship of national parks" in 2013.

### Indicator 97 – National park areas

#### Grade: 3

No new national park was created in the country since 2002 and the total area of national parks has not grown substantially either. In fact, it was somewhat reduced. In the peak year of 2005, there had been 486 thousand hectares of national parks, dropping to 483.1 thousand hectares in 2012. This represents a bare 5 percent of the national territory. The process is expected to accelerate as the year 2013 saw intensive privatization of national park land in the form of land leases and temporary utilization contracts. Within the national park areas, the proportion of specially protected areas is slowly but gradually increasing, reaching 90.2 per cent in 2012 as compared to 85.1 percent in 2010.

### Indicator 98 – National Parks budget and headcount

#### Grade: 2

The budget of the national parks dropped by nearly a third over four years, whereas the budget of the Environment, Nature Conservation and Water Inspectorates decreased by nearly 40 percent during the same period.

The budget of the National Park Directorates:

- HUF 9.9 billion in 2009 (of which own revenue projected at 2.27 billion – the rest from the national budget).
- HUF 4.6 billion in 2010 (own revenue: 2.04 billion). HUF 10.32 billion would have been required for inflation-adjusted funding preserving the real value, of which 5.7 billion was not allocated.
- HUF 4.9 billion in 2011 (own revenue: 3.28 billion) – 10.83 billion, with a minus of 5.93 billion.
- HUF 6.1 billion in 2012 (own revenue: 3.73 billion) – 11.25 billion, with a minus of 5.15 billion.
- HUF 6.5 billion in 2013 (own revenue: 4.27 billion) – 11.78 billion, with a minus of 5.28 billion (based on an estimated annual inflation rate of 4.7 percent for 2012).

### Indicator 99 – The Life+ programme

#### Grade: 3

LIFE (L'Instrument Financier pour l'Environnement) is a financial instrument of the European Union's supporting environmental policy set up in 1992. The

LIFE program supports both conservation and environmental projects. The program has partially been transformed since 2007, and continued operating as the LIFE+ program until the end of 2013. Hungary has participated in the LIFE program since 2001 and received grants for a total of 43 projects since 2007, the Commission approved 12 LIFE+ projects in Hungary. Ten in the framework of the LIFE+ Nature and Biodiversity theme and two in the LIFE+ Environmental Policy and Governance domain. In Hungary, the total amount of LIFE+ projects was EUR 15.7 million in the period, with a support funding rate at 65 percent. In the entire history of the LIFE program it occurred for the first time during the term of the Orbán government that a LIFE projects that already had gained support was cancelled at the implementation stage: it so happened that the Hortobágy project went against the political goal of reallocating land managed by national parks.

### Indicator 100 – Supporting environmental and nature conservation NGOs

#### Grade: 2

From 2002 onwards, the amount of funding potentially available for environmental NGOs through tenders was continuously reduced. The limit amount available in 2014 reaches only HUF 70 million, which is significantly less than the previous 2013 low record of 85 million forints (the 2011 value was HUF 119 million). The funds of the National Cooperation Fund, amounting to 3 billion HUF, are in principle at the disposal of green NGOs as well. However, the decision-making structure thereof is not transparent: the people in charge of allocating the funds are close to the government, and support NGOs and quangos only in the hope of gaining direct political benefit, and they cannot expect such benefit from the environmental NGOs.



## SOCIAL DIMENSION



GRADE:

2.2

### THE SOCIAL DIMENSION OF THE GREEN NEW DEAL

The GND puts human beings at the centre of its objective. As the paper on the social dimension of the GND states, “Ultimately the goal of the GND is to ensure quality of life for all in a way that is sustainable over time and for the planet.”

#### XXI. POVERTY AND INEQUALITY

Reducing inequality and tackling poverty are two of the structural features of the GND. Let us review the developments in Hungary for these two features in the last 5 years.

The final grade takes into account poverty and inequality at equal weight. The final grade results form an inequality grade of 3 and a poverty grade of 1 and the evaluation of the total state expenditure on social production as a summary indicator of the state's action in both the field of poverty-reduction and the reduction of inequality.

The level of poverty is alarming. Hungary shows one of the most acute levels of poverty in the EU and the trends show a clear deterioration in all indicators and an alarmingly fast one in some of them, especially in material deprivation. Both the size and the trend of the phenomenon show that extremely urgent action is required especially with regard to children.

