

# Framework of indicators for monitoring implementation of interrelated targets of the EU Sustainable Development Strategy

Dalia Štreimikienė,

Remigijus Čiegis

*Vilnius University,  
Kaunas Faculty of Humanities,  
Muitinės 8, LT-44280 Kaunas,  
Lithuania  
E-mail: dalia@mail.lei.lt*

The aim of the article is to present the priorities of the EU sustainable development strategy and a methodological framework for monitoring the implementation of the EU sustainable development targets relevant to the energy sector. These targets are interrelated and can be addressed using a framework connecting the indicators with policies and measures aiming to achieve specific targets established by indicators and to show the interlinkages among the specific indicators and the interaction between policies and measures targeting specific indicators. The energy sector is a specific scope of sustainable development issues and is integrated in almost all priority areas of the EU sustainable development strategy: climate change mitigation and clean energy, sustainable transport, sustainable consumption and sustainable production, conservation and management of natural resources, public health, poverty and other social problems.

**Key words:** sustainable development strategy, monitoring and implementation of EU sustainable development policy

## INTRODUCTION

In 2001, a broad Strategy for Sustainable Development (EC, 2001) was launched by the European Council in Gothenburg and in 2002 its external dimension was defined in Barcelona, before the UN World Summit on Sustainable Development in the summer of 2002. The revised strategy was adopted in 2006 (EC, 2006). The strategy identifies six trends that are not sustainable. Actions should focus on:

1. Limiting climate change and increasing the use of clean energy;
2. Addressing threats to public health;
3. Managing natural resources more responsibly;
4. Improving the transport system and land-use management;
5. Combating poverty and social exclusion;
6. Dealing with the economic and social implications of an ageing society.

The strategy also sets out a commitment to regular monitoring, stating that it will be comprehensively reviewed at the start of each Commission's term of office. The first progress report on the implementation of the sustainable development strategy, launched by the European Council in Gothenburg in 2001, was published by EUROSTAT in 2005 (EUROSTAT, 2005). It focuses on the quantitative trends restricting the analysis to a set of sustainable development indicators (SDI) adopted by the European Commission in February 2005, and provides a useful complement to the Commission's communication on the review of the sustainable development strategy. Trends are assessed against

policy objectives to inform the readers about the achievements, trade-offs, and failures in achieving the commonly agreed objectives. The data presented cover the period from 1990 to 2005 (or the latest year available). However, most indicators presented in this publication are qualitative and the links among them are also presented in a descriptive form without any analytical framework and deeper policy analysis. The use of a framework of interlinked indicators for monitoring the implementation of sustainable development strategy can be a very useful policy tool (Štreimikiene, 2004). The renewed EU sustainable development strategy (EC, 2006) was adopted by the European Commission in 2006. The renewed strategy includes the priorities of the first strategy, however, new targets are addressed based on the analysis of unsustainable trends and new challenges indicated during the review process.

The aim of this article is to present the methodological framework of indicators addressing climate change and clean energy issues and to show the ways of integrating the interrelated indicators representing different priority areas of the EU sustainable development strategy. The main tasks of the article are the following:

- analysis of the EU sustainable development strategy priorities;
- presentation of the main indicators addressing climate change and clean energy issues based on analysis of the EU documents;
- presentation of a methodological framework for monitoring sustainable energy development priorities and integration of other priorities of the EU sustainable development strategy in the climate change and clean energy indicator's framework.

## THE EU SUSTAINABLE DEVELOPMENT STRATEGY PRIORITIES

The EU Sustainable Development Strategy was adopted in Göteborg in 2001. The EU Sustainable Development Strategy review was launched by the European Commission in 2004. Communication from the Commission to the Council on the 2005 Review of the EU Sustainable Development Strategy: Initial Stocktaking and Future Orientations identified quite limited trends in the EU which are clearly not sustainable, such as the issues of climate change and energy use, threats to public health, poverty and social exclusion, ageing societies, management of natural resources, and land use and transport. These areas can be treated as priority areas requiring specific concern and urgent advanced policy actions.

