

Does the European Union Walk on the Path of Sustainability?

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SUMMARY

Nowadays more than 100 countries try to implement a national sustainable development strategy with hundreds of indicators in use for the evaluation of their progress. The aim of the article is to compare the sustainable development performances of the EU-27 countries through some critical indicators chosen from the Sustainable Development Indicator (SDI) set of Eurostat.

Key words: sustainable development indicators, European Union Sustainable Development Strategy

Journal of Economic Literature (JEL) code: O10, Q56

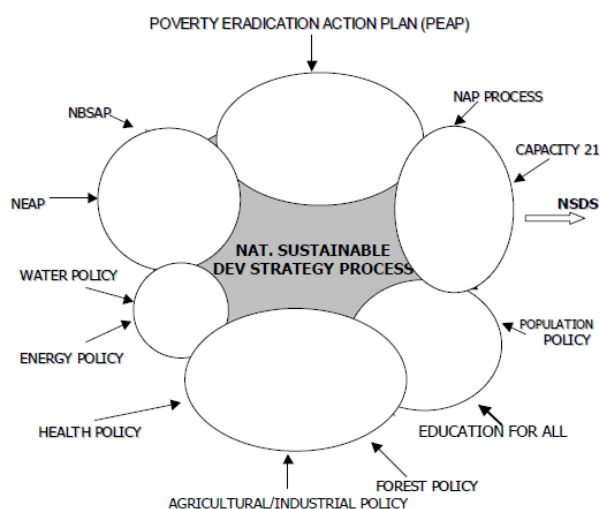
INTRODUCTION

Since the United Nations Conference on Environment and Development of 1992 in Rio de Janeiro, sustainability is a widely preferred conception all over the world. Sustainable Development Strategies (SDSs) are launched by policy-makers to define how a given nation can manage to reach sustainable development. A national sustainable development strategy (NSDS) can be defined as “a coordinated, participatory and iterative process of thoughts and actions to achieve economic, environmental and social objectives in a balanced and integrative manner.” (UNDESA 2002; p.8) What is notable here is that sustainability should be targeted in all three dimensions and in addition to the economic, environmental and social dimensions, a fourth one is becoming increasingly more important, the institutional dimension.

Preparing an NSDS is not an isolated process in composing the economic policy: instead it provides a good opportunity to integrate various sectoral and other strategies. As shown in Figure 1, the already existing and working strategies of a country have a great impact on the NSDS process.

Since institutions, capacities and sustainable development priorities differ state by state, no general structure can be defined for an effective NSDS. Each country has to determine for itself its development goals and the way to develop. According to a report prepared by Division for Sustainable Development of the United

Nations Department of Economic and Social Affairs, 106 member states of the UN were implementing a national sustainable development strategy in 2009 and 13 countries reported that they are developing an NSDS. (UNDESA 2010) Besides national strategies, regional commitments exist as well, such as the European Union Sustainable Development Strategy. Each NSDS contains a set of indicators that measure the progress achieved in the social, economic, environmental and institutional dimensions.



Source: UNDESA 2002. p.11

Figure 1. The National Sustainable Development Strategy process¹

¹ Acronyms in Figure 1: NAP=National Action Plan to Combat Desertification; NEAP=National Environmental Action Plan; NBSAP=National Biodiversity Strategy and Action Plan

This article aims at comparing the progress of the EU member states by the set of Sustainable Development Indicators (SDIs) that are used in the monitoring report. Finally the fundamental question is answered if we really get closer to sustainability or it is just a utopia and in reality we are standing in the same point making no progress. Our analysis is based on the Eurostat headline indicators of sustainable development.