The level of spending on social protection as a share of the GDP was maintained in the context of shrinking GDP. This is the minimum expected but as we have seen, the resources were not enough to stop the trend towards increasing poverty and inequality. Moreover, Hungary is the only EU country where public social spending decreased during the crisis. In the EU it increased on average by 2.7 percentage points.

#### Indicator 101 – Gini

Grade: 3

The starting point at the beginning of the crisis is not bad in the European context and moreover we see some improvement between 2008 and 2010. The rapid deteriorating trend between 2010 and 2012 is alarming. A grade of 5 would have been given in this context if the government had managed to stabilize the inequality level on the 2008 level in the context of the economic crises and the social crisis that followed from the economic crisis

### Indicator 102 – Income ratio of first to fifth income quartile

#### Grade: 3

The ratio between the share of income of the poorest 20% and the most well off 20% is well below EU and regional averages in Hungary. Yet since 2010 the ratio has been rapidly increasing and will most likely continue to do so. The original low value in 2008 is largely due to the relatively small differences in prevailing wages while the increase in the difference is most likely due to two main policy-steps: the radical reform of the personal income tax system and the non-indexation of social benefits. The former affected both the income levels of low earners decreasing those (despite the compensation efforts of the government) and high earners, while the latter disproportionately affected the lowest 20%.

### Indicator 103 – Low work intensity households

#### Grade: 2

This indicator captures the share of adults and children together who live in households where no adult has worked more than 8 weeks in the given year. The trend is worsening despite the fact that a significant share of those participating in public work schemes work more than 8 weeks per year affecting 12.8% of the population, a result 1.5 percentage points above the EU average. A grade of 5 would have been awarded if we would have seen a clear improving trend and the country manages to come within a 10% range of the EU average.

### Indicator 104 – At risk of poverty rate

#### Grade: 3

The share of the population below the 60% level of the equalized median income has been steadily growing to reach 14% in 2012. This means low income in comparison to other residents in that country. The share of the national population is somewhat below the EU average. At the same time, this is not the best indicator for living standard in this specific national context where income levels in general are low for a large share of the population and the general income level is too low to allow for

a large part of the population to make ends meet. Looking at material deprivation it shows that the level of income set as a threshold in this case is indeed low. As the material deprivation indicator will suggest. A grade of 5 would have been given if the trend was not towards worsening.

### Indicator 105 – Children at risk of poverty

#### Grade: 1

The number of children at risk of poverty has been steadily growing over the last 4 years. Also compared to the EU averages the level of poverty in the country which is already alarming is slightly better than the level of child poverty. Child poverty has extremely serious consequences on the skills and capacities of the next generation and thus impedes the goals of the green new deal for over a generation. Poverty effects educational attainment and healthcare outcome of the next generation. For a grade of 5 the country should have at least lived up to its promises of poverty-reduction expressed in the EU2020 national target in the share of child-poverty. (The indicator about material deprivation of children is presented in the child-wellbeing section)

### Indicator 106 – Material deprivation

#### Grade: 1

Material deprivation is the EU2020 indicator on poverty that measures the most concretely the effect of poverty on everyday life as manifesting in material deprivation. There has been a radical increase by 43% in the share of population that falls in this category since 2008. Today 1 person in 4 in Hungary cannot pay for at least three out of nine needs (1, having arrears on mortgage or rent payments, utility bills, hire purchase instalments or other loan payments; 2, not being able to afford one week's annual holiday away from home; 3, not being able to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day; 4, not being able to face unexpected financial expenses; 5, not being able to buy a telephone (including mobile phone); 6, not being able to buy a colour television; 7, not being able to buy a washing machine; 8, not being able to buy a car; or 9, not being able to afford heating to keep the house warm). At the same time in the EU it is 1 person in 10 who falls in this category. Countries in the region have in general a higher share of the population living in material deprivation, still



the trend and the magnitude is extremely alarming in Hungary. A grade of 5 would have been awarded if the statistics testify a decrease of the range of at least the EU2020 target in time.

### Indicator 107 – Share of the population unable to finance unexpected expenses

#### Grade: 2

The share of the population unable to face unexpected expenses is alarmingly high, close to the double of the EU average. At the same time it has significantly increased at the beginning of the financial crisis and has steadily remained at this high level ever since. A grade of 5 would be given if there had been a clear decreasing trend and the country would at least come back to the pre-crisis levels.

