# ANALYZING SUSTAINABLE DEVELOPMENT OF EUROPEAN FUNDED PROJECTS

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ABSTRACT: Sustainable development and gender equality are considered horizontal themes of all programs financed by structural and investments European funds. In the perspective of participation in the achievement of an equitably world economic system, European Union presents a strategy for promoting social development and core worldwide labour standards, where sustainable development is based on economic growth strategies as well as, environmental protection, decent living and working conditions and equitable access to resources. Sustainable development and reduction of disparities between European regions are major objectives at European Union level and are supported through EU strategy and operational programs which finance projects that contribute to achieving EU goals. EU monitors periodically tens of sustainable development indicators (SDI) that are intended to give a comprehensive image of whether the EU has achieved progress towards sustainable development in terms of the objectives and targets defined in the EU Sustainable Development Strategy.

In the present paper we used ex-post and content analyses for investigate the results indicators of the projects funded by Regional Operation Programme in the V-West Region of Romania and highlight if the project sustainability indicators are measures of SD as it is presented in the national and European Sustainable Development Strategy.

Keywords: sustainable development, European funds, measurement indicators

JEL Codes: Q01, G23

#### Introduction

In perspective of participation in the achievement of an equitably world economic system, European Union is a progressive global player which developed a strategy for promoting social development, environmental protection, well balanced access to resources and core worldwide labour standards as inseparable and interdependent components of human progress. The European Sustainable Development Strategy (EU SDS) is covering all these issues and most EU member states governments have adopted SD strategies for enhancing policy coordination and integration both horizontally between sectorial policies and vertically between different levels of policy-making (Steurer and Hametner, 2013). EU monitors periodically over one hundred of sustainable development indicators that are intended to give a comprehensive image of whether the EU has achieved progress towards sustainable development in terms of the objectives and targets defined in the EU SDS.

Nowadays, in Romania and probably in other countries, too, the public is only a small part aware about what organizations and projects sustainability requires in the context of sustainable development. There is difficult to perceive the forms of immediate and long-term threats by non-

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considering the entire package of the frames of sustainable development. Romania adopted National Sustainable Development Strategy (NSDS) in 1999 and revised it in 2008, but it has no specific objectives or actions stated and emphasis on social and economic dimensions (Steurer and Hametner, 2013).

The European Union (EU) has essentially focused on three all-embracing objectives: economic competitiveness, promoted by the Lisbon Strategy, sustainable development, supported by the Gothenburg Strategy, and territorial cohesion (EU Parliament, 2007). While the future oriented Lisbon and Gothenburg strategies provide widely consensual political objectives, centred on economic growth, competitiveness and sustainability, the territorial cohesion has been managed within the framework of Regional policy which aims to be a policy for all EU regions. But the latest EU enlargements of 2004, 2007 and 2013 have made the challenges to regional development and European integration more profound, due to the important increase in regional disparities they induced. EU has to economically underpinning all its members and has developed tools to provide financial assistance by setting up of EU funding mechanisms.

The Structural Funds and the Cohesion Fund are financial tools set up to implement the regional policy of the European Union. Their aim is to reduce regional disparities in terms of income, wealth and opportunities. Europe's poorer regions receive most of the support, but all European regions are eligible for funding under the policy's various funds and programmes. All the area of activity that will be implemented in the field of regional development have to respect the Community regulations and provisions regarding the contribution to the horizontal objectives (sustainable development and equal opportunities) stated in the Regional Operational Programme Guide for 2007-2013.

After joining the European Union in 2007, Romania has the possibility to access EU funds in order to support the development of the economic, administrative, social, educational, public and private infrastructure, and also protecting and improving the quality of the natural environment. In these circumstances, our country has the resources needed to switch to a sustainable economy, involving an optimal economic growth and protecting the environment and natural resources (Radu and Caracota Dimitriu, 2013).

The purpose of this research is to analyze if projects funded by Regional Operation Programme (ROP) in the V-West Region of Romania contribute to achieving sustainable development at European level. We assume that if the projects results indicators are among the sustainable development indicators monitored periodically by EU and if the projects' sustainability is measured in the projects' ex-post reports by using indicators from national sustainable development indicators (NSDI) or European sustainable development indicators (EU SDI) sets, each project may have also play a part in reaching European sustainable development.

The paper is structured in five sections. The next section provides a literature review regarding SD and SDI, and about indicators used for monitoring the projects funded by EU programs. In Section three we provide an overview of our research design, the data and the methodology we used. In section four we discuss the finding results and we end with the concluding remarks and proposals in the fifth section.

