RESEARCH ARTICLE https://doi.org/10.30546/BAKUCOP29.2024.1.0104

AN ASSESSMENT OF THE EUROPEAN GREEN DEAL, GREEN ECONOMY AND GREEN GROWTH IN EUROPE

Dilara SÜLÜN
Izmir Demokrasi University, Izmir, Türkiye

*CORRESPONDENCE

Dilara Sülün
dilara.sulun@idu.edu.tr

TYPE
Perspective

SPECIALTY SECTION

This article was submitted to the Special Issue of the International Journal of Humanities and Social Development Research

RECEIVED: 05 October, 2024
ACCEPTED: 30 October, 2024
PUBLISHED: 25 November, 2024

CITATION

Sülün, D. (2024). An assessment of the European green deal, green economy and Green growth in Europe. Special Issue on "Global Strategy for sustainable development: Innovation, modelling, and alliances.. *International Journal of Humanities and Social Development Research.* DOI:10.30546/BAKUCOP29.2024.1.0104

Abstract

The European Commission (EC) published the European Green Deal (EGD) in 2019 and determined it as a "new growth strategy" for the European continent. The EGD's ambitious objectives include increasing economic efficiency, ensuring social justice, and making Europe the first "climate-neutral" continent by 2050 in the world. The United Nations Environment Programme (UNEP) defined the green economy as "low-carbon, efficient use of resources, and socially inclusive". Similar to the concept of a green economy, the concept of "green growth" also aims to provide a balance between the economy and the environment. This study covers the implications of the EGD, Green Economy, and Green Growth and assesses the levels of green growth attained in the European Union (EU), between 2010 and 2022, and compares the European success to other selected economic groups in the world. The study covers a quantitative methodology consisting of the Green Growth Index (GGI) data and reports, the statistical figures are evaluated through a comparative perspective between the EU and other economic groups in the world. The study reveals that the EU recorded high levels of GGI and it is the leading economic group in three of the four indicators within the GGI, with the USA surpassing in one category.

Keywords: European Green Deal, Green Economy, Green Growth, United Nations Sustainable Goals, United Nations Environment Programme

Introduction

The European Commission (EC) published the European Green Deal (EGD) on 11 December 2019 and determined it as a "new growth strategy" for the European continent. The EGD's objective is to increase economic efficiency and provide social justice simultaneously, and it aims to make Europe the first "climate-neutral" continent by 2050 in the world. (Laurent, 2020: p. 98)

The EC President Ursula von der Leyen emphasized the importance of the EGD and differed from the former Commissions' "wait-and-see" strategies, by re-stressing the European environmental determination at the global scale. Because efforts to preserve the global environment were not sufficient enough, there is more urgency today in terms of effective action across the world (Christensen and Olhoff, 2019)

We can define the EGD's key targets as the increase of the EU's Gross Domestic Product (GDP) and the reduction of Greenhouse Gas (GHG) emissions. According to the EC, GHG emissions have been reduced by 23% between 1990 and 2018 and the economy grew by 61% (European Commission, 2019).

Just like the "green economy", "green growth" also aims to provide sufficient goods and services in the face of the growing demand due to the global increase in world population and to decrease poverty as well (Adamowicz, 2022: 10).

The United Nations Environment Programme (UNEP) defines the green economy as "low-carbon, efficient use of resources, and socially inclusive". Public and Private Partnerships (PPP) are essential in providing a green economy, as they generate growth, employment and increase income in green economic activities, and provide efficient infrastructure that decreases carbon emissions and pollution as well. Thus, a Green Economy also increases energy and resource efficiency, prevents the loss of biodiversity, and preserves the ecological environment (UNEP, 2024).

Similar to the concept of a green economy, the concept of "green growth" was launched originally in 2005 during the "Fifth Ministerial Conference on Environment and Development" (MCED) where 52 Governments from the Asia and Pacific Region accepted to go beyond the non-effective discoursed regarding sustainable development and follow the way to "green growth". Within this context, they have launched the Ministerial Declaration on Green Growth (UNESCAP, 2008). This was also viewed as a path to achieve the United Nations's Sustainable Development Goals (United Nations, 2022).

