

Green Economy in Perspective of Sustainable Development

Dr. Ratnesh Chandra Sharma, Professor, Department of Commerce Brainware University, Kolkata

E-mail: drresharmaindian@gmail.com.

Abstract

Significance of green economy is to encourage the development by sustainable technologies. An attempt was made to systematize the main issues in the field of environmental and economic development, concern with specific characteristics and to offer relevant ideas for public policies for reducing the impact of economic deeds on the environment. This means encouragement of economic development, should make certain that the natural resources maintained to provide environmental balance. The point of the present paper is to examine the problems of green economy globally for sustainable development. The overall objective of this article is to discuss the challenges that come across when sustainable technologies need to be properly understood by policy makers and professionals at different levels in society. The present paper discuss about the sustainable technologies require a reassessment of the future research challenges to identify and implementation of new policies

Introduction

All over world increasing evidence on a way forward, a new economic model in which material wealth is not preferred at the expense social disparities, ecological scarcities and environmental risks. Globally policy makers raise the attention that with development the conventional economic structure need to be transformed in order to deal with climate change, water scarcity, biodiversity losses, etc., at the same time as addressing the social and economic dispute. The key aim of green economy is to use the resources in efficient way to reduce carbon emissions and concerns with the social issues. The worldwide economic crisis in 2008– 2009 encourage this debate, and this worry have been transform into the idea of a ‘green economy’ (Heshmati, 2018; Huenteler et al., 2016; UNEP, 2011). The “green economy” has attracted the attention of all, in light of the environmental crisis. The idea of green economy is not absolutely new concept; it was first argued in 1989 by the LEEC (London Environmental Economics Centre). United Nations Environment Program defined green economy as developed human well-being with balanced environmental risk and ecological scarcities. Green economy that consequence in good human well-being, social equity, whereas lower environmental risks (UNEP, 2011). In straightforward phrase, a green economy is that in which there is low carbon emission, efficiently resource use and socially justice. Green Economy is one that frames the policies and approach taking into concerns the effects which may have on the environment. These policies are focused on protecting the environment and make a balance between development and safeguard of environment. The United Nations listed 17 Sustainable Development Goals; to achieve these goals adopting Green Economy is the one of the most effective way. Green Economy defines to an economy that is not only for development but also ensuring a conversion to an economy that is committed for low carbon, resource efficient, and socially balance. (UNEP Green Economy Report 2011). Green economy provides the sense of environmentally-friendly economy which is sensitive to the natural resources with minimum pollutants emissions that can damage the surroundings during manufacturing process. In the same way, there is need to integrate climate and development approach as long as green, durable, and comprehensive development (Alsmadi & Alzoubi, 2022; Mikhno et al., 2021). Green Economy is one that frames the policies and approach taking into concerns the effects they may have on the environment. In a modern society economic activities are more and more carried out, consequently associated to the negative effects on surroundings. The green economy will give new direction for the future economy and has attracted widespread attention due to its effects. It encourages the growth of society with adoption of sustainable technologies. With sustainable development in both developed and developing countries it provides the guidelines for economic development. Sustainable technical changes are societal, political, organizational and economic effort that involves numerous non-technical challenges. For example, the literature

recognizes many sectors, like energy, water etc., can be conceptualized as socio-technical systems or advance scheme (Markard et al., 2012; Geels 2004). The idea for a wide-ranging green economy was discussed in an International conference on sustainable development. The green economy is based on competent and low carbon utilization in the production process (Barbier and Markandya 2013). The conference on Sustainable Development at Rio, encourage the thought of green economy and sustainability (Bina, 2013). The 2030 Agenda for Sustainable Development accepts at the UN Summit on Sustainable Development (New York, September 2015) is a promise to attain sustainable development by 2030. Established economic representation has tended to treat environmental protection as an economic burden. The green economy model identifies the steps to preserve environmental resources that can be a driver for national and global economic progress. The complex and extremely essential method of transition to a green economy is associated with the reassessment of untenable utilization and manufacturing patterns, in line to recognize prospect development chance. It is being a wide-ranging economy in terms of utilization and results that is based on distribution, flexibility, circularity and teamwork. Global assurance to utilize assets proficiently, decrease pollution and reduce the causes of climate change is the main drivers of the green economy. The appearance of the idea of Green Growth marks a change in economic growth to an approach which highlights environmentally sustainable growth. The main difficulty in Green Growth is not an inborn pressure between economic and natural systems, but the need to address the environmental cost of present economic growth model.

