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## **GLOBAL DYNAMICS OF GREEN ECONOMY RESEARCH: A BIBLIOMETRIC ANALYSIS FROM 1990 TO 2025**

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### **ABSTRACT**

This research explores publication trends and patterns of scientific collaboration in green economy studies using bibliometric analysis based on data from Scopus. The research traces the growth in the quantity of publications, journals with highest contributions, the areas of publication, the most productive institutions and countries, the relationships between authors, and the variables most related in this field. The results show a significant surge in green economy related publications, with China as a major contributor. Journals such as Resources Policy and Energy Economics are the main platforms for the dissemination of research in this field. Keyword analysis revealed a close relationship between the green economy and sustainability, innovation, resource efficiency and environmental policy. The findings confirm the critical role of the green economy in supporting sustainable development also adaptation to climate change. In addition, this study highlights the importance of greater participation from emerging countries to expand the implementation of green economy concepts globally. The result of this research presents valuable insights for academics, policymakers, and industry in formulating more sustainable economic strategies.

**KEYWORDS:** Green Economy, Bibliometrics, Sustainability, Innovation.

### **1. INTRODUCTION**

Indonesia relies on natural resources as the main pillar of its economy, as the country's natural resources are relatively more abundant compared to other nations. Some examples of natural resources that are utilized include petroleum, coal, gold, and others (Higgs & Hill, 2019). This has resulted in the protection and preservation of the environment often being overlooked. According to Kumalawati et al (2023), various environmental problems have arisen as a result, including water and air contamination, soil degradation, fire and deforestation, and conversion of agricultural land.

The stability and prosperity of the economy is held by financial institutions through the application of the principles of responsibility and transparency. The principle of responsibility means that every actor in the financial sector, including financial institutions, regulators, and investors, must carry out their duties with full awareness of the impact of their decisions on the economy. Meanwhile, transparency means that financial information should be clear, accessible and accountable to the public. In order to achieve this, it is necessary to divert investment in economic activities that can balance economic, environmental and social interests (Alsmadi & Alzoubi, 2022). This statement encourages a review of the economic growth model that has been applied and directs global attention towards sustainable development concept, namely Green Economy. The Green Economy concept, initiated by the United Nations Environment Programme (UNEP), is currently the main solution in meeting the needs of economic growth in harmony with environmental sustainability (Judijanto et al., 2024). The significance of the Green Economy is rooted in its association with the increasing urgency arising from the simultaneous acceleration of environmental and economic problems (Lutfi et al., 2023).

In the development policies specifically designed by various countries, the Green Economy Concept is an important aspect of it (Bogovic & Grdic, 2020). Green Economy emphasizes the need for economic growth and development while maintaining the sustainability of natural resources. Kumalawati et al. (2023) argues that the Green Economy programme aims to build a sustainable Indonesian economy by reducing greenhouse gas emissions without hampering economic growth. The concept focuses on low-carbon development, social inclusiveness, and efficient utilisation of natural resources to reduce pollution and improve people's welfare (Zebo, 2024).

Empowering and developing quality of life of local communities are a major aspect of the Green Economy. A holistic approach to development policy plays an important role in the success of this program. The realization of Green Economy involves local communities, research institutions, government, and the industrial sector. According to Knight (2017), The Green Economy concept is based on the definition that the conflict between environment management and conservation of energy could be harmonized effectively. Such economic efficiency can be achieved through the implementation of targeted and environmentally orientated policies. These policies provide benefits for policymakers in promoting low-carbon development and creating green spaces (Alsmadi & Alzoubi, 2022).

The topic of Green Economy is gaining more attention, especially from governments and accounting professionals (Kumalawati et al., 2023). The government considers Green Economy as a strategy to improve environmental quality, increase resilience to disasters and climate changes, optimize energy efficiency, and reduce carbon emissions. Meanwhile, for accounting professionals, the Green Economy concept is considered instrumental in encouraging the adoption of certain accounting

practices, such as environmental accounting in management. Therefore, this paper specifically seeks to understand more deeply the application of environmental policies that play an important role in realising the Green Economy.

