

THE PARADIGM OF THE GREEN ECONOMY AND THE DEVELOPMENT SUSTAINABILITY

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Abstract: *The authors begin with the idea that the current linear model of development, based on the binomial production - consumption, is no longer sustainable. Therefore, the discussions and the economic policy measures which interact with the social, political and ecological ones bring arguments in favor of the formation of new models. The paper insists on the strategies regarding the transition to the "green economy" built on the principles of sustainability. They cover the environmental impact, the resource and energy efficiency, the well-being and quality of life. Finally it insists upon the benefits generated by the 'circular economy', having as target 2030.*

Keywords: *sustainability, resource efficiency, green economy, welfare, circular economy.*

JEL Classification: D03, D11, O13, Q2, Q5

Motto: "The Man can master nature as long as he takes into account its laws."
Grigore Antipa

The green economy is a development model with **less harmful** effects on the environment and with **substantial benefits** among the society and every human person. The adoption of such a model requires economic and investments policies through which it is trying to achieve a certain level of "disconnection" regarding the economic growth based on natural resources and energy extensive consumption. A green economy has other positive properties: low carbon emissions, decreasing pollution, increase energy efficiency, social inclusion. A transition towards such a model contributes significantly to **reducing the ecological deficit**, an increase in welfare and social justice, reducing environmental risks and prevents disimination / loss of biodiversity and ecosystem services. A simplified representation of the "green" model is presented in Figure 1:

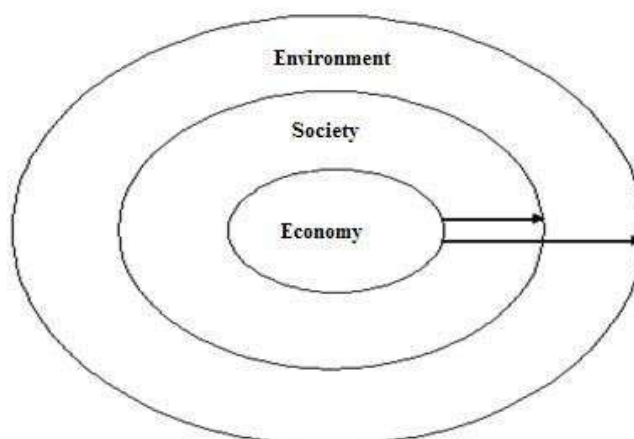


Fig. 1

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1. THE GREEN HEXAGON

In the view of Karl Burkart (UNEP - 2011), the green economy is located in a hexagon of "green" areas (see Fig.2).

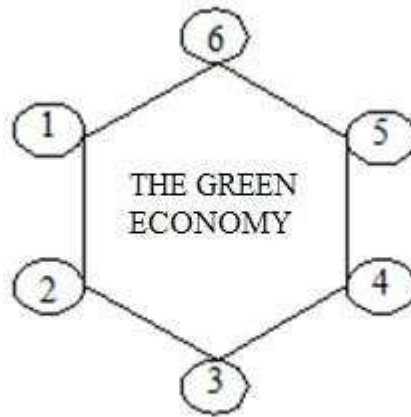


Fig. 2 - The Green Hexagon

where:

- 1 - Renewable Energy
- 2 - "Green" constructions
- 3 - Sustainable transport
- 4 - Water management
- 5 - Waste management
- 6 - Managing earth

Each area of this hexagon can be described by the multitude of directions in which it evolves through the European or national strategies until 2020 or even 2050. These **strategies** intersect with other alternatives offered: the blue economy, the circular economy, the symbiotic economy, the bio-economy, the biomimetics, etc.

For instance, the first field: **the renewable** or "green" **energy** targets: the solar energy, the wind energy, the geothermal energy, the biomass energy, the tidal energy, the hydro energy, etc. We can think exactly the same about the coordinates of the **waste recycling** domain: recycling, storage, extraction (technologies), transformation, etc. Finally, the **land resource management** targets: organic farming, the conservation of habitats and biodiversity, the protection of ecosystems, the afforestation / reforestation, land improvement, etc.

All these human conceived, designed, organized and launched activities generate millions of **new jobs** (a particularly important issue in this post-crisis period).

The fact worth mentioning is that the term (category) of **green economy** was taken from Van Jones (who took into consideration five elements) to whom was added the component "green buildings (constructions)." Each of the sectors (areas) the green economy comprises five branches (items). Thus, the model takes the form of a cluster (cluster) on which we can draw the rings (circles) of sustainability.

