



Green Economy: a conceptual overview

Margarita Rohr¹

¹ University of Valencia, Spain

Abstract:

The United Nations system has identified green economy as “investment in sectors such as energy efficiency technologies, renewable energy, public transport, sustainable agriculture, environment friendly tourism and sustainable management of natural resources, including ecosystems and biodiversity” aimed at generating new areas of production, quality jobs and an increase in income, while serving to mitigate climate change and protect biodiversity.

A greener economy, as a way to achieve sustainable development, is not optional for sustainable enterprises and labour markets, it is a necessity. Escalating natural resource use and pollution will compound the growing scarcity of fresh water and fertile land and accelerate the loss of biodiversity and climate change beyond tolerable – perhaps even manageable – levels. The overuse of natural resources, such as forests, fish and clean water, and the rising levels of pollution, including emissions of greenhouse gases (GHGs), are increasingly exceeding planetary boundaries.

In order to understand the nature of green jobs, it is important to understand the environment in which these jobs are being created. It is also true in the case of tourism industries where such jobs should be part of the green tourism economy. Many national and international users are interested in the size of the green economy (in terms of the number of establishments, the number of employees and the total turnover) and in its contribution to economic growth, especially to turnover, employment (number of people employed directly or indirectly, their level of skills and the specialist skills required), value added, investment, exports, etc.

The green economy paradigm is used in this paper both as background and a general framework of discussion.

Keywords:

Green economy; Green growth; Sustainable development

1. Introduction

The existing model of economy has allowed a great growth of the world economy and that today millions of people enjoy high levels of wellbeing. Only in the last quarter of the 20th century, the world economy has quadrupled, benefiting hundreds of millions of people. However, economic growth in recent decades has been achieved by depleting natural resources, allowing the degradation and widespread loss of ecosystems and ignoring many people who, besides living in poverty, depend directly on these resources and systems. According to forecasts by the Organization for Economic Cooperation and Development (OECD), the world will lose in 2050 in comparison with 2000 from 61% to 72% of flora and fauna if maintains the same level of production and consumption, as well as 7.5 million square kilometres will be irreversibly destroyed.

The economic and environmental crisis have the same origin and are reciprocally enhanced due to the current economic model which seeks short-term benefits without considering ecosystems as scarce goods or the consequences generated on the environment and society.

In response to this problem, a new economic paradigm emerges, the green economy, which can contribute to obtaining material wealth without increasing environmental risks, ecological scarcity or social inequality. The concept of green economy is one of the global strategies to confront the economic and environmental crises faced by contemporary societies.

The concept of green economy does not replace the concept of sustainable development, but nowadays it is recognized that, in order to achieve sustainability, it is necessary to change the current brown

economic model. Sustainability remains the vital long-term goal, but the green economy is describing a pathway to sustainable development.

In this context, the present work approaches methodologically the conceptualization, objectives, measurement and critiques to this new economic paradigm.

2. What is a green economy?

The concept of Green Economy is not completely a new concept. It was first introduced by the London Environmental Economics Centre in a publication “Blueprint for a Sustainable Economy” in 1989 authored by David Pearce, Anil Markandya, and Ed Barbier. However, the idea of a more sustainable economy appeared before in the report of the Club of Rome “The Limits to Growth” in 1972. At that time the concept did not receive wide acceptance. With the outbreak of the financial crisis in 2007 and the failure of most countries to move onto a sustainable development path, it has become evidently clear that the current development paradigm is not yielding the desired outcomes on all fronts: economic, social, and environmental.

The demand for a new model of sustainable development reappeared in 2009, when the United Nations Environment Program (UNEP) defined the green economy as “one that results in improved human well-being and social equity, and significantly reducing environmental risks and ecological scarcities”. The rise and spread of the concept of the “green economy” has stemmed from the identification of the need to address multiple issues in an integrated way, to overcome these existing interrelated crises and to better avoid any further ones. The green economy looks for the growth of the Gross Domestic Product (GDP) and jobs through shifting investments towards clean technologies and natural capital as well as human resources and social institutions. According to the UNEP, the basic principles of green economy are following:

- Justice and objectivity, both within a single generation and between generations;
- Coherence with the principles of sustainable development;
- A preventive approach to social and environmental impacts;
- Evaluation of natural and social capital, for example, the internationalization of external costs, green accounting, costs over the entire life cycle and improved management;
- Sustainable and efficient use of resources, consumption and production;
- The need to achieve existing macroeconomic goals through the creation of green jobs, poverty eradication, increased competitiveness and growth in key sectors.

Additionally, the OECD has developed and introduced the concept of “green growth”, defining it as the maximum guarantee of economic growth and development, without affecting the quantity and quality of natural assets and using the growth potential that arises during the transition to a green economy. That is, “green growth” is GDP growth, which is subject to “green” conditions and focuses on “green” sectors as new growth engines.

