DOI: 10.5281/zenodo.4469821

Artykuł przeglądowy / Review article

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Challenges of the green economy: review of concepts and definitions

Wyzwania zielonej gospodarki: przegląd pojęć i definicji

ABSTRACT

The green economy aims to preserve environmental components and biodiversity. There are priority areas that could prompt a move towards it, such as agriculture, energy, tourism, transportation and waste and water recycling. The green economy idea revolves around sustainable development, which means creating new economic opportunities, encouraging investment and innovation. The goal of this paper is to clarify the concept of a green economy as a path towards achieving sustainable development that includes social, environmental, and economic development. This is done through an extensive literature review, combining aspects of the green economy and sustainable development. The paper discusses the challenges of applying the green economy in Libya as an example, and clarifies the possible concepts that affect green management style in Libya. The paper found that many factors could affect Libyan green management style such as political, environmental, and social instabilities. The paper recommends that to ensure the application of green management in developing countries, such as Libya requires a movement towards a clean and safe environment and improving living standards to restore the ecological balance and reduce the gap between the rich and the poor.

Keywords: green economy, sustainable development, management style.

STRESZCZENIE

Celem zielonej gospodarki jest zachowanie elementów środowiska i różnorodności biologicznej. Istnieją obszary priorytetowe, które skłaniają do podjęcia działań w takich kierunkach jak rolnictwo, energetyka, turystyka, transport oraz recykling odpadów i wody. Idea zielonej gospodarki oscyluje wokół zrównoważonego rozwoju, który oznacza tworzenie nowych możliwości gospodarczych, zachęcanie do inwestycji i innowacji. Celem niniejszego artykułu jest wyjaśnienie koncepcji zielonej gospodarki jako ścieżki do osiągnięcia zrównoważonego rozwoju, który obejmuje rozwój społeczny, środowiskowy i gospodarczy. Artykuł opiera się na obszernym przeglądzie literatury, w którym aspekty zielonej gospodarki są powiązane ze zrównoważonym rozwojem. Jako przykład omówiono wyzwania związane ze stosowaniem zielonej gospodarki w Libii i wyjaśniono możliwe koncepcje, które wpływają na styl zarządzania ekologicznego w tym kraju. W artykule stwierdzono, że wiele czynników może wpływać na libijski zielony styl zarządzania, takich jak niestabilność polityczna, środowiskowa i społeczna. W artykule zaleca się, aby zapewnić stosowanie zielonego zarządzania w krajach rozwijających się, takich jak Libia. Wymagane są tam działania na rzecz czystego i bezpiecznego środowiska oraz poprawy standardów życia w celu przywrócenia równowagi ekologicznej i zmniejszenia przepaści między bogatymi a biednymi.

Słowa kluczowe: zielona gospodarka, zrównoważony rozwój, styl zarządzania.

INTRODUCTION

With the increasing pressure on the environment as a result of the various commitments and activities that serve the economy, especially in the major industrial countries, the interest in consideration of the geen economy (GE) appears to be an environmentally friendly economic activity and one of the ways to achieve equitable and sustainable development (SD) without disturbing the ecosystem (Kasztelan, 2016; Raszkowski & Bartniczak, 2019). It should be combined

otrzymano / received: 23.10.2020 | poprawiono / corrected: 10.11.2020 | zaakceptowano / accepted: 28.11.2020

DOI: 10.5281/zenodo.4469821

with providing aid and grants to poor countries to advance education, health, and infrastructure hence achieving justice and equality in development (Acharya & Sequeira, 2012).

Nowadays, people use and exploit the environment, and governments are suffering from global financial crises (Ikram, Zhou, Shah, & Liu, 2019; Ryszawska, 2018). The gap between rich and poor is increasing even more and, if resources continue to be wasted, people will live in places suffering from severe resource shortages, such as water and energy that depends mainly on fossil fuels and this type of the economy is better known as the brown economy (BE) (Georgeson, Maslin, & Poessinouw, 2017). Greenhouse gases, urban sprawl, and climate change lead to a reduction in the diversity of living things, air pollution, suspended particles, ground ozone and unhealthy air (Piwowar-Sulej, 2021; Renwick, Jabbour, Muller-Camen, Redman, & Wilkinson, 2016). All these causes and phenomena have made the countries of the world recognise an urgent need to change the course of their industry, and move towards a clean economy and use new renewable energy, which is represented by the GE (Bina, 2013).

