

Eco-Economy as a Concept of a New Model of National Economies Development

Alexei Chirtoca
Academy of Economic Studies of Moldova
alexi.kirtoka@daac.md

Abstract

Strengthening of the globalization processes, international cooperation, scientific and technical progress, and implementation of innovative technologies intensifies differences between economic and environmental indicators. For this purpose, an eco-economy involves the responsible use of natural, economic, and human resources to protect and improve the environment. If the eco-economy is guided by the principle of environmental efficiency, the consequences of the deep economic, environmental, socio-political, and cultural-spiritual crises that are characteristic of our planet and our countries will be reduced. This article examines the concept of eco-economy initiatives taken by international organizations to green the economy, and the role and principles of eco-management.

Key words: eco-economy, eco-management, economic development model, green technologies, initiatives, principles.

J.E.L. classification: H1, M2, Q00, Q001

1. Introduction

The practice of recent years has very clearly shown that the solution to the environmental problems of the economic development of an individual economic entity, the state, and the world community as a whole is possible only based on an integrated approach, using both state and economic levers to regulate production activities and the economy as a whole. In this sense, the need to search for new ways and approaches to solving environmental problems is becoming more and more obvious. The main such way in the world is generally recognized as the greening of the economy and the use of environmental management (Community Culture and the Environment, 2016).

In this context, the study aims to review the concept of eco-economy, initiatives are taken by international organizations to green national economies, as well as the role and principles of eco-management in this process.

2. Literature review

In their foreign and national studies and publications, Beder S., Capcelea A., McManners P., and other scientists established the foundation for the theory of the relationship between society and nature. The characteristics of the formation of environmental policy, the interdependence of economic and environmental problems, and the implementation of eco-innovations have been developed by UNIDO, UNEP, and Greening Economies in the Eastern Partnership Countries. Additionally, study on the next issue benefited greatly from reports from the GreenEcoNet project and the EU Switch to Green Flagship Initiative.

The theoretically undeveloped problem of the structure of the new eco-economy model of national economies' development, structural relationships, and interactions, as well as factors affecting its stability, remains in the center of scientists' attention. The study of eco-economic problems causes a number of managerial difficulties: improvement of the organization of management of the

sustainability of the eco-economic system, as well as the formation of mechanisms for its management. All of the above predetermined the choice of the article topic of research.

3. Research methodology

The research methods used in obtaining results consists of theoretical principles of the concept and process of eco-management, eco-economy, green-economy, and refer to: structured and unstructured observation, analysis and synthesis, historical and logical knowledge, qualitative analysis, systemic analysis, structural comparative, and analysis.

4. Findings

Over the past decade, the concept of eco-economy has become a strategic priority for many countries. The concept of the eco-economy and the proposed range of initiatives are increasingly being discussed internationally. In this regard, the Batumi Green Economy Initiative (BIG-E) constitutes „a pan-European strategic framework for the transition to an inclusive eco-economy. Among the initiatives under consideration are investments in innovation, the transfer of green technologies and products, and consumer incentives”. BIG-E also proposes a „grassroots commitment by 2030 to directly contribute to the achievement of the eco-economy goals” (BIG-E, 2020). Other important eco-economy initiatives are illustrated in Table 1.

The eco-economic perspective underpins a broader approach to the development of the economy as a whole, considers the protection of the environment, increasing the competitiveness and productivity of the resources available.

The European Commission has shaped the field of eco-economy by considering the following defining elements: innovation, efficient use of resources, promotion of sustainable production and consumption patterns, waste prevention and management, and water resources management.

The transition to an eco-economy is a medium and long-term process that requires political commitment from states wishing to change the model of economic development.