### Indicator 108 – Share of population with payment arrears

#### Grade: 1

The share of the population with payment arrears has been increasing between 2008-2010 and over a quarter of the population have to manage arrears by 2012. The most drastic change is the increase by half in 2009 which reflects that at the onset of the crisis people first started to experience serious problems – especially with mortgage instalments. And no effective measures have been taken since 2009 in order to ease the situation. The two main areas of arrears are mortgage loan instalments and utilities bills. Moreover, often there is a compound effect both in time and in kind (loans and utilities). The share of the population facing financial difficulties of this sort is nearly two and a half times the EU average while it is not outstanding in the region. The bad mark has been granted especially for the drastic deterioration comparable to the changes in Romania and Bulgaria in 2008. A grade of 5 would have been given if the alarming increase in 2009 had been contained and the pre-crisis level stabilized at least.

### Indicator 109 – EU2020 complex indicator: at risk of poverty or social exclusion (APORE)

#### Grade: 2

The complex indicator shows the share of population that falls into at least one of the standard EU2020

measures of poverty (at risk of poverty, living in a low work intensity household or suffering from material deprivation). As for the detailed indicators, the complex indicator also presents a deteriorating trend, especially because of the alarming trend in material deprivation. As for all the partial indicators, a grade of 5 would have been awarded for reaching the EU2020 target for the period.

### Indicator 110 – Social protection spending

#### Grade: 2

While Hungary managed to maintain the spending as a share of the GDP at a nearly constant level the GDP was much smaller in 2009 compared to 2008 (hence the slight increase of 1.4 percentage points) and also experienced a smaller detraction in 2012. The 2013 level is still below the 2008 level. This means that at the end of the crisis the spending on social protection is smaller in absolute terms than at the onset. Still, the fact that the share of social protection within the GDP was maintained at least merits that the mark is 2. A grade of 5 would have been awarded if the share of the spending increased significantly nearing the EU average.

## XXII. WELL-BEING OF OLDER PEOPLE

The relative income situations of the elderly compared to the rest of the population is fairly better: both their elderly population at risk of poverty is low and the public spend on elderly is mostly providing for the elderly to have an income that is comparable to the active population. The effective retirement age is 2 years below the EU average but this is comparable to the difference in the number of expected healthy years. However the future trends are more alarming. The sustainability of the pension system in the long run without any clear plan on how to compensate for the assets lost is not clear.

### Indicator 111 – Employment of elderly workers

#### Grade: 3

The employment rate of elderly workers is slowly increasing as the legal retirement age is also increasing. Currently Hungarian employment rate is just 12 percentage points below the EU average; however this is partly due to the fact that legal retirement age



currently is below 64. A grade of 5 would be given if the legal retirement age being over 64 Hungary managed to reach a 10% range the EU average.

### Indicator 112 – Share of population over 60 at risk of poverty

**Grade: 4**

The share of elderly at risk of poverty is significantly lower in Hungary than in the EU on average. Also, despite the general increase in poverty and inequality the increase in the specific age-group has only been moderate. The anti-cyclical effect of the social security system was best felt within this age group on average. 5 would have been attributed if the level would have not increased in the period examined.

### Indicator 113 – Effective retirement age

**Grade: 3**

The effective age of retirement is steadily increasing in line with the increase in the legal age. Hungary is nearly two years below the EU average, but at the same time the life-expectations and the statistics about the number of healthy years also fall behind the EU average. It has to be noted that the results for 2013 will most likely break this trend given the possibility for women to retire after 40 years regardless of their age (above 55).

### Indicator 114 – Pension savings

**Grade: 0**

In 2010 due to the nationalization of complementary occupational pension funds most of the assets of the pension funds were spent and thus the savings amount for future pensions has been dramatically reduced without any guarantee for compensation for the assets that had been until 2010 linked to the owner of the pension account. This move puts into risk the long term financial sustainability of the pension system.

### Indicator 115 – Public spending on pensions

**Grade: 3/4**

The spending on pensions seems quite stable and only slowly increasing while the share of elderly at risk of poverty, although slightly increasing still remains well

below the EU average. At the same time the share of spending is below the EU average and there is ample room for improvement of services provided for the elderly, especially in the context of the forthcoming demographic change. Spending especially for low-level pensions needs to be increased to stop the increase in elderly poverty. A grade of 5 would have been given for spending levels reaching the EU average especially since the effective retirement age is well below the EU average.