#### Ad rem literature review

# Sustainable development and sustainable development indicators

Sustainable development is the "ability to make development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" this is the most popular definition of SD given by The Brundtland Commission of the World Commission on Environment and Development (1987). Nicolae Georgescu-Roegen (1996) refers to a more complex concept, linked to the "joy of living". The concept of eco-efficiency, in its current sense, that was first introduced in 1992 by the Business Council for Sustainable Development, which was defined as "offering goods and services at competitive prices to meet

human needs and providing quality of life by reducing the environmental impact to a level that is compatible with at least the estimated capacity to support the planet Earth" (Suciu and Suciu, 2007).

Elkington (1998) the parent of "Triple Bottom Line" concept promotes a new revolutionary approach of businesses and defines sustainability as the principle of ensuring that our actions from today do not limit the economic, social and environmental spectrum options of the future generations. In a simplified definition Eurostat (2014) defined it "the pursuit of a better quality of life for both present and future generations". The notion of sustainability is used quite often and easily, but without solid data argumentation or certainty and accuracy judgment regarding what would be demanded to be done to increase the sustainability prospects of organizations and communities. But sustainable development is a very widespread and complex concept that has no unitary definition, there are international institutions and individual authors who describe and explain this notion. Sustainable development represents and consists of complex, varied and contested concepts, with application across the range of public policy areas (CSD, 2006). Koglin (2009) considers that the theoretical ideas about sustainability can be seen as vague because they leave too much room for interpretation of what sustainability really is. While, sustainable development reveals the importance of considering the long-term perspective, about the consequences of current activities on future global development.

Winograd and Farrow (2009) assess that the concept of sustainable development implies the consideration of spatial and temporal dimensions (i.e. "where" and "when"), system components (i.e. economic, social and environmental aspects), and, in particular, the interactions between these components (i.e. "why, who, how, how much") and also it refers at once to a process (development) and to a condition (sustainable).

Sustainable development is a vision of progress (Eurostat, 2014) it links economic development, protection of the environment and social justice, and therefore concerns all citizens of the EU and of the whole world. Nevertheless, SD is a multidimensional concept and its inward parts economy, environment and society are interrelated.

In the last few years, the concept of sustainable development has spread to all levels of society. Different institutions and organizations wanted to understand where SD is, which way it is going and how far it is from where it has to be, which means nothing else than defining measurement indicators for sustainable development. This is also the opinion of Parris and Kates (2003) who considered that despite sustainable development's creative ambiguity, the most serious efforts to define it comes in the form of indicators and mention in their study that there are hundreds of efforts, in a mix of global, national, and local initiatives, to define SD appropriate indicators and to measure them. Sherbinin (2003) stated that indicators represent an attempt to quantify the trends of SD, and to determine if the widespread perception that environmental conditions are deteriorating is indeed correct.

Hametner and Steurer (2007) considered that the main feature of indicators is to summarize and communicate complexity with a manageable amount of meaningful information and "the strength and weakness of indicators lie in their selection, which facilitates decision making but also opens the door to data manipulation" (Bartelmus, 2013).

Indicators are quantitative measures that are selected to assess progress towards or away from a stated goal (Parris and Kates, 2003). They highlight that despite the persistent definitional ambiguities associated with sustainable development, much work (over 500 efforts) has been devoted to developing quantitative indicators of sustainable development. The emphasis on sustainability indicators has multiple motivations, which include decision making and management, advocacy, participation and consensus building, research and analysis.

Monitoring the sustainable development requires, in the opinion of Burja and Burja (2009), the existence of indicators that measure this process, but drawing up an indicators system implied a complex and long-term effort. The indicators system is necessary to be continuous updated for quantify the real impact that human actions have over the economy, the society and the natural

capital in time. The core indicators set represents a sound launching pad for national governments to develop their own indicator programmes and to monitor their own progress; especially against the goals and objectives of national sustainable development strategies and plans (de Sherbinin, 2003). It also represents a common tool to assist governments in meeting international requirements for defining national sustainable development strategies, and reporting, including national reporting to sustainable development.