The renewed EU Sustainable Development Strategy (EC, 2006) adopted in 2006 identifies seven key challenges and the corresponding targets: climate change and clean energy, sustainable transport, sustainable consumption and sustainable production, conservation and management of natural resources, public health, social inclusion, demography and migration, global poverty and sustainable development.

### Climate change and clean energy

The EU Green Paper on European Strategy for Sustainable, Competitive and Secure Energy (SEC (2006) 317) (EU, 2006) sets the main priorities for the EU energy strategy: competitiveness of the EU economy, security of supply and environmental protection. These objectives should help to address central policy concerns such as job creation, boosting overall productivity of the EU economy, protection of the environment and climate change. The Commission's Green Paper on energy efficiency COM (2005) 265 (EU, 2005) stresses the importance of energy efficiency improvement for controlling the growth of demand and security of supply. 2006/32/EC Directive on energy end-use efficiency and energy services sets the targets for EU member states to reduce final energy consumption by 9% during the nine-year period until 2015.

The White Paper for the Community Strategy and Action Plan on renewable energy sources states that member states should formulate indicative targets to contribute to the ambitious indicative target of doubling the overall share of RES in the EU by 2010 (EU, 1997). It sets an indicative target of 12% for the contribution by RES to the total primary energy consumption within the EU by 2010 and contains a strategy and action plan to achieve this target. Pursuant to the White Paper on Renewables, the Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market was passed in 2001. It adds the indicative target contribution of 22.1%. All EU member states agreed on national targets for electricity produced from renewables (Streimikiene, Punys, Burneikis, 2005). The 2003/30/EC Directive on the promotion of the use of biofuels or other renewable fuels in transport sets that Member States must ensure by end of 2005 a 2% minimum proportion of biofuels of all gasoline and diesel fuels sold on their market. In a longer term the target is to achieve a share of 5.75% of biofuels for transport in the total amount of fuels in Europe by 2010 and 20% by 2020. The 2002/91/EC Directive on the en-

ergy performance of buildings sets a target to realize the savings potential of around 22% by 2010 for energy used in heating, air conditioning, hot water and lighting.

The 2004/8/EC Directive on the promotion of cogeneration based on a useful heat demand in the internal energy market aims to increase energy efficiency and improve the security of supply by creating a framework for promotion and development of high efficiency cogeneration of heat and power based on useful heat demand and primary energy savings, taking into account the specific national circumstances, especially climate and economic conditions. The strategic goal of EU-15 is to double the share of electricity produced by CHP by 2010.

The European Climate Change Programme (ECCP) adopted in 2001 has served as a key vehicle to take action against climate change in Europe. It covers crucial energy initiatives and the recently launched EU-wide allowance trading scheme for greenhouse gas emissions, which started operating on 1 January 2005. All these directives and policy documents have a positive effect on GHG emission reduction and achieving the Kyoto target. The EU has ratified the Kyoto Protocol, committing itself to a 8% GHG emission reduction in the period 2008–2012 versus 1990 (Streimikiene, Ciegis, Pusinaite, 2006).

The main targets addressed in the EU Sustainable Development Strategy are:

- to implement the Kyoto protocol;
- to increase the security of supply;
- by 2010, to ensure 12% and 2015 by 15% of renewable energy target in primary energy and by 2010 21% of electricity consumption;
- by 2010, 5.75% and by 2015 8% of transport fuels should consist of biofuels;
- reaching an overall saving of 9% of final energy consumption over 9 years until 2017.

All these targets are closely interrelated and measures aiming at these targets should be harmonized, therefore a framework of sustainable energy indicators can be developed within this priority area. However, other priority areas addressed in the EU Sustainable Development Strategy are also interrelated and can be integrated in the sustainable energy indicators framework.

### Sustainable transport

Transport is one of the main sources of GHG emissions tightly related with all issues concerning energy. The EU Biofuels Directive is the main directive clearly indicating linkages between climate change mitigation and transport priorities in the EU Sustainable Development Strategy. Despite the aim to decouple transport from GDP growth, the volume of transport continues to rise faster than the GDP. This impacts a variety of areas, ranging from traffic congestion and health problems caused by air pollutants, to increased CO<sub>2</sub> emissions affecting the EU targets on climate change. The EU has started a number of policy initiatives to limit the negative effects of this trend in the growth of transport (EC, 2005).

