السنة الثالثة والعشرون ملحق 2 العدد 85 ، شهر حزيران ، السنة 2025
https://doi.org/10.31272/ijes.v23i85.1365

المجلة العراقية للعلوم الاقتصادية
Iraqi Journal For
Economic Sciences

PISSN:1812-8742 EISSE :2791-092X Arcif : 0.375

Green Economy and the Question of Sustainable Development

الاقتصاد الأخضر وسؤال التنمية المستدامة

الدكتور أنس بوسلام
Dr. Anass Bousselam
Anassbou352@gmail.com
كلية الآداب والعلوم الإنسانية عين الشق، جامعة الحسن الثاني، الدار البيضاء - المغرب

المستخلص

يعرّف البحث – في البداية – الاقتصاد الأخضر.ويبين أهمية هذا النمط من الاقتصادات في علاقته بالطاقات المتجددة ثم يعرض ويحلل التجارب الغربية الناجحة للاقتصاد الأخضر.وسياسة الطاقات المتجددة وكذلك مبادرات الاقتصاد الأخضر والطاقات المتجددة في آسيا وافريقيا وأمريكا اللاتينية وأوقيانوسيا ويختم البحثُ مَحاورَه بعرض ومناقشة نماذج لمبادرات الاقتصاد الأخضر والطاقات المتجددة في العالم العربي.

الكلمات المفتاحية: الاقتصاد الأخضر، الطاقات المتجددة، التنمية المستدامة، مبادرات التنمية.

Abstract

The research initially defines the green economy and shows the importance of this type of economy in its relation to renewable energy. Then it presents and analyzes successful Western experiences of the green economy and renewable energy policy, as well as green economy and renewable energy initiatives in Asia, Africa, Latin America and Oceania. The research concludes its axes by presenting and discussing models of green economy and renewable energy initiatives in the Arab world.

Keywords: Green economy, renewable energy, sustainable development, development initiatives.

Introduction

The research is an analytical and critical study on the subject of the green economy and the issue of renewable energy through international and Arab experiences, which makes the subject of particular importance, and this is increased by the fact that everyone has begun to look forward to shifting to this type of economy in light of the environmental and climatic changes witnessed by the planet, in addition to the aspiration of a number of countries in the world to build environmental economies based on the principles of sustainable development.

The research problem revolves around the following central question: Can the transition to the green economy and renewable energy be considered an option or has it become an urgent development necessity to achieve sustainable development?

The research relied on the analytical approach based on starting from the details and trying to collect them, then processing them through description, analysis, interpretation and comparison in order to come up with a set of scientific and objective conclusions.

1- Definition of the green economy

The United Nations Environment Program has created a practical definition, defining the green economy as an economy that leads to improving the state of human well-being and social equity, while at the same time taking care to significantly reduce environmental risks. At the operational level, a green economy can be defined as one in which growth in income and employment is driven by public and private sector investments that enhance resource efficiency, reduce carbon emissions, waste and pollution, and prevent biodiversity loss and ecosystem degradation. These investments are also driven by market demand for green goods and services, technological innovations, and by correcting public tax policies to ensure that prices adequately reflect environmental costs. The green economy is a new model of rapidly growing economic development that is based primarily on good environmental knowledge and whose main objective is to address the interrelationship between human economies and the natural ecosystem[1].

2- The importance of the green economy in relation to renewable energy

Increasing the supply of energy through renewable sources reduces the risks of high and unstable fossil fuel prices, in addition to mitigating the effects of climate change, as the current energy system based on fossil fuels is one of the biggest causes of climate change and is responsible for increasing the percentage of carbon emissions and greenhouse gases, and renewable energy represents a real and promising economic opportunity, and this sector requires replacing investments in energy sources that rely heavily on carbon with investments in clean energy, which are represented in:

- Traditional renewable energy (biomass energy): It depends on the use of living mass materials (biomass) and biogas (biogas) and also includes organic plant and animal waste that can be processed through bacterial fermentation or thermal combustion.
- New renewable energy: It is represented in solar energy, wind energy, hydropower, and geothermal energy.