THE SDS OF THE EUROPEAN UNION AND THE EUROSTAT SDIs

The EU Sustainable Development Strategy was launched by the European Council in Gothenburg in 2001 and revised in 2006 and 2009. In 2005 the European Council announced principles to help the European countries in the NSDS progress. These principles reach the three dimensions of sustainability, so there is a need for economic prosperity based on an innovative, competitive and eco-efficient economy, besides the quality of the environment must be protected and improved and we must promote equity and social cohesion. Based on these principles in 2006 seven key challenges were assigned, that are the following:

- sustainable consumption and production
- social inclusion, demography and migration
- public health
- climate change and clean energy
- sustainable transport
- conservation and management of natural resources
- global poverty and sustainable development challenges. (Commission of the European Communities 2009; Eurostat 2011)

The NSDSs can be seen rather as a learning process, than a static and single answer to a problem, so an elemental part of the strategy should be the evaluation and monitoring, which serves as a base for revision. (Gáthy et al. 2006) The evaluation of the implementation of EU SDS is supported by the monitoring report of the Eurostat published in every two year. The SDIs in the monitoring report show a theme-oriented framework that reflects the above mentioned key challenges of the SDS. There are ten themes representing the economic, the social, the environmental and the institutional dimensions. They are further divided into subthemes which reflect the operational objectives and actions of the SDS. The more than 140 indicators can be divided into four groups according to the level they represent (See Table 1.)

- The headline indicators monitor the overall objectives related to the key challenges of the SDS. They are widely used indicators with a high communicative and educational value. e.g: real GDP per capita.
- The operational indicators are related to the operational objectives of the SDS. They are lead indicators of the subthemes. e.g: employment.

- The explanatory indicators are related to actions described in the SDS or to other issues which are useful for analyzing progress towards the strategy's objectives. e.g: female employment.
- Contextual indicators are part of the set, but they either do not monitor a particular SDS objective directly or they are not policy responsive. Generally, they are difficult to interpret in a normative way, they rather provide valuable background information. e.g.: number of persons in households. (European Commission)

Table 1
Themes and levels of the Eurostat SDIs

Themes and their headline indicator(s)	Number of		
	operational indicators	explanatory indicators	contextual indicators
Socio-economic development GDP growth rate	3	12	-
Sustainable Consumption and Production Resource productivity	3	14	2
Social Inclusion Risk-of-poverty or exclusion	4	15	1
Demographic Changes Employment of older workers	3	4	4
Public Health Healthy life years and life expectancy	2	9	-
Climate Change and Energy Greenhouse gas emissions Renewable energy	2	8	-
Sustainable Transport Energy consumption of transport relative to GDP	4	7	1
Natural Resources Common bird index Fish catches outside safe biological limits	4	5	-
Global Partnership Official development assistance	3	7	3
Good Governance No headline indicator	3	3	1
	31	84	22

Source: author's work based on European Commission

PROGRESS TOWARDS SUSTAINABLE DEVELOPMENT IN THE EU

In this section of the article three headline indicators and one operational indicator will be presented to assess the progress in the EU-27 member states. These are taken to represent the four dimensions of sustainability: Resource productivity, People at risk of poverty or social exclusion, Renewable energy and Share of environmental and labour taxes in total tax revenues. Although not all the headline indicators are explained and presented in details a summary of the way they changed in the past years is shown in Table 2.

Table 2
Progress in the headline SDIs compared to 2009

SDI theme	Headline indicator	2009 report	2011 report
Socioeconomic development	Real GDP per capita	☀	☁
Sustainable consumption and production	Resource productivity	☀	☁
Social inclusion	Risk of poverty or social exclusion	☁	☀
Demographic changes	Employment rate of older workers	☁	☁
Public health	Life expectancy and healthy life years	☁	☁
Climate change and energy	Greenhouse gas emissions	☁	☀
	Consumption of renewables	☁	☀
Sustainable transport	Energy consumption of transport relative to GDP	☁	☁
Natural resources	Abundance of common birds	☁	☁
	Conservation of fish stocks	☁	☁
Global partnership	Official Development Assistance	☁	☁
Good governance	No headline indicator	-	-

☀ Clearly favourable changes ☁ Moderately favourable changes ☁ Moderately unfavourable changes ☁ Clearly unfavourable changes

