PRODUCTIVITY OF NATURAL RESOURCES AT EUROPEAN LEVEL

Ovidiu BUZOIANU[1], Evelina Petronela BALU[2]

Abstract: *The environment, as one of the forest, claiming ever more consistent management, flexible capacitive, a variety of intervention tools and constant communication with social and economic, in order to manage integrated public to natural resources. Given the evolution of human society, public opinion has noticed degradation and decline environmental components (forests, water, air), giving them due weight, forcing policy makers and the socio-economic effective participation in the conservation and development of a way sustainable everything around us. As a resultant awareness of the worsening living conditions by damaging environmental factors, international organizations and national, they have proposed amendments to improve the status quo, with the risk of generating social convulsions.*

Keywords: *productivity resources, Europe, efficiency, environment*

JEL Classification: *Q56,Q57*

1. Introduction

Owning rich reserves of natural resources of a country is often seen as an advantage, because the sale of these resources is an important source of revenue for the national budget. There is a general assumption that the more a country has rich reserves of a natural resource, the country is richer. The initial objectives of the present article which was developed were built upon the need to prevent the problems found in the current socio-economic reality and potential research subject had. Objectives and themes analyzed in this article consisted in developing, evaluating and establishing conceptual boundaries and construction logic related to natural resources at European level, recognizing theoretical and practical (practice) the interconnection of European space, its implications and connections created between natural resources and development sustainable technical analysis or applied on the role and influence efficiency and productivity of natural resources within Europe.

After outlining clearly the main building to follow a clear and outlined to develop notions connected to completely define natural resources, private interdependent socioeconomic links. The core objective of this article may be shaped as a process that can bring up the subject of productivity, economic efficiency and functionality of resources. Research methodology is based on working structure using modeling quality resulting from highlighting the problems in the foreground, that validation of the role played by the state in the functioning space interstate using all objective functions available at the stream of globalization and wide influence human

The methodology of this article is based on the following three characteristic points fund as follows:

1. Theoretical analysis of definitions and concepts relating to natural resources;
2. 2. Summary of economic models on resources-consumer relationship development.
3. 3. Theoretical analysis and statistical natural resources in some EU countries.

[1] Phd Student, ASE BUCHAREST, buzoianuovidiu@yahoo.com
[2] Phd Student, ASE BUCHAREST, eveline.balu@yahoo.com

2. The significance of the concepts of natural resources, efficient use of their natural resources productivity

Resources are all elements that man can use his work to satisfy the needs. The volume and quality of resources essentially determines the degree to which man satisfies his needs, both individually and socially. Resources used by people in their economic activity are extremely varied and can be classified according to several criteria. Thus, the primary resources include natural resources and demographic potential. Based on their form derived resources, consisting of machinery, equipment, buildings, etc., including scientific knowledge and experience. Regardless of scale and diversification, the degree of use or reuse, be construed as limited resources, or insufficient to cover human needs - growing and diversifying. On the one hand, there are natural limits of resources - meaning that they are found in nature in limited quantities, and on the other hand, there are economic limits of exploitation and use of resources - defined as current levels of cost of exploration and extraction, as well as the technologies. Science and technology development causes multiplication best possible use of resources, reducing consumption per unit of useful effect.

Natural resource efficiency- Global economic growth and increasing global population (9 billion in 2050) resulting in rapid consumption of the Earth's natural resources. Resources such as water, soil, clean air and ecosystem services are vital to the health and quality of life, but they are available only in limited quantities. Increased competition for certain resources will lead to shortages and higher prices, which will affect the European economy. Resources must be managed effectively during the whole life cycle, from extraction, transport, processing and consumption to waste disposal.

This is why the Commission insists on "resource efficiency", meaning production increased value using fewer resources and changing consumption habits. This will limit the risk of deficits and keep environmental impacts within our planet's natural increase resource efficiency in Europe is a means by which the objectives of economic, social and environmental issues might achieve easier, safer and cost smaller. Resource efficiency is a key component of Europe 2020, the EU strategy for boosting growth and creating jobs in the next decade. The strategy aims to encourage smart growth (based on knowledge and innovation), sustainable (growth based on ecological principles will be sustainable in the long run) and inclusive growth (high levels of employment work provides social and territorial cohesion improved). Economic stability will increase, as resource efficiency is a way to address the issues of security of supply and the volatility of markets essential resources. This is important for European consumers and for those sectors that rely on rare earth metals category, the freshwater fish and food. Improving resource efficiency will sustain the economic health of key sectors such as agriculture, forestry and fisheries. EU industries that use their products based on the areas /quantities available land, soil and water and biodiversity, so higher efficiency will bring greater benefits. Adapting to global changes resulting from pressure on resources will also improve long-term economic competitiveness.