[1]- For more on this topic, see:
- Ahmed Khidr, “Green Economy: Alternative Paths to Sustainable Development,” Science and Technology Magazine file, sent by Dr. Raafat Misal, Kuwait Institute for Research, p. 4.
- United Nations Environment Programme, The role of green economy in sustainable development, Presentation by steven stone, 7 - 8 october 2010, p 22, accessed on January 04, 2023, at: https://pdfs.semanticscholar.org/67a7/5631efa724d36d3b4ad0294d0a46c70e5c87.pdf

A crucial element in the transition to a green economy is the development of environmentally sound technology and access to it. Current technological means help us find cleaner and more sustainable production methods. We must focus on scientific research and methods for developing energy use to be climate-friendly and low-emission[2].

3- Successful Western experiences in the green economy and renewable energy policy

Among the successful Western experiences in the field of green investment and renewable energy policy, we mention:

- The American experience: The United States of America occupies the lead in the balance of successful and superior experiences in the field of investment in renewable energy, especially in the field of solar energy, which has great potential, especially in the southern parts of it most days of the year. This success is due to the great financial support from the US Department of Energy for research in the aforementioned field. In the Nevada desert, the United States provides a successful model for producing electricity from the sun with a capacity of 75 megawatts, where the total cost of this model amounted to about 270 million dollars.
- The German experience: Germany has very superior and successful experiences in the use of wind energy, as it currently occupies the world's leading position with a total capacity of approximately 6.20 thousand megawatts, and covers 15% of its electricity needs from clean energy sources (wind, solar and biomass). We say - with confidence - that it has succeeded - to a large extent - in creating a thriving market for photovoltaic technology at the household level, despite Germany's cloud density, thus achieving two goals with one means, by manufacturing renewable energy in Germany and providing about 5.2 million jobs.
- The British experience: Britain adopted a plan to reduce carbon emissions, seeking to achieve a 34% reduction in greenhouse gas emissions from 1990 levels by 2020. In May 2010, it announced new measures to enhance energy efficiency in homes, and plans to establish a green investment bank.

Britain ranked second in the world until the beginning of this century, when it fell to sixth place in the global ranking of investment in the field of renewable energy. However, the importance of the British experience cannot be denied, as there are approximately 140,000 people working in the renewable energy industry, and with regard to the production of electricity by wind turbines, the total number of wind farms is approximately 174 fields (including seven offshore fields), where the total electrical energy produced by this technology is estimated to cover the needs of approximately two million homes. - The Spanish experience: Spain has set a target of producing 22.7% of the country's total energy supply, including 42.3% of electricity supply, from renewable energy sources by 2020. It is also implementing

[2]- United Nations Economic and Social Commission for Western Asia (ESCWA), Green Economy Concepts and Principles: Conceptual Framework, Global Efforts and Success Stories, 12/15/2010.

a comprehensive water resources management program, which includes large investments focused on improving water efficiency[3].

4- Green economy and renewable energy initiatives in Asia, Africa, Latin America and Oceania

- China: China has set a target of producing 16% of its primary energy from renewable resources by 2020. Its five-year plan for the period 2006-2010 included significant investments in wind energy, solar energy and other renewable energy sources. Its draft plan for the period 2011-2015 includes further measures to enhance the production and use of renewable energy[4].
- Brazil: Host of the UN Conference on Sustainable Development, it has undertaken several initiatives at the national and state levels to promote the green economy. One example is the Comprehensive Green Economy Initiative launched by the state of São Paulo, which covers a range of sectors and areas critical to the transition to a green economy.
- Indonesia: Promoting the green economy is part of Indonesia's sustainable development strategy, which is pro-growth, pro-jobs, pro-poor and pro-environment. Targets include sustainable economic growth of 7% and carbon emissions reductions of 26% to 40% by 2020.
- Papua New Guinea: This country has developed a national strategy on climate-compatible development and has set a target of becoming carbon neutral by 2050, while aiming to triple its GDP.
- Ethiopia: Ethiopia has announced plans to start wind power generation. Wind power plants are expected to increase access to energy in a country where only 25% of the population currently has access. Ethiopia is also implementing a public policy to increase its forest cover and improve the management of existing forests.
- Rwanda: As part of its Vision 2020 strategy, Rwanda has adopted a set of measurable public policy targets on population, land, natural resource management and use, and other areas that could contribute to the emergence of a green economy[5].

