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GREEN ECONOMY - THE ECONOMY OF THE FUTURE

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Abstract

This paper defines the concept of "green economy", presents the main international organizations that deal the green economy. Are provided details of the most significant principles, objectives and actions of the concept of green economy. At the European level there is "The 2020 strategy ", which shows that Europe's economy should be an economy that knows how to manage resources efficiently and reduce carbon emissions. There are currently a number of basic laws for the green economy. Forest ecosystems are part of the green economy and the forest products industry are very important because they are renewable, recyclable and biodegradable. Thus forests are a fundament of the green economy, the goods and services are important components.

Key words**:** *ecology, forest plantations, green economy, sustainable development*

INTRODUCTION

The concept of green economy, was launched by the United Nations Environment Programme (UNEP), in late 2008 and is an alternative to economic growth and improving people's lives in compatible ways _ with sustainable development. Green Economy improves the human and social welfare, while significantly reducing environmental risks and ecological deficit.

At the European level a number of international organizations also discussed the transition to the green economy (EC, UNEP, OECD). In 2008, UNEP launched the "Green Economy Initiative to Get the Global Markets Back to Work" initiative aimed at focusing the global economy towards investments and clean technology. [1]

UNEP defines a green economy as one that results in "improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities" (UNEP 2010). In its simplest expression, a green economy is low-carbon, resource efficient, and socially inclusive. In a green economy, growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. [2]

The concept of sustainable development appeared at the end of the twentieth century, and involves bringing together two parallel realities: the economic activities and ecological mechanisms.

The European Union defines sustainable development as being _ the determination of the people for a better quality of life for all, for present and future generations.

Sustainable development requires a harmonious combination, as well to ensure simultaneously progress on four fronts: economic, social, ecological, hence the idea that the overall objective of sustainable development is to find an optimal interaction between the three systems.

European Sustainable development is a vision of progress that links economic development, environmental protection and social justice, the values that are recognized and enforced by democratic governments and political movements around the world.

The world economy has increased seven times between 1950-2000, and the world population has grown unprecedented 2.5 miles 6.1 billion people, along with raising the standard of life [3]. In October 2011, the world population reached 7 billion people, and the UN

estimates for 2050 the planet's_ demographic evolution will be _ 9.2 billion inhabitants. Therefore, some changes are needed, particularly in the economic sphere, which will be connected to current environmental conditions. Elaboration of a new model of development of human society based on increasing biocapacity by the widespread introduction of sustainable farming practices and production activities in line with sustainable development could maintain a balance between ecosystem integrity and long-term productivity.

Our sources of food are represented by four major ecosystems: forests, grasslands, farmland and fisheries. Their inadequate management has many adverse consequences on nature and climate. Climate change is one of the most serious challenges for humanity. The EU is seeking to adopt a global agreement on reducing emissions of greenhouse gases and open new avenues in the fight against climate change through actions initiated. Combustion levels increased significantly in recent decades, in 2010 the level was 4 times more than in 1950. In December 2008, EU leaders made a decision of special significance, approving a package of measures to reduce greenhouse gas emissions by at least 20% by 2020 (compared to 1990), increasing the share of renewable energies 20% and reducing energy consumption by 20% (compared to currently projected figures). [4]

Green economy aims at sustainable management of environmental resources, based on the belief that our biosphere is a closed system with finite resources and a limited capacity for self-regulation and self-renewal. Since we depend on the natural resources of the earth, appears necessary to require a new economic system that respects the integrity of ecosystems. However, the green economy concerns social justice, based on the belief that culture and human dignity are precious resources that, like our natural resources requires responsible stewardship to avoid their depletion.

Within UNEP, the Green Economy Initiative includes three sets of activities: [5]

- Promoting the **Green Economy Report** and related research materials, which will analyse the macroeconomic, sustainability, and poverty reduction implications of green investment in a range of sectors from renewable energy to sustainable agriculture and providing guidance on policies that can catalyze increased investment in these sectors.
- Providing **advisory services** on ways to move towards a green economy in specific countries.
- Engaging a wide range of **research**, non-governmental organizations, business and UN partners in implementing the Green Economy Initiative.