The productivity of resources is an indicator which defines the quantity of good or service (output), which is obtained by the drive resource expenditure. This can be expressed in monetary terms that monetary yield per unit of resources. Resource productivity and resource intensity are key concepts used in measuring sustainability in their attempt to decouple direct connection between use of resources and environmental degradation. Their advantage is that they can be used as a value for both economic and environmental costs. Although these concepts are two sides of the same coin, in practice, they involve very different approaches and can be seen as reflecting, on the one hand, the production efficiency

of resources resulting drive utilization of resources (resource productivity) and, moreover, resource efficiency and resource use per unit of output (resource intensity).

Sustainability objective is to maximize resource productivity while minimizing resource intensity. Today, the prospect of a revolution in resource productivity in the next century is as difficult to explain. Productivity promises to de- part economy gradually using less material and energy every year and where consumer quality continues to improve and on the other hand an economy where environmental damage is stopped and reverses. The literature focuses on the two terms, that the productivity and efficient use of natural resources, but also almost synonymous different in a practical sense. Resource efficiency focus typically is on augmenting economic output with an input resource acoperid date as of also consumption of natural resources in relation to the economic and environmental impacts. Resource productivity is efficient use of natural resources for pro-goods and services, describing the relationship between economic performance in monetary terms and a physical indicator material inputs or resources.

3. The size and productivity of natural resources in the territorial

In the EU, resource productivity increased by 25% between 2010 to 2016 and maintain this level would lead to a further increase by 30% by 2030 and could increase GDP by about 1.5%, creating parallel with over two million jobs more.Intensifying efforts to increase resource productivity will be closely linked to existing objectives of EU policy, such as reducing emissions of carbon dioxide, increasing energy efficiency, re-industrialization sustainable EU economy and ensuring access to raw materials whilst reducing environmental impact and emissions greenhouse gas emissions. Resource productivity in the EU-28 had the highest value in the United Kingdom, France, Malta, Italy, Belgium and Luxembourg, Germany and Sweden (2016). The lowest values were found in countries such as Bulgaria, Romania, Estonia, Czech Republic, etc. The largest economies in this group also experienced a rather large increase in terms of material productivity. Average European countries on natural resource productivity has averaged about 1.700 USD / ton DMC. It is interesting to note that the material productivity gap between new Member States and Member States with a higher age has not changed significantly since early 2010. Despite continuing improvements, productivity growth in the EU was material resources significantly slower than labor productivity growth and, to a lesser degree, energy productivity. During 2005-2016, labor productivity increased by 150% at EU level, while productivity increased by 90% material and energy productivity increased by 55%.

Under this approach, research has shown that countries emerging resource rich can experience the abundance of natural resources as a negative factor hindering economic diversification, investment in human capital and democracy and therefore lead to growth rates lower compared to other countries. (See table 1) ratio varies considerably between Member States of the EU from 0.64 PPS / kg in Bulgaria to 4.00 PPS / kg in Italy. Figure 4 is a graphical representation of the DMC to GDP, reveals a clear correlation between the use of resources (DMC per capita) and GDP: a relation U between the DMC per GDP per capita between countries, namely the pressure drops of the medium to at some level as GDP per capita rises. Natural resources underpin our economy and our quality of life and many scientists still argue that our current patterns of resource use is not an option if the planet is to survive. Increasing resource efficiency is a key element for ensuring sustainable growth and jobs in the EU and has the potential to generate economic opportunities, improve productivity, reduce costs and boost competitiveness. An efficient Europe in terms of

resources is one of the flagship initiatives of the Europe 2020 supports the transition to an efficient economy in terms of low carbon resources to achieve sustainable growth.

It provides a long-term framework for action in many policy areas, supporting policy agendas for climate change, energy, transport, industry, raw materials, agriculture, fisheries, biodiversity and regional development. It aims to increase certainty for investment and innovation and to ensure that all relevant policies should take account of resource efficiency in a balanced way.