Studies on the Green Economy in order to support sustainable development have been conducted and continue to develop in the global arena. Until now there is no map that provides a comprehensive picture on a global scale with data-based visualisation of various published studies (Pratama & Purnomo, 2023). In addition, there are no existing studies that specifically examine the influence of scientific studies and the mutual benefit relationship between researchers in addressing the topic of Green Economy towards sustainability.

This research applies bibliometric methods to evaluate the relevance of a study by analyzing and measuring scientific references using statistical and mathematical approaches (Purnomo et al., 2020). Bibliometrics is a statistical method used to analyze various types of publications, including reports, expert-reviewed scientific articles, journals, conference proceedings, and other forms of publications. In addition, bibliometric methods also serve to illustrate the relationship between quantitative methods and certain research fields.

This research aims to provide insight into the current literature by answering the follow questions:

1. How has the number of Green Economy related research publications in the Scopus database grown from 1990 to 2025?
2. Which journals publish on Green Economy with the highest publication volume?
3. What are the dominant areas of Green Economy research?
4. Which affiliates are most productive in Green Economy research?
5. Which countries contribute most often to the field of Green Finance?
6. Which authors are interlinked with Green Economy research?
7. What are the most frequently occurring variables related to the Green Economy?

## **2. METHODOLOGY**

A bibliometric analysis approach was applied to this research, as has been done by (Abu Huson et al., 2024; H. Alqudah et al., 2024; M. Alqudah et al., 2023; Mo et al., 2024). According to Munandar & Honggowati (2025), the purpose of research using bibliometric analysis is to provide a broad understanding of the development of research topics, including key aspects, influential figures, and journals that have a significant impact in this field. This method is growing in popularity as an effective way to analyze quantitative data to gain deeper insights into the literature. In this study, the analysis was conducted using the Scopus database as the sole source of data.

Articles from the Scopus database were selected as sources in the analysis of Green Economy-related

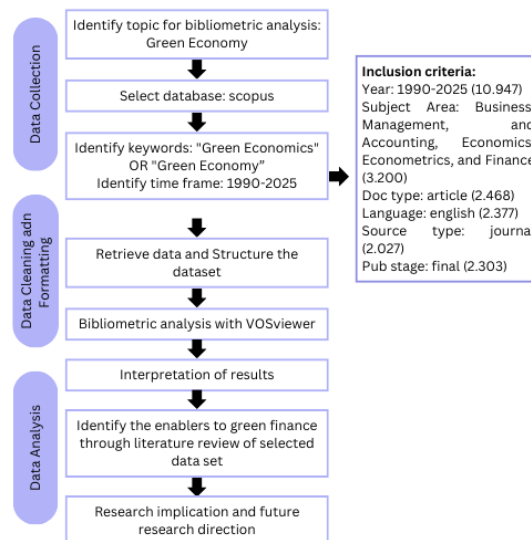
publications, given their superior reputation compared to other sources (Alsmadi & Alzoubi, 2022). In the search category section, this research focused on the Business, Management and Accounting, Economics, Econometrics, and Finance domains. In addition, the language used in this research is English. According to Alatawi et al. (2023), This was chosen to avoid language bias. Furthermore, the keywords used in this research are “Green Economy” or “Green Economics”.

This study applies two bibliometric techniques, which are co-occurrence and co-authorship. Co-occurrence is a method that emphasizes the relationship between two or more keywords that appear simultaneously on a document or text (Callon et al., 1983). This technique aims to identify relationships between keywords in the literature and facilitate the visualisation of conceptual linkages through bibliometric networks. Meanwhile, the second method applied in this study is co-authorship analysis. This research uses co-authorship to map the linkages between researchers based on their publications, with the aim of finding key figures in the field and assessing the extent to which they contribute (Munandar & Honggowati, 2025).

Since the first article on Green Economy was published in 1990, publications related to the topic were analyzed using bibliometric methods in the time span from 1990 to 2025. All publications in this period have been exported in Research Information Systems (RIS) format, which contains keywords, citations, and bibliographic information. A total of 2,303 papers were collected and analysed to provide an informative representation and perspective on the topic.

