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A comprehensive bibliometric analysis of research trends in sustainable inclusive economic growth within the SDG 8 framework from 2015 to 2025 using Biblioshiny and VOSviewer

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Abstract

Purpose United Nations' Sustainable Development Goals—SDG 8 specifically advocates for sustained, inclusive, and sustainable economic growth, alongside full employment and decent work for all. This study aims to conduct a comprehensive bibliometric analysis of Sustainable Inclusive Economic Growth (SIEG) within the framework of SDG 8: Decent Work and Economic Growth from 2015 to 2025. It evaluates research trends, influential authors, institutions, and thematic clusters, while also identifying gaps and future research directions.

Design and methodology Data was systematically extracted from Scopus using defined inclusion and exclusion criteria, following the PRISMA approach. Data were retrieved from the Scopus database (2014–2025) using a structured search string. Bibliometric indicators were analyzed through Biblioshiny (R-tool) and VOSviewer, supplemented by Lotka's Law of Scientific Productivity and Zipf's Law of Word Occurrence. These methods enabled the identification of co-authorship patterns, thematic evolution, and institutional contributions.

Findings Findings reveal a substantial increase in research output post-SDG 8, with a notable surge after 2019, coinciding with global efforts toward the UN 2030 Agenda. China, India, and Italy emerged as the most productive countries, while "*Sustainability (Switzerland)*", published by MDPI, ranks as the leading journal in this domain. The most highly cited researchers include Bekun FV and Onifade ST from Turkey, along with Zhang X from China. A co-authorship network analysis of top countries identifies six clusters, with India leading in collaboration, contributing 63 publications. The co-occurrence network of keywords highlights dominant themes such as *sustainable development* and *Sustainable Development Goals* in relation to SIEG and SDG 8. Thematic evolution shows a shift from financial inclusion and CSR (2014–2023) toward digital economy, blue economy, employment, and entrepreneurship (2024–2025). These findings highlight the dynamic and policy-relevant trajectory of SDG 8 research.

Originality Unlike prior studies that broadly examined sustainability or SDGs, this research exclusively integrates SIEG with SDG 8 using an institutional and thematic lens. By linking bibliometric insights to policy imperatives such as inclusive employment and sustainable innovation, the study bridges the gap between bibliometric analysis and actionable strategies for advancing SDG 8.

Keywords Sustainable inclusive economic growth (SIEG), Inclusive growth, Sustainable economic growth, Economic sustainability, SDG 8, Scopus, Lotka's law of scientific productivity, Zipf's law of word occurrence

1 Introduction

Sustainable economic growth has been a prominent focus for policymakers and researchers aiming to balance economic prosperity with environmental preservation and social well-being [20]. However, purely growth-oriented models often fail to address socio-economic disparities and environmental degradation [16]. In response, the concept of sustainable inclusive economic growth (SIEG) has emerged, emphasizing the need for equitable distribution of wealth, social justice, and ecological stewardship as an integrated framework.

In 2015, the United Nations launched the 2030 Agenda for Sustainable Development, which includes 17 SDGs. Among these, SDG 8—"Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" highlights the interconnected nature of economic, social, and environmental factors [44]. As nations strive to meet these goals, academic research plays a crucial role in developing effective strategies and informing policy interventions [45].

Working on SDG 8 and initiatives SIEG is essential because they focus on promoting economic growth particularly in developing and underdeveloped regions. This helps reduce poverty and improves living standards. With the rise of automation and economic inequalities, the need to create decent work opportunities for all, including women, youth, and vulnerable groups, is vital for social equity and economic stability. SIEG directly impacts poverty reduction and ensures that the marginalized communities also benefit, thus reducing inequality. Not only SIEG focuses on ensuring that economic activities are environmentally sustainable, reducing resource depletion and addressing climate change challenges but also investing in innovation, entrepreneurship, and resilient infrastructure leads to economic diversification, which is crucial for long-term sustainability. SDG 8 aligns with other global goals like ending poverty (SDG 1), reducing inequality (SDG 10), and responsible consumption (SDG 12), creating a holistic framework for addressing economic and environmental challenges. With a growing global population, especially in younger demographics, fostering entrepreneurship and skills development ensures that youth are empowered to contribute to the economy. Sustainable economic growth reduces unemployment, crime rates, and social unrest, contributing to global peace and stability. Working on SIEG and SDG 8 is not just a moral responsibility but also an economic and environmental imperative. It ensures that the current and future generations inherit a world with equal opportunities, economic stability, and a healthy environment.

Bibliometrics analyses offer valuable insights into how research trends evolve over time, which topics gain prominence, and how collaborations among scholars, institutions, and countries form and change [2]. Researchers from various academic fields and

countries have increasingly focused on Socially Inclusive Entrepreneurial Growth as an important area of study. From 2022 to 2024, the volume of publications concerning SIEG saw a significant rise, reflecting the growing importance of this topic in scholarly research. As interest in SIEG continues to expand, it becomes essential to assess, analyze, and integrate existing studies to better understand the current research landscape, key findings, and potential future research avenues. Low and MacMillan [19] emphasized the importance of periodically reviewing a body of literature as it develops, stating, "As a body of literature develops, it is useful to stop occasionally, take inventory of the work that has been done, and identify new directions and challenges for the future." Such reviews of an emerging research area help establish a solid foundation for guiding future inquiries. Numerous literature reviews on SIEG have been published, with most focusing on areas like its conceptualization, definitions, drivers, metrics, and its role in sustainability. However, several important aspects crucial for advancing SIEG research remain underexplored in these reviews. Based on our experience and to further enrich the intellectual structure and knowledge of SIEG research, this study seeks to answer the following research questions:

RQ1 *What is the historical evolution of Sustainable Inclusive Economic Growth (SIEG)?*

RQ2 *What is the growth of publications and citations, scientific production of countries impactful Authors and author's productivity by applying Lotka's law, the key journals, wordcloud of SIEG research, impactful and trending articles, trending topics and influential institutions in SIEG research?*

RQ3 *To identify the common keywords of analysis used by researchers on this topic by applying Zipf's law and Collaboration Patterns of counties?*

RQ4 *What are the collaboration and co-citation network, thematic evolution, and emerging themes? What are the most important future research directions in SIEG research?*

2 Overview of SIEG

SIEG is a multidimensional framework that extends beyond conventional economic expansion by integrating social equity and environmental stewardship into the core of growth strategies. Unlike traditional models focused primarily on Gross Domestic Product (GDP), SIEG aims to generate prosperity that is both broadly shared and ecologically responsible. This holistic approach takes into account the ecological limits of our planet and the fundamental need to ensure that all segments of society particularly the most vulnerable benefit from development.

2.1 Definition

SIEG can be defined as an integrative development paradigm that seeks to balance robust economic expansion, social equity**,** and ecological sustainability [16, 20]. In this framework, economic policies and practices are structured so that all societal groups particularly the most vulnerable benefit from growth**,** while natural resources are managed in a way that maintains the health of ecosystems for present and future generations [28]. This aligns with the vision of United Nations Sustainable Development Goal

8**,** which advocates for sustained, inclusive, and sustainable economic growth, alongside decent work for all [44].

SIEG refers to an integrated model of economic development that simultaneously promotes long-term economic vitality, social equity, and environmental stewardship. In practice, this means:

1. *Long-term economic vitality* Ensuring that the economy grows robustly in ways that are resilient to external shocks and able to generate decent work opportunities.
2. *Social equity* Distributing economic benefits fairly across all social groups, especially vulnerable and marginalized populations, to reduce inequalities and foster inclusive participation in economic activities.
3. *Environmental stewardship* Preserving ecological integrity and operating within planetary boundaries by adopting sustainable resource use, green technology, and climate-friendly policies.