## XXIII. EDUCATION AND CHILD WELL BEING

First of all the malnutrition rate and within that of extreme material deprivation is extremely alarming and irresponsible. Malnutrition in childhood affects gravely the perspectives of children.

Services provided to mothers with young children are far from enough and the share of young children having access to early childhood education, which is widely recognized as an essential element of success later in school and on the job market is very far from the EU average. Moreover, the territorial access to services is extremely unequal. Furthermore, there is also wide-spread social prejudice against mothers using infant care due to the long established maternity leave of a maximum of 36 months (which in one of the underlying factors of low employment rate for women).

The resources provided for primary education indicated by the student/pupil ratio in primary education do not yield the quality of outcome one would expect as it is shown by the growing share of low performers on the PISA tests. The situation of young adults is deteriorating during this period, the share of NEEDs increases.

As for the situation of people in higher education the share of students enrolled abroad increases steadily giving a real chance for students to have a foreign learning experience. And the EU2020 target of the 30-34 age groups share with degrees is fast increasing yielding the results of the expansion in higher education in the late 1990's and the early 2000's. The statistics is excellent and has very little to do with current policies.

Finally this mitigated educational outcome with most trends at a negative perspective is reached with less and less spending in all levels of the educational sys-

tem. The results of the drastic reorganization and reform process are not yet reflected in the data presented here but the statistics of the following years will clearly show it.

For the successful implementation of the Green New Deal substantial investment is needed in education and children. The current trends in Hungary point to the exact opposite.

### Indicator 116 – Malnutrition of children

#### Grade: 0

In 2013 34.8% of households with dependent children in the could not afford to pay for a meal with meat, chicken, fish (or vegetarian equivalent) every second day. This is three times the EU average and 14 percentage points above the average for the New Member states. The share of households on the verge of malnutrition passed from one quarter in 2008 this passed to more than one third of all households with dependent children. Extreme child poverty is growing in Hungary with a speed that requires extremely urgent action. Yet this is only part of the story that is visible in European comparable statistics. Moreover, the share of children who only get to food in day care or at school has been estimated at least around 20 000–40 000 by different sources, which is around 2.5% to 5% of all children aged between 3 and 10. This is a state that is intolerable in Europe today, therefore, the mark is not 1 but zero. Urgent action needs to be taken so that the latter figure becomes zero and the former reaches at least the regional average in the next 1-2 years.

### Indicator 117 – Material deprivation of children

#### Grade: 0

The severe material deprivation rate of children under 18 is alarmingly high in Hungary at 33.4% in 2012. The share of children suffering from severe material deprivation (which means that they live in households that cannot afford four out of the nine items mentioned above) is three times the EU average, just as in the case of the internationally comparable statistics on malnutrition. A state that does not manage to provide the very basic necessities to children in Europe in 2013 is very far from the GND goals and can only be graded by 0.

### Indicator 118 – Formal day care – children between 0-3

#### Grade: 1

The share of children aged three and less that are in informal day care is 8% in 2012. The difference between the share of toddlers in Hungary and the EU average of toddlers is more than three and a half fold. At the same time mothers are in demand of day care and the institutions are crowded. Most experts agree that the lack of day care for small children is one of the main reasons behind the low labour market participation of women with small children.

### Indicator 119 – Kindergarten – children between 3-6/7

#### Grade: 1

The government announced that kindergarten is compulsory from age 3 but has not yet done the institutional development. Today only 3 children in 4 aged 3 or above go to kindergarten and only 59% spend there 30 hours or more. This is much below the EU average while the number of places needed can easily be calculated three years in advance. A grade of 5 would have been given if an increasing trend reaching at least the EU average of 84% had been reached

### Indicator 120 – Pupil/teacher ratio primary education

#### Grade: 4

The pupil/teacher ratio is well below the EU average with 10.7 students per teacher in the primary education system. As the next generation of students will be even fewer this ratio is likely to decrease even further. At the same time the fact that there are more teachers per student in the system does not automatically lead to better educational outcome and not even to more teacher time per student. The changes in the administrative burden on teacher and the changes in the share of students with special needs are at least two other main factors strongly effecting teacher-student time and thus also educational outcome on the long term.