Important parts in scientific publications are identified using clustering techniques. In this study, data analysis was conducted with the help of VOSviewer software. VOSviewer software was used for bibliometric analysis by generating maps of co-occurrence and co-authorship. In addition, the functions such as search, zoom, and navigation available of this software made it an important tools in this study (van Eck et al., 2010).

The last search query used is as follows (22 February 2025): TITLE-ABS-KEY ( "GREEN ECONOMICS" OR "GREEN ECONOMY" ) AND PUBYEAR > 1989 AND PUBYEAR < 2026 AND ( LIMIT-TO ( SUBJAREA , "ECON" ) OR LIMIT-TO ( SUBJAREA , "BUSI" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) AND (LIMIT-TO ( PUBSTAGE , "final" ) ).



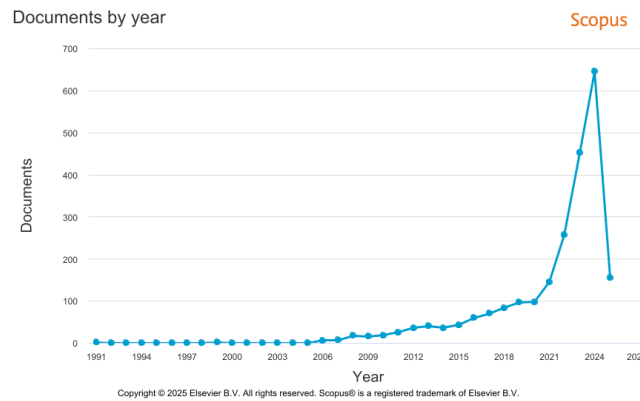
**Figure 1: Article Processed**

### 3. RESULTS AND DISCUSSION

Figure 2 illustrates the development of publications in Green Economy from 1990 to 2025. During this time, the number of publications in 2025 was 165 and continued to increase. In 2024 it reached its peak, with a total of 645 publications. This represents an increase in the impact and influence generated by research in the Green Economy.

In 2023, there were 453 cited publications, indicating a significant increase in scientific recognition and academic participation in this field. This increase is supported by the growth trend from previous years, where in 2022 there were 257 cited publications, while 2021 recorded 145 publications, and so on.

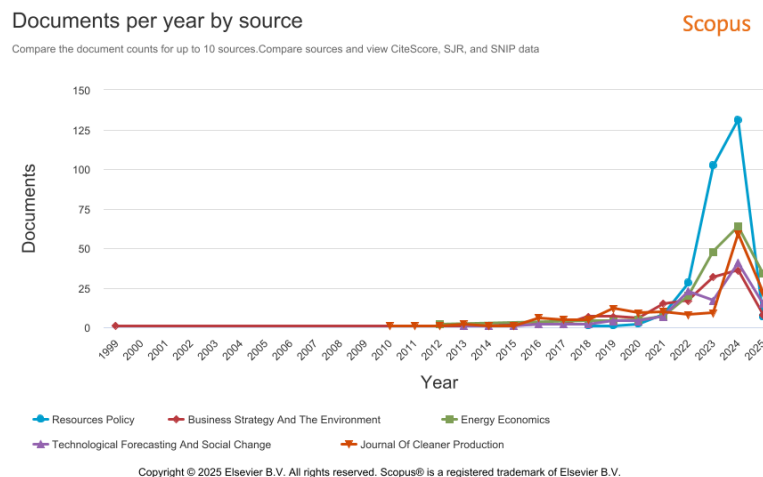
The increasing number of publications and citation demonstrates the continued interest and relevance of Green Economics in academic research. This data underscores the evolving research landscape in Green Economics, reflecting the growing importance of scholarly discourse on sustainable and environmentally friendly economic practices.



**Figure 2: Document by Year**

Figure 3 shows the top five journals with most number of publications. Resources Policy is the journal that publishes the most Green Economy with 281 publications. Followed by Energy Economics with 188 publications, Journal of Cleaner Production with 155 publications, Business Strategy and The Environment with 134 publications, and Technological Forecasting and Social Change with 120 publications.