Under this framework, economic gains do not come at the expense of social welfare or the environment. Instead, growth strategies are designed so that everyone benefits including future generations while protecting the ecosystems upon which economies ultimately depend. This approach aligns closely with the goals and principles of United Nations Sustainable Development Goal (SDG) 8, which advocates sustained, inclusive, and sustainable economic growth, productive employment, and decent work for all.

2.2 Historical context of SIEG

SIEG did not emerge in isolation; rather, it developed out of a confluence of historical movements and debates around economic development, environmental stewardship, and social equity. Tracing its historical context helps illustrate how the concept evolved to address the shortcomings of traditional growth models.

1. Post-World War II Economic Paradigm

   - *Emphasis on reconstruction and industrial expansion* After World War II, many nations prioritized economic reconstruction and industrial growth as pathways to stability and prosperity [16].
   - *Focus on gross domestic product (GDP)* GDP became the main metric for progress, overshadowing considerations of income distribution or environmental implications.

2. Rise of Environmental Awareness (1960s–1970s)

   - *Publication of "Silent Spring" (1962)* Rachel Carson's work sparked a global environmental movement, highlighting the adverse effects of unchecked industrial growth on ecosystems.
   - *Limits to growth (1972)* The Club of Rome's landmark report warned that exponential economic expansion could lead to resource depletion and ecological crisis if not managed sustainably [16].

3. Defining Sustainable Development (1980s–1990s)

- *Brundtland commission (1987)* "Our Common Future" introduced the modern notion of sustainable development, emphasizing meeting the needs of present generations without compromising future generations [20].
- *Earth summit (1992)* Also known as the Rio Conference, it consolidated global attention on sustainability, producing key documents like Agenda 21, which promoted responsible environmental practices integrated with development goals [20].

4. Growing Concern Over Inequality (1990s-2000s)

- *Shift toward social inclusion* Rising income disparities and persistent poverty, especially in developing regions, led policymakers and scholars to critique growth models that failed to distribute benefits equitably [42].
- *Millennium development goals (MDGs) (2000)* The adoption of the MDGs brought global attention to poverty reduction, education, and health, marking a step toward more inclusive frameworks [43, 44].

5. Convergence of Inclusivity and Sustainability (2000s-2010s)

- *Inclusive growth debate* Academic and policy discussions began to merge environmental concerns with the notion of "inclusive growth," focusing on equitable access to economic opportunities [16, 20]
- *Commission on the measurement of economic performance and social progress (2009):*Led by Stiglitz, Sen, and Fitoussi, this commission highlighted the importance of supplementing GDP with broader social and environmental indicators [42].

6. Formalization Under the SDGs (2015-Present)

- *United Nations 2030 Agenda* The Sustainable Development Goals, particularly SDG 8, call for "inclusive and sustainable economic growth" alongside decent work for all [44]. This marked a formal recognition of the need to address inequality and sustainability simultaneously.
- *Integration of green economy, circular economy, and social inclusion* In recent years, policy discourse has shifted toward holistic models that incorporate climate mitigation strategies, resource efficiency, and equitable labor policies. This synergy underscores how SIEG has become a guiding paradigm for national development plans and international agreements [28].

7. Technological Transformations and Future Outlook

- *Industry 4.0 and digital revolutions* The rise of artificial intelligence, big data, and advanced manufacturing techniques presents both opportunities and challenges for ensuring that economic gains remain inclusive and environmentally responsible [14].
- *Ongoing policy and research efforts* Scholars continue to refine metrics beyond GDP (e.g., Green GDP, adjusted net saving) and design policies that foster equitable growth without exceeding planetary boundaries [16, 20].

By weaving together environmentalism, social inclusion, and broader conceptions of economic progress, Sustainable Inclusive Economic Growth has evolved into a guiding framework for policymakers, scholars, and international organizations. It represents a deliberate shift away from purely output-focused paradigms, seeking instead to generate prosperity that is more equitable, ecologically balanced, and resilient to global changes [28, 44].

2.3 Key components of SIEG

1. *Economic prosperity* At its foundation, SIEG seeks to foster robust and resilient economic systems capable of creating jobs, stimulating innovation, and generating wealth. However, this goes hand in hand with ensuring that economic gains are not achieved at the expense of social welfare or environmental integrity.
2. *Social inclusion* A central aspect of SIEG is the principle of inclusivity. It emphasizes reducing disparities by extending opportunities, resources, and benefits to underrepresented communities, thus creating more equitable societies. Policies such as decent work provisions, fair wages, and social protections are integral to this dimension, aligning closely with the ideals of the United Nations Sustainable Development Goal (SDG) 8 on decent work and economic growth.
3. *Environmental sustainability* Another cornerstone of SIEG is ecological balance. It acknowledges planetary boundaries by promoting climate change mitigation, sustainable resource management, and the reduction of pollution and carbon emissions. Concepts like green growth, circular economy, and renewable energy are increasingly integrated to ensure that economic activities remain within environmental limits.

2.4 Alignment with SDG 8

SIEG directly supports SDG 8—"Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" by synthesizing its three pillars: sustained economic performance, social inclusion, and environmental conservation. Embracing SIEG principles helps address multiple interconnected targets under SDG 8, including job creation, fair labor practices, and ecologically viable production methods.

3 Literature review

As discussed in the previous section, the majority of existing literature review articles primarily focus on exploring the theoretical concept of SIEG. Table 1 presents a representative selection of SIEG-related literature review studies.

SIEG is an integrative concept combining three key dimensions—economic, social, and environmental aimed at ensuring that growth processes do not exacerbate inequalities or degrade natural resources [24, 42]. Many authors have explored the critical elements of inclusive economic growth, which focus on creating equal opportunities for all segments of the population, particularly marginalized communities [48]. Sustainable growth demands reduced carbon emissions, efficient resource utilization, and a long-term perspective on ecological balance [16]. SDG 8 underscores that growth must not only be sustained but also inclusive and environmentally conscientious [44]. By promoting decent work conditions, SDG 8 further aligns with global labor standards and social

Table 1 Literature review

Article name	Methodology	Insights	Results	Practical implications	Future research	Research gap & findings
Mapping the intellectualland-scape of financial inclusion and sustainable development: a bibliometric analysis [33]	Bibliometric review of 233 papers from Scopus database Keyword co-occurrence analysis using Vosviewer and Biblioshiny	The paper conducts a bibliometric analysis of 233 studies from 2012 to 2023, revealing four clusters: Financial growth with FI, Economic Empowerment with Sustainable Goals, Environmental Sustainability, and Microfinance in the Digital Era, highlighting global research trends in sustainable inclusive economic growth	Four prominent clusters identified: Financial growth, Economic Empowerment, Environmental Sustainability, Microfinance Future research agenda established based on identified themes	Offers insights for researchers and practitioners in FI and SD Establishes quantitative foundations for advancing knowledge in these areas	Financial growth with financial inclusion Economic empowerment with sustainable goals	Future research agenda based on identified themes Potential avenues for further research exploration
Nexus between innovation and sustainable economic development: A bibliometrics analysis [30]	Thematic and content analysis of literature Descriptive analysis and network visualization using software tools	The paper focuses on the contribution of innovation to sustainable economic development, identifying research trends and prolific authors through bibliometric analysis of 66 articles from Scopus, highlighting clusters like economic development, alternative energy, and sustainable development	Identified research trends and prolific authors in innovation and sustainability Suggested policy directions for sustainable economic development initiatives	Assists agencies in planning innovative energy initiatives Supports policies for sustainable economic development	Drive sustainability and sustainable economic development Support innovative and renewable energy initiatives	Innovation contributes to sustainable economic development Identified research trends and prolific authors in the field