Table 1: Conventional Economic model in opposition to Green Growth model

	Traditional Economic model	Green Growth model
Economic-environment relations	Environmental concern display as distrustful from economic development	Environmental concern display like a cause of economic development
Planning outlook	Short- to medium-term perception	Long-term perception
Policy outlook	Government policy involvement to correct overt market failures	Government policy involvement to support structural changes
scale of environmental accountability	Government agencies and private sector units responsible for environmental management	All government agencies, corporate departments and wider society
Environmental policy involvement	Improvements to existing modalities of consumption and production	Changes to patterns of economic activity to reduce environmental pressures
Economic policy involvement	Taxes and charges on environmental externalities	Supports and fiscal incentives to green innovation, activities, businesses and jobs
Economic meter	Measure rate and level of economic growth, e.g. GDP, productivity	Measure qualitative aspects of growth or well-being including environmental quality
Environmental indicators	Measure resource use and output of pollutants	Measure linkages between economic activity and output of environmental goods and services

It is being a wide-ranging economy in terms of utilization and results that is based on distribution, flexibility, circularity, chance, unity and teamwork. Global assurance to utilize assets proficiently, decrease pollution and reduce the causes of climate change is the main drivers of the green economy (Dogaru, 2020). The appearance of the idea of Green Growth marks a change in the example for

economic growth to an approach which highlights environmentally sustainable growth. Green economy involves a idea which explain a form of economic growth that uses natural resources in a sustainable manner; in fact, development with environmental security (Pollin, et al., 2014). With green economy, expansion in income and employment should be determined by public and government that reduce carbon emissions, proficient use of energy, resources, and stop the loss of biodiversity and ecosystem. Green economy concept with sustainable development is gaining importance in many countries including France, UK, China etc. (Bailey and Caprotti 2014). It is highly recommended for debates on economic and social rearrangements for sustainable development, carbon reduction and economic stability. Effective policies and measurements can improve the awareness about green economy in public (Vossenaar 2013). Green economy represents an attractive frame to convey note on more resource efficient, lower carbon emission, and environmental sustainable. The concept of green economy is complicated with broad scope that broadens all the aspect of an economy. The change from a conventional economy to a green economy is a major transform and is bound to affect approximately all the segments of the economy. To attain sustainable development with green economy, there are some limitations that are discussed here. In spite of this Green Economy still appear as one of the most feasible option to attain sustainable development.

Economy and Environment

In these context governments of many countries as well as international organizations, actors and persons from civil society and academia, have all contributed to build a framework for 'green economy'. With a range of ideas linked to low-carbon emission (Barbier and Markandya, 2013) and environmentally-friendly production (ROK-PCGG, 2009; World Bank and DRC, 2012).

'low-carbon emission economies' or 'efficiency and productivity' decoupling of resource use (UNEP, 2011a), valuing ecosystem (Nellemann and Corcoran, 2010) or simply energy efficiency (IEA, 2012), all driven by technological innovation. growth with respect to human welfare' (OECD, 2011a) Ecosystem Assessment (MEA 2005). Moreover, based on innovation and competitive markets (Jänicke, 2012). They also note an increasing interest in reconsidering lifestyles beyond sustainable consumption agendas, there is need to go beyond the classic division of individualist and systemic methodologies (Backhaus et al., 2012; WBGU, 2011). Thus, a significant part of the policy and academic literature on 'greening' growth and economies combines environmental and sustainability discourses with industrial and economic.

Green economy is very important due to factors like increase in global energy demand, green house gases emission, and global temperature. Green economy covers the sustainability, advance economy with environment and social life (UNEP, 2020)

Green economy has some difficulties but there are example of some countries by adopting green economy for sustainable development like republic of Korea had adopted a national strategy for period o 2009- 2013, to assign 2 % of gross domestic product to devote in environment policies renewable energy, clean technology and water. Mexico encourages the bus instead of car to reduce air pollution. China also invests more for renewable energy. Namibia is managing its natural resources for economic development and environmental benefits. The India has also has abundant natural resources, rich biodiversity to strap up the green economy.

Pathways to a green economy for sustainable development

Implementation of renewable energy source:

Implementation of renewable energy source play a crucial role in sustainable development by reducing greenhouse gas emissions, and make available of energy to communities that earlier deficient in it. On comparison of Renewable energy technologies with coal-fired power plants, renewable energy sources release lower greenhouse gases about 90 and 99% (GHGs) and generates 70 to 90% lower pollutants. These technologies also generate employment and encourage economic development, which is necessary for sustainable development. Renewable energy technologies adjoin

to sustainable development by reducing greenhouse gas emissions, improving energy security, access to energy, supporting rural development and creating jobs

Sustainable construction

Sustainable construction defines as the use of eco-friendly processes in construction with efficient use of resources that make sure the lifetime sustainability of the building. Sustainability context of the building means that construction of building, site design, repair, continuance, and demolition with the least harm to environment. The purpose is to ensure the construction methods are cost-effective, long-lasting and lessen the effects on the environment and human wellbeing with focus on efficient use of resources and improved occupational health and reducing pollutants.