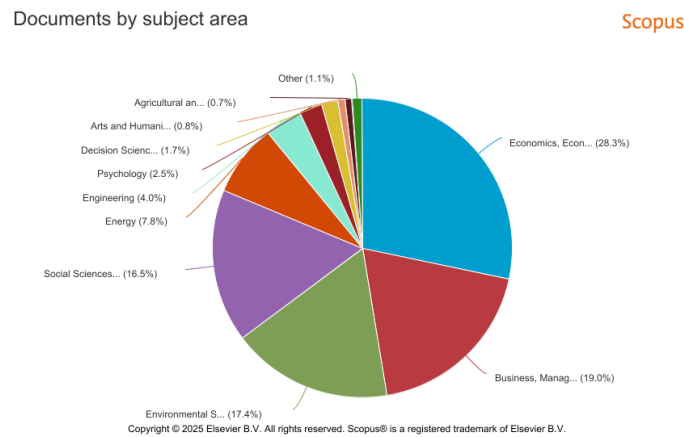
Academic journals serve as the primary means of exchanging scientific and technological knowledge. They play an important role in disseminating information, improving scientific literacy and reading culture, supporting the application of research results, encouraging international scientific collaboration, and most importantly accelerating the sustainable development of science and technology. Through analyses of high-impact factors and leading journals on the field of Green Economics, a core group of publications were identified, which formed the basis for literature collection and management.



**Figure 3: Document by Source**

Figure 4 illustrates the subject categories of the sample articles, where each category is derived from the Scopus database. Research focusing on this topic is currently dominated by Economics, Econometrics and Finance at 28.3% or 1,518 publications, followed by Business, Management and Accounting at 19% or 1,019 publications, Environmental Science at 17.4% or 933 publications, Social Sciences at 16.5% or 883 publications, Energy at 7.9% or 421 publications.

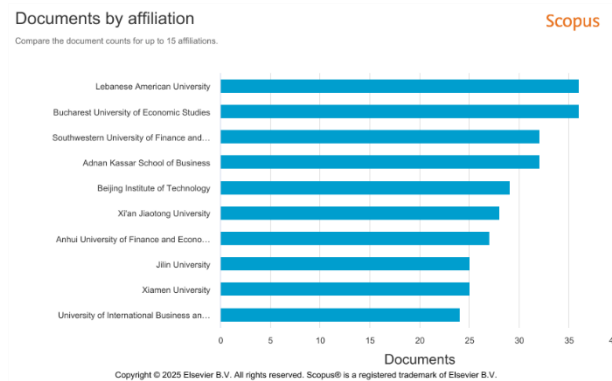
Green Economics is widely published in Economics, Econometrics, and Finance as it is closely related to sustainable development, resource efficiency, and the environmental impact of economic activity. Green Economics focuses on resource efficiency, innovation in various sectors, and the impact of climate changes on the global economic. Therefore, Green Economics is a major concern in economic publications.



**Figure 4: Document by Subject Area**

Figure 5 shows the ten affiliates most active in Green Economy research. Lebanese American University and Bucharest University of Economic Studies are the institutions with the highest productivity in publications, with a total of 36 published publications. Next, Southwestern University of Finance and Economics and Adnan Kassar School of Business produced 32 publications. Beijing Institute of Technology and Xi'an Jiaotong University produced 29 publications. Anhui University of Finance and Economics produced 28 publications, Jilin University and Xiamen University produced 25 publications. Then, the University of International Business and Economics produced 24 publications.

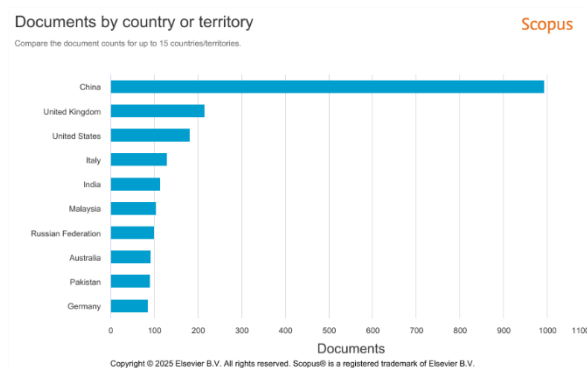
Lebanese American University and Bucharest University of Economic Studies are recognised as institutions active in Green Economy research. Both universities have research centres and academic programmes focused on environmental sustainability and the Green Economy. Researchers regularly publish scholarly works that address topics such as waste management, carbon emission reduction, natural resource efficiency, and renewable energy. This commitment demonstrates their dedication to supporting sustainable development and the Green Economy through research and education.