It is important to say that there is no single internationally-accepted definition of the green economy until now. Besides the concepts mentioned above, other international organizations created their own definitions of green economy and green growth, highlighting the following:

- *Global Green New Deal (2009)*: “The economic crisis provides the opportunity to introduce a global green new deal, which consists in stimulating the economy towards the development of green sectors, green infrastructure and green jobs. A greening infrastructure is a process of transforming a business activity such that it reduces emissions of greenhouse gases and consumption of resources, produces less waste, and reduces social inequalities at the same time, ensuring the return on natural, human and economic capital”.
- *World Bank (2012)*: “Green growth is an effective growth in terms of using clean resources, i.e. reducing pollution and environmental degradation, resistant to natural hazards and using environmental management to prevent other disasters”.
- *Global Green Growth Institute (2012)*: “Green growth is the new revolutionary development paradigm that sustains economic growth while at the same time ensuring climate and environmental sustainability. It is aimed at reducing poverty, creating jobs, social integration and the sustainability of ecosystems, alleviating climate changes, supporting biodiversity, and providing access to clean energy and water”.

- *European Environmental Agency (2012)*: “Green economy is an economy where environmental, economic and social policies and innovations support societies in the effective use of resources, while at the same time improving human well-being, accentuating social integration and protecting the natural systems which sustain life on the Earth”.

The universal concept of green economy is still in the process of discussion and specification, and therefore there are numerous perceptions of it. It has been noted however that “while interpretations of the “green economy” vary to some degree, there is much common ground between the concepts employed by governments, businesses and international organisations globally. Basically, a green economy implies a departure from the “business as usual” economic paradigm, to one with regulatory measures and strong financial incentives for innovation, investments (for example, in green)” (Green Economy Report, 2010).

Building on UNEP’s report ‘Towards a Green Economy’, in order to empower and achieve a green economy, an annual investment of 2% of global GDP is required. It would allow to maintain the current rate of economic growth and at the same time achieve changes towards sustainable processes. Additionally, it is necessary for countries to promote fiscal incentives in areas that stimulate a green economy (e.g. in technology, infrastructure or infant industries), establish control measures and introduce economic instruments to help conserve natural resources (Kumar, 2017). All the investments along with the political reforms, should promote the transformation of the sectors involved in the green economy, so that they acquire a competitive position in the long term (Gehring, 2016, Biswas & Roy, 2015). Depending on their current level of development, countries have different capacities to initiate and implement policy reform and cope with transformative change. Other supporting actions are therefore needed to increase capacity and strengthen institutions, provide training and skill enhancement to the workforce, and improve general education on sustainability.

Green economy is both a challenge and an opportunity for the labour market, which, in turn, is a major factor in potential green growth. Response dynamics and the good functioning of labour markets play a key role in facilitating the transition to a green and resource-efficient economy. The transition to a sustainable economy leads to changes, some of them quite serious, in the employment structures and professional profiles of the workers.

3. Measuring progress towards the green economy

To ensure effective policy design supporting green economy and green growth, rigorous information and data on the environment and economy nexus are needed. Not only does following and assessing progress in green economy contribute to a better understanding of the determinants of green growth but can also point out further synergies between the environmental protection and economic growth. It is also important to have a solid information base to better communicate progress on green economy with citizens.

International organizations have taken numerous initiatives on measuring progress towards the green economy, including the following:

- The green growth indicators of OECD
- The green economy indicators of UNEP
- The United Nations Statistics Division’s Project for “Strengthening the capacities of developing countries to measure progress towards a green economy”, 2015-2016
- The International Labour Organization (ILO)
- The green industry initiative of the United Nations Industrial Development Organization (UNIDO)
- The United Nations Sustainable Development Goals (SDGs)
- The Latin American and Caribbean Initiative for Sustainable Development (ILAC).

The choice of indicators is one of the most important and, at the same time, the most difficult tasks since their quality has a direct impact on the reliability of the final classification and the accuracy of assessments based on the obtained results. The problem of proper selection of indicators is one of the most important factors deciding on the quality and reliability of assessments of the green economy.

The choice of indicators for the measuring a green economy is also key to the evaluation of its practical implementation. Usually, the list of available indicators is relatively long. The research dilemma lies in the choice of the most suitable subset, as the set of potential indicators is practically infinite.

Measurement should include both the assessment of the current environmental situation and the external impact resulting from human activities and governmental policies designed to promote a green economy. Each individual objective can be represented by several or, in some cases, several dozens of indicators.

The green economy indicators are a specific group. Much like the set of indicators of sustainable development, they should not only provide a good representation of several distinctive areas of human life (economic, social, environmental), but also show the correlations between those areas, while at the same time providing a balanced and representative illustration of the fundamental aspects of the “greenification” process.

4. Critique of the green economy

Civil society groups and governments are critical of the transition to a green economy, taking into account that it does not adequately or clearly address the social, economic and ecological aspects, pillars of sustainable development (Geng et al., 2017). On the contrary, it can become a new framework for sustainable development, replacing the three pillars mentioned (Loiseau et al., 2016). From the United Nations Environment Program, it is stated that “the achievement of sustainability depends considerably on the adequacy of the economy”, which makes it necessary to examine the concept of a green economy and the way in which the concept of a green economy would promote economic, ecological and social sustainability within this.