To **implement** such a model actually requires the close monitoring of agreements to stop the **trend of declining** of natural resources and destroying the ecosystems that support our life. We can no longer ignore the fact that the Earth is alive and conscious, that the

humanity is facing a **turning point**: collapse or salvation. This project signals that a transformation of the human concept referring to nature as an organism that can be exploited indefinitely is required. In order to protect we must put a value on nature. This means to ensure that the high value that the healthy ecosystems have is considered when economic decisions are taken. In other words, we must value the role of nature to provide us with clean water and fresh air in the communities in which we live.

The latest reports regarding the Alive-Planet show us that mankind is already using the resources of a planet and a half. In this regard WWF (World Wide Fund) proposes the goal "**20% for 2020**", which refers to the protected areas which at a national level would ensure the survival of all (marine and coastal) ecosystems.

2. THE PHILOSOPHY OF THE NEW PARADIGM

Motto: *"The nature is the only book in which each every page holds one truth".*

Johann Wolfgang von Goethe

The known folk saying "going out to green grass" means "going out **in nature**." And "the living" of the nature - notably depicted by the vegetation – has the green color. Notice that the images associated to the green economy are all green. Therefore, when the **ecology** presents us the ratio between human and the environment it refers to the human's relationship with the nature (UNDESA, 2012 - A guide book to the Green Economy). In the majority of the holistic approaches, the green economy (GE) consists of the **triad**: economic (E) - ecological (e) - social (S):

$$GE = \{ E, e, S \}$$

Within this triad there exist the intersections:

$$e \cap S = \text{acceptable (a)}$$

$$S \cap E = \text{fair } (\varepsilon)$$

$$E \cap e = \text{viable (v)}$$

and as a "core": $a \cap \varepsilon \cap v = \text{durable (D)}$. Therefore, by combining the subsystems we can move to a durable (DD), **sustainable development**.

The sustainability calls for the individual organizing of the community, national and global of the three systems thus ensuring the continuity of the economy and society **without destroying** the environment on which all mankind depends on. In the context of sustainability, the development doesn't mean a continuous growth, which goes on indefinitely. It means a conversion in order to use more efficiently the existing resources. A sustainable development (the quality of a human activity to take place without depleting the available resources and without destroying the environment) means a long-term balance between the three pillars: economic, social, ecological. In other words, anything it is produced / consumed can be done in harmony with the ecosystem in a way so that it won't be affected.

The concept of "green economy" must be approached **holistically**. Its implementation needs **coordination** at the level of the institutions involved and should be reflected in the national policy documents. Speeding up the application of this concept in Romania involves a **change of vision**, especially of the entrepreneurs which are going to harness the **natural capital** and the ecological services in an innovative way. SMEs could in particular become a laboratory for innovative business methods associated with the concept – "green economy".

3. IN SEARCH OF NEW MODELS

The interest for the green economy has also increased because of the discontent generated by the traditional model (the red economy) that requires a strong consumption of resources in order to support the economic growth. Such a model is characterized by

multiple crises and market failures (especially in the last decade). The model sustained by the green economy paradigm takes into consideration the risk for the environment, the social polarization and the resource scarcity.

In the reports of the UNEP referring to the green economy it is mentioned that a "ecologization" of the global economy allows obtaining tangible positive results. Therefore, the public and private sectors will develop through investments the opportunities offered by the transition to the new model.

In recent times we can observe the persistency of some overlapping crises: climate, biodiversity, food, water, financial system, etc. These crises have the effect of maintaining a lower standard of living for humanity. Also, these crises maintain the conditions regarding the perpetuation of the social issues related to employment, violence, insecurity, poverty, instability, etc.

With all these threats and a growth of the **risk factors** (Global Risk Report 2016 - states that for the first time in the history of this report a factor related to the environment, the climate change, is on the first place. Among other grave factors there are mentioned: the mass destruction weapons, the water crisis, the involuntary migration, the oscillation of the energy prices) there was spent a small amount of money for renewable energy production, protecting the ecosystems, biodiversity conservation, developing the organic agriculture or increasing the energy efficiency, respectively of the natural resources. All these crises occur on the base of a **massive increase of consumerism** in developed countries, where the aspiration for luxury and opulence became a kind of ideology.

The **anthropological** foundation of the problems mentioned (that persists due to the exacerbated consumption) shows us that we cannot **change** the economic, political and ecological policies only through an inner change through a sharp respiritualization (C.Popescu, Al. Taşnadi, 2009). The nature transfiguration which suggests "green" will begin with the **transfiguration of the souls** (S. Mihalache, 2016).

The current economic models are relatively outdated by the present reality. Not accidentally at Davos in 2014 the theme put under discussion referred to "The great transformation. The formation of new models." Many leaders which took part declared: "Stop the greed! Capitalism must be redesigned!"

Klaus Schwab, WEF founder - in Davos, said that today capitalism in its current form no longer has its place and no longer corresponds to today's world. The fundamental problem is that between the consensus of ideas related to the **operation of a change** and **concrete action** remains a big "space". We risk losing the confidence of future generations, said Schwab.