**Indicator 121 – Share of low performers in maths (PISA test)****Grade: 1**

The share of low performers in the competences is the main indicator for the EU2020 working program in education. The share of low performers in mathematics (those functionally unable to performance basic mathematical tasks) has dramatically increased between 2009 and 2012 and Hungary stands at just over 28% of the population that is 6 percentage points higher than the EU average. And experts think that the change is due to the deterioration of quality and not to growing inequality in the educational system. General education plays a key role in providing basic competences for young people that ensure that they can acquire the skills and competences needed on the job market later. However if close to one third of the 15 year olds lacks the basic competences needed than they stand very bad chances on job market in their later life.

**Indicator 122 – Not in Employment Education or Training****Grade: 2**

18-24 with at most lower secondary education and not in further education or training or employment is where we already see the joint effect of the crisis and also the first effects of the reform in higher education that decreases the places available in high education. There is an increase of 3 percentage points over the period 2008-2012 to 18.8%. The figure is also 3 percentage points above the EU average. The trend needs to be stopped otherwise neither the employment target nor the educational targets of the EU2020 will not be met. A grade of 5 would have been awarded to a stable NEED level between 2008 to 2012 which would have shown that at least the educational system can manage to be crisis resilient helped by the fact that the cohorts reaching age 18 are less and less numerous during this period.

**Indicator 123 – Share of university students studying abroad****Grade: 4**

The share of students benefitting from the broader possibilities of studying abroad rapidly increased

between 2008-2011 reaching 2.5% of all enrolled students in tertiary education by 2011. This is still 0.8 percentage points below the EU average but the trend is improving.

**Indicator 124 – Share of 30-34 with a degree from higher education****Grade: 5**

The share of the population aged 30-34 years who have successfully completed university or university-like (tertiary-level) education has been steadily growing during the period examined. The effect of the reform of the tertiary-level education implemented in 2013 will only show its effects in the EU2020 target statistics around the end of the decade and given the increasing mobility of university students will not be able to show its full negative effect. For the examined period a grade of 5 is given as there has been a 9 percentage points improvement and if the current phase of improvement stays the EU average can be reached seems within reach (of course the next period will not yield such good results as this reflect in the performance of higher education in the early 2000s).

**Indicator 125 – Spending on education as a share of GDP****Grade: 1**

The share of spending in this strategic area for the GND is well below the EU average in GDP terms and has been decreasing in its share of the GDP in a context of a shrinking GDP. This means that the real spending has been drastically decreasing. Part of this can be explained by the fact that there are fewer and fewer children enrolled in public education each year (as fewer children were born). Yet, the learning outcome of the Hungarian educational system have also been deteriorating since 2008, where they were not at a high level already, especially for low performers. A grade of 5 would have been given if there had been a substantial improvement in spending (knowing that the learning outcomes in the statistics are not likely to follow straight away at this stage the rating would have not depended on this.) The Green consensus in Hungary is that it should be kept above 5%.

## XXIV. HOUSING

The mark of the housing indicator comes from three aspects: property-structure, the quality of housing and the cost of housing. The quality of housing has received an overall mark of 3. Overcrowding is a real problem in many households, yet this is partly a historical heritage of the dwelling-stock. At the same time the presence of pollution near homes in Hungary is slightly better than the EU average and although it has deteriorated somewhat there is no clear worsening trend. The share of bad quality dwellings has significantly decreased in the period.

Housing costs and especially the burden they prove to be for households with mortgage has increased very much. The overall grade is 2 mainly because of the inability of public policy to manage the containment of the raise of mortgage instalments resulting in a 10 percentage point increase to nearly a quarter of all privately owned household spending at least 40% of their disposable income on housing costs.

### Indicator 126 – Overcrowded households

**Grade: 1**

Overcrowding means that those living together in one household lack the necessary space for privacy and comfort. The standard being one room per couple, per pair of children and one room for every other person above 18 living in the household. The share of overcrowded households shows some fluctuation but no real change after the 1.5 percentage point drop in 2009 and stands at 47.2% of the population. The level is nearly three times the EU average of 16.9%. Of course there are traditional social differences in the definition of overcrowding and the post-socialist states generally seem to have smaller apartment standards, yet the level in Hungary is over 5 percentage points higher than the average in new member states.