Thus, we can say that the MCED's approach to green growth aimed to balance economic growth and environmental sustainability, by improving the efficiency of economic growth within the ecological system. In short, green growth seeks to provide a better harmony and balance between the economy and the environment. Just like the "green economy", "green growth" also attracted remarkable attention worldwide, as it aims to stimulate economic growth while preventing environmental degradation. It foresees to use of natural resources in a more rational way to avoid and prevent the loss of biodiversity. In general, we can say that policies of green growth aim to enhance economic development and to raise people's living standards by a rational use of goods and natural resources, raw materials, energy sources, and all products and services that will affect the well-being of humans and of all living beings.

1. Literature Review

The literature surrounding the European Green Deal (EGD) and its implications for environmental policies and economic growth presents a comprehensive exploration of the evolving sustainability landscape within the European Union. The foundational work by Clements et al. (2010) highlights the critical challenge of resource consumption in Europe, emphasizing the need for increased recycling. Their analysis underlined the role of eco-technologies and green jobs as pivotal components of the EU's cohesion policy, which aims to foster economic development while addressing environmental concerns.

Building on this, Bär et al. (2011) discussed the emergence of green economy discourses leading up to the Rio 2012 conference, advocating for Europe to assume a leadership role in environmental technology. They identified key sectors poised for growth under ecological constraints and emphasized the necessity of addressing skill gaps. This perspective aligns with the notion that while environmental and economic benefits of green technologies are widely acknowledged, the social dimensions must not be overlooked.

Simionescu et al (2020) asserted that the EGD aims to increase the use of renewable energy to achieve sustainable European economies. They analyzed the empirical evaluation of the relations between GDP, consumption of renewable energy and global competitiveness index (GCI). Their study found a positive effect of renewable energy consumption progress on GDP and GCI growth, and also a positive influence of economic growth on renewable energy consumption between 2007 and 2019 in the EU countries.

For Claeys et al (2019) The EGD should be presented as a re-allocation of resources, enhancing investment and labour in the primary economic sectors. In doing so, it also has to assist the weakest parts of the society. The EGD promotes the shift from fossil fuels to renewable energies, for example, the use of electric cars in practice. The EU should compensate low-income households for higher fuel prices and re-train coal miners for new employment opportunities.

Dolge and Blumberga (2021) analyzed economic growth in contrast to GHG emission reduction measures in the Green Deal context. Their findings indicated that GDP growth is the major contributor to GHG emission increase in countries with low-income levels and that decreases in energy intensity had the highest impact on GHG emission reductions. They also asserted that the current climate policies in the Baltics are not sufficient to achieve the EU's 2030 targets.

Hernandez Serrano and Zaveri (2020) proposed a multi-disciplinary approach to energy transition, suggesting that such a strategy would position the EU as a leader in sustainable energy systems. Their systematic review contributes to understanding how integrated policies can enhance the efficacy of the EGD.

Ortega Gil et al. (2021) further elaborated on the EGD's framework, analyzing its impact on life satisfaction across Europe. They revealed a reverse relationship between life satisfaction and environmental degradation, positing that the EGD serves as a transformative growth strategy aimed at addressing climate change while promoting economic equity. This ambitious plan not only targets greenhouse gas emissions but also introduces mechanisms for social inclusion, thereby linking environmental policy with broader socio-economic objectives.

In a similar vein, Bassi and Guidolin (2021) investigated the role of green jobs in resource efficiency among European SMEs. Their findings suggest a strong correlation between the adoption of resource-efficient practices and the presence of green jobs, emphasizing the need for longitudinal studies to further explore this relationship. This study highlights the potential for green jobs to stimulate sustainable practices within the service sector, which is often lagging in resource efficiency initiatives.