**Figure 5: Document by Affiliation**

Figure 6 shows the ten countries most active in Green Economy research. It is important to explore the regions that are the source of Green Economy research. The most recent developments in Green Economy research mainly come from China with 998 publications. This is followed by the United Kingdom and the United States, which have 216 also 180 publications respectively. Then, in Italy there are 128 publications related to Green Economy. India and Malaysia also contribute to publications related to the topic, publishing 112 and 104 documents respectively. In addition, there are Russian Federation with 99 documents, Australia with 91 documents, Pakistan with 89 documents, and finally Germany with 84 documents.

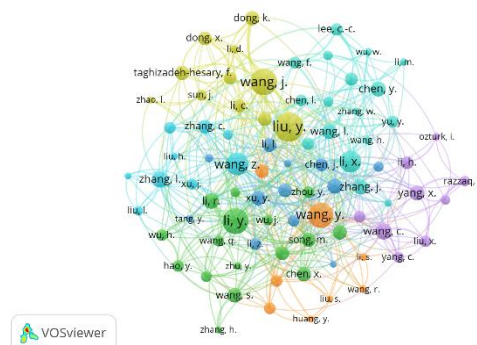
There is a disparity in the distribution of authors between developing and developed countries, with developed countries dominating the Green Economy field. This study recognises that developed nations had been dominant academic research on Green Economy. Moreover, this condition is not expected to change in the long run. Therefore, Green Economy issues in developing countries need to be the main focus of future research.



**Figure 6: Document by Country**

Figure 7 shows the results of the co-authorship analysis or linkages between authors related to Green Economy. In this visualization, each node represents an author, while the lines represent the interconnectedness of co-authorship. The size of each node is directly proportional to the number of publications each author has in Green Economics. This figure emphasises the high level of collaboration in Green Economics, indicated by the large number of authors working together on a single paper.

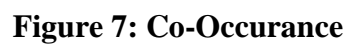
Writing collaborations between writers are divided into seven clusters, each marked with a different colour. One of them is the Red Cluster. It denotes a larger, more connected group, indicating intense collaboration between individuals or entities within it. The author labelled “Liu, Y.” acts as the centre of this cluster, indicating that they are likely the main actor in the research network. This is shown by the many connections they have with other researchers, such as “Zhao, X.”, “Yu, Y.”, “Zhu, Y.”, and “Huang, Y.”.



**Figure 7: Co-authorship**

Figure 8 shows the progression of keywords that co-occur in the Green Economy context. The size of the nodes in the figure reflects the frequency with which each keyword co-occurs with other keywords in the Green Economy literature. Meanwhile, the lines connecting the nodes show the co-occurrence relationship between keywords. The keyword analysis is very important as it serves to clarify the concepts in Green Economics.

The dominant keywords in the figure, such as ‘Green Economy’, ‘sustainability’, ‘economic growth’, ‘supply chain management’, ‘corporate social responsibility’, ‘green innovation’ and ‘green development’ are interconnected, indicating the close interconnectedness between various aspects of Green Economy. In addition, other keywords of note include ‘sustainable development’, ‘innovation’, ‘environmental regulation’, ‘carbon emission’ and ‘efficiency’ reflecting the increasing attention to these specific areas in Green Economy research.



