

INVESTMENT FOR THE GREEN ECONOMY— A SOLUTION FOR SUSTAINABLE DEVELOPMENT AND FOR GETTING OUT OF CURRENT ECONOMIC CRISIS

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Abstract: This article discuss about the importance of green economy investments, both in terms of sustainable development, and also in terms of environmental projects that can be a solution for getting out of current economic crisis. In the first part the article analyzes the evolution of environmental investments in Romania after EU accession. The environmental policy in Romania has been influenced by the European Union's financial instruments to support environment. This study reveals some progress in this direction, but also points out the amount of difficulties in launching and implementation of investment projects, through the Sectoral Operational Program Environment - SOP ENV. The Romanian political leaders and the general public are beginning to perceive and to accept the idea of green economy, and environmental activities will soon become a <modus vivendi>, because the investments on environmental and green economy are both the cause and effect for all three components of sustainable development: natural, economic and social.

JEL classification: G01, H54, H57, O18, O44, Q50, Q56, Q58.

Key words: investment, green economy, crisis, Romania

1. INTRODUCTION

The experts and general public perceive more clearly that the economic and social crises overlap on environmental crises and a meaningful solution must tackle both crises simultaneously.

<Green Economy> is a model that would allow conservation of natural resources and stop emissions of greenhouse gases and, at the same time, it is a solution to foster growth, create jobs and reduce poverty.

The political leaders and the general public begin to perceive and to accept the idea of green economy and environmental activities will soon become a <modus vivendi>. The green economy as not only <hobby> to more developed economies but as a <vital key catalyst> for growth and poverty eradication in developing ones too, where in some cases close to 90 per cent of the GDP of the poor is linked to nature or natural capital such as forests and freshwaters.

For exemple: the climate change shows that unless global action is taken quickly to stabilise the rising temperature of the earth's surface, there is likely to be irreversible and catastrophic damage. The EU adopted an integrated energy and climate

change policy in December 2008, <20x20x20>, because it includes ambitious targets for 2020:

- cutting greenhouse gases by 20% (30% if international agreement is reached);
- reducing energy consumption by 20% through increased energy efficiency;
- meeting 20% of our energy needs from renewable sources.

2. OBJECTIVES

The main objective of this paper is to analyse how the investments on environmental and green economy are both the cause and effect for all three components of sustainable development: natural, economic and social.

The economic and financial crisis generate a vicious circle and the dilemma: will be the money less or will be the investment projects inefficiently?

SWOT analysis after 1990 shows relatively low level of investments in all environmental sectors in Romania, compared to the required investments for complying with European standards.

For Romania, the main financial problem is to access the community funds, but the environmental investments should have a more clear and powerful correlation with all other investment programs, and the environmental sustainability must be integrated into core development work.

Expansion and diversification of activities on the environment have many implications regarding all programs in Romania (resource efficiency policies, agriculture and food pollution, improve public health and habitat quality, including implementing a green procurement).

The United Nations Environment Programme (UNEP) identifies the following sectors as key to greening the global economy: agriculture, buildings, energy supply, fisheries, forestry, industry including energy efficiency, tourism, transport, waste management and water.

This article discuss about the importance of green economy investments, both in terms of sustainable development, and also in terms of environmental projects after EU accension that can be a solution for getting out of current economic crisis in Romania.

3. METHODOLOGY

As a theory, first problem is that there are many definitions for the green economy, so there are many views about the components, goals and policies to be followed.

As practice, everyone understands that there is an overlap between environmental issues, sustainable development and creating a green economy. Thus each of the three terms are defined connected to each other. For example, the sustainable development debate is based on the assumption that societies need to manage three types of capital - economic, social, and natural.

For benchmarking about the green economy and environmental investment, this paper has used the official information, several reports and analysis regarding United Nations (UN) and European Union (EU), because the environmental policy has benefited of important measures and funds. Besides, the financial crisis generates many recovery plans and acts.

First of all, the green economy, for United Nations Environment Programme is one that results in improved human well-being and social equity, while significantly

reduce environmental risks and ecological scarcities, and the important links between green economy and sustainable development are also well-recognised.