Source: author's work based on Eurostat 2011

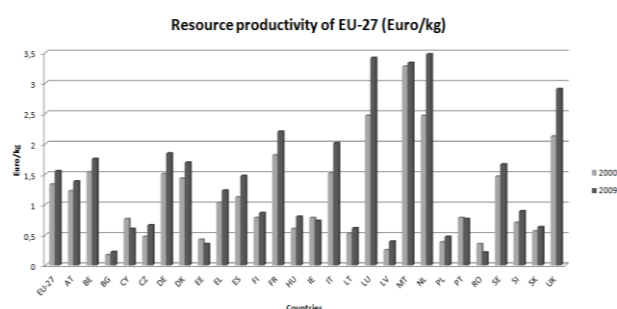
The monitoring report of the EU SDS uses the weather forecast signs to indicate in which direction the given indicator changed. Sunshine means clearly favourable changes, while sunshine with a cloud represents moderately unfavourable changes. The cloud and bolt of lightning stand for unfavourable changes. It should be noted here that there is no target level in case of most of the indicators, only the direction of change is important. In my opinion a target should be determined more frequently, so that it could be clearly seen what is sustainable. The problem is that it is difficult if not impossible to determine whether an indicator already shows a sustainable level or not.

As seen in Table 2, the changes in the 10 themes of sustainable development show quite a diverse picture. The theme 'Socioeconomic development' represents a moderately favourable change, while 'Demographic changes' shows less favourable data in the years analysed lately. Since the latest presented date in this table is from 2010, these two topics seem to be the mostly hit by the financial crisis. Real GDP per capita is not highlighted in this paper due to its well known shortcomings. What was surprising in the analysis of the data was that 'Social inclusion' and the 'Climate change and energy' themes are changing in a favourable way. This paper deals with these fields in detail.

Although no headline indicator is connected to the 'Good governance' theme because no indicator is considered to be sufficiently robust and policy relevant to provide a comprehensive overview, still in my opinion good governance is indispensable to reach the goals set by the SDS, so it should be enhanced. Therefore I dealt with the environmental taxes and their share from total tax revenue compared to the share of labour taxes as a mean of assessing good governance.

Sustainable Consumption and Production

The headline indicator of 'Sustainable consumption and production' is resource productivity, which monitors the amount of gross value added (measured as GDP) that an economy generates by using one unit of material (measured as domestic material consumption [DMC]). In other words we can say that it shows how productively an economy consumes resources in the creation of products and services for markets. The goal is to increase resource productivity when the GDP increases more than DMC does. Figure 3 compares resource productivity in the years 2000 and 2009 measured in Euro/kg.



Source: author's work based on Eurostat data

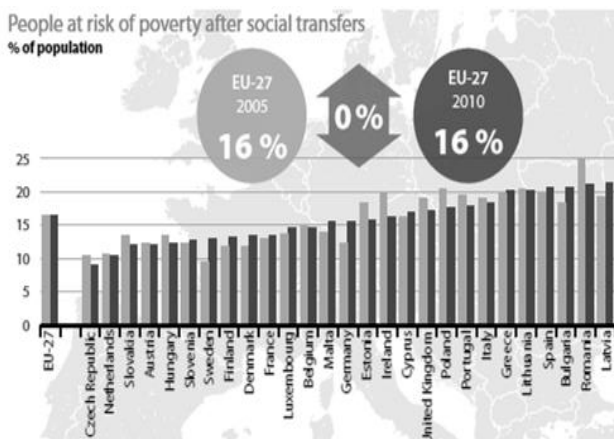
Figure 3. Resource productivity in EU-27 countries (2000 and 2009)

In majority of the member states an increase can be seen, the highest in Lithuania and the Netherlands, but in Estonia, Ireland, Cyprus and Romania less GDP was generated from 1 kg of material than 9 years earlier. Still, if we consider the EU-27 average, resource productivity increased in the 9 years examined, from 1.33 Euro/kg in 2000 to 1.55 Euro/kg in 2009. (Eurostat) Despite the

increase it was declared to be a moderately unfavourable change because in most cases the increase in resource productivity resulted from the GDP growing at a higher rate than the growth of DMC. In 2007, for example, there were only 6 countries where absolute decoupling was achieved: in Germany, Italy, Lithuania, Hungary, the Netherlands and the United Kingdom, which means that the DMC decreased and the GDP increased (Eurostat 2011).