Table 1. Eco-economy initiatives

<i>Nº</i>	<i>Initiative name</i>	<i>Description of the initiative</i>
1	Green Growth Knowledge Platform (GGKP)	The GGKP is a global community of organizations and experts committed to the co-generation, management, and exchange of knowledge and data in the field of the eco-economy.
2	Partnership for Action for a Green Economy (PAGE)	PAGE was organized in 2013 to support countries that want to participate in the implementation of the green direction in the economy
3	Green Industry Platform (GIP)	It is an international platform for parties interested in promoting environmental principles in the industry. Initiated by UNIDO, UNEP involves national governments, the private sector, and NGOs.
4	WIPO GREEN ROSP - Marketplace for Sustainable Technologies (WIPO)	WIPO is an initiative of the World Intellectual Property Organization to promote the adoption and implementation of eco-technologies, especially in developing countries and countries with emerging economies. It aims to support and work in conjunction with the UNFCCC Technology Mechanism
5	Greening Economies in the Eastern Partnership Countries (EaP GREEN)	This program is implemented by the OECD in cooperation with UNECE, UNEP, and UNIDO and aims to assist the EU Eastern Partnership countries in their transition to a green economy.
6	SWITCH to Green Facility project	The EU project aims to develop and promote effective dialogue and cooperation for transformation towards an inclusive green economy between the EU and developing countries.

		The specific objective of the project is to support the development and implementation of the SWITCH initiative through technical advice on green economy issues, support for coordination, and communication activities.
7	GreenEcoNet platform	The GreenEcoNet project has developed the first European platform to support small and medium-sized enterprises (SMEs) in greening their businesses and helping them transition to a green economy

Source: Compiled by the author based on (EU4Environment, 2020; GIP, 2021; GreenEcoNet, 2021; Green Policy Platform, 2022; UN Environment Programme, 2022; WIPO GREEN, 2022; UNIDO, 2022; Switch2Green, 2022)

In this sense, this process is characterized by several different initiatives, namely (Beder, 2006, p. 30):

- raising public awareness about the introduction of a green approach to national policies (renewable energy sources, energy-efficient buildings, technologies, and processes with low greenhouse gas emissions);
- promotion of new indicators complementary to GDP (steps to introduce green GDP, ecological footprint);
- development of green investment markets (eg banking and green investment services).

Greening, promoted by the European Commission, involves extending the life of products or reducing the use of hazardous materials. When the European Commission launched a generic package called a “green economy”, the launch marked another important step in trying to realize the ambition for a “resource-efficient Europe”. The economic model, characterized by the principle of "economy - consume - throw away", is economically profitable to use in the production of products, to minimize waste and use of resources. The transition to an eco-economy will enhance competitiveness and contribute to economic growth, job creation, and environmental protection. It can provide consumers with more sustainable, innovative products, help them save money, and improve their quality of life.

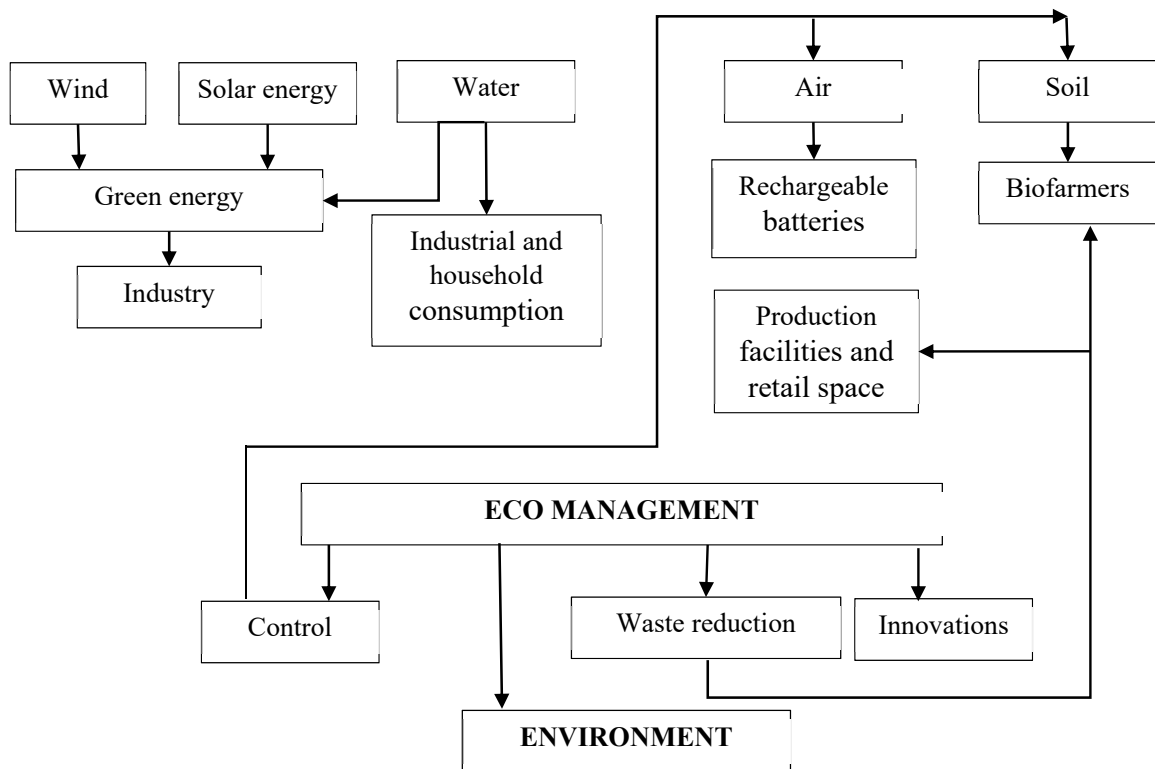
The environmental, economic, and social aspects of the eco-economy go hand in hand. To design a product sustainably requires adopting a “life cycle rethink”, which means re-evaluating the different stages of its life cycle. After the industrial revolution, the amount of waste increased steadily. This is because economies have so far used a linear model, which assumes that resources are abundant, available, and cheap to obtain. Products must be designed in such a way that they can be repaired, reused, recycled, and then recycled. The European Union encourages the transition to greening the economy and stimulates private investment in this area.