5- Models of green economy and renewable energy initiatives in the Arab world

- Tunisia: One of the Arab experiences that we can mention in this regard is the Tunisian experience, where the vision for what is called the National Green Economy Strategy was determined, and is based on 4 principles, 9 axes and an implementation plan.

[3]- To expand on the topic of successful Western experiences of the green economy and renewable energy policy, see: Ahmed Salah Mohamed Taha et al., Renewable Energy and its Role in Achieving Sustainable Development in Light of International Experiences: Case Study of Egypt, Arab Democratic Center - Research Studies, July 18, 2018, accessed on January 10, 2025, at: https://democraticac.de/?p=55341

[4]- United Nations - Governing Council of the United Nations Environment Programme. Provisional agenda for the twenty-sixth session of the Governing Council/Global Ministerial Environment Forum, Nairobi, 21-24 February 2011, item 4 (b), p. 6.

[5]- ibid.

∗ The four principles:

• Developing an economy with high growth dynamics, inclusive, innovative and solidarity.

• Reducing the current sensitivity of natural resources and systems and adapting their management systems to the effects of climate change.

• Adopting integrated development governance, characterized by decentralization and participatory, with the adoption of a top-down approach that ensures the implementation of strategic projects on the one hand, and a bottom-up approach to encourage local initiatives on the other hand.

• Improving the quality of life of citizens and combating disturbances.

∗ The nine strategic axes:

• Axis 1: Agriculture that is efficient in the use of natural resources, less polluting to the environment and with sustainable production.

• Axis 2: Ensuring the supply of drinking water and sanitation for all citizens.

• Axis 3: Integrated waste management with the aim of improving the living environment by valorizing "recycled" waste and reducing greenhouse gas emissions.

• Axis 4: Adapting and improving forest and pastoral resource management systems to address the effects of climate change.

• Axis 5: Developing an economy with low dependence on fossil energy.

• Axis 6: Promoting the industrial sector by adopting clean energies and technologies and making it a high added value.

• Axis 7: Improving the quality and performance of the public transport sector.

• Axis 8: Enhancing energy efficiency and adopting new systems related to ecological constructions.

• Axis 9: Promoting sustainable tourism that offers various services.

Proposals were prepared for the implementation of the components of the sectoral action plans according to the strategic axes that were identified and taking into account the projects agreed upon during the previous stages (stakeholders, intervention schedule, estimated cost, etc.). The accompanying measures that ensure the strict implementation of these plans were also presented, such as the legal, regulatory, governance, financing, training, support, scientific research, awareness, communication and international cooperation aspects. On the other hand, some orientations related to horizontal measures were presented, concerning human resources, taxation, financing, awareness and communication[6].

Despite the rapid growth in the world of trade in environmental services and goods, we find the Arab world somewhat far from this sector, at a rate of about 1% of the total value of this trade, which amounts to about 618 billion dollars, and the cumulative

[6]- “National Green Economy Strategy”, website of the Tunisian Ministry of Environment, 06/02/2020, accessed on: 11/01/2025, at: http://www.environnement.gov.tn/index.php/ar/developpement-durable-ar/initiatives-de-concretisation-de-la-notion-de-dd-a-travers-des-plans-et-des-strategies-de-developpement-ar/strategie-nationale-de-l-economie-verte-en-tunisie-ar

budget allocated to the environment from Arab development funds and banks through loans and aid (grants) does not exceed 6% of its total budget. The report "Green Economy in a Changing Arab World", which was launched at the opening of the annual conference of the Arab Forum for Environment and Development (AFED) in 2011 in Beirut, also confirmed that reducing energy price subsidies in the Arab region by 25% will save more than 100 billion dollars over three years, as this amount can be used to finance the transition to green energy sources, indicating that by greening 50% of the transportation sector in Arab countries, savings estimated at about 23 billion dollars annually are generated, and by spending 100 billion dollars to green 20% of existing buildings over the next ten years, it is expected to create four million job opportunities. The Arab Forum for Environment and Development also encouraged Arab countries to work on enhancing irrigation efficiency and water use and protecting it from pollution, by working to increase the percentage of treated wastewater that is reused from the current 20% to 100%, which will reduce the cost of environmental degradation in the Arab world, which has reached about $95 billion annually. - Egypt: Egypt's strategy for transitioning to a green economy includes many of the principles of the green economy and its desired goals at its core. This general strategy aims to expand the scope of specific goals for specific sectors, including - for example - the energy sector. The latest competitiveness report issued by the Egyptian National Competitiveness Council focuses on strategies, investments and public policies that can drive the path of green economic transformation[7].