The core indicators are common to other international initiatives. In the Joint Report of the UNECE, OECD and Eurostat the working group observed that the focus of countries in establishing sustainable development indicators sets to date has been generally on meeting the information needs of a national sustainable development strategy. Governments are often involved in defining the sustainable development strategy and sustainable indicators. The establishment of sustainable development indicators represent for many countries and institutions a key opportunity to give environmental issues more importance in the policy agenda alongside economic and social issues. The relationship between indicators and SD policy is very strong. Policy makers see the SDI as being directly relevant to the policies they have established and effective for communication (UN, 2008).

Sustainable development is a fundamental and overarching objective of the European Union that is enshrined in the founding Treaties of Rome (Eurostat, 2014) and introduced as an official objective of the European Community in the Single European Act in 1987 (Lyytimäki *et al.*, 2011). The Europe 2020 Strategy is constructed on three priority areas that mutually support themselves: smart economic growth based on knowledge and innovation, sustainable economic growth through the promotion of low-carbon emissions and efficient use of resources, inclusive growth, with high labour employment, social and territorial cohesion (Radu and Caracota-Dimitriu, 2013).

The General Regulation 1083/2006/EC sets out that Cohesion Policy should contribute to "increasing growth, competitiveness by incorporating the Community's priorities for sustainable development" ... and ... "the objectives of the Fund shall be pursued in the framework of sustainable development and the Community promotion of the goal of protecting and improving the environment". During the 2007-2013 programming period sustainable development represents a horizontal theme defined to act as underpinning policy priorities. This means that sustainable development should be integrated as cross-cutting horizontal principle in national and regional EU funds programmes and projects which faces many challenges both at programming and implementation levels (IEEP, 2011). Many programmes still interpreted sustainable development by its environmental dimension echoing the findings of past evaluations of previous programming cycles (IEEP, 2011) but SD concept is more comprehensive in this programming period.

#### Indicators used by projects' funded by EU programs

Olsson *et al.* (2004) point out the purpose and features of a sustainable development indicator (SDI) which can generally be understood as a quantitative tool that analyses changes, while measuring and communicating progress towards the sustainable use and management of economic, social, institutional and environmental resources. An indicator should point to an issue or condition, its purpose is to show how well a system is working towards the defined goals. An effective SD indicator has to be relevant, easy to understand, reliable and based on accessible data. The choice between quantitative and qualitative indicators depends mainly on the purpose of the indicators, though quantifiable indicators are more frequently used (Gallopin, 1997).

Indicators are used in EU funding process for measuring essential issues in programme development (Gârboan, 2006). European Commission is using a comprehensive classification of the indicators for EU programs. For each programme the indicators are presented in the programme implementation framework or in the common guidelines for monitoring and evaluation (for example: ROP, MRDT, 2012). Gârboan (2007) identified several categories: context, programme,

resources, output, result, impact, efficiency, effectiveness, relevance, sustainability, and net impact indicators that she explains as follows.

- Context indicators are those that refer to elements that can influence the results of the program, but are not part of it, for example, in a project of equipment modernization implemented by a company, a context indicator is economic growth.
- **Programme indicators** are those that provide information about a particular program or project, they affect the results, are intrinsic elements of the program, are clear and measurable, can be systematically collected throughout the channel underlying the program monitoring and evaluation system. When referring to ROP, program indicators may include: the number of unemployed in the target group, the extent of the participation in the courses offered.
- **Resources indicators** are indicators that measure the degree of resources consumption and the available resources at any time of the program. These indicators refer to all types of resources: human, organizational, material, time, etc. and show the extent to which resources consumed programme/project budget during implementation.
- Output indicators represent direct products of the program activities obtained by consuming resources, for example: the street mileage rehabilitated, the number of health services infrastructure modernized.
- **Result indicators** relate to the immediate benefits that are felt as a result of the project by direct and indirect beneficiaries, for example, the time saved for getting to the patient in emergency situations.
- **Impact indicators** are subsequently consequences of the program on medium and long-term, for example, the number of patients saved a year after the health infrastructure was modernized.
- **Efficiency indicators** refer to the extent to which the project results were achieved with minimal resources, for example, the amount invested for the construction of one kilometre of the highway.
- **Effectiveness indicators** are those that express the extent to which the results of the project objectives were met.
- **Relevance indicators** are built from the needs assessment that the project intends to cover. An example of a relevant indicator is the time needed to travel a certain distance after the construction of a highway.
- **Net impact indicators** quantify the net effects of the project on a target group. These are indicators difficult or impossible to be measured, because the socio-economic environment is influenced by varied factors, not only by the project results.