UNEP aimed to expand understanding of how environmental sustainability and green growth are mutually supporting elements for achieving the Millennium Development Goals – MDG - and speeding recovery from the global economic crisis. < Moving towards a green economy has the potential to achieve sustainable development and poverty eradication on a scale and at a speed not seen before> (UNEP, 2011).

The new strategy of UNEP is <Medium Term Strategy –MTS> for 2010-2013, and it refers across six areas: Climate change; Disasters and conflicts; Ecosystem management; Environmental governance; Harmful substances and hazardous waste; Resource efficiency, Sustainable consumption and production.

One model argues that a two per cent injection of global GDP (USA Dollars 1300 billion) into ten key economic sectors would kick-start a transition towards a low carbon, green economy and resource efficiency.

Secondly, Romania takes into account the European Environmental Policy – EAP. This European policy is coordinated by European Environmental Agency –EEA, in improving the environment, integrating environmental considerations into economic policies and moving towards sustainability.

The current EAP, which runs from 2002-2012, identifies four environmental areas for priority action: climate change; nature and biodiversity; environment, health and quality of life, and natural resources and waste.

From a new point of view, any green economy model lists the priority areas for green economy and in the same time for resource efficiency. These areas are presented in Box 1.

Box 1	
<p>Green economy</p> <ol style="list-style-type: none"> 1. Renewable energy (including hydropower, biofuels and biomass); 2. Energy efficiency; 3. Mobility (air quality, emissions and noise); 4. Industry (emissions and waste); 5. Innovation; 6. Environmental Impact Assessment (EIA) and Strategic Impact Assessment (SIA); 7. Governance (including institutional arrangements and multilateral environmental agreements) and environmental performance reviews; 8. Corporate Social Responsibility (CSR) and environmental reporting; 9. Mining. 	<p>Resource efficiency</p> <ol style="list-style-type: none"> 1. Use of natural capital (including forestry, agriculture, urbanisation linked to the use and degradation of land, soil, water and biodiversity); 2. Water efficiency in industrial, rural and urban areas; 3. Life-cycle analysis; 4. Environmental accounting; 5. Sustainable consumption and production patterns; 6. Tourism.

Source: EEA, Europe's environment. An Assessment of Assessments, 2011, p.98.

Green economy priorities have a wide range of drivers, including climate change, economic recovery, protection of biodiversity and demographic change.

EU accession in 2007 influenced the adoption of Romanian environmental policy, which takes into consideration the European Union's supporting objectives, principles and practices.

In fact, the structure of funds to finance environmental protection is in accordance with Figure 1.

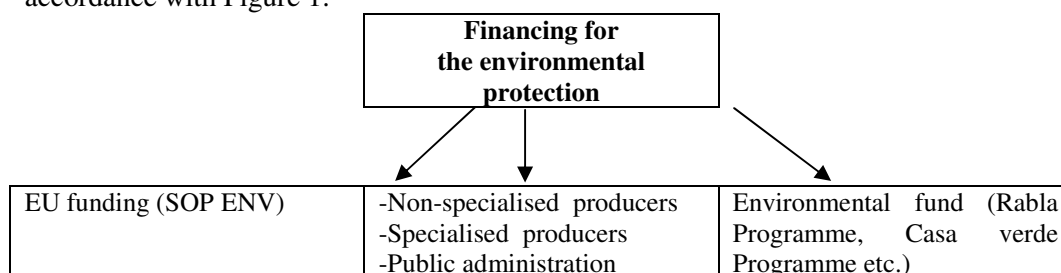


Figure 1. Financing for the environmental protection

The Sectoral Operational Program Environment - SOP ENV is fully based on the goals and priorities of the European Union's environment and infrastructure policies and reflects Romania's international obligations as well as its specific national interests.

Public procurement is another direction towards the green economy.

4. EVOLUTION OF ENVIRONMENTAL INVESTMENTS IN ROMANIA AFTER EU ACCESSION

4.1. Environmental policy in Romania after EU accession

First of all, in Romania, the SOP ENV is linked to the Renewed Lisbon Agenda objectives, related to growth and jobs.