Table 1 (continued)

Article name	Methodology	Insights	Results	Practical implications	Future research	Research gap & findings
Investigating the role of Fintech innovations and green finance toward sustainable economic development: a bibliometric analysis [9]	Bibliometric analysis of 665 published papers Network analysis of keyword evolution and co-citation patterns	It focuses on the relationship between Fintech innovations and green finance in promoting sustainable economic development through bibliometric and network analysis of relevant publications	Green finance significantly influences long-term economic growth and environmental quality Fintech accelerates transition to a carbon–neutral economy through green finance	Encourage Fintech participation in green finance initiatives Promote environmentally friendly investment and saving methods	Include publications from more databases for reliability Utilize additional analysis tools for data visualization	Limited to Scopus and Dimensions-indexed articles only Suggests using additional databases for more reliable findings
Bibliometric Analysis on Sustainable Development Goals (SDGs): Decent Work and Economic Growth [38]	Bibliometric analysis Measure and analyze scientific publications	The research paper conducts a bibliometric analysis focusing on Sustainable Development Goal 8, highlighting global research trends, collaboration among researchers, and the impact of studies on decent work and economic growth, while identifying knowledge gaps and opportunities for further research	Identifies research patterns, knowledge gaps, and opportunities Assesses impact of journals, institutions, and individual researchers	Identifies research patterns and knowledge gaps in SDGS 8 Provides recommendations for implementing SDGS 8 in various countries	Identifying knowledge gaps in SDGS 8 research Exploring regional and national context influences	Identify research patterns, knowledge gaps, and opportunities Provide specific recommendations for implementing SDG 8

Table 1 (continued)

Article name	Methodology	Insights	Results	Practical implications	Future research	Research gap & findings
Mapping the Knowledge Structure and Unveiling the Research Trends in Social Entrepreneurship and Inclusive Development: A Bibliometric Analysis [31]	Bibliometric analysis using Biblioshiny software Co-authorship analysis and co-occurrence-of-keyword analysis	The paper highlights global research trends in social entrepreneurship and inclusive development, revealing a significant increase in publications since 2014, with the USA as the most productive country and the Amrita School of Engineering as the leading institution	The most productive country in research publishing is the USA The most productive institution is the Amrita School of Engineering	Guide for future research trends Identify key contributors and institutions	Social entrepreneurship and economic effects Sustainable development and social development trends	Key contributors include USA, Amrita School of Engineering, and Kadol N Rapid publication increase began in 2014, with 300 documents analyzed
Renewable Energy Integration for Sustainable Economic Growth: Insights and Challenges via Bibliometric Analysis [6]	Bibliometric analysis of 6794 research papers Trends from Web of Science database spanning 1990 to June 2023	The paper conducts a bibliometric analysis of 6,794 research papers, revealing trends in renewable energy's role in sustainable economic growth, highlighting its correlation with GDP growth, industrial productivity, and technological innovation, particularly in resource-rich regions	Renewable energy correlates positively with economic growth indicators Integration fosters job creation and local community development	Advocates for renewable energy integration in economic growth strategies Guides policymakers toward sustainable and resilient development practices	Renewable energy integration impact on job creation and community development Correlation between renewable energy adoption and technological innovation	Renewable energy boosts economic growth, job creation, and energy security Positive correlation between renewable energy adoption and key economic indicators

Table 1 (continued)

Article name	Methodology	Insights	Results	Practical implications	Future research	Research gap & findings
Inclusive growth [40]	Sustainable economic growth Inclusive growth process in developed and developing economies	The paper emphasizes that sustainable economic growth necessitates inclusive growth, balancing current and future needs without depleting resources or causing environmental harm. It highlights the importance of both outcomes and processes in achieving stability and growth in economies	Sustainable economic growth requires inclusive growth Inclusive growth is essential for future economic stability	Sustainable economic growth requires inclusive growth process Balancing rapid growth today with future sustainability is crucial	Sustainable economic growth Inclusive growth process in developed and developing economies	Sustainable growth requires inclusive growth processes and outcomes Rapid growth can exhaust resources and harm future generations
Research contribution of bibliometric studies related to sustainable development goals and sustainability [27]	Thematic analysis, Network analysis	The paper emphasizes that sustainable economic growth necessitates inclusive growth, balancing current and future needs without depleting resources or causing environmental harm. It highlights the importance of both outcomes and processes in achieving stability and growth in economies	Sustainable economic growth requires inclusive growth Inclusive growth is essential for future economic stability	Sustainable economic growth requires inclusive growth process Balancing rapid growth today with future sustainability is crucial	Sustainable economic growth Inclusive growth process in developed and developing economies	Focus on SDGs 3, 7, 13 for future opportunities Challenges with complexity of SDG 3 publications
Trends in Research Around the Sustainable Development Objectives: A Bibliometric Analysis [23]	Bibliometric analysis of statistical information from 1990 scientific publications	The paper focuses on trends in research around Sustainable Development Goals (SDGs) from 1990 to 2019, highlighting significant interest in gender equity, climate action, and global health, but does not specifically address inclusive economic growth in its bibliometric analysis	Significant emphasis on gender equity, climate action, and global health in research on SDGs Focus on creating synergies between public and private entities to address SDGs	Emphasizes collaboration between public and private entities for SDGs Highlights research focus on gender equity and climate action	Synergies between public and private entities for SDGs Gender equity, climate action, and global health focus	Emphasis on SDGs like gender equity, climate action, global health Focus on creating synergies between public and private entities

Table 1 (continued)

Article name	Methodology	Insights	Results	Practical implications	Future research	Research gap & findings
Inclusive Growth [25]	Factors affecting access to opportunities for inclusive growth Analysis of labor market, education, households, poverty, and inequalities	The paper does not provide a bibliometric analysis of global research trends in sustainable inclusive economic growth. Instead, it focuses on factors affecting access to opportunities, labor market conditions, education, poverty, inequalities, and the health of the Greek population	Factors affecting access to opportunities for inclusive growth Analysis of labor market, education, households, poverty, and inequalities	Factors affecting access to opportunities Implications for social organization and individual agency	Labor market opportunities and social convergence Education, poverty, inequalities, and Greek population health analysis	Factors affecting access to opportunities for inclusive growth Analysis of labor market, education, households, poverty, and inequalities

justice. The synergy between inclusiveness and sustainability thus becomes a priority for governments, international organizations, and researchers alike [28].

The concept of Sustainable Inclusive Economic Growth (SIEG) has generated significant scholarly debate, reflecting its multidimensional and contested nature. Some researchers conceptualize inclusive growth primarily as pro-poor growth, where the benefits of economic expansion disproportionately support marginalized groups [1]. Others argue that inclusivity extends beyond income distribution to encompass broad-based employment, social protection, and innovation-driven development [15]. Still others emphasize the integration of ecological sustainability into inclusive growth, suggesting that true inclusivity must also account for intergenerational equity and environmental limits [16, 20]. These divergent perspectives highlight the ambiguities of measurement, as there is no universally accepted indicator of inclusive growth. For example, while some studies rely on GDP growth adjusted for inequality [39], others focus on multi-dimensional poverty reduction, labor force participation, or social equity indicators [26]. Such methodological pluralism has complicated the comparability of findings and left important controversies unresolved regarding the trade-offs between growth, equity, and sustainability.

