A Review

Sustainable Development and Romanian Strategies

OROIAN Ioan, Cristian IEDERAN*, Emilia Raluca PAŞCALĂU, Ovidiu ȘTEFAN

Faculty of Agriculture, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, 3-5 Calea Manastur, 400372, Cluj-Napoca, Romania

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Abstract

The concept of sustainable development designates all the forms and methods of socio-economic development that focus primarily on ensuring a balance between social, economic and environmental aspects and elements of natural capital. The National Strategy for Sustainable Development of Romania-Horizon 2013-2020-2030 establishes concrete objectives for moving, within a reasonable and realistic timeframe, to the model of high value-added development, driven by the interest for knowledge and innovation. The continuous improvement of the quality of people's lives and of the relations between them in harmony with the natural environment. Short, medium and long term: Horizon 2013: Organic incorporation of sustainable development principles and practices into all of Romania's public programs and policies as an EU member state. Horizon 2020: Achieving the current EU average of the main indicators of sustainable development. Horizon 2030: Significant approximation of Romania to the average level of that year of the EU member countries in terms of sustainable development indicators. The achievement of these strategic objectives will ensure, in the medium and long term, a high economic growth and, consequently, a significant reduction of economic and social disparities between Romania and the other EU Member States. From the point of view of the synthetic indicator that measures the real convergence process, as Gross Domestic Product per Capita (GDP/place), at the Purchasing Power Standard (PCS), the Strategy implementation creates the conditions for the GDP/place expressed in the PCS to exceed, in the year 2013, half of the EU average at that time, should approach 80% of the EU average in 2020 and be slightly above the European average in 2030.

Keywords: sustainable development, public policies, strategic objectives, gross domestic product.

1. Introduction

The concept of (sustainable) sustainable development has crystallized over time, over several decades, in deep scientific debates internationally and has gained precise political valences in the context of globalization [8]. In recent history, the first indication that the economic and social evolutions of the states of the world and of humanity as a whole can no longer be separated from the consequences of human activity on the natural environment was made in the 1972 report of the Rome Club entitled Limits of growth according to the Meadows Report [2].

The document summarized the data on the evolution of five parameters (population growth, industrialization impact, pollution effects, food production and the depletion trends of natural resources), suggesting the conclusion that the development model practiced in that period cannot be sustained in the long term [8, 2].

2. The stages of the sustainable development

The concept of Sustainable Development contains the following 4 stages in correlation, but separated:

1. Fulfillment of present and future requirements that undermine the purpose of sustainability.
2. Fulfillment of needs, which defines the purpose of development. Development that responds to the needs of the present without compromising the ability to meet the needs of future generations.

3. Maintaining the compatibility between the population size and the productive capacity of the ecosystems, which recognizes that there are limits and requirements for balance.

4. Implementation of a process of change that confirms that the definition of the requirements and needs for achieving a sustainable balance will change with the situations, conditions and time.

On September 25, 2015, at the Summit on Sustainable Development, 193 UN member states adopted the 2030 Sustainable Development Agenda, which includes 17 Sustainable Development Goals (SDGs).

The 2030 Agenda was elaborated on the basis of the Millennium Development Goals (MDGs), which expired at the end of 2015. The issue addressed by the new Agenda far exceeds the MDG activities and has as its main purpose the eradication of poverty and the achievement of sustainable development.

Thus, in addition to topics such as poverty eradication, education and health, new themes, such as peaceful and inclusive societies, the fight against inequity and injustice have been incorporated [3, 6, 9, 10].

Among the main features of the SDGs, the following can be presented [3, 6, 9, 10]:

- are universal and applicable in all countries regardless of the level of development;
- include three dimensions of sustainable development - economic, social and environmental;
- is based on human rights, being focused on eliminating inequalities and non-discrimination, so that no one is left behind;
- aims at developing data collection systems, focusing on disaggregated data.

The 2030 Agenda for Sustainable Development intends to direct the interventions of the signatory states in 5 areas of critical importance for humanity and the planet [3, 6, 9, 10]:

- Population - eradicating poverty and hunger in all their forms and dimensions, ensuring for each human being a favorable framework for realizing one's potential under conditions of dignity, equality and in a healthy environment.

- The planet - protecting the planet from degradation, including through sustainable consumption and production, sustainable management of natural resources, undertaking urgent measures regarding climate change, so as to meet the needs of both present and future generations.

- Prosperity - ensuring that all human beings can enjoy a prosperous and satisfactory life and that economic, social and technological progress takes place in harmony with nature.

Figure 1. The sustainable development [6]

Peace - encouraging peaceful and inclusive societies, free from fear and violence, since sustainable development without peace and peace without sustainable development cannot be perceived.

Partnership - mobilizing the means and establishing a global partnership in the implementation of the Agenda, based on a spirit of global solidarity and shared responsibility, focused, in particular, on the needs of the poorest and most vulnerable states and with the involvement of all countries, stakeholders and interested people.

The 2030 agenda for sustainable development comprises a set of 17 Sustainable Development Goals (SDGs) 1 and 169 specific goals or targets, focused on three main areas of sustainable development: economy, society and environment [3, 4, 5, 7, 9, 10].

3. The Romanian strategy for the sustainable development concerning climatic changes

The overall objective of the European Union's Sustainable Development Strategy - SDD / EU is to prevent climate change by limiting greenhouse gas emissions, as well as their negative effects on society and the environment [1, 5, 9].