In other words, current growth rates are not sustainable. There is one way forward, which is to go green to boost global economic growth. The Organization for Economic Co-operation and Development (OECD) has many ways to measure growth rates including assessment of natural resources and pollution damage to prevent economic, social, and environmental crises. Imposing taxes on carbon emissions and regulating emissions by governments could generate billions of dollars annually and in addition, removing subsidies on fossil fuel production would save a lot of money (Ikram, Sroufe et al., 2019; Lambooy, 1990; Pakulska, Rutkowska, & Podołowski, 2010). These actions could reduce emissions, increase financial support for education and health, and protect the environment (United Nations Enviornment Programme [UNEP], 2011). From this standpoint, this paper will focus on the possibility of moving towards the green economy to achieve sustainable development (SD) accompanied by a clean and safe environment and social impacts to restore the ecological balance and reduce the gap between the rich and the poor in Libya.

The concept of a green economy refers to economic activities that lead to SD while taking into account the reduction of environmental risks and the shortage of environmental resources. There the word green means everything that exists in the environment but under the condition that it should be environment friendly and does not cause any pollution or at least it does not add to the environment more burdens that harm it more or lead to its deterioration (Popławski & Rutkowska, 2018). The economic aspect of the environment takes many forms including underground water, minerals in quarries, soil, air, forests, trees, and wilderness. These are all called the base to achieve economic development and the wrongful use of any of these elements will lead to the destruction of the environment. Therefore, the GE emerged to preserve the environment and to protect the natural environment. The United Nations Environment Program (UNEP) sees a GE as a system of economic activities that improve the quality of human life in the long term (UNEP, 2011). According to this institution, the green economy is defined as:

1. An economy in which an improvement in human well-being and social equality is achieved while significantly reducing environmental risks and ecological scarcity of resources. We can look at the green economy in its simplest form as an economy that reduces carbon emissions and increases the efficiency of resource usage.
2. One of the things that lead to the development and growth of mankind, and 9 make society fairer/society will become fair in distributing resources while significantly reducing environmental risks and scarcity.
3. One of the new models for fast-growing economic development which is based mainly on good knowledge of the environment and on addressing the interrelation between human economies and the natural ecosystem.
4. An economy in which there is a small amount of carbon dioxide and in which resources are used efficiently.

The GE has a great and essential importance in preserving the environment to achieve SD which leads to the establishment of social justice while taking care of economic prosperity. This can be achieved by adopting projects concerned with sustainability such as clean production, renewable energy, rational consumption, organic agriculture, and waste recycling while minimizing emissions of harmful gases, replacing fossil fuels, increasing income for poor families and working to reduce the gap between the rich and the poor (Georgeson et al., 2017).

The green economy is essential for poverty elimination. Poverty elimination, where poverty is the most obvious form of social injustice due to its creation of unequal opportunities in education, health care, provision of loans, income opportunities, and securing property rights. Therefore, the GE contributes to poverty reduction through the wise management of natural resources and ecosystems to deliver benefits from natural capital directly to the poor in addition to creating and increasing new jobs, especially in the sectors of agriculture, plants, energy, transportation, and health, which are necessary especially in low-income countries (Bina, 2013).

The GE creates jobs and supports social equality. The shift to a GE means a shift in employment that creates at least a similar number of jobs that the usual work approach creates, but the total gains in employment according to the green investment scenario could be higher. The sectors of agriculture, water and fisheries, buildings, transportation, and green investment will grow. It is better for jobs in the short, medium, and long terms than in the usual business approach scenarios (UNEP, 2011).

The GE replaces fossil fuels with sustainable energy and low carbon technologies. Increasing the supply of energy through renewable sources reduces the risks of high and

DOI: 10.5281/zenodo.4469821

unstable fossil fuel prices and also provides benefits that indicate that renewable energy represents major economic opportunities. The greening of the energy sector also requires replacing investments in energy sources that depend heavily on carbon with clean energy investments and improving efficiency (Kozar, 2015; Ryszawska, 2013).

The green economy encourages the improvement of resource and energy efficiency starting with the fact that manufacturing will face many challenges and opportunities to improve resource efficiency and there is much evidence that the global economy still has an untapped opportunity to produce wealth by using less energy and 4 material resources. Efficiency can be achieved. Decoupling waste, economic growth, and a rise in the standard of living are important to achieve resource efficiency, reduce waste, and increase the efficiency of resource use (UNEP, 2011).