Adapting the economy so that progress is not detrimental to the environment is not essential just for _ long-term sustainability, but also for the quality of life. It also offers opportunities for new jobs requiring new skills. Europe in this way has a chance to be a leader, becoming the reference point for expertise in green technologies. And environmentally sustainable economic growth can be measured by productivity growth, accompanied by a reduction in emissions, so to combat climate change, and a massive increase in the percentage of energy from renewable sources.

Among the most significant principles, objectives and actions of the concept of green economy include:

- equity and fairness, both inside and between generations;
- consistency in sustainable development;
- a precautionary approach to environmental and social impact;
- an appreciation of the natural and social capital;
- efficient use of sustainable resources and consumption and production;
- matching existing macroeconomic objectives through the creation of green jobs, eradicating poverty, increasing competitiveness in key sectors.

As shown in Figure 1, the green economy means economic environment with less harmful effects on the environment and substantial benefits on society and each

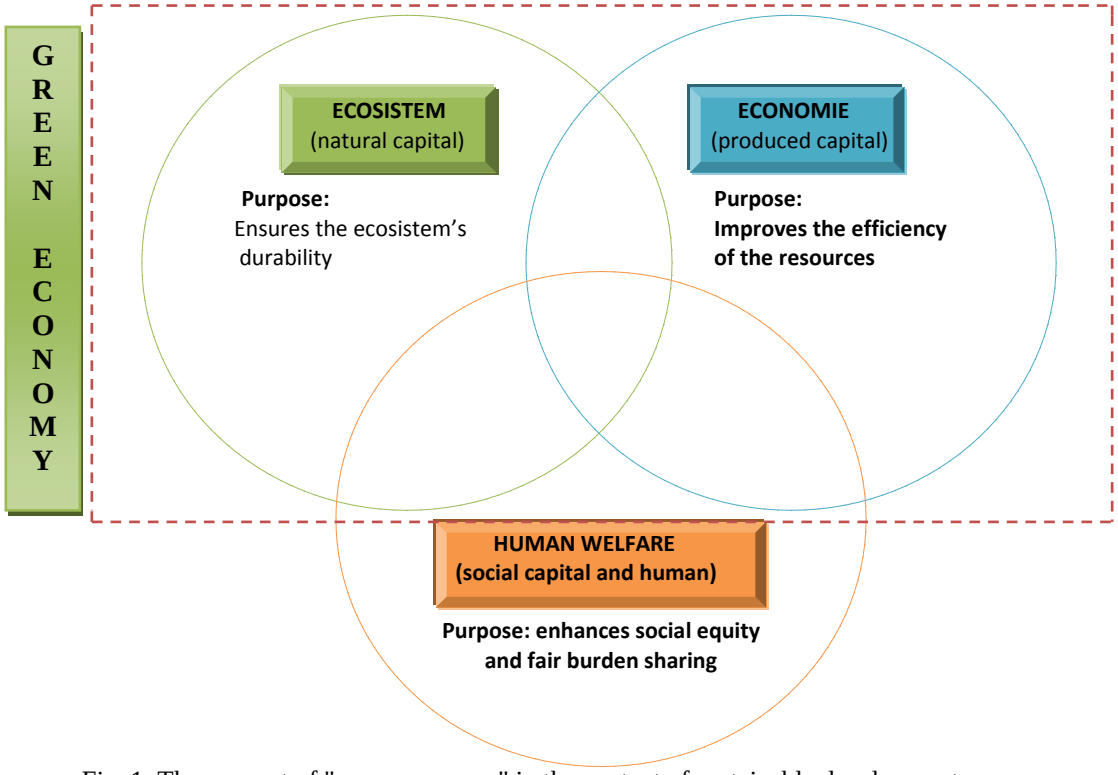

Fig. 1. The concept of "green economy" in the context of sustainable development

individual, while promoting sustainability and growth.