The main targets addressed in the EU Sustainable Development Strategy are the following:

- decoupling the economic growth from demand for transport;
- reducing transport GHG emissions;

- reducing emission of other pollutants from transport to the levels that minimize the impact on human health;
- shifting to environment-friendly transport modes;
- reducing transport noise to minimize its impact on health;
- modernizing the EU framework of the public transport to increase its efficiency by 2010;
- ensuring CO<sub>2</sub> emissions of 140 g/km (2008/2009) and 120 g/km (2012);
- halving road transport deaths by 2010 versus 2000.

The targets for sustainable transport set by the EU Sustainable Development Strategy are closely interrelated: the decoupling of economic growth from the demand for transport has a positive effect on energy intensity and GHG emission and emission reduction of other pollutants from transport. The modernization of the EU framework of public transport and increase of its efficiency, shifting to environment-friendly transport modes exert a positive effect on decoupling the economic growth from the demand for transport, emission of GHG and other pollutants, transport noise reduction and mitigation of impact on human health. All these issues are related to energy use in transport and can be integrated in the framework of sustainable energy indicators.

### Sustainable consumption and production

Energy production and consumption may be considered as the most important items to implement sustainable production and consumption patterns as energy is consumed in all sectors of economy, and a higher energy use efficiency significantly reduces GHG emission. Besides that, implementation of sustainable energy production principles would be most important for reducing GHG and other atmospheric emissions, human health hazards. The use of renewable energy sources and energy efficiency improvement measures are the main environmentally advanced technologies in economy.

The main targets addressed in the EU Sustainable Development Strategy are:

- decoupling economic growth from environmental degradation;
- improving environmental and social performance for products and processes encouraging their uptake by business and consumers;
- achieving by 2010 the EU average level of green procurement equal to that of currently achieved by the best performing member states;
- increasing the global market shares in the field of environmental technologies and eco-innovations.

The targets of sustainable production and consumption are relevant to the energy sector and can be addressed in the framework of sustainable energy indicators.

### Management of natural resources

Measures to enhance resource efficiency are tightly related with climate change mitigation issues and include the EU Directive on waste electrical and electronic equipment, Landfill Directive, Nitrates Directive, Commission Communications on integrated product policy, etc. The Directive 1999/31/EC of the European Parliament and of the Council on waste landfills requires a 50% reduction of bio-degradable waste by 2005 and a further reduction of 25% by 2010 (versus the level of biodegradable waste in 1993).

Methane in all waste landfills shall be collected and used or burnt. After implementing these requirements, methane gas emissions in waste landfills will be reduced and GHG emission avoided.

The Directive 91/676/EC of the European Parliament and of the Council requires that manure is stored in a proper manner and the amount and time of application of organic fertilisers be properly regulated. This reduces evaporation of nitrogen suboxide from organic and liquid mineral fertilisers. Reports shall be submitted every four years and shall detail issues related to the implementation of the action programme that also covers measures to reduce greenhouse gas emissions.

Directives 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment and 2003/108/EC amending Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) are designed to tackle the rapidly increasing waste stream of electrical and electronic equipment and complements the European Union measures on landfilling and incineration of waste. Increased recycling of electrical and electronic equipment will limit the total quantity of waste going to final disposal. Producers will be responsible for taking back and recycling electrical and electronic equipment. In order to prevent the generation of hazardous waste, Directive 2002/95/EC requires the substitution of various heavy metals and brominated flame retardants in new electrical and electronic equipment put on the market from 1 July 2006. This also has positive effects on GHG emission reduction.

On 7 February 2001, the European Commission adopted the Green Paper on integrated product policy. The Green Paper presents ideas for strengthening product-focused environmental policies and assisting the growth of the market for greener products. An integrated policy for products will probably need to be based on a mixture of the instruments and will have a positive effect on GHG emission reduction as greener products include products exerting the least impact on the environment, including low GHG emissions, etc.