The green economy makes urban livelihoods more sustainable while reducing carbon use, where urban areas represent 50% of the world population but they represent 60–80 % of energy consumption and 75% of carbon dioxide emissions. The pressure of the tendency to increase urban areas on freshwater resources and public health usually results in poor infrastructure, a decrease in environmental performance, and high costs for public health. Green thinking is an important factor in global warming emissions, so building new greener houses and developing existing buildings with high energy and resource consumption can achieve tangible savings (Georgeson et al., 2017).

Figure 1 shows that the green economy must coexist with other sustainable development concepts. The Economics of Ecosystem and Biodiversity's (TEEB) green economy report describes a clear hierarchy (TEEB, 2012).

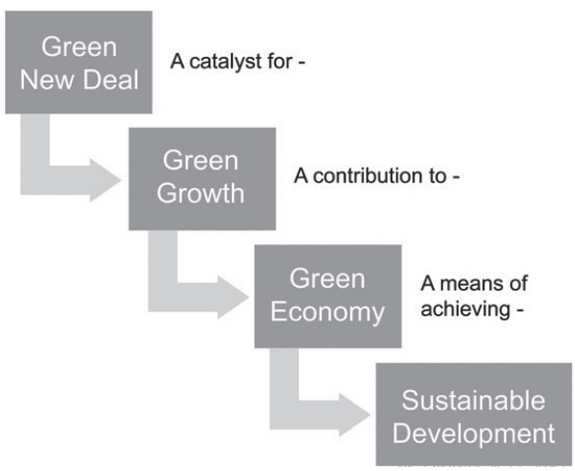

Figure 1. The hierarchy of green economy concepts
Source: (Georgeson et al., 2017).

Management styles are essential to the transformation and improvement of the green economy. Management style is the specific method managers proceed with when planning, organizing, and coordinating work endeavours to achieve goals inside an organization (Ferasso, Beliaeva, Kraus, Clauss, & Ribeiro-Soriano, 2020). Management style includes how managers plan and organize work, make decisions and use authority. Management style varies from manager to a manager depending on the organization type and management level. It is shaped by various organizational factors including internal and external business environments such as: internal policies and skill levels, organizational priorities and culture, management philosophy, types of suppliers and consumers, competition, and law (Namiq, 2018).

Managers are fundamental units of the management styles of an organization. They are responsible for the execution of the management process by planning and making decisions to achieve the objectives of the company. In the traditional brown economy, achievements of managers are based on efficiency of planning ahead, delegation, coordinating, association, and making an organization profitable. Therefore, good managers make perfect decisions concerning plans and delegations that meet the intended outcomes. Managers have to adapt and become acclimatized to limited resources such as time and information (Daya, 2015). In the contemporary green economy, managers' success is based on their inspiration and the motivation of employees to achieve the objectives of the organization. Managers provide the employees with opportunities by implementing fair and equal management to achieve customer satisfaction (Ferasso et al., 2020). Management success is determined by the managers' behaviour and how they lead, e.g., personal values (Sulich & Rutkowska, 2019).

1. THE RELATIONSHIP BETWEEN GREEN MANAGEMENT AND THE GREEN ECONOMY

Environmental management is an integration of management and environment that implies green management. Green management comprises a number of components that work together to achieve the organizational goals. Green management begins with incorporating green principles into the mission of the company and translating its goals into specific organizational and managerial processes. Recently, environmental protection has developed very fast and includes a global dimension and this has created a new way to do business through different treaties, directives and conventions (Rodrik, 2014; Sdiri, Elleuch, & Ben Dhia, 2016).

The organization for Economic Cooperation and Development OECD explained that green growth, by fostering economic growth and development, will preserve natural assets and to preserve the environmental resources which well-being depends on. Another definition by The World Bank similarly defines green growth as "growth that is efficient in its use of natural resources, clean in that it minimises pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters" (Georgeson et al., 2017; Sdiri et al., 2016).

DOI: 10.5281/zenodo.4469821

To explain the relationship between green management and the green economy from an economic perspective, one should know the factors that affect the relationship. First, market prices might not account for environmental benefits associated with green products. Second, there is much research and development (R&D) in green products and learning-by-doing. These effects have been particularly important in many environmental industries such as in wind and solar energy, as well as in the automotive industry (Mealy & Teytelboym, 2018; Yusliza et al., 2019).