Rodríguez-Antón et al. (2021) contributed to this discourse by examining the circular economy's alignment with the Sustainable Development Goals (SDGs) within the EU context. Their empirical analysis suggested that the transition to a circular economy not only fosters job creation but also enhances sustainable consumption and production patterns, reinforcing the interconnectedness of environmental policies and economic growth.

Cifuentes-Faura (2022) provided a comprehensive overview of EU policies aimed at combating climate change, detailing the EGD's roadmap for achieving a resource-efficient economy by 2050. This includes various initiatives aimed at reducing emissions and promoting innovation, which are critical for creating new markets and employment opportunities. The emphasis on a decoupled

economic growth model signifies a substantial shift in policy direction, aiming to balance environmental sustainability with economic development.

Stanef-Puică et al. (2022) delved into the concept of green jobs, linking them to sustainable development and the green economy. Their literature review revealed that while the potential for green job creation is significant, disparities in economic development across regions may hinder equitable job distribution. This underscores the importance of targeted policies to increase employment in less economically developed areas.

Ionescu et al. (2022) explored the green economy's implications for economic development within the EU, proposing an econometric model to assess the effectiveness of sustainable development solutions. Their research highlighted the need for a unified approach among Member States to achieve the objectives of the Green Deal, particularly in addressing regional disparities and fostering innovation.

Finally, Presno et al. (José Presno et al., 2024) emphasized the critical role of renewable energy in achieving the EU's Energy Union goals. Their study advocated for increased investment in renewable technologies, suggesting that such investments are essential for fostering economic growth and job creation. They argued that the current economic challenges, following the COVID-19 pandemic, present an important opportunity for transitions toward a sustainable economy.

Leonardo et al (2021) asserted that the EU should be aware of the EGD's results abroad. They suggest that the EU needs to assist the neighbouring and partner countries of the EU in their geopolitical aspects of the EGD; including Russia, USA, China, Algeria, and Saudi Arabia.

Through this literature review, it becomes evident that the European Green Deal serves as a catalyst for transformative change, intertwining environmental policies with economic growth strategies across various sectors and regions within the EU. The collective insights from these articles emphasize the necessity for coordinated efforts to reach EGD's targets while ensuring social equity and sustainable development.

Methodology

Quantitative and empirical data are analyzed in this paper, based on relevant green growth index reports and statistics. Additionally, these facts are evaluated by the author under the UN's SDGs and EGD's 2030 and 2050 objectives. Overall, these quantitative data are combined to assess the EGD impact on environmental policies and economic growth in EU member states.

The Functioning of Green Economy and Its Impact on Green Growth

The EGD's objective to eliminate GHG emissions in Europe by 2050 is a revolutionary step in the energy sector in Europe and leads to fight against global climate change. EGD is also expected to bring geo-political consequences as it would change the European energy balance and the global markets as well. Oil and gas-producing countries are expected to be affected in the European neighborhood, especially energy supplier countries like Azerbaijan (Aydin, 2020) and thus European security for energy will also be affected, which would also change world energy trade relations by the use of the carbon border adjustment mechanism (Leonard et al, 2021).

Figure 1. below reflects the steps of a green economy, where EGD acts as a catalyst for "Green Growth" which contributes to the formation of a "Green Economy", that becomes a means of achieving sustainable development.

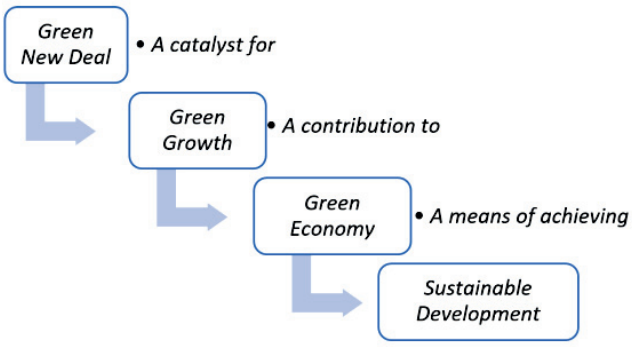

Figure 1. The Steps of Green Economy
Source: Adamowicz, 2022

Table 1. below reflects the principles of the green economy classified into three categories: namely by economic, environmental, and social levels.