Improvement in waste management system with minimum residues

The key criterion for green economy is reduce, reuse and recycling of manufacturing products. Urbanization and development have alarming circumstances regarding the huge generation of waste products such as plastic and electronic wastes. Both are immense threats to human wellbeing and environment that ultimately affect the social and economic structures. Green technology is the manufacturing concepts that lessen the waste and pollution and can be achieved through sustainable design. It is necessary to recycle proficiently, and handle the used consumables so that it does not provide any harmful impact on end-users or environment (Nandy et al., 2022).

Rationale management of land resources

Deterioration of land resources is a serious worldwide problem and this is a most important warning to life on earth. There is a serious requirement for preventing of land degradation, counting from side to side land rehabilitation and renovation (UNCCD, 2011).

Strategies for preservation of biodiversity

Following measures may help to create frame

Augment public consciousness.

Better visibility on the need for this transition can motivate voters not just because of the costs but also the economic benefits generated by a Green Economy, such as new jobs and new markets.

Open up government decision-making processes.

This would help ensure policies are accountable to the public and not to vested and Well-connected interests

Promote new indicators that complement Gross Domestic Product.

Planning agencies and finance ministries should adopt a more diverse and representative set of economic indicators that focus less exclusively on growth and track the pace and progress of development.

The advance structure adjoining green energy technologies tend to be technology-specific. Different technologies are showing to exclusive and multi-dimensional development processes, like in terms of bottleneck, knowledge processes, and the dynamics of the capital goods industries (Jacobsson & Bergek, 2011). The local measurement of sustainable development is also important; one challenge in this case is that people more and more expecting that any green investments taking place in their own community like should promote regional growth, employment and various communal objectives.

In addition, the growing importance of diffuse emissions also requires green innovation in the public sector. Particularly, realize environmental policies that are close to harm demand specific monitoring technologies that can measure pollution trends. The improvement of new technologies – for instance, make possible economical check of emissions. Similar concerns can e raised about the novelty that permit consumers to better assess the environmental footprints of different products and services. The extent and the nature of the communal challenges that come up as a result of the climate and environmental risk are complex and versatile, it should be clear that understanding the nature as well as socio-technical transitions represents a multi-disciplinary research undertaking.

Conclusions

It is a reality that, through economic development more resources and energy are consumed and in consequence waste is produced, disturbing the environment. Ideally, obtaining a higher economic value from a limited quantity of natural resources should generate a significantly higher economic growth than the percentage of the use of national resources. The ability to generate cost savings and implement new technologies that are able to streamline economic processes.

This approach goes beyond the scope of environmental protection and becomes a holistic issue in synergy with industrial policy, competitiveness policy, research and innovation but also with education.

The green economy can also be associated with the sharing economy, with peer-to-peer and mesh economy, as well as with no-growth economy, as a policy strategy for responding to the limits of economic growth correlated with the decrease of natural resources.

In view of such issues, this paper seeks to provide some answers to the conceptual interrelationships between the green economy, green growth and sustainable development, through a harmonious blend with developments in the green economy at international, European and national levels. In order to better promote the green economy in Romania, we tried to advance some policy recommendations related to certain sectors.

The green economy is closely linked to the circular economy and increasing competitiveness, bringing with it not only benefits but also challenges for all stakeholders. In our opinion, the optimal use of natural resources also implies the existence of an electronic data transfer and reporting system based on an efficient infrastructure collection. Moreover, identifying sustainable solutions for optimizing resource consumption is an important goal at European level.

Developing collaborative partnerships and new sustainable business models that promote the efficient use of natural resources can also be the key to a green national economy. A positive signal that can be sent to the economic environment also aims to encourage the development of new skills as well as to consult stakeholders in promoting the transfer of human capital taxation to the taxation of natural resource consumption.

The green economy can determine opportunities for green and sustainable development, an aspect that implies an active involvement at the level of public policy and at the level of implementation in the territory. We have shown that, for the construction of a national model of green economy, the existing good practices at international and community level play an essential role.

We also consider other important issues as being important, such as the increase of decision-making transparency and the involvement of stakeholders through direct access to data and information, so that the creation of an electronic platform for industrial symbiosis could contribute as an example of good practice. At the same time, for the implementation of the green economy, a firm political commitment on several levels is required. In other words, a central coordination and an involvement of all public authorities and the private environment are necessary.

Funding: This research received no external funding.