## Research methodology

For the purpose of studying the existence of a relationship between the results indicators of the projects funded by Regional Operation Programme in the V-West Region of Romania and the indicators monitored by Romania and EU in order to achieving sustainable development at national and European level we use qualitative analyses methods, comparative analyses for investigating the type of SD measurement indicators, as well as content analyses in order to find out if the information and indicators reported by projects beneficiaries in their ex-post reports are among the National and EU SDI.

ROP is one of the seventh operational programmes financed in Romania by structural instruments of European Commission. We develop our research starting from the overall objective of the ROP which consists in "supporting the economic, social, territorially balanced and sustainable development of the Romanian regions, according to their specific needs and resources, focusing on urban growth poles, improving the business environment and basic infrastructure, in order to make the Romanian regions, especially the ones lagging behind, more attractive places to

live, visit, invest in and work" (MRDT, 2011). Every ROP axes is in line with the Community policies on economic and social cohesion and activities implemented under ROP should respect the Community regulations and provisions regarding sustainable development and equal opportunities (MDRT, 2011). Sustainable development and equal opportunities are horizontal themes of the programme. The actions implemented under ROP have to have an important contribution to regions' development based on sustainable approach.

We made an ex-post analysis of the ROP output and results indicators of projects implemented and finalized in the Romanian V-West Development Region during the period 2007-2013. We perform content analyses of ex-post reports elaborated by the ROP beneficiaries after the end of their implemented projects, to observe how programme Management Authority and projects' contractors have understood and report sustainable development.

### Discussions and results

#### Comparison of national and EU sustainable development indicators

The set of European Sustainable Development Indicators (EU SDI) and Romanian Sustainable Development Indicators (NSDI) are structured as a three-storey pyramid, distinguishing between three levels of indicators. The piramidal approch reflects the structure of the EU SDS (overall objectives, operational objectives and actions) and also responds to different kinds of user needs. The EU SDI set is also completed with contextual indicators that do not monitor directly a particular EU SDS objective and are not policy responsive. The set of sustainable development indicators for Romania is divided into objectives of the National Sustainable Development Strategy, with an hierarchy on three levels and integrates economic, social and environmental indicators, used to assess the three-dimensional evaluation of sustainable development in Romania. The SDI system in Romania is harmonized and congruent with the indicators used in the EU, following the basic pillars (INSSE, 2014):

- architecture: hierarchical structure of topics, sub-themes, areas of intervention;
- associated concepts, definitions, classifications and nomenclatures;
- methods of calculation.

Level

Level 1

Level 2

Level 3

Contextual

The main function of the indicators is to meet the monitoring requirements expressed by the National Strategy for Sustainable Development, associated with the terms of the proposed targets, which in their turn are political commitments related to the strategic objectives of the sustainable development. Thus defined, the set of indicators can be a solid base for the regular monitoring of progress in meeting the strategic objectives of sustainable development at national and European level and are comparatively presented in the table below (table no.1).

Comparison of EU SDI and Romanian SDI

**EU SDS Indicators Romanian SDS Indicators Types** Number **Types** Number Number of EU SDI of NSDI of NSDI 2013 2013 (First (EUROSTA **NSDS** (INSSE) 1999) T) overall objectives main indicators 11 19 strategy operational complementary 31 37 objectives and targets indicators 13 actions/explanatory progress indicators of 84 47 variables the NSD of Romania 12 do not monitor directly

Table no. 1

indicators	a particular SDS		
	objective/ are not		
	policy responsive		

Source: Compilation of the authors

#### Compliance and coherence of ROP's results indicators with NSDI and EU SDI

The EU funds shall provide assistance which complements national and regional measures, the Managing Authority of each programme is responsible for ensuring that operations financed by the EU funds comply with applicable Community and national rules for their entire implementation period. For a better understanding and reporting of sustainable development for an operational programme, between EU and national Sustainable Development Strategy and EU funded programmes should be established an explicit link. In the Framework of the Regional Operational Programme 2007-2013 is specified that the actions envisaged under the ROP support investments are in line with the provisions of the identified sustainable development objectives from the Sustainable Development Strategy of Romania (1999).

We analysed the ROP programme annual implementation reports for the implementation period 2007-2013. We compared the ROP results indicators reported by Management Authority on each measure of ROP with the Romanian sustainable development indicators (NSDI) as reported by Romanian National Institute of Statistics (INSSE) and EU sustainable development indicators (EU SDI) measured by Eurostat. In Table no. 2 are presented only those ROP axes and measures that report results indicators that are among those reported by INSSE and Eurostat. ROP have 6 axes during 2007-2013 implementation period and 14 measures.