Beyond academic debates, the adoption of inclusive growth strategies faces substantial real-world challenges. Empirical evidence shows that even when economies achieve rapid GDP growth, structural issues such as youth unemployment, gender inequality, and labor market informality persist [37]. The transition toward a digital economy has widened opportunities for innovation and entrepreneurship, but it also risks exacerbating digital divides in low-income countries where infrastructure and skills are limited [18]. Similarly, the expansion of the blue and green economies highlights the potential to align environmental sustainability with economic progress, but resource-dependent economies often face trade-offs between immediate growth and long-term ecological stewardship [46]. These challenges reveal that implementing SIEG is far from straightforward: governments and institutions must balance economic efficiency with social justice and ecological resilience. Linking these practical difficulties to scholarly ambiguities

underscores why SIEG remains a contested but critical agenda, and why mapping its research trends through bibliometrics provides valuable insights for both academia and policy.

4 Research gap

Although a number of bibliometric and scientometric studies have examined sustainability research and, to some extent, Sustainable Development Goal 8 (SDG 8), most remain either too broad covering multiple SDGs simultaneously or too narrow, focusing mainly on economic growth while neglecting the inclusivity dimension [10, 34]. Existing reviews often provide descriptive overviews rather than offering a structured analytical framework or policy-relevant synthesis. Furthermore, only a limited subset of studies explicitly engage with established economic theories and development paradigms. For instance, while some works draw on inclusive growth theory [1], pro-poor growth models, or the sustainable development paradigm [16], others occasionally apply frameworks such as the triple bottom line [12], ecological economics [7], or innovation-driven growth models [29]. However, most of the literature remains largely descriptive and atheoretical, with few studies providing deeper conceptual grounding to guide policy formulation.

Within this context, a significant research gap lies in the absence of bibliometric reviews that focus exclusively on Sustainable Inclusive Economic Growth (SIEG) in direct alignment with SDG 8. Existing studies are either sector-specific (e.g., renewable energy, finance) or discuss the SDGs more generally, without placing inclusivity at the center of analysis. This study addresses that gap by systematically mapping global research trends on SIEG from 2014 to 2025, covering the period since the adoption of the SDGs, in order to trace how research output has evolved over time. By integrating bibliometric citation analysis with content analysis of highly cited publications, it provides a comprehensive understanding of the intellectual structure and knowledge base of the field [35].

A distinctive contribution of this work is its exclusive focus on SIEG within the SDG 8 framework an area largely overlooked in earlier bibliometric studies. Unlike prior reviews that considered sustainability in general terms or emphasized individual economic dimensions, this study systematically integrates the three pillars of SIEG economic vitality, social inclusion, and environmental sustainability in to a unified bibliometric analysis. By combining bibliometric mapping with elements of systematic review, it not only identifies quantitative trends but also provides contextual interpretations, thereby enriching scholarly understanding and offering policy-relevant insights into how SIEG research has evolved globally.

5 Research methodology

Bibliometric analysis is a well-established quantitative method for assessing the intellectual structure of a scientific field [13]. It examines published articles and their citation patterns to evaluate scholarly impact, based on the assumption that citations serve as reliable indicators of influence within a domain [8, 13, 32]. Although citation counts may be affected by factors such as article accessibility or the presence of negative citations, they continue to be recognized as a valid approach for measuring the effectiveness of scholarly work [8, 13]. In this study, bibliometric analysis is employed to quantitatively

evaluate publications in order to identify research trends, influential authors, collaboration networks, and emerging themes [10].

Scopus was selected as the sole data source for the present study because it provides bibliographic information with broader coverage in the social sciences, including more journals from diverse sources, than alternatives like Google Scholar which have less bibliographical information. Scopus provides rich bibliographic metadata information for advanced bibliometric analysis, including author affiliations, citations, and keywords. On the other hand, Web of Science (WoS) offers a more selective and in-depth collection, with stricter evaluation criteria, giving it a stronger historical depth and focus on high-impact journals in natural and biomedical sciences, though its social science coverage is less comprehensive. A pilot search was also conducted in the Web of Science (WoS) database using the same strategy applied in Scopus. However, only a limited number of records were retrieved, many of which were either outside the relevant subject scope of this study or already indexed in Scopus. Consequently, the WoS database was excluded from the final analysis.

Furthermore, Scopus includes a significant proportion of sustainability and development-related journals due to broader indexing in social sciences, making it more suitable for the objectives of this study. This made Scopus Database the ideal source for retrieving relevant papers for our literature review.

5.1 Formulation of search string

The research methodology began with the careful formulation of a comprehensive search string to capture the breadth of scholarly work on SIEG. Keywords were selected after an extensive review of the literature and consultation of related bibliometric studies. The final search string combined core terms such as "sustainable inclusive economic growth" OR "inclusive growth" OR "sustainable economic growth" OR "economic sustain*" AND "sdg*". Boolean operators (OR) was employed to refine the scope and ensure the inclusion of all relevant records while avoiding unrelated studies.

5.2 Execution of search query

The formulated search string was executed on the Scopus database, considering its wide coverage of Journal, Conference proceeding, Book series, Book, Trade journal. The time span was restricted to 2014–2025 (since inception), ensuring both historical and contemporary research were captured. Only final records in publication stage were considered and english-language documents were included as english is the primary language of scientific communication worldwide. After conducting a search using carefully selected and validated keywords [5, 17], the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) [22, 41] framework was employed to ensure the uniformity and reliability of the exported data. Figure 1 depicts the PRISMA process consists of four stages: identification, screening, eligibility, and inclusion. The query execution resulted in the initial retrieval of 551 documents from Scopus database having 7775 globally cited references. The query was performed on 30th Dec 2024.

5.3 Pre-processing and data collection

After applying specific filters, further only relevant subject areas were included like Social Sciences, Environmental Science, Business, Economics, Econometrics, and