The main targets addressed in the EU Sustainable Development Strategy are as follows:

- improving resource efficiency to reduce the overall use of non-renewable resources;
- improving resource efficiency through promotion of eco-efficient innovations;
- avoiding overexploiting of renewable natural resources;
- halting the loss of biodiversity;
- contributing to achieving the four UN global objectives on forests by 2015;
- enhancing an efficient use of natural resources by applying the concept of life-cycle thinking.

Targets for conservation and management of natural resources relevant to energy are increasing the use of renewable energy sources and the efficiency of energy use and production.

### Public health

The threats to public health in the EU have continued to increase since 2001. Lifestyle-related and chronic diseases increase rapidly worldwide, with obesity showing the most alarming developments. Examples of policy measures taken since 2001 include the adoption of a proposal for a new EU regulatory framework for chemicals, the adoption of the European Environment and Health Action Plan 2004–2010, etc. (EC, 2005). Climate change

Table. Indicators selected for monitoring unsustainable trends in climate change and clean energy (Streimikiene, 2007)

Indicators	Acronym	Sub-theme	Directive or policy document	Target	Date for achievement
<b>Energy efficiency (EE)</b>					
End-use energy intensity of GDP	EE1	Energy efficiency	Directive 2006/32/EC on end-use efficiency and energy services	To reduce final energy consumption by 9% the current level (2006)	2016
Energy saved in buildings	EE2	Energy efficiency	2002/91/EC Directive on the energy performance of buildings	To save 22% of energy used in buildings	2010
Savings of primary energy supply	EE3	Energy efficiency	The Commission's new Green Paper on energy efficiency COM (2005) 265	To save 20% of TPES from year 2005 level	2020
The share of CHP in electricity production	EE4	Energy efficiency	2004/8/EC Directive on the promotion of cogeneration	Double the current share of CHP	2010
<b>Use of renewable energy sources (RES)</b>					
The share of RES in primary energy supply	RES1	Renewables	The White Paper on renewable sources	Share of RES in TPES- 2%	2010
The share of RES in electricity generation	RES2	Renewables	Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market	Share of RES in electricity consumption - 22,1% (7% for Lithuania)	2010
The share of RES in heat production	RES3	Renewables	Proposal for Directive promoting the use of heat from renewable energy sources	Double the current level of RES in heat production	2010
The share of RES in fuel used in transport	RES4	Renewables	2003/30/EC Directive on the promotion of the use of biofuels or other renewable fuels in transport	2% 5.75% 20%	2005 2010 2020
<b>Energy supply (SS)</b>					
Energy independency	SS1	Security of supply	The EU Green paper on European Strategy for Sustainable, Competitive and Secure Energy	To maintain current energy independency ratio (50%)	2030
<b>GHG and pollutant emission mitigation (GHG)</b>					
GHG emissions: total; energy production; transport; industry etc.	GHG1	Climate change	Kyoto protocol	Reduction by 8% of year 1990 level	2008–2012
Emissions of other (SO <sub>2</sub> , NO <sub>x</sub> , Voc, NH <sub>3</sub> , CO, particulates, benzopyrene, etc.) pollutants: total; from energy production; from transport; other sectors	OTH	Emission of pollutants	Gothenburg protocol, Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants	The national emission ceilings SO <sub>2</sub> 145 thou t, NO <sub>x</sub> 110 thou t, VOC92 thou t, NH <sub>3</sub> 84 thou t	2010
<b>Energy affordability (EA)</b>					
The ratio of real income spent on energy (electricity, natural gas, heat) to prices of energy (electricity, natural gas, heat) by low income and average population	EA1	Energy affordability	–	–	–

has a significant impact on public health through the vulnerability to climate change issues. The third countries are mostly vulnerable to climate change, however, the impact of climate change on human health is being investigated in the EU as well. The relationship between climate change and sustainable development is clearly addressed in IPCC reports (IPCC, 2006).

Energy production and use has significant effect on human health because of atmospheric emissions of NO<sub>x</sub>, SO<sub>2</sub>, CO, particulates, benzopyrene, etc. Improving information on environmental pollution and adverse impacts on human health is one of the main targets addressed in the EU sustainable development strategy. The EU financed projects ExternE, ExternE-POL, NEEDS, CASES are aiming at providing external costs estimates of pollution caused by fuel cycles, electricity generation, transport, etc.