References

1. Kahle, L.R.; Gurel-Atay, E. Communicating Sustainability for the Green Economy
2. Barbier, E.; Markandya, A. A New Blueprint for a Green Economy; Routledge: New York, NY, USA, 2013; pp. 141–145.
3. Dogaru, L. Green Economy and Green Growth—Opportunities for Sustainable Development. Proceedings 2020, 63, 70; doi:10.3390/proceedings2020063070.
4. Pollin, R.; Garrett-Peltier, H.; Heintz, J.; Hendricks, B. Green Growth: A U.S. Program for Controlling Climate Change and Expanding Job Opportunities, Center for American Progress; Center for American Progress and Political Economy Research Institute, University of Massachusetts: Amherst, MA, USA, 2014; p. 2.
5. Alsmadi, A. A., & Alzoubi, M. (2022). Green economy: Bibliometric analysis approach. International Journal of Energy Economics and Policy, 12(2), 282–289.

6. Mikhno, I., Koval, V., Shvets, G., Garmatiuk, O., & Tamošiuniene, R. (2021). Green economy in sustainable development and improvement of resource efficiency. *Central European Business Review (CEBR)*, 10(1), 99–113.
7. Nellemann C, Corcoran E, 2010 Dead planet, living planet: Biodiversity and ecosystem restoration for sustainable development (A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal, <http://www.grida.no/publications/rr/dead-planet/>).
8. UNEP, 2011a, Decoupling: natural resource use and environmental impacts from economic growth (United Nations Environment Programme, http://www.unep.org/resourcepanel/decoupling/files/pdf/Decoupling_Report_English.pdf)
9. IEA, 2012, "Spreading the Net: The Multiple Benefits of Energy Efficiency Improvements", International Energy Agency (IEA), http://www.iea.org/papers/2012/spreading_the_net.pdf.
10. OECD, 2011a, Divided We Stand: Why Inequality Keeps Rising (Organisation for Economic Cooperation and Development (OECD), Paris, <http://dx.doi.org/10.1787/9789264119536-en>).
11. MEA, 2005, Ecosystems and Human Well-being: Synthesis (Millennium Ecosystem Assessment, Island Press, Washington, DC.).
12. Jänicke M, 2012, ""Green growth": from a growing eco-industry to economic sustainability" *Energy Policy* 48 13-21.
13. Backhaus J, Breukers S, Mont O, Paukovic M, Mourik R, 2012, "Sustainable Lifestyles: Today's Facts & Tomorrow's Trends", D1.1 Sustainable lifestyles baseline report, UNEP/Wuppertal institute collaborating, Centre on Sustainable Consumption and Production (CSCP), http://www.sustainable-lifestyles.eu/fileadmin/images/content/D1.1_Baseline_Report.pdf.
14. WBGU, 2011, World in Transition – A Social Contract for Sustainability (Flagship Report 2011, German Advisory Council on Global Change (WBGU), Secretariat, <http://www.wbgu.de/en/flagship-reports/fr-2011-a-social-contract/>).
15. United Nations Environment Programme (UNEP). Available from: <https://www.unenvironment.org>. [Last accessed on 2020 March 10].
16. Jacobsson S, Bergek A. Innovation system analyses and sustainability transitions: contributions and suggestions for research. *Environ Innov Soc Transit*. 2011; 1:41–57.
17. Bina, O. The Green Economy and Sustainable Development: An Uneasy Balance? *Environment and Planning C: Politics and Space*. SAGE J. 2013.
18. Bailey I and Caprotti F 2014 The green economy: functional domains and theoretical directions of enquiry *Environment and Planning A* 46 1797–813.
19. Vossenaar R 2013 The APEC list of environmental goods: an analysis of the outcome & expected impact International Centre for Trade and Sustainable Development, Geneva
20. Heshmati A. An empirical survey of the ramifications of a green economy. *Int J Green Econ*. 2018; 12 (1):53–85.
21. Huenteler J, Schmidt T, Ossenbrink J, Hoffman V. Technology life-cycles in the energy sector – technological characteristics and the role of deployment for innovation. *Technol Forecast Soc Chang*. 2016; 104: 102–21.
22. Geels FW. From sectoral systems of innovation to socio-technical systems: insights about dynamics and change from sociology and institutional theory. *Res Policy*. 2004;33:897–920.
23. Markard J, Raven R, Truffer B. Sustainability transitions: an emerging field of research and its prospects. *Res Policy*. 2012; 41:955–67.
24. Suman Nandy, Elvira Fortunato, Rodrigo Martins, Green economy and waste management: An inevitable plan for materials science, *Progress in Natural Science: Materials International*, Volume 32, Issue 1, 2022
25. UNCCD, 2011 Land and soil in the context of a green economy for sustainable development, food security and poverty eradication
a. http://www.cawater-info.net/bk/water_land_resources_use/english/english_ver/pdf/rio6-eng.pdf (accessed on 1. 05. 2023)