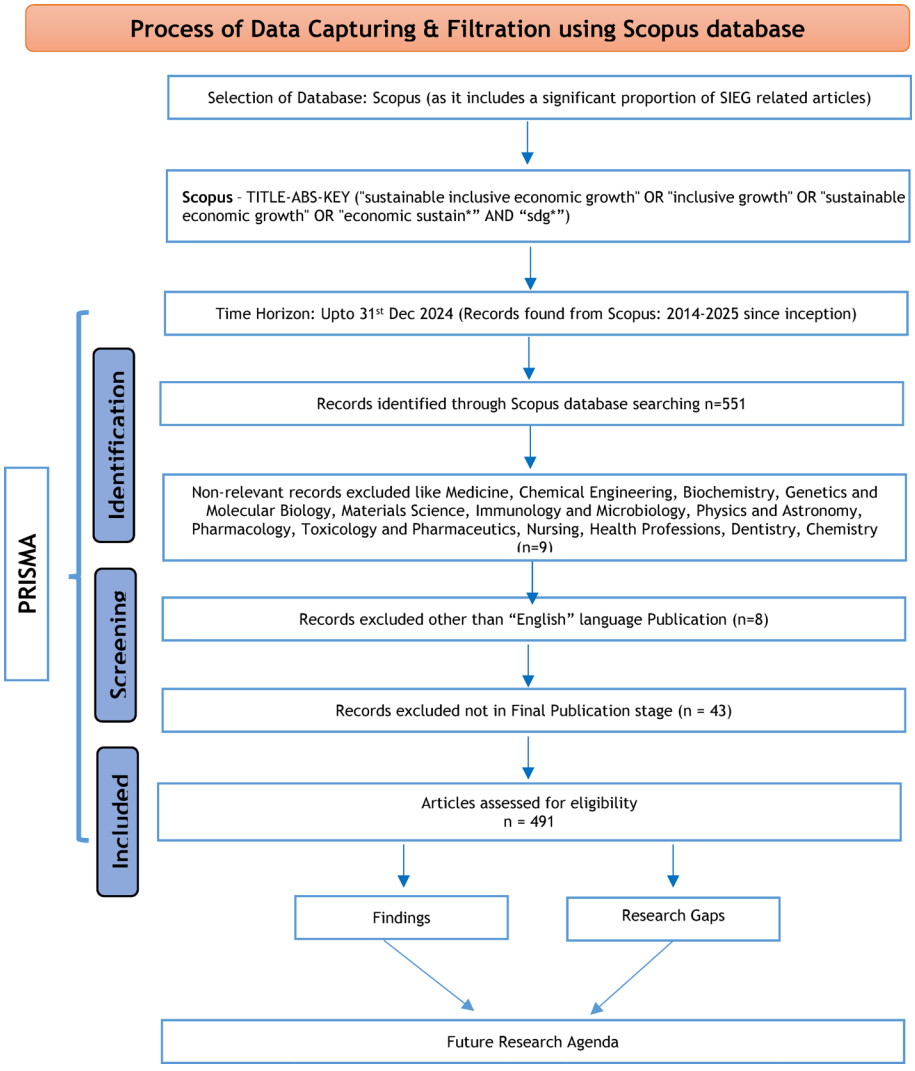

Fig. 1 PRISMA approach showing data capturing & filtration

Finance. The subjects like Medicine, Chemical Engineering, Biochemistry, Genetics and Molecular Biology, Materials Science, Immunology and Microbiology, Physics and Astronomy, Pharmacology, Toxicology and Pharmaceutics, Nursing, Health Professions, Dentistry, Chemistry (n = 9) that did not align with the focus on sustainable inclusive economic growth were excluded, resulting in a final dataset of 491 documents which were exported in excel (Bibliometrix's Biblioshiny compatible format) for further bibliometric analysis.

5.4 Application of analytical tools and methods

To conduct the analysis, advanced bibliometric tools like VOSviewer [11] and Biblioshiny [36] were utilized. This investigation also applied some scientometric laws to analyze data and fulfill the outlined objectives. "Scientometrics" facilitates the assessment of scholarly output across diverse domains at a designated level of expertise [3]. Biblioshiny was employed to generate descriptive bibliometric indicators including publication growth trends, authorship productivity, leading sources, and citation impact. VOSviewer was applied for mapping and visualization, enabling the construction of

Table 2 Growth of publications and citations

Year	NP	TC	MeanTCperArt	MeanTCperYear	CitableYears
2014	1	7	7.00	0.58	12
2016	2	17	8.50	0.85	10
2017	7	209	29.86	3.32	9
2018	15	313	20.87	2.61	8
2019	23	1344	58.43	8.35	7
2020	43	1159	26.95	4.49	6
2021	59	1843	31.24	6.25	5
2022	77	1902	24.70	6.18	4
2023	105	619	5.90	1.97	3
2024	155	362	2.34	1.17	2
2025	4	0	0.00	0.00	1
	491	7775			

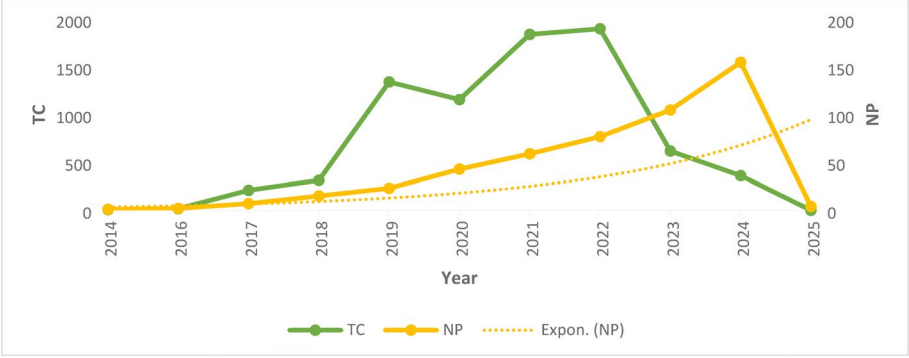

Fig. 2 Chronological growth of publications & citations

co-authorship networks between countries to find out country-level linkages. These tools facilitated the identification of research hotspots, intellectual structures, and emerging themes in SIEG. The combined use of these methods ensured a robust and comprehensive bibliometric analysis of the research field.

6 Results and quantitative analysis

6.1 Growth of publications and citations

From Table 2, it is seen that from 2014 to 2025, the publication output on SIEG remained relatively less. A marked increase is evident after 2019, aligning with the introduction of the 2030 Agenda for Sustainable Development [44]. The largest surge occurred between 2022 and 2024, peaking in 2024 with nearly 155 publications. This trend suggests a growing recognition of inclusive growth as a vital component of sustainability research. Chronological growth of publications is depicted in the Table 2. The highest NP is in the year 2024 (155 NP) and 2023 (105 NP). The minimum quantity of scholarly articles pertains specifically to the year 2014 (1) with no NP in the year 2015. The minimum TC is in the year 2014 (7) and maximum in the year 2021 (1843). Figure 2 pictorially depicts the growth of publications in terms of NP and TC.

We are aware of the fact that United Nations (UN) in the year 2015 has targeted a set of 17 Goals to be achieved globally by the year 2030. Among these Eighth goal has focused on the '*Promotion of inclusive and sustainable economic growth, employment and decent work for all*' [43]. Thus, the study has considered the data set for the period

Table 3 Top 10 countries scientific production

Country	Freq.	Cum. Freq.	TC
China	203	203	1379
India	145	348	506
Italy	81	429	573
Spain	78	507	590
UK	77	584	1501
Malaysia	71	655	749
Nigeria	61	716	121
Turkey	58	774	1027
USA	56	830	482
Pakistan	54	884	349

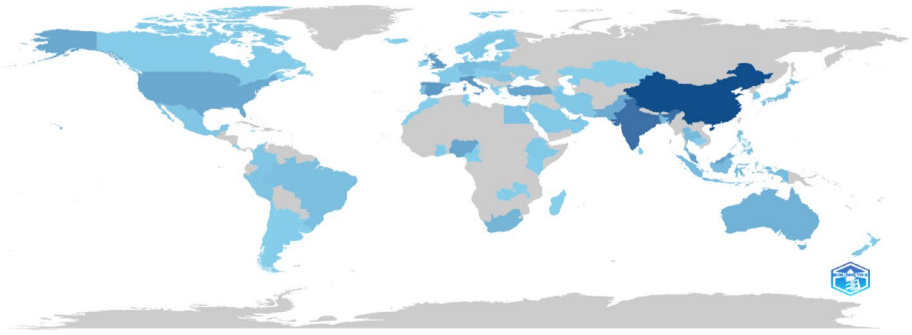

Fig. 3 Countries scientific production

of 2014–2025. It has been evident that during 2014–21, there were only 150 papers published. However, post pandemic period (year 2022 onwards) has been the most productive (341 papers) when global economies started to recover. Similarly more than 80 percent share of citation has been observed during 2019–2022 significant impact increased publication productivity [The Sustainable Development Goals Report 2023: Towards a Rescue Plan for People and Planet [47]].

6.2 Scientific production of countries

The analysis in Table 3 and depicted in Fig. 3 shows that China (203 publications, 1379 citations) and India (145 publications, 506 citations) are the most productive contributors to research on Sustainable Inclusive Economic Growth (SIEG) under SDG 8. This dominance reflects their substantial investments in higher education and research infrastructure, as well as their active pursuit of inclusive development agendas [47]. China's high total citations (1379) suggest both volume and visibility, reinforcing its leadership in shaping global discourse. India, while producing a significant number of publications, exhibits a relatively lower citation impact, reflecting either newer contributions or limited international co-authorship. China has recovered from the economic slowdown due to COVID19 impact whereas, post pandemic impact on India economy accelerated its transformation into digital economic by adopting digital methods finance transactions, also impacting the publications productive resulting the publications in three digits for each of them [The Sustainable Development Goals Report 2023: Towards a Rescue Plan for People and Planet [47]].