**Social inclusion, demography and migration**

Poverty, social exclusion and ageing are the growing problems in the EU in which about 15% of the population live at risk of income poverty. The situation in some of the new member states is of particular concern. The EU member states have agreed to co-ordinate their policies for combating poverty and social exclusion by setting common objectives, designing national action plans and evaluating them using common indicators to monitor progress. The European Commission is supporting this co-ordination process (EU, 2005).

The main operational objectives and targets set by the Sustainable Development Strategy (EC, 2006) are:

- reduction of the number of people at risk of poverty and social exclusion by 2010;
- ensuring a high level of social cohesion at the EU level;
- modernization of social protection;

- increasing the employment of migrants by 2010;
- increasing the labour market participation of young people, women, older people and disabled persons.

Very important social issues are related with energy affordability. The modernization of social protection includes issues of new support schemes for low income population, enabling to increase energy affordability for the most vulnerable groups.

**INDICATORS ADDRESSING CLIMATE CHANGE AND CLEAN ENERGY TARGETS**

The EU sustainable development targets in the priority area (climate change and clean energy) can be monitored using a framework of sustainable energy indicators. All sustainable energy indicators in the framework are interrelated and have a positive effect on GHG emission reduction (Klevas, Grikstaite, Streimikiene, 2007). The other priority areas addressed in the EU Sustainable Development Strategy can be also integrated in this framework (Streimikiene, Klevas, 2007).

For selection of indicators relevant to monitoring the progress in climate change and clean energy priority area, analysis of the main EU energy and environmental directives was conducted (Streimikiene, 2007). Based on this analysis, a set of the main sustainable energy indicators was established. The headline indicators were selected from the ISED list (IAEA, 2005; Streimikiene, 2005) to address the requirements of the EU directives and other EU policy documents targeting the security of supply (SS1), energy efficiency improvements (EE1, EE2, EE3) (Markandya, Pedroso, Streimikiene, 2006), promotion of RES

