



PROBLEMS IN THE DEVELOPMENT OF REGIONAL SUSTAINABILITY INDICATORS

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ABSTRACT

The development of indicators for sustainable development on a regional basis is one way to ensure that sustainability issues are consistently and transparently integrated into economic activities (public and private), local, regional and national level. The need for regional sustainability indicators, it is clear where public policy is decentralized to regions or local communities. Furthermore, the characteristics of world regions differ significantly, and any guidance for regional indicators methodological challenge generalize the results. Adopted as policy, organizational and societal level remains the question whether these indicators are effective operational stability. The main difficulty stems from the large wide and subjectivity in the concept of sustainable development. Assessing the integration of sustainability issues in public and private policies, including management practices is very complex. Despite the positive efforts of regions lacking coordination between competent authorities and, therefore, among the various indicators at different spatial levels (local, regional and national).

Key words: regional sustainability indicators, a regional strategy, sustainable development concept

Sustainable Development Indicators (SDI) are one possible way of ensuring that sustainability issues are being consistently and transparently integrated into economic sector activities (public and private) on a local, regional and national scale. Indicators provide sustainability performance measurement, reporting and transparency to stakeholders.

Although the development of sustainability indicators on a regional scale is relatively new, an important amount of literature on regional SDI has been developed since the late 1990s and particularly in the 2000s. The regional indicator initiatives demonstrate that this domain is growing around the world. Developing indicators cannot be a purely technical or scientific process; rather, it should be an open communication and policy process (Valentin A, Spangenberg JH, 2000; 20(3):381–92). Public participation is one of the principal components for designing and implementing sustainability indicator sets, as stressed by several authors (Wallis A. 2006; 5(3):287–96.).

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The importance of participatory approaches becomes more evident on a regional and local scale, where the distances between communities, specialists, decision-makers and stakeholders overall are smaller and the interaction can be simpler and more effective. In addition, at lower levels stakeholders have significant practical knowledge and particular sensitivity where the strengths, opportunities, pressures and risks of their territory are concerned.

Prerequisites for sustainable rural development

Indicators for sustainable development of rural areas are generally economic, social and environmental. Economic indicators including GDP per person employed in agriculture, level of industrialization, flexibility, manufacturing infrastructure, yields, productivity and costs for environmental protection. Social indicators relating to population, income, purchasing power and social infrastructure. Environmental indicators for the presence or absence of critical points, the state of arable land, reclaimed land, wastewater, preservation of landscape and biodiversity. Priorities of the National Regional Development Strategy for the period until 2015 have continuity with those defined in the National Regional

Development Plan 2000-2006, while further developing them in accordance with the achievement of the defined strategic goals of regional development and the reforms proposed in Third Cohesion Report of the EU. Common need for all areas in Bulgaria is the implementation of activities aimed at encouraging investment in their structural adjustment and increasing regional competitiveness, as each is defined as lagging behind compared to the EU regions. Regional restructuring is consistently oriented economic structure of the planning regions to industries with high added value that can provide them more competitive globally and lead to an overall strengthening of socio-economic situation and improving the quality of life in them. While a strong orientation of European regions to an economy based on knowledge of research, technological development and innovation are key to regional competitiveness (Milev, Stoyancheva, Ivanova, 2010).

The lack of innovation capacity at regional level stems from inadequate research base, the low levels of expenditure on research and development and weak links between research institutes and businesses. This determines the need for special support, aimed at encouraging the regions to develop innovative policies and to provide technological support to business. This will be supported activities contributing to:

- development of regional innovation strategies that align with national policy on innovation, formulated and conducted by the Ministry of Economy and politics in science, formulated and conducted by the Ministry of Education and Sciences
- establishment of regional centers for research, technology and innovation
- improved links between SMEs and universities, research and technology centers within the regions
- promote market-oriented technology projects developed jointly by research institutes and companies in the region;
- promote the development of public-private partnership in the development and transfer of new technologies;
- attract and promote investments in construction and development of technology parks and incubators for small and medium enterprises.

One of the important conditions to achieve a competitive profile of the planning regions, access to information and communication technologies. Lack of access to adequate telecommunications services is a serious obstacle in the development of all regions, especially the disadvantaged target regions, and per-urban poor. Achieving this goal on the one hand is connected with the introduction of broadband digital transmission of information, leading to increased efficiency, transparency and scope of provision of public services to the population (education, health, services of local and regional administration, taxes and other social services to citizens) and local business services (business information systems, tax information and other business services provided by local authorities). On the other hand, the use of these technologies is associated with appropriate public education and local businesses.