The green economy is based on six main sectors and production, within them, it must be done in a responsible way: energy from renewable sources (solar, wind, geothermal, wave marine, biogas), construction of green buildings, "clean "transport (use of alternative fuels, transport, hybrid and electric vehicles), water management, waste management, land management through organic farming, conservation, habitat restoration, reforestation and soil stabilization through sustainable forestry. [6]

Karl Burkart defines a green economy as based on six main sectors: [7]

1. Renewable energy (solar, wind etc.).
2. "Green" constructions (ie building LEED - Leadership in Energy and Environmental Design);
3. Alternative fuels (electric vehicles, hybrid or alternative combustibles);
4. Water management (water treatment systems, rainwater collection, etc..)
5. Waste management (recycling, storage etc.).
6. Territory management (including organic agriculture, habitat conservation, a forestation in urban parks, reforestation and land stabilization).

Also exists the 7th category that is called "green markets" and includes markets such as "green banking and financial investment services","carbon trading".

Currently the Strategy "Europe 2020", which aims at transforming the EU into an economy that knows an efficient resourse management and reduces carbon emissions, provides a durable response to challenges they will face in 2050. It aims to fully integrate sustainability and increase its role in public policy. To this end, the strategy defines the priorities are mutually supportive in favor of smart, sustainable and inclusive growth, supported by five major objectives:

1.Employment: the employment rate of the labor force of 75 % in the population aged between 20 and 64;

2.Research and development: 3% of EU GDP to be invested in research and development;

3.Climate change and sustainable energy use: the objectives "20/20/20" climate and

energy that a 20% reduction in emissions of greenhouse gases, 20% of energy consumption to come from renewable sources and 20% improvement in energy efficiency to be achieved (reducing emissions can rise to 30% if the appropriate conditions are met);

4.Education: dropout level should be reduced to 10% and increasing to 40% the share of graduates among the population aged 30-34 years;

5.The fight against poverty and social exclusion: reduce by 20 million the number of persons threatened with poverty.

From 2010 _ started the classification of the business in the green economy _ , classification bearing the name of' "Green Business Awards" and each year designates a winner based on several criteria including profitability of the enterprise and other economic indicators, but the core criteria are considered those related to the development of the technology. Examples of good practice in the green economy are:

-Uptown Oil company in London , UK, who developed a whole system that produces 100 % organic bio- diesel and sunflower oil;

-Green roofs are gaining more ground in modern architecture and are not just a trend of aesthetics, but presents undeniable benefits both economic and environmental.

-In Germany, at this time, 10% of all roofs are green and Switzerland legislative rules require that any new roof built more than 500 square meters, to be built using such a system. In Romania the market is still at the beginning and the companies in this sector are relatively few, which may mean that there is still opportunity for market penetration and the fact that the demand for such construction is low due to the building structure.

-Walney Offshore wind farm is developed by the Danish company DONG Energy in western Britain and was named the most profitable "green" business. It differs from other wind farms that it is located in the middle of the sea and that it is the largest wind farm in the world, with 102 turbines which will add another 51 in the coming years (it has the capacity to power 320,000 housing supply).

-Basic laws of the green economy:

Any science operates under terms and concepts and reaches maturity to establish or discover the laws which govern it. Given the "explosion" content issues, accentuated in a relatively short time, for environmental economics (environmental engineering and global ecology) the making of the laws that govern it we're made quite late and their enunciation is due to Barry Commoner.

First law: *all components of an ecosystem are interdependent with each other.*

This law reflects the existence of a complex network of reciprocal links in the ecosphere: between different organisms, and between populations, species, individual organisms and their physical and chemical environment. The interdependence of the constituent elements of the ecosphere determines a balance between them. From this trend continues the self balance within the ecosphere by certain functions that they perform various connecting elements.