According to the provisions of the United Nations Framework Convention on Climate Change, ratified by Romania in 1994, climate change is defined as changes that can be attributed directly or indirectly to human activities and that affect the
composition of the global atmosphere and add to the natural variability of the observed climate. During relevant periods. Despite all efforts to reduce greenhouse gas emissions, global temperatures will continue to rise, while urgent measures to adapt to the effects of climate change are needed [8, 9].

**Horizon 2020.** The national objective concern the activity of ensuring the efficient and safe functioning of the national energy system, to reach the current average EU level in terms of energy intensity and efficiency; fulfilling the obligations assumed by Romania within the legislative package “Climate change and energy from renewable sources” and at international level following the adoption of a new global agreement in the field; promoting and implementing measures to adapt to the effects of climate change and respecting the principles of sustainable development [3 - 10].

According to the impact study carried out in order to maintain a fair balance between the efforts made by the EU Member States to achieve the objective of unilaterally reducing greenhouse gas emissions by 20% by 2020 compared to the 1990 level, the non-ETS (outside the emission trading scheme) in Romania, represented by the small sources in the energy and industry sectors and in the transport, construction, agriculture, waste, etc. sectors, it would be possible to benefit from a 19% increase in greenhouse gas emissions reported in 2005 [3 - 10].

Emissions from the ETS sectors (economic operators that are part of the emission trading scheme) will be regulated through the uniformization at European level of the methods of allocation and distribution of certificates. It is envisaged that by 2020, the total number of greenhouse gas emissions certificates at European level will be reduced by 21% compared to their number in 2005 [3 - 10].

According to the Legislative Package in the debate of the European Parliament and of the EU Council, Romania will have to increase the share of renewable sources (solar, wind, hydro, geothermal, biogas, etc.) in the final energy consumption from 17.8% in 2005 to 24% in 2020 (compared to the EU average of 8.5% in 2005, aiming to reach 20% in 2020). The target envisaged by Romania is that, by 2020, the share of electricity produced from renewable sources will reach 38% [3 - 10].

By increasing the energy efficiency, the primary energy consumption will be reduced by 20% and the final energy consumption by 18% compared to the average consumption of 2001-2005 [3 - 10].

The primary energy intensity will decrease to 0.26 toe / 1,000 euros from 2005 (close to the 2006 EU average) and the final energy intensity to 0.17 toe / 1,000 euros from 2005, below the 2006 EU average. Of biofuels and other renewable fuels will represent a minimum of 10%, a percentage calculated on the basis of the energy content of all types of gasoline and diesel used, if the sustainability criteria related to these products are met, with an intermediate target of 5.75% in 2010. Continue the process of energy rehabilitation of about 35% of the fund of multi-storey residential, administrative and commercial buildings. New units of electricity production will be put into operation and connected to the national system to cover the expected demand, including two new nuclear reactors at the power plant from Cernavodă and completion of some hydropower projects [3 - 10].

In Romania, the potential negative effects caused by climate change were identified for each sector, as well as the recommendations regarding the adaptation measures and the studies needed in order to better adapt the scientific approach. Following a preliminary assessment, without having sector studies and climate scenarios sufficiently detailed at the level of Romania, the following actions are proposed:

Integriarea adaptării la efectele schimbărilor climatice în momentul aplicării și al modificărilui legislației și politicilor actuale și viitoare;

- Revising the budget, all national strategies and programs so as to ensure that the aspects regarding adaptation are included in the sectoral policies;
- Establishing communication channels for the implementation of adaptation measures at local level. Much of the decisions that directly or indirectly influence climate change adaptation are made locally;
- Increasing awareness on adaptation to the effects of climate change. Behavioral changes within societies and communities depend to a large extent on the awareness of the problem [3 - 10].

**Horizon 2020.** The national objective concern the alignment to the mean EU performances on energy and climate change indicators; fulfill commitments in the field of reducing greenhouse gas emissions in accordance with existing international and Community agreements and implement measures to adapt to the effects of climate change [3 – 10]. Romania will continue to contribute effectively, in accordance with the agreements in force at international and Community level, to the implementation of the common objectives of the European Union in the field of climate change by reducing greenhouse gas emissions and implementing measures to adapt to the effects of climate change [3 – 10].

By increasing the energy efficiency, the primary energy consumption will be reduced by 30%, and the final energy consumption by 26% compared...
to the average consumption from 2001-2005. Lighting with efficient lamps will be generalized [3 – 10]. The use of clean technologies for the production of electricity and heat based on energy sources and power stations with very low carbon emissions will be expanded, provided with facilities for the geological capture and storage of carbon dioxide [3 – 10]. It will continue the construction of hydroelectric plants and facilities that will process 15-20% of the hydropower potential that can be managed but not yet used [3 – 10].

In order to cover the electricity needs for economic development and consumption, two additional nuclear-electric units will be realized [3 - 10]. Thermal rehabilitation of about 40% of the existing fund of multi-storey buildings as well as the development of passive or very low energy projects, 15-50 kWh per square meter and year will continue [3 - 10].

5. Conclusions

Our study emphasizes that the achievement of the strategic objectives will ensure, in the medium and long term, a high economic growth and, consequently, a significant reduction of economic and social disparities between Romania and all EU Member States. From the point of view of the synthetic indicator that measures the real convergence process, as Gross Domestic Product per Capita (GDP/place), at the Purchasing Power Standard (PCS), the Strategy implementation creates the conditions for the GDP/place expressed in the PCS to exceed, in the year 2013, half of the EU average at that time, should approach 80% of the EU average in 2020 and be slightly above the European average in 2030.

References


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