Resource management should track performance metrics and set goals such as management quality, innovation, managerial attitudes and decisions, technology performance, motivation, profitability, and public accountability.

Eco-management is part of the overall management system and includes the following elements: an adequate organizational structure, planning of activities, distribution of responsibilities, methods, and procedures used, processes and resources allocated for the development, implementation, implementation, analysis, and maintenance of a coherent environmental policy. Eco-management involves the responsible use of natural, economic, and human resources to protect and improve the environment. More efficient use of electricity and fuel, coupled with lower disposal costs through recycling measures, will result in lower operating costs. The experience of companies that have already implemented environmental management in their production shows that these companies have a competitive advantage (Mcmanners, 2020, p. 98). Eco-economy and eco-management resources are shown in Figure. 1.

Environmental management standards (such as the ISO 14000 series of standards and the European Environmental Management and Auditing System EMAS) provide a benchmark against which organizations and companies can measure their performance and provide a structured process that enables a viable environmental management system to be implemented.

Figure 1. Eco-economy and environmental management resources



Source: Developed by the author

Therefore, they require compliance with environmental management principles, which include the following (Capcelea, 2013, p. 64):

The principle of reliance on environmental awareness. Environmental consciousness is the most effective way to change human behavior, because among the most important characteristics of consciousness are the interests, values and motives of its actions. In this sense, it is necessary to have constant information, to create free access to environmental information, and to use for these purposes global and national messages and other information carriers. In addition, activities related to environmental education and lifelong learning are needed, from the school level to the professional level.

The principle of environmental motivation for human activities. Its essence lies in the application of mechanisms to motivate human activity aimed at solving environmental problems. Purely administrative constraint-based tools are less effective.

The preventive principle in solving problems. The entire environmental management process should be focused on preventive measures that could anticipate the emergence of problems or critical situations, usually characteristic of any management process. For the environment, this principle is even more important because restoring the quality of the environment is much more expensive than preventing its deterioration. In this sense, before making decisions on socio-economic development, it is necessary to assess the possible impacts, to take effective measures to prevent the degradation of the natural environment, and possible environmental and man-made disasters.

The principle of focusing on specific and strategic goals. Environmental management cannot be effective if it works with vague goals and is based on an unclear strategy. At the same time, environmental management objectives should include those components that reflect environmental concerns and are combined/integrated into the overall development and production goals.

The principle of consistency in problem-solving. This principle reflects the interaction between primary and secondary environmental problems, determining the sequence of actions of environmental management concerning the legitimacy of the functioning of ecological systems.

The principle of modernity. The cycles of environmental problems are different and, therefore, choosing the right time to solve an environmental problem with maximum efficiency means preventing its aggravation, the emergence of crises situations, and, accordingly, minimizing their consequences.