4. THE CIRCULAR ECONOMY, "THE CORE" OF THE NEW PARADIGM

The concept of "circular economy" as seen in systemic (cyber) concept envisages the chain: resources (inputs) – production – distribution – consumption (outputs) which is closed by a loop (reuse, recycling, regeneration), in order to increase the efficiency of natural and energetic resources (see Fig. 3).

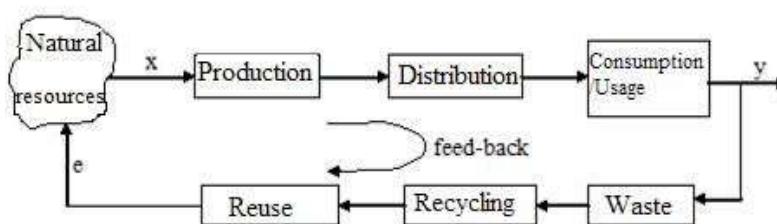


Fig. 3 - The circular economy

The performance of this economy is reflected by the yield type of parameter, $e = y/x \rightarrow \max$. Under this business model, the ability to understand how the parts interact and influence a whole is essential. Through the new model which is developed in the perspective of 2030 it is taken into consideration a sustainable **resource** and **waste** management. The circular model has as use, beneficial effects: minimizing the consumption of natural resources, the appearance of new opportunities in business (green investments), cost optimization, the generation of **new jobs**.

Using the new model takes into account the connection between the end point of the process and the initial one, reflected by the circular feedback.

Non-sustainability of the linear model is derived from the assumptions on which it was built:

- Resource abundance;
- Their availability;
- The reduced cost of waste disposal.

The competition between the **ideological blocs** (capitalist, socialist) which led to the exacerbation of growth models (in years '60 - '70), the expansion of the **consumer society** (following the principle: eat, drink ... throw!), **narrowing the markets**, the **overproduction** in the developed countries, etc. It is noticed since the early '80, the signals transmitted to the political leaders by the Club of Rome Report, entitled "Let's get out of wastage era." The **linear growth model**, currently supported is equivalent to the **waste** and the presence more and more accentuated worldwide of a "murderous passions": **the power** (expressed especially through domination) that degenerates into a veritable "war of resources" maintained mainly by **military means**, complemented by the financial, political, cultural, religious, etc. The "core" of the green economy understood as a circular process envisages **recycling, refurbishment, the reuse and the repair** of existing products, of the materials resulting under the form of **waste** (from production, distribution and consumption). The assimilation of such a model preserves the value of products and materials, focusing on the **life cycle** of the product.

If the production-consumption systems have been designed to face profit and not for human need, obviously it acts on the **rotation speed of the capital** (as a significant factor for increasing the mass of profit). When "something new" shows up, the transmitted signal is buying it to get myself a win because "**you deserve**". In this way many unnecessary goods appear, respectively unethical. Behind this kind of philosophy lies the waste of resources, greed, negative externalities on the environment, increased social inequalities, etc.

As a result, the European Commission adopted in 2015 a **package of measures** to encourage the Member States in their transition towards a **circular economy** (part of the green economy) to boost **competitiveness**, strengthen the **economic growth** and lead nations towards creating new jobs. The business environment and consumers must become aware of the need for **responsible** and **sustainable** consumption.

After Ministerial Conference of June 2016, organized by the UN Economic Commission for Europe, there were drawn some conclusions concerning the national initiatives that need to be taken in order to boost the transition to the green economy. The Plenary session itself was entitled "The Green Economy in the Pan European region".

Changing the economic **paradigm** towards the green economy, a challenge. This is based on the idea that the **environment** can ensure the chances of a **sustainable economical growth** on the long term. The transition from the linear, neo-classical model, to the circular one and the green economy must **overcome** attitudes, the society stereotypes, with a diversity of cultures and customs, with different governance models (sometimes weak and corrupt) that affects companies in the pan-European region.

The awareness of: "We must do something", is worth noticing also after another conference that was held in September this year in Bratislava, having the title: "The transition to the green economy." The Slovak Minister of the Environment has strengthened the idea that, "The transition to a green economy means policies and sustained investments that ultimately result in an economy that operates on other principles than the ones of intensive use of raw materials and energy" (European Agenda , Euronet Plus, September 6, 2016).

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*** Press Release of the Ministry of Environment, Water and Forests, Batumi, 2016: Green Economy Plenary Session in the pan-European region. The romanian minister Cristiana Pașca PALMER speech. In these discussions there is much talk and the results are poor. Every time the question arises: how many of us are willing to give up the lifestyle of today, based on consumption, to save what can be saved from the environment. Answer: When we change the we you think!