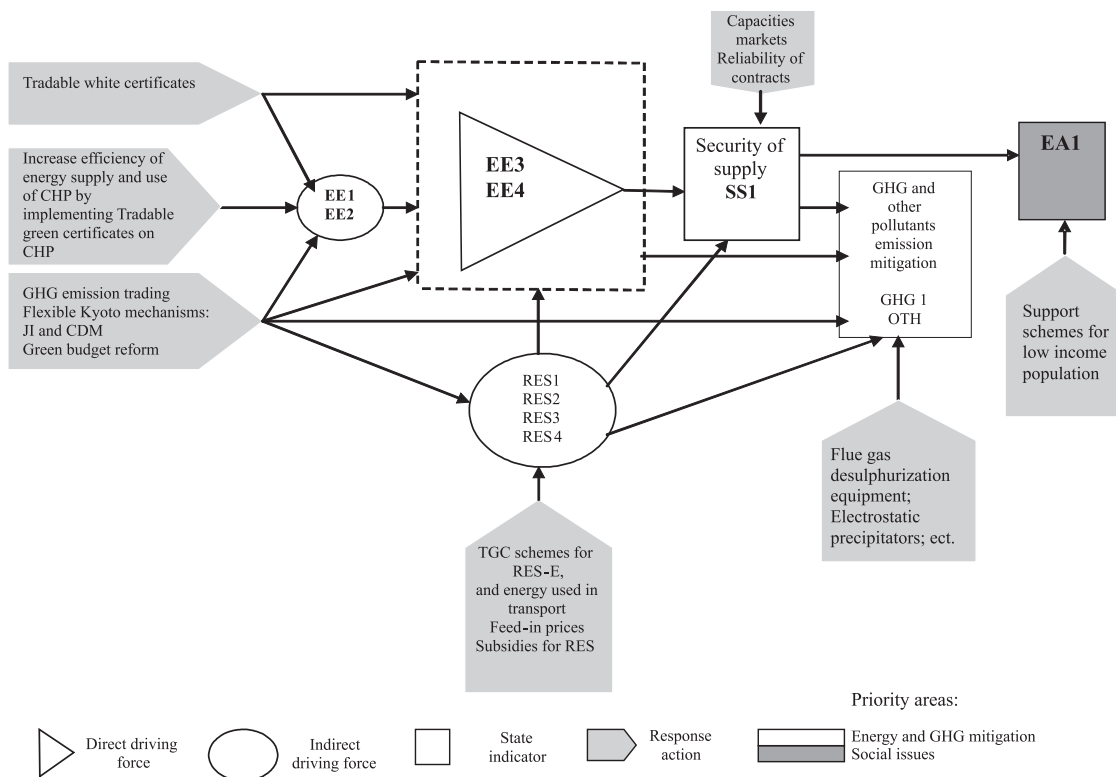


Fig. Framework of indicators for monitoring sustainable development priorities (Streimikiene, Ciegis, Grundey, 2007)

(RES1, RES2, RES3), GHG and other pollutant emission reduction (GHG1, OTH) and energy affordability (EA).

The selected sustainable energy indicators were grouped by five priority areas of the EU energy policy: increase of energy efficiency (EE), use of renewable energy sources (RES), increased security of supply (SS), emission reduction of GHG and other pollutants (GHG, OTH), increase in energy affordability (EA). The framework of sustainable energy indicators for the EU energy policy analysis and the monitoring of the EU sustainable development targets in the priority area (climate change mitigation and clean energy) as well as integration of other areas (sustainable transport, sustainable consumption and production, conservation of natural resources, mitigation of human health hazards and social issues) are presented in Table.

### METHODOLOGICAL FRAMEWORK FOR MONITORING SUSTAINABLE DEVELOPMENT TARGETS

All indicators presented in Table can be connected to each other via a chain of mutual impacts seeking to develop a comprehensive policy framework for monitoring the implementation of policies targeting sustainable development and tracking various interacting policy measures targeting relevant indicators. The methodological framework for monitoring sustainable development in the EU is presented in Figure.

Based on the framework of sustainable energy indicators for monitoring climate change and clean energy priority of sustainable development, the other priorities (energy affordability, human health impact) relevant to energy sector were integrated. As one can see in Table, only the Energy Affordability priority area does not contain a clear target expressed by the sustainable energy indicator. The deadline for achieving the target of energy affordability is also not available as there are no EU directives or other policy documents to establish targets for energy affordability. In general, energy affordability is lower in new than in old member states because the real income of population is significantly lower in new member states. At the same time energy prices are converging among the member states at significantly higher rates as compared with real income per capita convergence (Markandya, Streimikiene, 2002).

The response actions based on the targeted indicators define the possible policy measures and actions to be implemented in order to achieve progress towards primary targets. The policies targeting the headline indicators should be developed seeking to maximize positive synergies and reduce trade-offs among the measures targeting different goals of sustainable development (Streimikiene, Mikalauskiene, 2007; Streimikiene, Klevas, Bubeliene, 2007).

### CONCLUSIONS

1. The monitoring of sustainable development strategy should be focused on identifying interrelationships among the selected unsustainable trends. A comprehensive framework of indicators would help to maximize positive synergies and reduce trade-offs among policies targeting different goals of sustainable development. For example, by promoting a shift in transport from road to rail it is possi-

ble to reduce greenhouse gas emissions and congestion at the same time (by creating a 'win-win' situation). The set of indicators developed by the EUROSTAT does not provide this possibility.

2. The framework of sustainable energy indicators developed for climate change and clean energy priority area within the EU Sustainable Development Strategy was extended by integrating other priority areas of the EU Sustainable Development Strategy relevant to the energy sector. The framework of indicators proposed in the article allows to highlight the interlinkages among the indicators and thus among the priority areas in the EU Sustainable Development Strategy, to develop policy or response actions on targeted indicators (addressing priority targets) and to define the interaction among the policies aiming at different goals established by the EU Sustainable Development Strategy.

3. The proposed framework of indicators can be extended further by integrating the other priority targets in the comprehensive framework of the EU sustainable development indicators. The initial set of indicators proposed in the article involves indicators of sustainable energy development. Energy is the main connecting chain in the EU Sustainable Development Strategy among the priorities because energy production and use exert a significant impact on the environment, climate, human health, the use of natural resources, sustainable production and consumption patterns and social welfare and therefore is crucial for achieving the EU sustainable development goals.