Type	Principles
Economic	Recognizes natural capital and values • Integrated in economic development and growth models • Internalizes externalities • Promotes resource and energy efficiency • Creates decent work and jobs data
Environmental	Protects biodiversity and ecosystems • Invest in and sustains natural capital • Recognizes and respects planetary boundaries and ecological limits • Advances international environmental sustainability goals
Social	Delivers poverty reduction, well-being, livelihoods, social protection and access to essential services • Is socially inclusive, democratic, participatory, accountable, transparent, and stable • Is equitable, fair and just–between and within countries and between generations

Table 1. The Principles of Green Economy
Source: Adamowicz, 2022: 11

The EU has been active in building the concept of sustainable development, however, its interest in green economy in its documents only emerged following the Rio+20 summit in 2012. The EC's green economy concept included an environmental action program where natural resources and the preservation of biodiversity were seen as life insurance. The EGD is the leading document of the EU regarding green economy, it was launched by the EC in December 2019. It covers key figures that represent ambitious objectives such as reducing at least by 55% the GHG emissions in 2030 compared to 1990, planting 3 billion trees in Europe by 2030 and making Europe the first climate-neutral continent by 2050 (European Commission, 2024).

Besides the EU, global action was also undertaken by the UN in 2015, at the UN World Conference in New York, the "Agenda 2030" was adopted by more than 190 countries engaged to include the 17 SDGs in their policies. The "Agenda 2030"'s goals replaced the

Millennium Development Goals, which were projected to be met by 2015. Current goals also cover many global issues such as health, poverty, education, hunger, social justice, and climate change.

The EGD aims to increase the production and share of renewable energy consumption and to reduce energy demand. The EU brought new regulations in transport, agriculture, and industry to reach these goals and also put restrictions on the use of residential energy. The EGD basic components are represented in Figure 2. below.

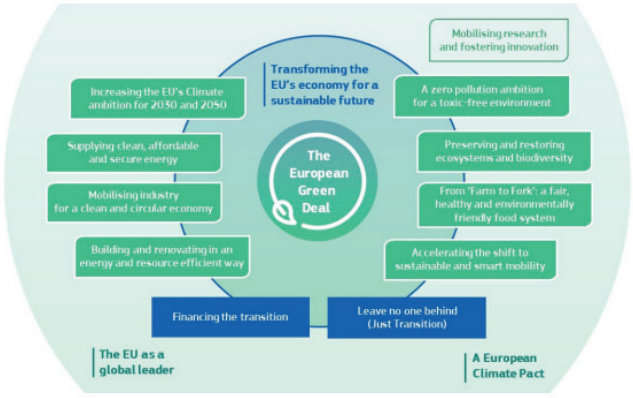

Figure 2: The European Green Deal and its Key Areas
Source: European Commission 2020, Communication on the European Green Deal

According to the EC estimations, €1 trillion would be needed to finance sustainable investments until 2030, therefore the EU introduced the EGD Investment Plan (EGDIP) to cover the expenses. The plan comprises both public and private funds, as well as 11 €500 billion from the EU Budget, and the rest would be funded by the investment program Invest EU (Fetting, 2020: 7). Figure 3 below reflects the budget of the EGD Investment Plan.

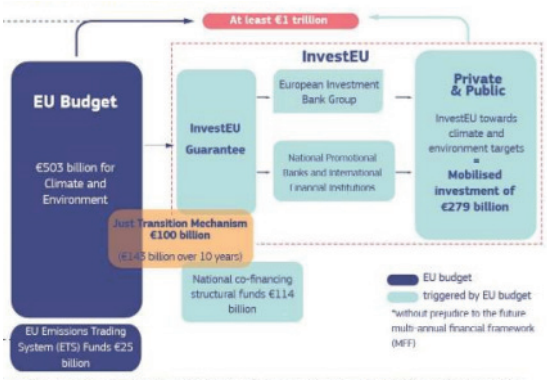

Figure 3. The European Green Deal Investment Plan

Source: European Commission

Invest EU is a continuation of the Investment Plan for Europe. All 13 of the currently available EU financial tools are combined under one roof with Invest EU. There are four major investment areas: (Fetting, 2020:7).