European countries such as Italy (81), Spain (78), and the UK (77) also play influential roles, with the UK achieving the highest total citations (1501) despite fewer publications.

This suggests that UK-based research is highly impactful, possibly due to stronger collaborations with international partners and publications in high-impact journals [4]. In contrast, the USA (56 publications) appears lower in ranking by volume but has a relatively high citation count (482), indicating concentrated yet influential contributions.

The inclusion of emerging economies such as Malaysia (71), Nigeria (61), Turkey (58), and Pakistan (54) illustrates the growing participation of Global South countries in advancing SDG 8 research. However, their comparatively lower citation counts highlight structural disparities in global knowledge production. These may be attributed to resource constraints, weaker integration into international collaboration networks, and limited visibility of local journals in global databases [10, 34]. This imbalance mirrors real-world inequalities, where the regions most affected by challenges of unemployment, informality, and inequality often have less global representation in academic research.

Comparing these findings to cognate bibliometric work on other SDGs (e.g., SDG 7 on clean energy, SDG 13 on climate action), a similar pattern emerges in which developed nations dominate output, while developing countries, despite high policy relevance, remain underrepresented [5]. Thus, the country-level distribution in this study not only reflects academic productivity but also mirrors the structural asymmetries of global economic and institutional settings, where capacity, funding, and networks largely determine visibility and influence.

6.3 Authors impact

Table 4 presents the most influential authors in Sustainable Inclusive Economic Growth (SIEG) research under SDG 8. Bekun FV (Istanbul Gelisim University, Turkey) leads with the highest h-index (7), g-index (8), and total citations (386), indicating both productivity and consistent scholarly influence. His prominence reflects Turkey's growing participation in sustainability and economic growth research, supported by collaborations across Europe and Asia. Similarly, Onifade ST (KTO Karatay University, Turkey) and Zhang X (University of Hong Kong, China) highlight the contribution of scholars from emerging and established research hubs, showing how diverse institutional contexts are shaping the field.

Authors such as Rahman MM (University of Southern Queensland, Australia), Alola AA (University of Vaasa, Finland), and Ozturk I (University of Sharjah, UAE) also feature prominently, with strong citation counts relative to their publication numbers. This suggests that their work, while smaller in volume, addresses themes of high global relevance such as employment, environmental economics, and sustainable finance, resonating

Table 4 Top 10 authors impact

Author	Affiliation	h-index	g-index	TC	NP
Bekun FV	Istanbul Gelisim University, Istanbul, Turkey	7	8	386	8
Onifade ST	KTO Karatay University, Konya, Turkey	4	4	167	4
Zhang X	The University of Hong Kong, China	4	4	52	4
Gyamfi BA	Cag University, Mersin, Turkey	3	3	127	3
Liu Y	Beijing Normal University, Beijing, China	3	3	18	3
Ozturk I	University of Sharjah, Sharjah, UAE	3	3	208	3
Rahman MM	University of Southern Queensland, Australia	3	3	226	3
Alola AA	University of Vaasa, Vaasa, Finland	2	2	334	2
Appiah M	Jiangsu University, Zhenjiang, China	2	2	100	2
Bein MA	Cyprus International University, Turkey	2	2	110	2

Table 5 Lotka's law of scientific productivity

Documents written	No. of authors	Proportion of authors	% author's contribution
1	1464	0.959	95.9
2	49	0.032	3.2
3	11	0.007	0.7
4	2	0.001	0.1
8	1	0.001	0.1
	1527		

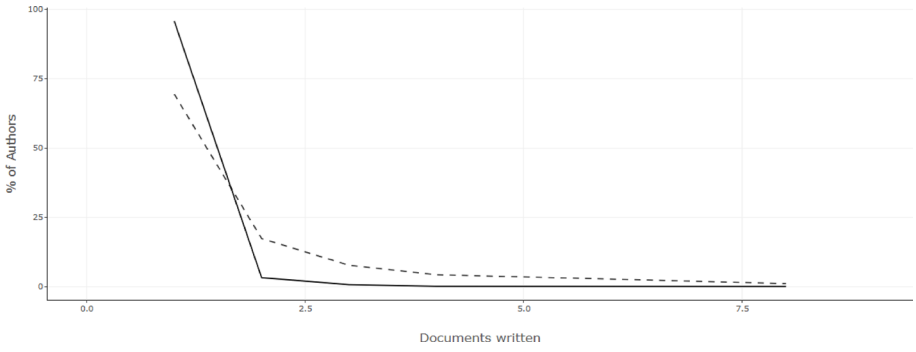

Fig. 4 Lotka's law of scientific productivity

widely across the academic community. By contrast, authors like Liu Y (Beijing Normal University, China) have produced fewer citations despite multiple publications, pointing to potential differences in visibility or journal placement.

Structurally, these results indicate that the field is not dominated by a single scholar or region but is instead distributed across multiple countries and institutions, including Turkey, China, Australia, Finland, and Nigeria. This reflects the multidisciplinary and global nature of SIEG research, where contributions come from diverse economic and institutional contexts. However, the prominence of scholars from Turkey and China, rather than traditional Western powerhouses, also suggests a shift in research leadership toward the Global South and East.

6.3.1 Lotka's law of scientific productivity

It is "a metric to gauge the scientific productivity of an author". Lotka stated that "a significant portion of literature is generated by a small group of authors". The application of Lotka's Law of Scientific Productivity is presented in Table 5 and illustrated in Fig. 4. Out of the 491 publications (having total of 1527 authors), 1464 authors have written single articles having 95.9% of author's contribution followed by 49 authors who have written two articles having 3.2% of author's contribution, 11 authors have written three articles having 0.7% of author's contribution, 2 authors have written four articles having 0.1% of author's contribution and 1 author have written eight articles having 0.1% of author's contribution. The table below reveals that authors who contributed one time (1464 authors having 95.9%) and two times (49 authors having 3.2%) collectively produced the highest number of articles contributing 99.9%. Therefore, this observation is consistent with Lotka's law of scientific productivity.

6.4 Key journals

Table 6 identifies the leading journals publishing research on Sustainable Inclusive Economic Growth (SIEG) within SDG 8. Sustainability (MDPI, Switzerland) ranks first with 44 publications, reflecting its broad, multidisciplinary scope and open-access model, which makes it a popular outlet for SDG-related research [10]. The journal's relatively moderate citation-per-paper (CPP 15.98) compared with other outlets suggests that while it captures a large volume of contributions, many are still building long-term impact.

By contrast, journals such as the Journal of Cleaner Production (Elsevier, UK) and Energies (MDPI) record much higher CPP values (60.54 and 21.50 respectively), despite publishing fewer articles. This indicates that their publications tend to be more specialized and highly cited, reflecting strong alignment with global sustainability debates on cleaner production, renewable energy, and the energy–economy nexus [34]. Similarly, Renewable Energy (Elsevier, CPP 23.23) and Science of the Total Environment (Elsevier, CPP 28.00) demonstrate the high citation potential of technically oriented sustainability journals.