It may be observed that only 7 of the ROP measures, representing 50%, have results indicators that are connected directly or indirectly with SD strategies.

Table no. 2 Compliance of ROP's results indicators with NSDI and EU SDI

ROP Priority axis and measures	Sustainable indicators NSDI	Sustainable indicators EU SDI
1: Support to sustainable development of urban growth poles Measure 1.1 Integrated urban development	Employment rate total and by age group	Employment rate, by gender Employment rate, by highest level of education attained Dispersion of regional employment rates, by gender
2: Improvement of regional and local transport infrastructure Measure 2.1 Rehabilitation and modernization of the county and urban streets network	Volume of passengers transport relative to GPD Volume of freight transport relative to GPD Modal split of passenger transport Modal split of freight transport Transport infrastructure investment Use of public transport	Modal split of passenger transport Modal split of freight transport Investment in transport infrastructure by mode

3: Improvement of social infrastructure Measure 3.3 Improving the equipment of the operational units for public safety interventions in emergency situations	Self-reported unmet need for medical examination for financial reasons Life expectation at birth by gender/at age 65, by gender	Healthy life years and life expectation at birth, by gender Health and inequalities Healthy life years and life expectation at birth, by gender/at age 65, by gender Self-reported unmet need for medical examination or treatment, by income quintile
Measure 3.4 Rehabilitation, modernization, development and equipment of educational infrastructure	Early school leavers Public expenses for education	Early leavers from education and training Context indicator: public expenditure on education

Table no. 2 (continuation) Compliance of ROP's results indicators with NSDI and EU SDI

ROP Priority axis and measures	Sustainable indicators NSDI	Sustainable indicators EU SDI
4: Strengthening the regional and local business environment Measure 4.1 Development of sustainable business suport structures	Employment rate total and by age group	Employment rate, by gender Employment rate, by highest level of education attained Dispersion of regional employment rates, by gender
5: Sustainable development and promotion of tourism Measure 5.1 Restoration and sustainable valorization of cultural heritage, setting up and modernization of related infrastructure Measure 5.2 Creation, development, modernization of the tourisme infrastructure	Employment rate total and by age group	Employment rate, by gender Employment rate, by highest level of education attained Dispersion of regional employment rates, by gender

Source: Compilation of the authors

#### Compliance of ex-post project sustainable indicators with NSDI/EU SDI

We analyzed the form and the content of ex-post reports of the finalized projects implemented during 2007 – 2014 and funded by ROP. We observed a very summary form of the ex-post report and no instructions for the projects beneficiaries in the programming period 2007-2013. The ex-post reports contain, generally the following parts: project suffered a significant change (after implementation), post implementation results indicators, problems that affect project sustainability. Looking on ex-post reports of the projects finalized in V-West Development Region of Romania we observed that projects beneficiaries complete this form in a descriptive manner. They include in the reports only narrative observations that the projects beneficiaries are continuing their activities, without any other details that could quantify the SD of the project. In the part of the report where beneficiaries should present post implementation results indicators most of them include the list of project results indicators obtained during the implementation phase. All these findings confirm that there is a lack of information about the sustainable development concept of a

project and a lack of instructions for completing the ex-post reports which can be overtaken if the programme guide will clearly define the horizontal theme of sustainable development and a set of SD indicators.

# **Conclusion and proposals**

Regional Operation Programme results indicators do not have correspondence in EU and Romanian SD strategies for all the measures of the programme (only for several of them). But SDIs can be used as a tool for evaluating programmes such as ROP. A clear definition of sustainable development and a list of indicators that are meaningful for project managers would be helpful be selected from NSDI and included in the programmes' guide for the purpose of measuring and reporting projects' sustainable development.

The actual template of ex-post reports of the projects financed by ROP does not guarantee the credibility of the project sustainable development. In the actual way of monitoring the finalized projects there cannot be obtain information that represents a measure of present and future sustainability. Analysing the content of the ex-post reports from the perspective of effective SD indicators we observe that there are not effective SD indicators presented in ex-post ROP project reports.

Due to these conclusions we proposed that for each of ROP measures, the programme guide has to specify the proper SD indicators. SD indicators have to be among those presented in the NSDI and EU SDI sets. The SD indicators of the projects should also be disclosed in a continuous manner and on a long time horizon in the ex-post report of each finalized project.

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