• "Sustainable infrastructure

• Research, innovation and digitisation

• Small and Medium Sized Enterprises

• Social Investment and Skills"

The Green Growth Index Measurement in Europe and Selected Economic Groups

The "Green Growth Index" (GGI) measures countries' performances in achieving sustainability objectives, including SDGs and the Paris Climate Agreement targets. It comprises four dimensions:

1. Efficient and sustainable resource use,

2. Natural capital protection,

3. Green economic opportunities,

4. Social inclusion.

The Green Growth Index (GGI) scores range from 1 to 100, the classification is as below:

1-20 very low,

20-40 low,

40-60 moderate,

60-80 high and

80-100 very high green growth performance.

The GGI 2023 was published in October 2024, measuring European and global performance in achieving SDG targets. Our research focuses here on the European results and a comparison would be made with the rest of the world, by region.

Europe's trends in all dimensions are rising more significantly than other regions. As can be seen from Figure 4, Europe consistently achieved very high performance in the social inclusion dimension, passing from 80.97% in 2010 to 86.05% in 2022, increasing thus by 6.27%.

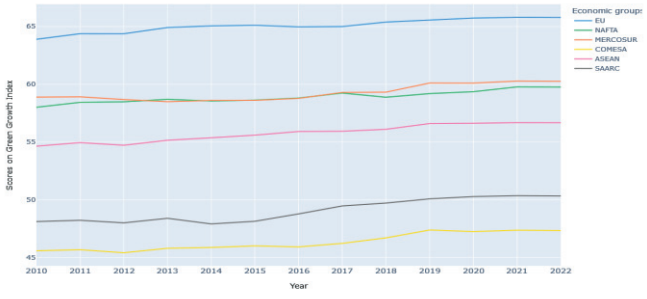

Figure 4. Trend in Green Growth Index Scores in Selected Economic Groups, 2010-2022
Source: Global Green Growth Index Technical Report

However, despite European ambitious targets, such as reducing emissions by 55% by 2030 and achieving net zero by 2050, the current reduction rates are rather inconsistent, in some sectors where GHG emissions increased in the post-pandemic period in transport and building sectors. To reverse the declining trend, the EU has introduced a range of policies, including the 'Fit for 55' package and revised targets for renewable energy and energy efficiency.

Figure 5. below reflects the general scores in GGI based on the four dimensions, where the USA and EU recorded high rates of improvement in green economic opportunities, with 76.29 % for the USA (represented in NAFTA), surpassing the EU's average. However, Europe had higher scores in the remaining three dimensions, where Switzerland, Austria, and Germany, with scores above 75%, contributed a lot to the EU's total high performance in efficient and sustainable resource use. In the protection of natural capital, especially in reducing GHG emissions and protecting biodiversity, Austria, Slovakia, Croatia, Czech Republic, Albania, and Germany have high scores exceeding 80%. Additionally, on the topic of social inclusion, Switzerland, Austria, Germany, Denmark, Sweden, the United Kingdom, Finland, Norway, the Netherlands, France, Belgium, and Spain have been the leading performers, with successes exceeding 90%. essential resources and services and social equity.