### Indicator 127 – Bad quality housing

**Grade: 3**

The share of the house-stock that is bad quality has slowly been increasing. In 2008 28.2% of all accommodation suffered from at least one of these: a leaking roof, damp walls/floors/foundation, or rot in window frames or floor; lack of bath a or shower in the dwelling; lack of an indoor flushing toilet used

exclusively by the household; or too dark, not enough light dwelling. This shows that the quality of accommodation has been increasing as the share of dwelling facing the above problems decreased by 8 percentage points. It is still below the average of the new member states of 25.8% but if the trend continues than that should be within reach in the next couple of years. A grade of 5 would have been given if in the period the regional average had been reached and passed.

### Indicator 128 – Pollution in residential areas

**Grade: 3**

The share of the population experiencing pollution grime or other environmental problems in the area where they are living is below the EU average by 2.3 percentage points at 11.8% in 2012. The regional average is stands at the nearly the same level with 14%. However, the share has increased in 2011 by 1 percentage point and it is important to look out for the continuation of the trend. A grade of 5 would have been given for a slight increase as compared to 2008. Economic crisis and periods of GDP contraction should be seen as a chance to stop pollution.

### Indicator 129 – Share of households overburdened by households' costs

**Grade: 3**

The percentage of the population living in households where the total housing costs represent more than 40 % of disposable income has increased by 1.9 percentage point in the period 2008-2012 to 13.5%. The figure is above the EU average of 11.1% and also above the average of new member states of 11.9%. At the same time what is alarming is that the housing cost is an overwhelming financial burden to too many households in a context where the share of owned accommodation is so high. A grade of 5 would have been given for managing a better result than the EU average given the favourable real estate structure form this point of view. At the same time it has to be noted that this is only possible if there is considerable investment in the energy efficiency levels of the real estate in Hungary.

### Indicator 130 – Share of households overburdened by households' costs living in household-owned accommodation

#### Grade: 2

Looking at the specific group of households that own their accommodation the share of households that spend over 40% of their disposable income in housing costs including mortgage instalments has been first decreased from 2008-2009 to 14.73% and then after a slow increase rapidly increased to an extreme level of 25.43%. This means that 1 person in 4 living in an apartment or house owned by a member of the household lives in a household that spends over 40% of their disposable income on housing costs. The increase is in large part due to the dramatic increase in mortgage instalments based in foreign currencies. The government's efforts to decrease utility costs are only likely to have a marginal effect on this statistics. A grade of 5 would have been given if in the midst of the financial crisis the general EU average had been kept for this subgroup of the population (nota bene, the specific EU average is lower as the burden of rent is more significant in the general EU context).

## XXV. HEALTH

The grade is composed of two sub-indicators: the health status of the country and the quality of health-care resulting in an overall grade of 2.

The health status is given a grade of 2/3 as both the expected years in good health and the share of the population reporting good health are increasing, yet they both still fall well behind the EU average.

As for the health-care services the grade given is 2. The self-reported unmet health-care needs are below the EU average and the WHO estimates for out-of-pocket payments are also contained (of course a large share of them are perceived as unexpected expenses and burden households greatly).

As for the facilities the number of hospital beds is usually seen as adequate by experts. What is however most alarming is the annual rate of decrease of doctors per 1000 inhabitants of 2 to 3%. Urgent action is needed to keep the medical personnel in the country to provide proper and stable service.

Health-care spending is still 2 percentage points below the EU average- this is widely visible for those using the services in the low wages of medical personnel, the wide-spread prevalence of extra money paid to doctors and the lack of certain supplies. There is a wide public consensus that the health-care system is under-financed and inefficient, yet no government dares to touch it.

### Indicator 131 – Expected years in good health, women and men

#### Grade: 2/3

The estimated years in good health for women have risen by nearly two years between 2008-2012 in the context of the crisis. This is very good news. And the news is even better in the case of men where the increase has been 4.4 years. This allowed for the gap between men and women present at the national level to close somewhat. The women's figure falls 1.5 years behind EU average while men's still falls two years behind, but if the trend is kept up the difference is likely to disappear soon. The reasons for this great improvement are beyond the scope of the present review and one would claim that they happen despite the lack of preventive efforts of the national health-care system. Research shows that our state of health is defined around 10% on the level of health-services.

### Indicator 132 – Self-reported health status

#### Grade: 3

There is a slight increase in the share of the population that reports good health. In 2012 57.9% of the population stated that they were in good health. The EU average for the same year is 69%. This means that on average the EU citizen report more often good health condition. A grade of 5 would have been given to a more radical improvement in self-reporting.