4. Increase of energy use and production efficiency and the use of renewable energy sources are the main ways to achieve sustainable energy development and implement sustainable development targets established in the EU Sustainable Development Strategy.

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## TARPUSAVYJE SUSIJUSIŲ ES DARNAUS VYSTYMOSI STRATEGIJOS TIKSLŲ ĮGYVENDINIMO RODIKLIŲ SISTEMA

### *S a n t r a u k a*

Straipsnyje nagrinėjami ES Darnaus vystymosi strategijos, atnaujintos 2006 m., prioritetiniai tikslai, susiję su energetika. ES prioritetiniai darnaus vystymosi tikslai apima klimato kaitos švelninimą ir švarią energiją, darnų transportą, darnų vartojimą ir gamybą, gamtos išteklių taupymą, visuomenės sveikatą, demografijos, migracijos ir kitus socialinių problemų sprendimus bei globalinius skurdo mažinimo tikslus. Su energetikos sektoriumi susiję prioritetiniai ES darnaus vystymosi tikslai yra: klimato kaitos švelninimas ir sveikata.

Prioritetiniai darnaus vystymosi tikslai energetikos srityje gali būti apibrėžti darnios energetikos rodikliais. Kadangi beveik visi prioritetiniai darnaus vystymosi tikslai yra tarpusavyje susiję, tai tarpusavyje susijusių rodiklių sistemos parengimas padėtų išspręsti daugelį svarbių klausimų, susijusių su darnaus vystymosi prioritetinių tikslų įgyvendinimu ir monitoringu. Tai ypač svarbu parenkant konkrečias darnaus vystymosi tikslų įgyvendinimo priemones, nes šios priemonės per rodiklių tarpusavio poveikio grandinę paveikia ne tik konkretų darnaus vystymosi prioritetinį tikslą, išreikštą konkrečiu rodikliu, bet ir kitus susijusius tikslus, kurių įgyvendinimui savo ruožtu yra numatytos kitos konkrečios įgyvendinimo priemonės. Todėl visus susijusius prioritetinius ES darnaus vystymosi tikslus galima pavaizduoti susijusių rodiklių sistema. Tai ypač svarbu energetikos sektoriui, nes energijos vartojimas turi įtakos visų kitų ūkio sektorių (ypač transporto) veiklai bei jų aplinkosauginei įtakai. Be to, energijos gamyba ir vartojimas yra vienas svarbiausių darnaus vartojimo ir darnios gamybos aspektų, tiesiogiai susijęs su gamtos išteklių taupymu ir turi didelės įtakos aplinkai bei žmonių sveikatai.

ES darnaus vystymosi strategijos prioritetinių tikslų įgyvendinimui energetikos sektoriuje yra parengta keletas ES direktyvų. Pagrindinės ES direktyvos, kurios daro poveikį darnios energetikos plėtrai, yra ES direktyvos, nustatančios energijos efektyvumo didinimo, atsinaujinančiųjų energijos šaltinių naudojimo didinimo bei klimato kaitos švelninimo tikslus ir jų įgyvendinimo priemones. Visi šie darnaus energetikos vystymosi tikslai yra tarpusavyje susiję ir gali būti pavaizduoti darnaus vystymosi rodiklių sistema. Atsinaujinančiųjų energijos šaltinių naudojimas ir energijos efektyvumo didinimas daro teigiamą poveikį energijos tiekimo patikimumui ir klimato kaitos švelninimui. Taigi straipsnyje pasiūlyta rodiklių sistema, atspindinti prioritetinius ES darnaus vystymosi strategijos tikslus bei joje integruotus darnaus energetikos vystymosi prioritetus, leidžianti sujungti rodiklius per abipusio poveikio grandinę ir apibūdinti politikos priemones, būtinas pasiekti nustatytus tikslus ir stebėti poveikio nustatytiems rodikliams efektyvumą bei įvertinti skirtingų politikos priemonių tarpusavio sąveiką ir efektyvumą, įgyvendinant susijusius darnaus vystymosi tikslus.

**Raktažodžiai:** darnus vystymasis, ES darnaus vystymosi strategijos įgyvendinimas