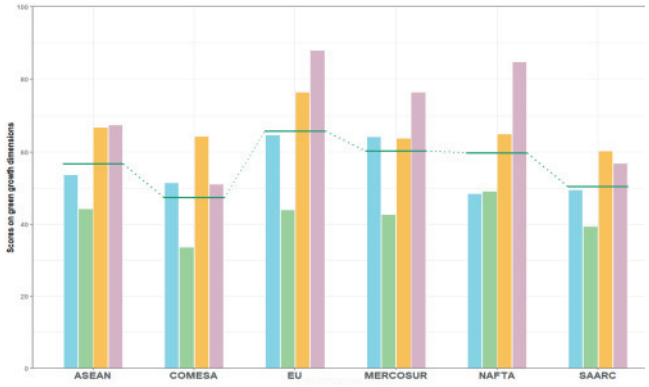

Figure 5. GGI and By Dimensions in the Selected Economic Groups, 2022

Source: Global Green Growth Index Technical Report

Conclusion

The Green Growth Index scores of the countries by region, as reflected in Figure 4 indicate that most European countries' scores gather around the high range of scores, between 60 and 80% in 2022. African and Asian countries, had by contrast scores around the moderate range, between 40 and 60%. The situation in Asia is higher compared to Africa, where Japan and China had high scores while some other Asian countries also had scores above 60% such as Laos, Thailand, Bhutan, Georgia, and Nepal. However, the results for the Americas and Oceania countries tended to split above and below 60, corresponding to high and moderate performance, respectively.

Figure 4. and 5. represent the distribution of country scores, by selected economy groups and by the four green growth dimensions. Generally, the countries in Europe performed better in natural capital protection than other countries, despite Monaco, with a very low score of only 16.19%. Many European countries had high scores on green economic opportunities. The European countries excelled in social inclusion, with high and very high scores, without any country outliers. This region is approaching the sustainability goal of leaving no one behind.

Despite European high levels in GGI, the EU still has to carry and monitor a rigid implementation of environmental policies across the EU, to ensure that each member state is engaged and committed to the EGD's ambitious goals. Because the world has limited resources, all other economic regions and every single country also have to devote more to the global efforts of conducting a green economy while protecting the environment.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

Peer-review

Externally peer-reviewed.

Acknowledgments

The Guest Editors would like to acknowledge all the authors of the manuscripts and the blind reviewers of those articles who helped making this Special Issue a stronger contribution to policy.

Conflict of interest

No potential conflict of interest was reported by the author(s).

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References and notes:

Adamowicz, M. (2022), 'Green Deal, Green Growth and Green Economy as a Means of Support for Attaining the Sustainable Development Goals', MDPI, 14 (10), pp. 1-32.

Aydin, U. (2020), 'Energy Insecurity and Renewable Energy Sources: Prospects and Challenges for Azerbaijan', in: Energy Insecurity in Asia: Challenges, Solutions, and Renewable Energy (eds. Yoshino, N. et al.), Tokyo: Asian Development Bank Institute, pp. 163-184.

Bär, H., Jacob, K., and Werland, S. (2011) 'Green economy discourses in the Run-Up to Rio 2012', Environmental Policy Research Center, pp.1-32.

Bassi, F. and Guidolin, M. (2021) 'Resource Efficiency and Circular Economy in European SMEs: Investigating the Role of Green Jobs and Skills', Sustainability, 13 (21):12136, Available from: https://doi.org/10.3390/su132112136. [Accessed 17th July 2024].

Olhoff A. and Christensen J.M (2019) 'Lessons from a Decade of Emissions Gap Assessments', United Nations Environment Programme, Available from https://www.unenvironment.org/resources/emissions-gap-report-10-yearsummary, [Accessed 22nd July 2024].

Cifuentes-Faura, J. (2022). 'European Union Policies and Their Role in Combating Climate Change Over the Years', Air Qual Atmos Health 15, 1333–1340, Available from: https://doi.org/10.1007/s11869-022-01156-5, [Accessed 30th July 2024].

Claeys, G.; Tagliapietra, S.; Zachmann, G. (2019) 'How to Make the European Green Deal Work', Bruegel Policy Contribution, No. 2019/13, Bruegel, Brussels, Available from: https://www.bruegel.org/policy-brief/how-make-european-green-deal-work , [Accessed 10th August 2024].