In order to achieve these objectives, the following priority axes are identified:

Priority Axis 1 "Extension and modernization of water and wastewater systems";

Priority Axis 2 "Development of integrated waste management systems and rehabilitation of historically contaminated sites";

Priority Axis 3 "Reduction of pollution and mitigation of climate change by restructuring and renovating urban heating systems towards energy efficiency targets in the identified local environmental hotspots";

Priority Axis 4 "Implementation of adequate management systems for nature protection";

Priority Axis 5 "Implementation of adequate infrastructure of natural risk prevention in most vulnerable areas";

Priority Axis 6 "Technical Assistance".

The financial plan of SOP ENV has been elaborated in correlation with the financial plan of the Romanian National Strategic Reference Framework 2007-2013, and SOP represents about 23.5% of the financial envelope of the NSRF.

The SOP's total budget for the 2007-2013 programming period amounts to about Euro 5.6 billion (Table 1). Out of this, about Euro 4.5 billion is envisaged as Community support, which represents about 80 % of the financial envelope of the SOP, and about Euro 1.1 billion comes from national contribution.

The Community sources that will support SOP ENV implementation are Cohesion Fund (73%) and European Regional Development Fund (27%).

The SOP ENV is mainly oriented towards the development of management systems for environmental infrastructure according to the national strategies in the relevant environmental sectors. Expenditures on the six axes in order are: Axis 1 - 58.2%, Axis 2- 20.9%, Axis 3- 8.2%, Axis 5- 5.9%, Axis 4- 3.7% and Axis 6- 3.1%. It results that the environmental priorities in Romania are about extension and modernization of water and wastewater systems and development of integrated waste management systems.

Table 1. SOP's total budget for the 2007-2013 period

2007-2013	Total	which:		EU funding, which:	
		EU funding	National Counterpart (Public funding)	Structural Funding (ERDF)	Cohesion Fund
Euro million	5,610,876,945	4,512,470,138	1,098,406,807	1,236,652,195	3,275,817,943
-%-	100	80	20	27	73

Source: Government of Romania, Sectoral Operational Program Environment - SOP ENV, 2007-2013, p.100.

The major problem of implementation of European Operational Programmes in Romania is the big difference between domestic payments to beneficiaries and reimbursements made by the European Commission based on invoices submitted by the beneficiaries, the latter reflecting the "real rate" of absorption of EU funds.

For the SOP Environment, the actual rate of absorption is 1.89% (the lowest), while domestic payments arrive at 11.09%.

4.2. Green Public Procurement

Public procurement is a direction towards the Romanian green economy.

Public authorities in the European Union spend about Euro 1.5 billion per year for the purchase of products and services, which is equivalent to 16% of gross domestic product.

In 2008, the European Commission adopted its Communication <Public procurement for a better environment> which set an indicative target that, by 2010, 50% of all public tendering procedures should be green. To measure the achievement of this target, the European Commission is now looking at the level of uptake of GPP for the following 10 product and service groups: 1.Cleaning products and services; 2.Construction; 3.Electricity; 4.Catering and food; 5.Gardening; 6.Office IT equipment; 7.Copying and graphic paper; 8. Textiles; 9. Transport; 10. Furniture.

But, in Romania, many of the public procurement are still suspected of corruption, and the general public still do not appreciate the importance of green procurement.

4.3. Evolution of environmental investments in Romania after 2007

The investments and internal current expenditure for environment protection in Romania by category of producers refers to:

- Non-specialised producers are: Forestry and logging, Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning production and supply, Construction and Transport;

- Specialised producers refers to: Water supply and sewerage, Waste collection, purification and disposal; activities of recycling materials recovery, Activities and services of decontamination, Wholesale of waste and remains;

- Public administration is central and local administration.

Romania has allocated funds for environmental investments growing after EU accession, but in 2009 it can see the impact of financial crisis.

It follows that Romania has invested around 1 million € per year for investment, and over 2 million € for internal current expenditure.

Table 2. Investments and internal current expenditure for environment protection by category of producers

Activity sectors	2007	2008	2009
Total investments in Romania- Lei billion	83.661	99.526	74.939
Investments for environment protection - Lei billion –Total:	3.675	4.902	4.338
Non-specialised producers	1.330	1.550	1.773
Specialised producers	1.048	1.717	1.047
Public administration	1.297	1.635	1.518
Internal current expenditure for environment protection- Lei billion -total:	8.497	8.731	7.456
Non-specialised producers	1.414	2.154	1.325
Specialised producers	5.991	5.638	5.070
Public administration	1.092	0.939	1.061
Share of investment and internal current expenditure for environment protection of total investment -%	14.5	13.7	15.7

Source: National Institute of Statistics, Romanian Statistical Yearbook, 2008, 2009, 2010.