Social Inclusion

The headline indicator of ‘Social inclusion’ is ‘People at risk of poverty or social exclusion’. In Figure 4 the change in people at risk of poverty after social transfers can be seen as a percentage of population. From 2005 to 2010 the share of people at risk of poverty after social transfers did not change, remaining 16% of the population, representing 81 million people at risk of poverty in 2010. In the 5 years examined, in 13 countries the share of people at risk of poverty decreased, while in 14 countries the share fell, resulting in no change overall.



Source: Eurostat (2012)

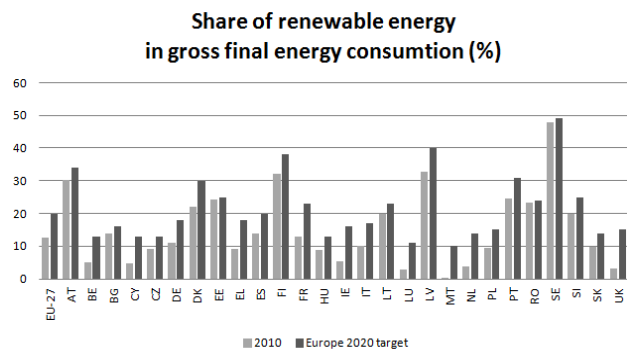
Figure 4. Share of people at risk of poverty after social transfers in % of population in EU-27 (2005 and 2010)

Despite the stagnation we could put a sunshine mark next to ‘Social inclusion’, showing favourable changes, because the group of people at risk of poverty includes three elements: one of them is the already mentioned ‘People at risk of poverty after social transfers’, remaining at 16%, while the other two are ‘Share of severely materially deprived people’ and ‘Share of people living in households with very low work intensity (aged 0-59)’. The number of severely materially deprived people decreased by 24% between 2005 and 2010: their share of the population was 10.7% in 2005, but decreased to 8.1% to 2010. The improvement in the number of people living in households with very low work intensity was lower, showing a 4% decrease, but in 2010 it still represented 10% of population (Eurostat 2012).

Climate Change and Energy

This theme has two headline indicators: ‘Greenhouse gas emission’ and ‘Share of renewable energy in gross final energy consumption’. I would have found the ‘Greenhouse gas (GHG) emission’ interesting but I saw in the monitoring report that it is not the absolute value that is measured, as the change compared to 1990 is taken into consideration. I disagree with this assumption as in countries such as Hungary, production of some sectors, e.g. heavy industry, decreased due to the political and economic transitions, resulting in a fall in GHG emission. Due to this fall the indicator of Hungary shows great improvement, although I am not sure if improvements can be seen since the 1990s.

The other headline indicator is ‘Share of renewable energy in gross final energy consumption’. In the case of this indicator target levels are determined in Europe 2020 Strategy. Figure 5 shows what the member states reached by 2010 compared to their targets.



Source: edited by the author based on Eurostat data

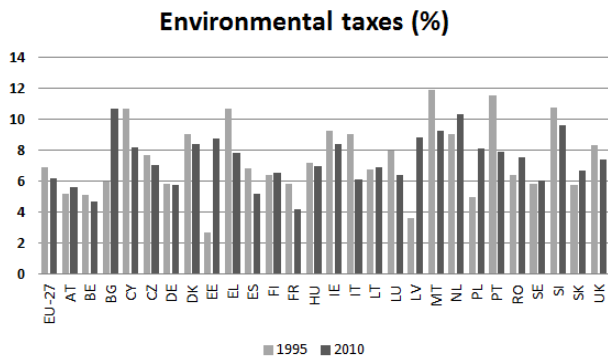
Figure 5. The share of renewable energy in gross final energy consumption in EU-27 (2010)

It is clearly seen that none of the member states have reached their 2020 target yet, but some of them are very close to it. The share of renewable energy increased in most of the countries by 2010, but I still have doubts if this alone can be declared as a clearly favourable change, as declared by Eurostat. I think the decrease in energy usage from all sources would be a favourable change. What is shown here is just that more renewable energy is consumed, while the problem is that we consume more and more energy year by year and I am not sure if this leads us towards sustainability, no matter what type we use.