- Jordan: Jordan is currently promoting a variety of public policies, initiatives and programmes aimed at achieving a green economy, including - for example - the Eco-Cities Forum, the Environmental Finance Symposium, the Zarqa River Reclamation Project, in addition to a set of tax incentives to promote renewable energy sources and energy efficiency. The Executive Program issued in 2010 sets out the goal of transforming the country into a regional hub for green services and industries[8].

Conclusion

Making the economy environmentally sustainable is no longer an option, but a necessity, as a more environmentally friendly economy, as a means of achieving sustainable development, is not an option for sustainable enterprises and labor markets, but a necessity for them.

The transition to a green economy means relying on green sectors that do not harm the environment, developing environmental innovations and creating new markets, as the green economy works through three dimensions, which are:

- Economic considerations.
- Social justice.
- Preserving natural resources with the aim of exploiting them sustainably.

[7]- To expand on the subject of the Egyptian experience, see: Ahmed Salah Mohamed Taha et al., Renewable Energy and its Role in Achieving Sustainable Development in Light of International Experiences: A Case Study of Egypt, op. cit.

[8]- United Nations - Governing Council of the United Nations Environment Programme. Provisional agenda for the twenty-sixth session of the Governing Council/Global Ministerial Environment Forum, op. cit., p. 7.

This means that the green economy is considered an essential tool for facing environmental challenges and providing clean job opportunities through green investments because it depends on:

- Improving production efficiency: by rationalizing the use of natural resources in production and paying attention to the water sector, governing it, controlling its use, rationalizing it and preventing its pollution, and working to increase sustainable investments in the energy sector.
- Focusing and paying attention to rural development and reclamation of agricultural lands with the aim of alleviating poverty in rural areas.
- Improving environmental performance and reducing health risks to the greatest extent possible, reducing waste and emissions and treating waste in an environmentally sound manner, and providing low-emission goods and services.
- Encouraging and motivating institutions and consumers to change patterns of production, consumption, purchasing and investment in the aforementioned elements.

References

- Khidr, Ahmed, “Green Economy: Alternative Paths to Sustainable Development,” Science and Technology Magazine file, sent by Dr. Raafat Misal, Kuwait Institute for Research, p. 4.
- “National Green Economy Strategy”, website of the Tunisian Ministry of Environment, 06/02/2020, accessed on: 11/01/2025, at: http://www.environnement.gov.tn/index.php/ar/developpement-durable-ar/initiatives-de-concretisation-de-la-notion-de-dd-a-travers-des-plans-et-des-strategies-de-developpement-ar/strategie-nationale-de-l-economie-verte-en-tunisie-ar
- United Nations Environment Programme, The role of green economy in sustainable development, Presentation by steven stone, 7 - 8 october 2010, p 22, accessed on January 04, 2023, at: https://pdfs.semanticscholar.org/67a7/5631efa724d36d3b4ad0294d0a46c70e5c87.pdf
- United Nations Economic and Social Commission for Western Asia (ESCWA), Green Economy Concepts and Principles: Conceptual Framework, Global Efforts and Success Stories, 12/15/2010.
- Taha, Ahmed Salah Mohamed et al., Renewable Energy and its Role in Achieving Sustainable Development in Light of International Experiences: Case Study of Egypt, Arab Democratic Center - Research Studies, July 18, 2018, accessed on January 10, 2025, at: https://democraticac.de/?p=55341
- United Nations - Governing Council of the United Nations Environment Programme. Provisional agenda for the twenty-sixth session of the Governing Council/Global Ministerial Environment Forum, Nairobi, 21-24 February 2011, item 4 (b), p. 6.