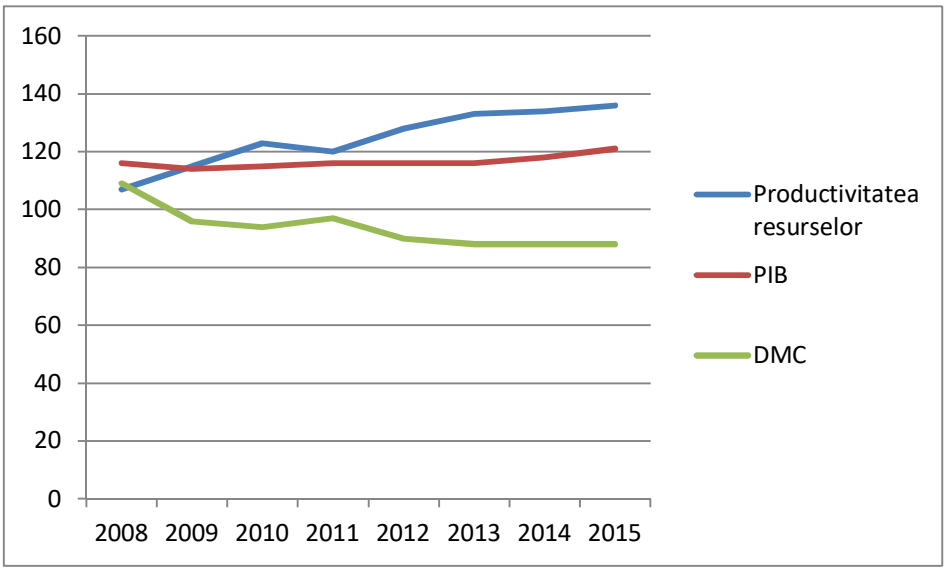

Figure 1: EU-28 resource productivity compared to GDP and DMC, 2000-15
Source: Eurostat

4. Trends productivity

Empirical studies show that technological progress and capital increased labor productivity and resources. Also, labor productivity rose more strongly than resource productivity. Figure 1 shows productivity growth (measured as GDP per hour worked), resource productivity (GDP ratio DMC5) and productivity-capital (measured by GDP the consumption of capital) in EU-28. While labor productivity increased steadily from 2010 to 2016 decreased slightly during the economic crisis due to a decline in GDP generation, despite an almost constant labor. Although there was a decline in 2010, labor productivity increased again since 2011. In 2009, material consumption decreased significantly during the economic crisis (especially in material intensive industry, leading to increased productivity global resources. As labor productivity, resource productivity decreased in 2010 but rose again after the decline. capital productivity remained almost constant from 2000 to 2007. with the economic crisis, it decreased significantly implying that more or less the same level of physical capital generated annual consumption of less than GDP.

5. Conclusion

Policy makers should pay attention to resource allocation and efficiency of any of their use, stimulating economic environment, and progress is social. A competitive economy is an economy capable of generating economic growth, high efficiency and long term.

The roadmap is a welcome opportunity to give the resource efficiency debate the new impetus it needs and to make it a central component of a greener EU economy. To ensure that it has clarity and political traction, it needs visionary objectives, while to achieve concrete results a timetable and concrete measures need to be set out, some of them to be delivered in the next five years. Both tracks need to be pursued if progress is to be made in this important policy area. Today, environmental awareness and hence the consumption of resources in a fast pace, and turns requires rational use of resources in a unanimous wish. Sustainable management of natural resources requires, inter alia, an assessment of the real, so there normeprecise in fixing the cost and importance of resource classification in the economies of holding reserves. At the present time it consumes a huge amount of resources due to factors that contribute to it. Some of them are market failure and lack of private property. This depletes very quickly and degrade natural resources. In this context, urgent measures are needed to preserve natural resources for future generations. One of the measures and perhaps the most important is the economic assessment of the real natural resources

References:

1. AMEC and BIO (2013), The Opportunities of Improving resource efficiency to business, Final report to European Commission
2. Bacal, P. (2007), environmental economy, Editorial Department, Poligrafic ASEM Chisinau
3. Besco, L . (2014), Green productivity: clarifying terminology and concepts. International Journal of Sustainable Economy (IJSE), Vol. 6, No. 4, 2014.
4. Beatley, T. and Manning, K. (2000), The Ecology of Place: Planning for Environment, Economy, and Community, Washington DC: Island Press
5. Berka, M. (2001), theory thinking environment and natural resources, Ed Grand, Bucharest
6. Bleischwitz, R. (2010). International economics of resource productivity- Relevance, measurement, empirical trends, innovation, resource policies. International Economics and Economic Policy 08/2010; 7 (2): 227 244
7. Borzel, T. (2007), European environmental policies between success and failure, European Institute
8. Zhelev, I (2001), Environmental Management, University Publishing House, Oradea
9. http: //ec.europa.eu/eurostat