Table 6 Top 10 key journals

Source details	Publisher & Country	NP	h-index	g-index	TC	CPP (Citation Per Paper)
Sustainability (Switzerland) *ISSN: 20711050* *h-Index: 169*	Multidisciplinary Digital Publishing Institute (MDPI), Switzerland	44	14	25	703	15.98
Journal of Cleaner Production *ISSN: 09596526, 18791786* *h-Index: 309*	Elsevier Ltd, U.K	13	9	13	787	60.54
Environmental Science and Pollution Research *ISSN: 09441344, 16147499* *h-Index: 179*	SpringerNature, Germany	11	8	11	196	17.82
Sustainable Development *ISSN: 09680802, 10991719* *h-Index: 91*	John Wiley and Sons Ltd, U.K	12	6	7	64	5.33
Energies *ISSN: 19961073* *h-Index: 152*	Multidisciplinary Digital Publishing Institute (MDPI), Switzerland	6	4	6	129	21.50
Resources Policy *ISSN: 03014207* *h-Index: 114*	Elsevier Ltd, U.K	5	4	5	127	25.40
Heliyon *ISSN: 24058440* *h-Index: 88*	Elsevier B.V., Netherlands	4	3	4	164	41.00
Journal of Sustainable Tourism *ISSN: 09669582, 17477646* *h-Index: 140*	Taylor and Francis Ltd., U.K	3	3	3	327	109.00
Renewable Energy *ISSN: 09601481, 18790682* *h-Index: 250*	Elsevier B.V., U.K	3	3	3	247	82.33
Science of the Total Environment *ISSN: 00489697, 18791026* *h-Index: 353*	Elsevier B.V., Netherlands	3	3	3	84	28.00

Interestingly, journals such as Environmental Science and Pollution Research (Springer, Germany) and Resources Policy (Elsevier, UK) highlight the growing importance of cross-disciplinary approaches that link environmental and economic dimensions with inclusive growth. Their strong citation performance (CPP 17.82 and 25.40) suggests that research situated at the intersection of environmental sustainability and policy relevance attracts significant scholarly attention.

The inclusion of more specialized journals like the Journal of Sustainable Development (Wiley, UK) and the Journal of Sustainable Tourism (Taylor and Francis, UK) reflects the diversification of SIEG-related research, extending beyond macroeconomic growth into fields such as tourism, labor markets, and community development. This aligns with the evolving thematic shift in SDG 8 research toward employment, entrepreneurship, and sector-specific applications [47].

Comparisons with bibliometric analyses of other SDGs (e.g., SDG 7 on clean energy, SDG 13 on climate action) show a similar dominance of high-impact, multidisciplinary, and environment-oriented journals, suggesting that inclusive economic growth is increasingly framed within the broader sustainability discourse [5]. However, the results also point to structural biases: leading journals are concentrated in Europe and North America, particularly under large publishers such as Elsevier, Springer, and Wiley. This reflects inequalities in global publishing, where research from developing regions often remains underrepresented due to paywalls, APC costs, or preference for English-language outlets [21].

The dominance of sustainability-focused journals alongside more specialized outlets highlights the interdisciplinary character of SIEG research. Yet, it also reveals how global publishing structures influence visibility, privileging certain regions and publishers while potentially overlooking locally relevant contributions from the Global South.

6.5 Impactful and trending articles

Citation metrics of paper "Rasoulinezhad E, 2022, Energy Efficiency" covering area of environmental sustainability garnered higher citation counts. Highly cited studies often proposed novel conceptual frameworks or offered robust empirical evidence for policy interventions. Notably, interdisciplinary papers those bridging economic models with ecological and social variables demonstrated higher visibility and impact. In total, a comprehensive count of 491 academic papers has been conducted to identify the most frequently cited manuscript indexed in Scopus database. Among the aggregate of 7775 citations, the cumulative total of citations attributed to the top 15 most cited papers amounts to 2838, with the highest citation count per year reaching 96 for the work authored by "Rasoulinezhad E" published in 2022 which was disseminated in the journal titled "Energy Efficiency". The aforementioned top 15 highly cited manuscripts have been published in high-impact journals during the temporal window of 2009 to 2022. These papers are cataloged with their respective metadata in Table 7, accompanied by the Digital Object Identifier (DOI) to enhance accessibility. After identifying the top 10 journals it is quite evident that the top cited publications shall be from the these high quality and high impact journals having h-index range 88 to 353 (as per the SJR websites).

Table 7 Top 15 impactful and trending articles

Bibliographical details of paper	Total citations	TC per year
"Rasoulinezhad, E., & Taghizadeh-Hesary, F. (2022). Role of green finance in improving energy efficiency and renewable energy development. *Energy Efficiency*, *15*(2), 1–12"	384	96.00
"Ranjbari et al. (2021). Three pillars of sustainability in the wake of COVID-19: A systematic review and future research agenda for sustainable development. *Journal of Cleaner Production*, *297*, 126660"	314	62.80
"Saint Akadiri et al. (2019). Renewable energy consumption in EU-28 countries: Policy toward pollution mitigation and economic sustainability. *Energy Policy*, *132*, 803–810"	280	40.00
"Kopnina, H. (2020). Education for the future? Critical evaluation of education for sustainable development goals. *The Journal of Environmental Education*, *51*(4), 280–29"	258	43.00
"Wang, Q., & Huang, R. (2021)The impact of COVID-19 pandemic on sustainable development goals—A survey. *Environmental Research*, *202*, 111637"	190	38.00
"Alarcón, D. M., & Cole, S. (2019). No sustainability for tourism without gender equality. *Journal of Sustainable Tourism*, *27*(7), 903–919"	180	25.71
"Rai, S. M. e. al.. (2019). SDG 8: Decent work and economic growth – A gendered analysis. *World Development*, *113*, 368–380"	179	25.57
"Nhamo, G. et. al. (2020). Counting the cost of COVID-19 on the global tourism industry. *Counting the Cost of COVID-19 on the Global Tourism Industry*, 1–418"	149	24.83
"Tay, L. Y. et. al. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, *8*(6), e09766"	148	37.00
"Wang Z. et. al. (2021). Does export product quality and renewable energy induce carbon dioxide emissions: Evidence from leading complex and renewable energy economies. *Renewable Energy*, *171*, 360–370"	138	27.60
"Hosan et al. (2022). Dynamic links among the demographic dividend, digitalization, energy intensity and sustainable economic growth: Empirical evidence from emerging economies. *Journal of Cleaner Production*, *330*, 129858"	134	33.50
"Abad-Segura, E., & González-Zamar, M. D. (2021). Sustainable economic development in higher education institutions: A global analysis within the SDGs framework. *Journal of Cleaner Production*, *294*, 126133"	126	25.20
"Chirambo, D. (2018). Towards the achievement of SDG 7 in sub-Saharan Africa: Creating synergies between Power Africa, Sustainable Energy for All and climate finance in-order to achieve universal energy access before 2030. *Renewable and Sustainable Energy Reviews*, *94*, 600–608"	122	15.25
"Bianchi, R. V., & de Man, F. (2021). Tourism, inclusive growth and decent work: a political economy critique. *Journal of Sustainable Tourism*, *29*(2–3), 352–370"	119	23.80
"Gawel, E. et. al. (2019). A Path Transition Towards a Bioeconomy—The Crucial Role of Sustainability. *Sustainability 2019, Vol. 11, Page 3005*, *11*(11), 3005"	117	16.71

6.5.1 Zipf's law of word occurrence

This law is "an empirical principle that generally remains valid when a series of measured values is organized in descending order. This principle states that the value of the n-th entry is inversely related to n. The most recognized use of Zipf's law is in the frequency distribution of words within a text or natural language corpus." It is usually noted that the most frequently used word appears about twice as often as the second most frequent, three times as often as the third, and so on.