### Indicator 133 – Unmet health-care needs because of barriers of access

#### Grade: 3

The share of healthcare needs unmet because the patients could not afford them, could not travel to the place of medical care or because the waiting list is too long is quite low. Only 2.8% of the population reported in the last year not to have used the health care system



due to the above reasons. At the same time, this is likely to be an underestimated number as a rising share of the population is not entitled to medical care anymore as they are not part of the social security system any longer. They face the burden of unmet or potentially unmet health-care needs or high levels of out of pocket payment for any health-care need that are well beyond what they can afford to pay for. No reliable statistics are published however on this issue. As for the present statistics, the reported level is below the EU average by 0.6 percentage points in 2012.

#### Indicator 134 – WHO estimates on out of pocket spending on health-care as a percentage of total spending in health-care

Grade: 2/3

The World Health Organization estimates each year the share of out of pocket spending. In 2011 more than a quarter of all medical spending in Hungary was classified as out of pocket spending. This includes the cost of medicine at the counter and also the direct payment for medical services within and outside the national insurance system (including an estimate for payment within the system for doctors). There are no internationally comparable estimates of the flow of cash involved in the later common practice within the Hungarian health system, however experts agree that it is a wide-spread practice that is extremely harmful leading to the split of health care for the poor and the rich.

#### Indicator 135 – Number of doctors per 1000 inhabitants

Grade: 1

An annual rate of decrease of doctors per 1000 inhabitants of 2 to 3% is extremely alarming especially in the context of demographic ageing where additional recourses will need to be allocated to provide adequate medical care for the elderly. Moreover, although we do not have detailed data on the medical personnel leaving the country, it is quite likely that the more qualified and younger part of the medical personal is leaving. The increase in wage does not seem to have been enough to stop the trend. It also has to be noted that the territorial distribution and the professional distribution of the lack of medical personal is uneven.

One of the most alarming phenomena is that in the poorer regions of the country there is a severe lack of paediatricians while the average age of paediatricians in the country is 57. Also the general feeling about the quality of the service is very bad especially.

#### Indicator 136 – Number of hospital beds per 1000 inhabitants

Grade: 4

The number of hospital beds per inhabitant is stable and seems enough according to experts. No EU benchmark statistics has been provided.

#### Indicator 137 – Public spending on health care spending

Grade: 1

Public spending on health care has increased in 2011 mainly due to the raise in the salaries of medical staff that are well below the regional averages also. The spending was still 2 percentage points below the EU average as a share of the GDP. The health-care outcomes do not necessarily reflect this; however the low share of spending is visible in the dramatic decrease in medical personnel that has already led to halts in the provision of continuous medical service on several occasions. The spending in itself is not a goal but an indicator of resource allocation. A grade of 5 would have been given if the increase seemed enough to provide quality care for all from the other indicators.

## XXVI. LABOUR MARKET

The general overview of the employment rates shows that in the period 2008-2012 there were minor changes for certain categories of workers but no major change has taken place: the general activity rate is still very low, the core problem is still the employment rate of workers with lower levels of education and women. The crisis affects negatively much the long-term unemployment rate. There is no real change in the level of the unemployment-trap (unaffected by the reform of the income-tax system).

As for the wage level of minimum average. Still, as a general rule and to a larger extent than in Europe on average having a salary ensures that people are



not at risk of poverty. Yet, the gender-pay-gap has been widening fast during this period which is a great concern from the GND point of view.

Finally decent work entails job security and an opportunity to develop. The share of the active population participating in learning-activities is very low which endangers the maintaining and development of skills and competences of workers. The share of younger workers with a temporary contract is below the EU average but it is growing.

### Indicator 138 – Employment rate

#### Grade: 2

After a small decrease the employment rate is at basically at the 2008 level in 2012. This means that statistics show a small improvement from 2010 and thus it looks like the country managed to fulfil at least partially its EU2020 employment target. At the same time the methodology of calculating employment and also the fact that participants in the wide-spread public work schemes and Hungarians working abroad are also counted in means that it is very difficult to estimate the real evolution of the labour market in Hungary based on this statistics.

### Indicator 139 – Women's employment rate

#### Grade: 2

Women's employment rate has slightly increased in the period to 56.4%. Yet there is no significant change and the change is in line with general employment trends which means that the gap between men and women has not been narrowed over this period.