Capacity for regional development is significantly reduced from the existing infrastructure differences between the Bulgarian regions and the EU. Support for development and modernization of infrastructure is crucial to include all areas in the development process, increase regional investment attractiveness and competitiveness nationally and internationally. Regional and local infrastructure is a key factor stimulating the development of business and economic inclusion throughout by creating conditions for the specific use of regional potentials. In addition, construction activities of the regional infrastructure is a source for creating new jobs during its construction and operation.

Strengthening human capital, social cohesion and conservation of natural and cultural heritage areas in the country contribute to increasing their attractiveness and quality of life. The overall effect is not only the benefits of overall economic development of areas related to growth, employment, income and care for the population, but also in promoting the traditional comparative advantages of the Bulgarian regions under the human potential and quality natural and cultural environment.

A full integration of urban issues for realizing the objectives of regional development are an important new field of activity within the strategy. These questions are increasingly strong position in European documents and

assistance from the EU financial instruments in the next programming period.

Strengthening and improving the institutional capacity of regional and local level will help to adopt the proposed policy reforms on

Cohesion, to create capacity for better absorption of the Structural and Cohesion Funds, program design, monitoring and evaluation better policy at these levels.

Table 1. Basic indicators for goals (2008-2010)

Axis	Measurement	Indicator	Source	Unit	Value
Horizontal	1. Economic development	GDP (in parity purchasing power) per capita (EC-25=100)	Eurostat	index parity purchasing ability	29.7
	2. Unemployment rate	Employed as a percentage of total population same age	NSI	%	54.2
	3. Unemployment	percentage of total population	NSI	%	12.00
axis 1 competitiveness	7. Gross investment in agriculture	Gross investment in agriculture	NSI	mln euro	324
	8. Employment in Agriculture	Employment in primary sector	NSI	thousand	803.0
	9. economic Development in agriculture	GVA in primary sector	NSI	mlneuro	1835.5
	16. Importance of semi-subsistence farms	Number of farms <1 ESU	NSI	thousands	508.2
axis 3 development rural areas	33. Sector Development "Services"	% GVA "Services"	NSI	%	53.3%
	34. net migration	Level of net national internal migration	NSI	1000	-2.5

Key factors in regional sustainability indicators

Overall, approaches to regional sustainability indicators should define various principal components, to assure a coherent development process, namely the:

- Objectives for the regional scale – general and specific, stressing the regional component in particular; SDI objectives should be linked with the regional strategic tools and instruments;
- Management framework – the institution(s) involved, their roles and the leadership structure; academia should have a formal and active role;

- Scope of the subject – common inter-regional themes and particular regional themes, including sub themes;
- SDI dimension, type of language and main target public – the dimension of the system (e.g. a long list vs short list of indicators); technical vs non-technical language in the indicator framework; the different principal types and scales of the target audience to reach;
- Conceptual framework for indicator organization – by dimension of sustainability, by regional theme, on the basis of causality chains (e.g. pressure-state-response) or according to another structural scheme;
- Time and space scales – the recommended scope, in time and space, to guide data

collection, treatment and analysis on a regional level; particular regional spatial units should be taken into account (e.g. socio-economic and/or biogeographically homogeneous areas);

- Promotion, communication and reporting platforms – the type of platforms to be used for promotion, communication and reporting (e.g. printed vs electronic format; a long or short book, leaflet, internet site);

- Relationship with other SDI (at the local, regional, national and international level); regional SDI initiative could suggested common indicator core set to be adopted by all municipalities, which should have other local specific indicators;

- Relationship with regional sustainable development strategies or regional thematic/sectoral strategies – consideration of which indicators could be associated with certain strategic objectives/actions and targets;

- Revision/meta-performance evaluation – revision procedures, including the definition of indicators to assess the effectiveness of the sustainability indicators themselves, as proposed in Ramos et al. This stage should be included in a flexible approach to SDI (adaptive management activities).

In the near future regional SDI should be ready to include new challenges and deal with scientific development, globalization, economic pressures and new technologies.

CONCLUSION

Sustainability assessment and reporting are a top priority for various regions around the world and a challenging objective for all stakeholders involved. There are various different methods and tools for measuring regional sustainability, but indicators almost always have a fundamental role. The profile on regional sustainability indicators shows that there are several regions implementing this assessment and management tool, and some of the other regions mention their intention to do

so. However, the current situation reveals a significant lack of institutional guidelines and policy guidance from the national authorities. Most ongoing regional indicator initiatives use the existing national SDI framework as the main guide for developing their regional indicators. Despite the positive efforts made by the regions, a general lack of institutional coordination among the competent authorities was ascertained and, consequently, among the different indicators on different spatial scales (local, regional and national).

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