Good Governance

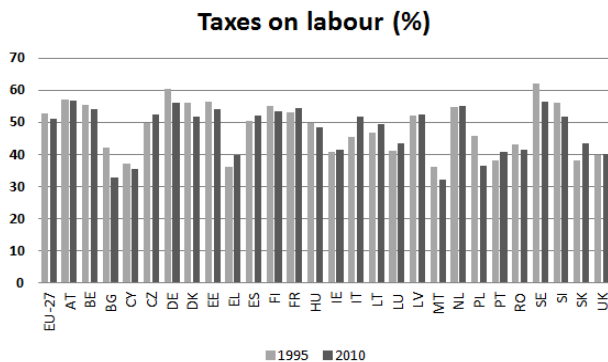
When evaluating the theme ‘Good governance’ I have chosen a subtheme called ‘Economic instruments’. The indicator used is the ratio of environmental to labour taxes. Figure 6 and 7 show the ‘Share of environmental and labour taxes in total tax revenues’. I considered it an

important indicator, as one goal of the EU SDS is to shift taxation from labour into resource and energy consumption and/or pollution.



Source: author's work based on Eurostat data

Figure 6. Share of environmental taxes in total tax revenues in EU-27 (1995 and 2010)



Source: author's work based on Eurostat data

Figure 7. Share of labour taxes in total tax revenues in EU-27 (1995 and 2010)

According to Figure 6, the average EU-27 share of environmental taxes shows a decrease over the period. This alone could be evaluated as a progress if we say the decrease was due to lower pollution, but the situation is not as simple as it seems. Such a comparison should be made with caution because low revenue and thus a low

share of environmental taxes does not necessarily mean environment-friendly agents. It may be due to relatively low environmental tax rates, or could result from a change in the behavioural patterns of the agents as an effect of higher tax rates. To give another example, a high level of environmental tax revenue can be the result of the activities of individuals or businesses, so in other words, when we buy petrol or diesel in the neighbouring countries we increase their environmental tax revenue, but we pollute our own country.

The share of taxes on labour shows only small changes in the examined 15 years. It remains around 50% of the tax revenue as an average in the EU-27 countries.

The ratio of environmental to labour taxes decreased from 0.13 in 1995 to 0.12 in 2010, which does not follow the EU SDS goal. It can be evaluated as a clearly unfavourable change.

CONCLUSIONS

As for the progress towards sustainable development in the European Union in general, we can say that there are both favourable and unfavourable changes concerning all dimensions of sustainability. Evaluating the progress has a great many limitations I think. One of them is that the latest statistical data in case of many indicators are 2-3 year old. That means that it takes at least 2 or 3 years to see whether the economy or the society is moving towards sustainability or if there is something to be changed. In my opinion a second limitation is that I have doubts about the relevance of the headline indicators. In some cases, like in 'Socioeconomic development' or 'Climate change and energy' themes, more emphasis should be laid on the subtheme indicators. Thirdly, I think policy and governance has a decisive role, as do local communities, in changing the thinking of people and acting differently, but in the monitoring report this cannot be measured.

In the future the subtheme and explanatory indicators should be examined and thus further conclusions could be drawn.

Acknowledgements

The described work was carried out as part of the TÁMOP-4.2.2/B-10/1-2010-0008 project in the framework of the New Hungarian Development Plan. The realization of this project is supported by the European Union, co-financed by the European Social Fund.

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