### Indicator 140 – Employment rate of people with low education level

#### Grade: 1

The employment level of workers with low levels of education or no education remains extremely low in Hungary. The well below average employment rate of this part of the population explains to a large extent the low overall employment rate in Hungary. The level of 37.9% is very far from the 52% EU average. Although the situation is bad in itself the period 2008-2012 has not brought along any radical change in either sense. A grade of 5 would have been a significant increase of

the employment rate. This is possible though the GND, the green transformation offers a large potential of green job creation for people with low educational levels, especially in jobs related to insulation.

### Indicator 141 – Long-term unemployment

#### Grade: 1

Long-term unemployment is on the rise despite the targeted efforts of activation by public work schemes to 5.2%. Its share in the unemployment rate has also been rising as long-term unemployment rose faster than unemployment did. The level in 2012 is 1.1 percentage points above the EU average which is alarming. A grade of 5 would have been given if the rate had been under 3% at the end of the period as long-term unemployment is particularly harmful from a human capital perspective.

### Indicator 142 – Unemployment trap

#### Grade: 3

The unemployment trap measures the percentage of gross earnings lost to taxes when a person becomes employed. This occurs through the loss of unemployment benefits combined with higher tax and social security contributions. In Hungary in 2012 a person would lose of his gross earnings when becoming employed. This is well above the EU average of 74.74% and also of the average of new member states 77.78%. This highlights that the system is extremely rigid and does not recognize a transitory period not any atypical job situations that are more and more common experiences to workers.

### Indicator 143 – In work at risk of poverty

#### Grade: 4

The risk of poverty in employment has been between 5-6% during the period 2008-2012. The figure is much lower than the EU average of 9.2% in 2012.

### Indicator 144 – Gender pay gap

#### Grade: 1

The gender pay gap increased by 2.6 percentage points between 2008-2012 in Hungary while it decreased with 0.9 points in Europe. Hungary is clearly going

in the wrong direction in the question of equality between men and women, which is one of the core demands of the Green New Deal and all signs show that the trend is going to continue to worsen. A grade of 5 would have been given if Hungary which is has a well below EU average level of income inequality manages to narrow the gender pay gap to a smaller than EU average level.

### Indicator 145 – Share of young people with a temporary contract

**Grade: 3**

Precarity has two dimensions, first whether the level of pay allows for decent living and second whether the contract provides long-term security and full access to social security. The share of young people employed on temporary contracts has been growing everywhere in Europe reaching 28% in 2012, which is an alarming trend. The situation of young people who are in employment in Hungary is better; the share of temporary contracts is 15.2%. Yet the increasing trend is also present in Hungary and action needs to be taken to ensure that young people also have decent work.

### Indicator 146 – Life-long learning

**Grade: 1**

The gender pay gap increased by 2.6 percentage points between 2008-2012 in Hungary while it decreased with 0.9 points in Europe. Hungary is clearly going in the wrong direction in the question of equality between men and women, which is one of the core demands of the Green New Deal and all signs show that the trend is going to continue to worsen. A grade of 5 would have been given if Hungary which is has a well below EU average level of income inequality manages to narrow the gender pay gap to a smaller than EU average level.

## XXVII. DEMOCRACY

### Indicator 147 – Democracy and participation

**Grade: 2**

International comparative statistics about democracy are difficult to produce. Still the limited picture shows us that our the following: trust in political institutions is above the EU average according to Eurobarometer surveys and growing, while the OECD data shows a very different picture of distrust. Hungarians are the least probable in the whole EU to go to vote and the OECD ranks Hungary in the middle as far as transparency of decisions is concerned.

### Indicator 148 – Trust in institutions

**Grade: 3**

The picture is contradictory actually: Eurobarometer data shows that an above EU average share of the population trust political parties, the government and the local authorities and all three show an increasing trust between 2011-2013. The later institution enjoys the trust of the majority of the population, 57% in 2013. At the same time the OECD claims that 40% of people say they trust their political institutions, one of the lowest rates in the OECD area, where the average is 56% in 2012.

### Indicator 149 – Voter turnout

**Grade: 1**

Average voter turnout in Hungary during the last elections was 47% of those registered, the lowest figure in the OECD, where average turnout is 72%.

### Indicator 150 – Transparency of decisions

**Grade: 2**

OECD produces a comparative index on transparency of government decisions where Hungary is 15th in the rank of 36 in 2012.



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