The principle of responsibility for violations or negative environmental consequences of the actions taken. In this sense, each individual or legal entity bears full legal responsibility for its destructive economic activities, and in the event of damage to the environment or human health, guarantees and ensures compensation for this damage.

The principle of compliance with the law provides that the organization and implementation of environmental protection should be based on existing environmental legislation, on existing environmental standards that establish legal norms for human activity.

The principle of international cooperation, according to which the promotion of international cooperation and global partnership to preserve, protect and restore the integrity of the Earth's ecosystem should be supported by the adoption by states of relevant international legal agreements and treaties.

It should be noted that all these principles of environmental management, including related areas (nature conservation, management, sustainable development), should work in a single system, in close interaction, replacing and complementing each other.

5. Conclusions

The concept of the eco-economy marks a new stage - a transition from a development model in which environmental protection is seen as an economic burden, to a model that uses environmental protection as one of the most important priorities for economic growth. Eco-economy should be considered as one of the main mechanisms for achieving the development of society and as a means of efficient use of resources and energy, the use of more advanced, low-carbon, and environmentally friendly technologies and significant minimization of environmental risks. Promotion of the eco-economy concept is achieved by integrating environmental management principles into national policy and strategy documents.

For the transition to an eco-economy, it is extremely important to pay attention to energy efficiency, reducing energy consumption, reducing pollution and carbon emissions, informing companies about eco-innovation, organizing training, access to finance, ensuring the availability of funds through development and the introduction of innovative tools to financially support eco - enterprises, etc.

The benefits of moving to an eco-economy can be significant by reducing the burden on the environment. In addition, the applied eco-economy strategies can have the effect of lowering costs and increasing the competitiveness of the industry through the net benefits that come from employment opportunities. Creating an eco-economy in Moldova requires fundamental changes in the value chain, from product design and production processes to new models, business projects and consumption patterns.

6. References

- Beder, S. 2006. *Environmental Principles and Policies: An Interdisciplinary Approach*. London: Earthscan
- BIG-E, 2020. *Batumi Initiative on Green Economy*. [online] Available at: <https://unece.org/big-e> [Accessed 16 February 2022]
- Capcelea, A., 2013. *Sistemul managementului ecologic*. Chişinău: Ştiinţa
- Community Culture and the Environment, 2016. *A Guide to Understanding a Sense of Place*. [online] Available at: https://fyi.extension.wisc.edu/wateroutreach/files/2016/04/Community-Culture-and-the-Environment_EPA_reduced.pdf [Accessed 06 March 2022]
- EU4Environment, 2020. *A partnership for green development in the Republic of Moldova*. [online] Available at: <https://www.oecd.org/countries/moldova/Country-profile-Moldova-2019-2020.pdf> [Accessed 07 February 2022]
- GIP, 2021. *Green Industry Platform*. [online] Available at: <https://www.greenindustryplatform.org/> [Accessed 20 February 2022]

- GreenEcoNet, 2021. *GreenEcoNet Web Platform*. [online] Available at: <https://www.ceps.eu/ceps-projects/greeneconet-a-best-practice-platform-for-smes-to-support-the-green-economy-transition/> [Accessed 27 February 2022]
- Green Policy Platform, 2022. *Green Growth Knowledge Platform*. [online] Available at: <https://www.greengrowthknowledge.org/> [Accessed 03 March 2022]
- McManners P., 2020. *Green Outcomes in the Real World*. England. UK: Routledge
- Switch2Green, 2022. *The EU switch to Green Flagship Initiative*. [online] Available at: <https://www.switchtogreen.eu/home/> [Accessed 16 March 2022]
- UN Environment Programme, 2022. *Helping countries leapfrog to a green economy*. [online] Available at: <https://www.unep.org/regions/europe/our-projects/helping-countries-leapfrog-green-economy> [Accessed 05 March 2022]
- WIPO GREEN, 2022. *The Marketplace for Sustainable Technology*. [online] Available at: <https://www3.wipo.int/wipogreen/en/> [Accessed 10 March 2022]
- UNIDO, 2022. *Partnership for Action on Green Economy*. [online] Available at: <https://www.unido.org/our-focus/safeguarding-environment/resource-efficient-and-low-carbon-industrial-production/partnership-action-green-economy> [Accessed 15 March 2022]