In comparison with the brown economy (based on coal) which contributes to the gradual reduction of the development opportunities of future generations. Green Management assumes the need to raise attention to the state and quality of the environment (Sulich, Rutkowska, & Popławski, 2020).

The green economy leads to a change of the current priorities of management to a more sustainable, i.e., less emissive model, recovering secondary raw materials and reprocessing them in the production process and taking into account environmental values as important elements for the development of future generations (Sulich & Zema, 2018).

Policies and measures for promoting sustainable development and a green economy identifying the economic and social value of environmental resources:

1. Identifying the economic and social value of environmental resources.
2. Protecting resources as well as assimilating damaged environments and ecosystems.
3. Allowing prices to reflect environmental values, while also allowing ordinary people and the poor to access basic goods and services.
4. Government promotion of environmental objectives by applying financial, industrial and technological policies and measures, including subsidies, incentives, and budgets, and placing limits to pollution through regulation and other policies.
5. Adopting environmentally friendly policies and regulating the market.
6. Recognizing the link between livelihoods and living conditions and the environment.
7. Promotion of sustainable consumption and lifestyles.
8. Promoting food security, rural livelihoods and sustainable agriculture.
9. Strengthening international policies and mechanisms to support developing countries' policies and efforts towards sustainable development
10. Recognising deficiencies of financial resources and the global benefits of action, it has been argued that developed countries have historically been responsible for most of the pollution and emissions and depletion of resources. That means "less environmental space" left for developing countries, and that developed countries presently have greater financial and technological resources (Sulich et al., 2020).

2. MATERIALS AND METHOD

The review was guided by aspects of the "green economy reviews". The data were collected through review of relevant materials including articles, conference presentations and other documents available on the Internet. The documents were identified through a combination of searches, using keywords and terms associated with the green economy, sustainable development, economic sustainability, social sustainability, management styles, environmental sustainability and sustainable development goals. No date restrictions were imposed on the search as priority was given to the relevance of the materials. However, the author attempts to put as much recent literature as possible in order to reflect the current nature and increasing relevance of the topic. Literature that was not related to the green economy and sustainability and development was excluded.

3. DISCUSSION

In the articles reviewed, many challenging points were observed and conclusions drawn concerning the transition to green management in Libya, the obstacles and challenges are represented as follows (Duraiappah et al., 2012):

1. Instability, insecurity, and an arms race led to the waste of a lot of money that could have been used in the development process of the transition to a green economy.
2. Lack of planning in the field of development policies, which lowers the possibility of the emergence of protectionist policies and additional technical barriers.
3. Lack of technical capabilities and expertise, which leads to a weakening of the human element and widens the gap between Libya and other countries.
4. Accumulation of debts and poverty, which affects the national income and leads to a lack of efficient use of resources, such as clean water and energy.
5. Regression of the economic sector which leads to weak economic development and spreads unemployment especially among the youth.
6. Growth of population and illiteracy, which leads to slowing down the process of development in many social sectors such as education and healthcare.
7. Environmental pollution and a lack of natural resources threaten the clean lifestyle, i.e., a lifestyle free from damage and pollution, and affect the health of people.

To achieve a green economy, enabling conditions should be met to achieve sustainable development and meet the needs of the current generation without influencing the needs of generations to come in the fields of equality, freedom, and social justice. Enabling conditions revolve around the following (Friedman, 2012; United Nations Enviornment Programme [UNEP], 2012):

1. Designing regulation frameworks properly to guarantee civil rights, creating incentives that drive green economic activity, removing barriers affecting green investments, controlling undesirable forms of unsus-

tainable activities, reducing commercial risks, and promoting the efficient use of natural resources and energy.
2. Determining the priorities for governmental investments in the areas related to the greening of the economic sectors. This can be achieved by acting quickly to avoid unsustainable systems, building infrastructure and green technologies and encouraging nascent green industries.
3. Reducing spending in areas that drain natural capital and lead to a loss of economic benefits. This can be done by lowering commodity prices and phasing out the subsidies that reduce the profitability of green investments. This would lead to the preservation of valuable limited resources, renewable resources, and ecosystems.
4. Utilizing corrective market and environmental taxes to encourage green investment and innovation. This leads to an increase in the incentives for switching to desired sustainable goods and services.