Clements, V., Cheng, I., Di Nardo, L., and Charter, M. (2010) 'The European Social Fund: Sustainable Development and Eco-technologies', Available from: https://ec.europa.eu/employment_social/esf/docs/br_sustainable%20development.pdf, [Accessed 15th August 2024].

Dolge, K., Blumberga, D. (2021) 'Economic Growth in Contrast to GHG Emission Reduction Measures in Green Deal C', Ecological Indicators, 130, 108153, ISSN 1470-160X, Available from: https://doi.org/10.1016/j.ecolind.2021.108153., [Accessed 17th August 2024].

European Commission, (2020) 'Questions and Answers on the European Climate Law and Climate Pact', Available from: https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_336, [Accessed 17th August 2024].

European Commission, (2024) 'The European Green Deal', https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en, [Accessed 18th August 2024].

Fetting, C. (2020). 'The European Green Deal', ESDN Report, December 2020, ESDN Office, Vienna, pp.1-22.

Global Green Growth Institute (2024) 'green Growth Index 2023', Available from: https://gggi.org/report/green-growth-index-2023/, [Accessed 20th September 2024].

Laurent, É. (2020). 'The European Green Deal: From Growth-Strategy to Social-Ecological Transition?' in Vanhercke, B., Spasova, S. and Fronteddu, B. (eds.), Social Policy in the European Union: State of Play, pp.97-111, Brussels: European Trade Union Institute.

Leonard, M., J.Pisani-Ferry, J. Shapiro, S. Tagliapietra and G. Wolff (2021), 'The Geopolitics of the European Green Deal', Policy Contribution 04/2021, Bruegel, Available from: https://www.bruegel.org/sites/default/files/private/wp_attachments/PC-04-GrenDeal-2021-1.pdf, [Accessed 25th August 2024].

Rodríguez-Antón, J.M., Rubio-Andrada, L., Celemín-Pedroche, S. and Ruíz-Peñalver, M.S. (2021) 'From the Circular Economy to the Sustainable Development Goals in the European Union: An Empirical Comparison. International Environmental Agreements, 22, pp. 67–95, Available from: https://doi.org/10.1007/s10784-021-09553-4, [Accessed 30th August 2024].

Ortega Gil, M., Cortés-Sierra, G., & ElHichou-Ahmed, C. (2021). 'The Effect of Environmental Degradation, Climate Change, and the European Green Deal Tools on Life Satisfaction', Energies. 14(18):5839, Available from:https://doi.org/10.3390/en14185839, [Accessed 30th August 2024].

Simionescu, M., Păuna, C. B., and Diaconescu, T. (2020) 'Renewable Energy and Economic Performance in the Context of the European Green Deal', Energies, 13 (23), 6440.

Stanef-Puică, M. R., Badea, L., Șerban-Oprescu, G. L., Șerban-Oprescu, A. T., Frâncu, L. G., and Crețu, A. (2022). 'Green Jobs—A Literature Review', IJERPH, 29;19(13):pp.1-15, doi: 10.3390/ijerph19137998

United Nations Environment Programme, (2024) Green Economy, Available from: https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy, [Accessed 10th September 2024].

United Nations, (2022) 'Green Growth', Available from: https://sustainabledevelopment.un.org/index.php?menu=1447, [Accessed 10th September 2024].

V Hernandez Serrano, P. & Zaveri, A. (2020). 'Venturing the Definition of Green Energy Transition: A Systematic Literature Review', Maastricht University, Available from: https://cris.maastrichtuniversity.nl/en/publications/venturing-the-definition-of-green-energy-transition-a-systematic-, [Accessed 20th August 2024].

Victor Ionescu, R., Marian Antohi, V., Laura Zlati, M., Puiu Georgescu, L., and Iticescu, C. (2022). 'To a Green Economy across the European Union', IJERPH, 19(19), Available from: doi: 10.3390/ijerph191912427 [Accessed 10th September 2024].