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- financial performance in the tourism sector: A systematic literature review and future research agenda. *International Review of Financial Analysis*, 89, 102734. <https://doi.org/https://doi.org/10.1016/j.irfa.2023.102734>
- [3] Alqudah, H., Al Qudah, M., Huson, Y. A., Lutfi, A., Alrawad, M., & Almaiah, M. A. (2024). A Decade of Green Economic Literature: An Analysis-Based Bibliometric. *International Journal of Energy Economics and Policy*, 14(3), 497–511. <https://doi.org/10.32479/ijee.15579>
- [4] Alqudah, M., Ferruz, L., Martín, E., Qudah, H., & Hamdan, F. (2023). The Sustainability of Investing in Cryptocurrencies: A Bibliometric Analysis of Research Trends. *International Journal of Financial Studies*, 11(3). <https://doi.org/10.3390/ijfs11030093>
- [5] Alsmadi, A. A., & Alzoubi, M. (2022). Green Economy: Bibliometric Analysis Approach. *International Journal of Energy Economics and Policy*, 12(2), 282–289. <https://doi.org/10.32479/ijee.12758>
- [6] Bogovic, N. D., & Grdic, Z. S. (2020). Transitioning to a green economy—possible effects on the croatian economy. *Sustainability (Switzerland)*, 12(22), 1–19. <https://doi.org/10.3390/su12229342>
- [7] Callon, M., Courtial, J. P., Turner, W. A., & Bauin, S. (1983). From translations to problematic networks: An introduction to co-word analysis. *Social Science Information*, 22, 191–235. <https://api.semanticscholar.org/CorpusID:144095771>
- [8] Higgs, C., & Hill, T. (2019). The role that small and medium-sized enterprises play in sustainable development and the green economy in the waste sector, South Africa. *Business Strategy & Development*, 2. <https://doi.org/10.1002/bsd2.39>
- [9] Judijanto, L., Nur, A., Utama, B., Jambi, U., Maulida, I., & Persada, U. B. (2024). *Green Economy and Sustainable Economic Growth In The Era Of Globalization*. 1(3), 733–746.
- [10] Knight, D. M. (2017). The green economy as a sustainable alternative? *Anthropology Today*, 33(5), 28–31. <https://doi.org/https://doi.org/10.1111/1467-8322.12382>
- [11] Kumalawati, L., Sudarma, M., Rahman, A. F., & Iqbal, S. (2023). Implementation of Environmental Management Accounting and Energy Efficiency for Green Economy Achievements in the Textile Industry in Indonesia. *International Journal of Energy Economics and Policy*, 13(2), 149–156. <https://doi.org/10.32479/ijee.13950>
- [12] Lutfi, A., Alqudah, H., Alrawad, M., Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alsyouf, A., & Hassan, M. F. (2023). Green Environmental Management System to Support Environmental Performance: What Factors Influence SMEs to Adopt Green Innovations? *Sustainability (Switzerland)*, 15(13). <https://doi.org/10.3390/su151310645>
- [13] Mo, R., Peng, X. H., Wang, S. B., & Zhang, J. Z. (2024). Knowledge Mapping of Green Economy Research: A Bibliometric Analysis. *SAGE Open*, 14(4), 1–16. <https://doi.org/10.1177/21582440241293581>
- [14] Munandar, M. R. A., & Honggowati, S. (2025). Bibliometrics Analysis of Forensic Accounting Research. *The Asian Institute of Research*, 8, 47–61. <https://doi.org/10.2139/ssrn.4878662>

- [15] Pratama, F. C., & Purnomo, A. (2023). *Building Two Decade of Green Economy Research Theme Map for Sustainability Using a Bibliometric Approach*. 4560–4569. <https://doi.org/10.46254/an12.20220881>
- [16] Purnomo, A., Susanti, T., Sari, A. K., Firdaus, M., & Dewi, R. (2020). A study of digital entrepreneurship through bibliometric visualizing from 1993 to 2019. *Proceedings of 2020 International Conference on Information Management and Technology, ICIMTech 2020, August*, 911–915. <https://doi.org/10.1109/ICIMTech50083.2020.9211270>
- [17] van Eck, N. J., Waltman, L., Noyons, E. C. M., & Buter, R. K. (2010). Automatic term identification for bibliometric mapping. *Scientometrics*, 82(3), 581–596. <https://doi.org/10.1007/s11192-010-0173-0>
- [18] Zebo, Z. (2024). Impact of FDI on Sustainable Growth in Belt and Road Economies. *Journal of Sustainable Development and Green Technology*, 04(2), 62–68. <https://doi.org/10.54216/jsdgt.040207>