The transformation from a brown to a green economy covers:

1. Focusing on agriculture and preserving forests by using them as essential resources and improving the standards of living in rural areas.
2. Paying attention to water resources and finding solutions for unclean water treatment. Also, rationalizing water consumption and working on preserving water resources and protecting them from pollution.
3. Reviewing government policies and make them subject to the green economy system. Working on a market policy to encourage green production.
4. Recognizing the green economy as the national policy on natural resources, focusing on its efficiency and making production permanent and sustainable.
5. Not imposing restrictions on international trade where the green economy must deal with trade distortions such as taxes imposed on exports and imports.
6. Addressing the problem of waste and working on finding solutions to recycle it by considering it as a resource instead of a source of pollution to the environment.
7. Establishing a plan to work on replacing carbon and using high-efficiency technology.
8. Supporting the public transportation sector.
9. Improving education and encouraging innovation.
10. Introducing policies to make the private sector participate in the public sector.

To increase the chances of successful transformation in Libya, several policies are needed to achieve the concept of the green economy. The most important are (UNEP, 2012):

1. Financial policies: Introducing initiatives e.g., tax incentives to encourage companies and industries to meet environmental targets in their production. Other options include reducing taxes on investors in solar energy projects so that wider parties are encouraged to invest in this area and other areas that are recognized as environmentally friendly.
2. Institutional frameworks: Institutions should have sufficient capacity in terms of competence, experience, and capabilities. One example is the Ministry of Finance10, which is an important party in this framework, and implements policies according to the concept of the green economy.
3. Projects on the ground: Providing the infrastructure that enables the implementation of projects which are described as environmentally friendly, such as wastewater treatment projects which can be used in irrigation, or water harvest projects, agricultural wells, water traps, and dams. Those projects preserve water sources and save energy.
4. Reducing waste quantities: It is crucial to implement projects that promote industry in the field of waste recycling. The waste should be reduced to the minimum possible level and used in the production of organic fertilizers.
5. Energy efficiency: Implementing renewable energy projects to gain maximum energy savings by rationalizing consumption in homes and taking into account green buildings. Additionally, making full use of natural resources such as sun and wind.
6. Planning and organizing the transportation sector: Reducing traffic congestion leads to a reduction in emissions from transportation and reduces air pollution.

In order to measure progress towards the green economy, green accounting systems have been developed. They are frameworks that are expected to be adopted by a limited number of countries and will then pave the way for measuring the green economy at the macroeconomic level (Raszkowski & Bartniczak, 2019). The measurement of results is not limited to gross domestic product but included the measurement of the effects on work, emissions, the amount resources, and the annual demand for financing for greening (Popowicz & Sulich, 2019). Investing in a green economy will, over time, improve economic performance in the long term and can increase total global wealth and rebuild and achieve prosperity in the future.

To measure our progress, we must know the appropriate indicators of the green economy and use them at the macroeconomic level. For example, a GDP indicator looks at economic performance through a narrow perspective because the indicator does not reflect the natural capital resources that are depleted by production and consumption processes. The economy produces a shortage of capital natural resources either by depleting natural resources or damaging the ecosystem. In an ideal situation, the changes that occur in natural capital are calculated, given a financial value and included in the national accounts as it is done in the United Nations, as well as in the methods of calculating net national savings modified by the World Bank (UNEP, 2012).

DOI: 10.5281/zenodo.4469821

CONCLUSIONS

Regardless of the requirements imposed by the international institutional frameworks, the policies implemented and the approaches to achieving the green economy remain below the desired standard. The inability to implement the essential and required policies has led to an increase in economic growth at the expense of progress and transformation to the green economy system.

Accordingly, the following conclusions can be drawn:

1. The transition towards the green economy has the potential to achieve sustainable development, eradicate poverty, and significant environmental and social benefits.
2. The green economy can generate the same levels of growth and employment as the brown economy and even outperform it in the medium and long term.
3. The green economy supports growth, income, and job opportunities.
4. The green economy replaces fossil fuels with clean energy and low carbon technologies.
5. The green economy addresses the climate change problem while reducing the depletion of natural resources and enhancing energy efficiency.
6. The transition to the green economy requires a continuous effort in terms of the efforts of policymakers, civil society, and global companies to start this transition phase simultaneously.

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