Another criticism that appears is the economic character of the green economy, which, although based on the production of more sustainable sectors which reduce environmental problems, continues to have an economic pattern of accumulation and infinite growth (Lander, 2011; Karakul, 2016). For Droste *et al.* (2016), overcoming the current economic order, would imply the need to convert economic production to physical terms, so that the finite capacity of natural resources and assimilation of the waste of human activity on the planet becomes evident.

Unmüßig *et al.* (2012) and Diyar *et al.* (2014), state that the green economy is an inappropriate term, scientific and philosophical misunderstanding, which will not achieve sustainable development and the eradication of poverty. Also Montefrio & Dressler (2016) add that it was created from ambiguities, without scientific or philosophical support, and that on the contrary it will legitimize the opening of markets, create more tension with the ecological and cultural diversity of the planet and of humanity.

5. Conclusion

The green economy becomes a model which promotes growth, the creation of income and jobs, in particular “green jobs”, which seeks to generate a change in the interaction between economic progress and environmental sustainability, mostly if wealth is measured account for natural assets and not just productivity. In addition, the green economy also contributes substantially to reducing social inequality among countries and eradicating poverty in the world.

It should be noted that the implementation of the green economy can achieve technological changes, which allow the adoption of environmentally sustainable strategies, make use of natural resources in a responsible manner, as well as the waste of their activity can be reincorporated into the production process, decreasing the causes of pollution.

Nevertheless, to achieve the objectives of green economy it is necessary to accept and develop the proposed alternatives by both developed and developing countries, through the allocation of necessary economic resources, greater stringency in environmental regulations, creation of subsidies to environmentally friendly activities, as well as the optimization of the planning processes of the territory. Likewise, it is necessary to create a new economic framework that allows countries to coordinate on the same level, without losing sight of the fundamental premises of sustainable development.

Finally, the green economy seeks within its objectives the eradication of poverty and the inclusion of vulnerable social sectors, to achieve sustainable economic development in terms of maintenance of a healthy environment and the proper use of ecosystems both for the present generation and for future generations.

References:

1. Biswas, A. & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, 87, 463-468.

2. Diyar, S., Akparova, A., Toktabayev, A. & Tyutunnikova, M. (2014). Green Economy–Innovation-based Development of Kazakhstan. *Procedia-Social and Behavioral Sciences*, 140, 695-699.
3. Droste, N., Hansjürgens, B., Kuikman, P., Otter, N., Antikainen, R., Leskinen, P. & Thomsen, M. (2016). Steering innovations towards a green economy: Understanding government intervention. *Journal of Cleaner Production*, 135, 426-434.
4. Gehring, M. (2016). La Transición Legal a una Economía Verde. *Revista de Derecho Ambiental*, 6, 8-43.
5. Geng, R., Mansouri, S. A., Aktas, E. & Yen, D. A. (2017). The role of Guanxi in green supply chain management in Asia’s emerging economies: A conceptual framework. *Industrial Marketing Management*, 63, 1-17.
6. Karakul, A. K. (2016). Educating labour force for a green economy and renewable energy jobs in Turkey: A quantitative approach. *Renewable and Sustainable Energy Reviews*, 63, 568-578.
7. Kumar, P. (2017). Innovative tools and new metrics for inclusive green economy. *Current Opinion in Environmental Sustainability*, 24, 47-51.
8. Lander, E. (2011). Informe: La economía verde: el lobo se viste con piel de cordero. Transnational Institute. 10p. https://www.tni.org/files/download/green-economy_es.pdf.
9. Loiseau, E., Saikku, L., Antikainen, R., Droste, N., Hansjürgens, B., Pitkänen, K. & Thomsen, M. (2016). Green economy and related concepts: An overview. *Journal of Cleaner Production*, 139, 361-371.
10. Montefrio, M. J. F. & Dressler, W. H. (2016). The Green Economy and Constructions of the “Idle” and “Unproductive” Uplands in the Philippines. *World Development*, 79, 114-126.
11. OECD (2011). Towards Green Growth, <http://www.oecd.org/greengrowth/48224539.pdf>
12. The Environment Report 2012 (2012). Responsibility in a Finite World, German Advisory Council on the Environment, <http://www.umweltrat.de>
13. The Global Green Economy Index (2012). Dual Citizen Inc., <http://www.dualcitizeninc.com/ggei2012.pdf>.
14. Unmüßig, B., Fatheuer, T. & Sachs, W. (2012). Crítica a la Economía Verde Impulsos para un futuro social y ecológicamente justo. Ed: Fundación Heinrich Böll. 46p. https://mx.boell.org/sites/default/files/gruene_oekonomie_.pdf
15. UNEP, (2009), A Global Green New Deal, Geneva.
16. UNEP (2011). Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication, www.unep.org/greeneconomy.
17. World Bank (2012). Inclusive Green Growth: The Pathway to Sustainable Development, Washington, DC.