However, compared with the total investment can be observed that both expenditures, investments and internal current expenditures for environment protection had a lesser decline.

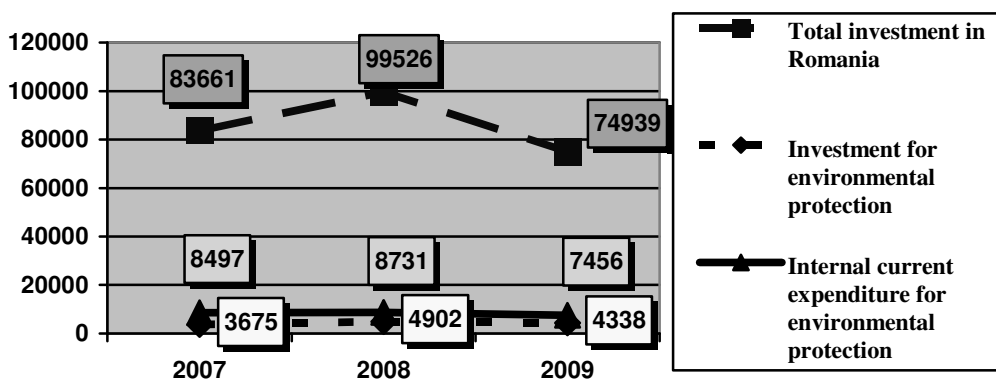


Figure 2. Evolution of environmental investments in Romania after 2007

An analysis from another point of view refers to investments for environment protection by environmental field (Prevention and control of pollution, Natural resources protection and biodiversity preservation, Other fields).

Table 3. Investments for environment protection by environmental field-Lei billion

Activity sectors	Total	Prevention and control of pollution, by environmental field:				Natural resources protection and biodiversity preservation	Other fields
		air	water	wastes	Soil and underground preservation waters		
2008	4.902	0.774	2.141	1.168	0.360	0.059	0.399
2009	4.338	1.167	1.271	0.686	0.283	0.062	0.869

Source: National Institute of Statistics, Romanian Statistical Yearbook, 2009, 2010.

In Romania, there is a negative situation in the following fields: water/wastewater, wastes, soil pollution, air pollution, biodiversity and nature protection, floods, coastal erosion.

Romanian Government aimed more investments into these fields, the prevention and control of pollution target being those relating to air and water.

4.4. Romanian Environmental Fund

The Environmental Fund represents an economic-financial tool designated to sustain and develop the environment protection projects. This Environmental Fund had been set up by Law no. 73 in 2000, as a special fund, outside the budget.

There are many critical analysis of creating, managing and using this fund from the perspective of the accomplished goals, but there are both <pluses and minuses>.

First, in 2010 there were but 188,378 contributors and revenues value was 1144 bill. lei. Environmental Fund Administration, however, realized projects with a value of 1453 bill.lei.

On the other hand, the programmes of the Environmental Fund drew attention to the numerous possibilities for financing small projects, and its have the effect to determine a more active involvement of the potential beneficiaries in accessing grants financed by the Environmental Fund and in attracting more people in environmental protection activities. <Rabla>, <Casa verde> are successful programs.

5. CONCLUSIONS

Romania looks at European Union and United States, because the green economy represents an important policy, and this policy seeks to establish a coherent and sustainable framework for the future of the world.

The green economy policy needs the financial support, but there is the danger that the financial crisis will stop the Romanian environmental measures.

The major risk in Romania is the combination between the transition problems and the financing possibilities. All insist that Romania should reform its administration and reduce red tape, to create a depoliticized and transparent system.

Finally, it can be noticed that there is a tendency of globalization in the analysis and simultaneous management of three elements: environment, sustainable development and green economy.

The environmental investments should have a more clear and powerful correlation with all other investment programs, and the environmental sustainability must be integrated into core development work. This will make possible to stop the evolution of various crises.

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