The Second Law: Every excessive element in an ecosystem moves in a course of action consistent with the properties that it creates a certain or certain functions. It is obviously free formulation in accordance with the requirements of ecology, the law of conservation of matter and energy in physics that says that matter and energy are indestructible. Applied to environmental economics, the law emphasizes as in nature there is no "waste". In all natural systems, which excreted a body as detritus is used by another as food. Fauna releases carbon dioxide as respiratory detritus, this gas is, however, a _ nutrient for growing flora. Plants give off oxygen detritus used as a substance essential to maintain life by fauna. Organic waste bacteria feed on decaying animal. Their waste - organic substances: nitrates, phosphates, carbon dioxide - are consumed by algae etc. So this law says, in fact, everything that exists in nature are closely linked.

Third Law: Any external intervention caused by a disruptive element in a natural system it is harmful to the system.

According to the previous law in an ecological cycle can not accumulate waste

because nothing is wasted. A creature that is part of nature, in an ecosystem can not by its own biological activity, contribute to ecosystem degradation. Ecosystems are always subjected to external stresses. Man pollutes the environment only because he changed the cyclical, closed network in which includes all the other creatures.

The relationship between forest ecosystems and the green economy

Through the products we provide, forest ecosystems are an integral part of the green economy because the forest provides shelter_ jobs, clean water, income and regulates climate. Forest goods and services support economic livelihood of over 1 billion people_ most of them being in developing countries. Forests support more than 50% of terrestrial species, regulate global climate through carbon storage and protection of water catchments.

The products from the forest industry are very important because they are renewable_ recyclable and biodegradable. The forests are a cornerstone of the green economy, goods and services are important components of its forest.

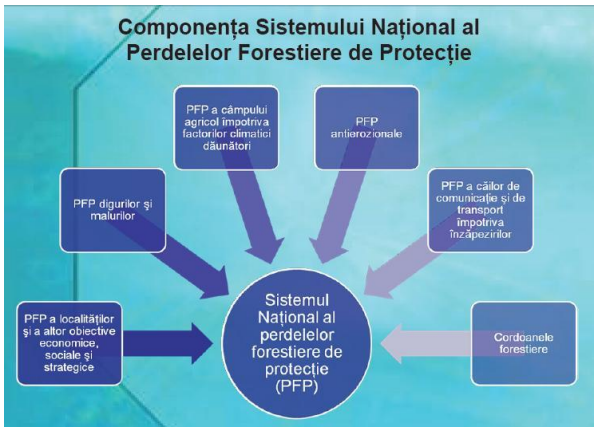

Fig.2.National System of Protection Forest Belts (Ianculescu Marian, 2010).

Regarding the renewable energy "Romania has the potential to be envied: good wind in Dobrogea, sun stronger than in Germany (for example), large biomass resources and many water courses.

Their capitalization will cause in ten years time, about 43.5% of gross domestic electricity consumption to be insured from "green" sources exceeding the target of 38% assumed in Brussels. "

Solving problems of global warming and the food crisis is suggested by Ianculescu Marian [9] by increasing the surfaces occupied by forest vegetation as a result of achieving the National System of Protection Forest Belts according to Law. 289/2002 promoted for the first time in the Romanian Parliament and beyond. (Fig. 2)

The action itself is part of the reconstruction of geosystems.

CONCLUSIONS

The main steps in the transition to a green economy can be considered as follows:

1.Development of institutional structures capable of setting out clear objectives to ensure the green economy;

2.Society as a whole to recognize the limits of the capacity of ecosystems.

To achieve this requires awareness of all market forces so that all people understand the need for a green economy.

Establishment of a green economy is a necessary and promising response to the global economic downturn, coupled with high climate changes increasingly alarming, the general degradation of the environment and drastically reducing resources, including drinking water.

However, the success of the transition from an economy based mainly on fossil fuels to a sustainable and ecologically economy will require a strong commitment and, ideally political will coordinate actions worldwide.

A special attention of specialists occupy sustainable development of rural areas, a delicate issue of great interest.

It aimed to create a balance of preservation and conservation of material and spiritual values of the countryside and its modernization trend.

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