Zipf's Law is expressed mathematically as follows:

$$r * f = c$$

"where, r = the rank of the word, f = the frequency, and c = Constant"

To employ Zipf's law, the words extracted from the article's keywords are chosen and subsequently arranged based on their frequency of occurrence, data is presented in Table 8. Furthermore, the Co-occurrence Network, WordCloud and Treemap of Keywords is shown in figure no. 5, 6, and 7 respectively. From the table it is seen that the

Table 8 Most relevant words

Keywords	Rank (r)	No. of occurrences keywords	Occurrences of Freq. (f)	r * f = c (c = expected constant)
Sustainable development	1	178	178	178
Sustainable development goal	2	129	258	516
Sustainability	3	62	186	558
Economic growth	4	61	244	976
Economic development	5	46	230	1150
Economics	6	42	252	1512
United nations	7	42	294	2058
Economic and social effects	8	35	280	2240
Planning	9	35	315	2835
Economic sustainability	10	30	300	3000
Carbon dioxide	11	29	319	3509
Sustainable economic growth	12	29	348	4176
China	13	27	351	4563
Climate change	14	25	350	4900
Economic analysis	15	24	360	5400

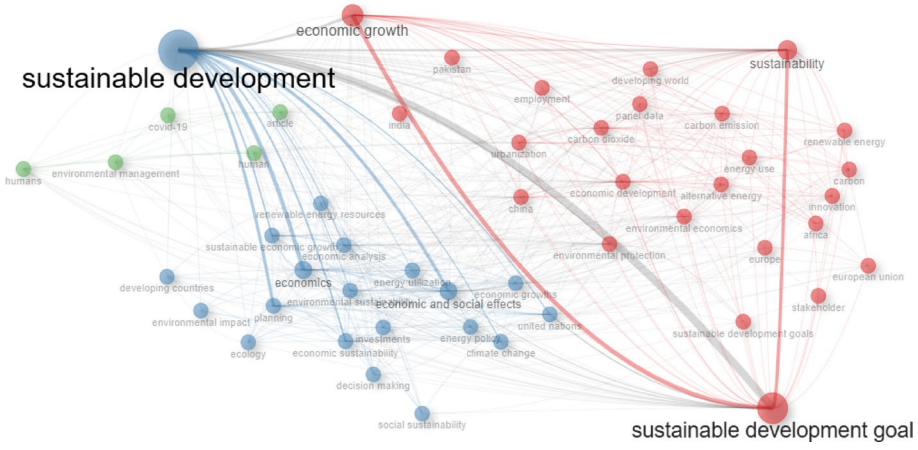

Fig. 5 Co-occurrence Network of Keywords

total of top 15 keywords are 794. In the context of the provided keywords, the product of the rank of a word and its frequency does not remain constant. Therefore, it can be concluded that the dataset does not conform to Zipf's Law (Fig. 5).

The WordCloud visualization in Fig. 6 highlights the centrality of terms such as "sustainable development," "sustainability," "economic growth," and "sustainable development goals (SDGs)", which dominate the research discourse. The prominence of these terms reflects the thematic priorities of countries with the highest research output, particularly advanced economies like the United States, China, and members of the European Union. These nations have embedded the SDGs into their policy frameworks, and their research institutions often align scholarly output with global sustainability agendas. Large-scale funding mechanisms, such as Horizon Europe, the U.S. National Science Foundation, and China's Five-Year Plans, provide strong incentives for producing research focused on sustainable development and economic-environmental balance. Moreover, by contributing disproportionately to this body of work, these countries also project themselves as global leaders in shaping the discourse on sustainability.

Fig. 6 WordCloud of SIEG research keywords

In contrast, developing economies contribute fewer publications, which is evident in the smaller presence of terms such as "social sustainability," "renewable energy," and "inclusive growth" within the WordCloud. These areas, though important, remain less central due to limited institutional support, constrained R&D budgets, and an emphasis on immediate developmental needs over broader sustainability frameworks. The WordCloud also reflects the shared vocabulary of international collaborations, with frequent terms like "economic growth," "climate change," and "United Nations" underscoring the influence of multilateral dialogues and cross-country partnerships. For example, European collaborations often emphasize climate change and environmental sustainability, Chinese partnerships with developing economies focus on infrastructure and growth, while the United States is more strongly associated with research linking innovation, sustainability, and global governance.

The WordCloud not only visualizes dominant research themes but also mirrors structural inequalities in country-level production and collaboration. The large, globally recognized terms correspond to the agendas of high-output nations, while the smaller, less frequent terms reflect the niche yet significant contributions of lower-output regions. This dynamic underscores how global research on sustainable development is shaped by disparities in capacity, funding, and institutional priorities.

As per Fig. 7, to fulfil the sustainable development goal set by the United Nations (UN) by the year 2030, most of the studies are revolving around the keywords i.e. *economic and social effects, economic development and growth, economic sustainability, economics, planning, sustainability, sustainable development, sustainable development goal, United Nations*. These are top 10 keywords that are largely evolved around the Eighth goal of SDGs focused on the '*Promotion of inclusive and sustainable economic growth, employment and decent work for all*' [43].

6.5.2 Trending topics

Figure 8 depicts the trend topics plot using the "DE" (Descriptors) field, displaying the top 3 words per year. The plot highlights the evolving focus within the research domain covered by the database. From 2020, there is an initial emphasis on broad concepts like "climate change," "COVID-19," and "renewable energy," indicating immediate responses to global challenges. By 2022, terms such as "inclusive growth" and "social sustainability" emerge, suggesting a shift towards addressing social dimensions within sustainable development.

Fig. 7 Treemap of keywords

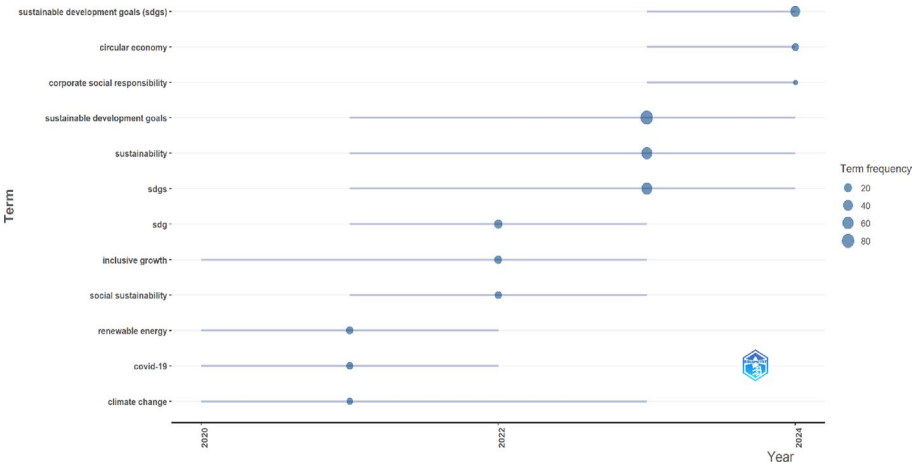

Fig. 8 Trending topics

The latter part of the observed period, particularly 2024, shows a consolidation around the theme of sustainability, with significant emphasis on "sustainable development goals" (both abbreviated and in full), "circular economy," and "corporate social responsibility". The increasing bubble size for these terms in 2024 suggests a growing focus and frequency of these descriptors within the research literature. This indicates a maturing understanding and integration of sustainable practices at different levels—from macro-level goals (SDGs) to micro-level corporate actions and resource management (circular economy). The interquartile ranges (light blue lines) for these terms can provide insight into the consistency and spread of their usage across the analyzed literature.

6.5.3 Most influential institutions

Table 9 highlights the leading institutions contributing to research on Sustainable Inclusive Economic Growth (SIEG) within the SDG 8 framework. Covenant University (Nigeria) emerges as the most prolific with 21 publications, a finding that underscores the growing role of African institutions in advancing sustainability-related scholarship. This is particularly significant given that African countries are among the most affected by

Table 9 Top 15 most influential institutions

Affiliation	Country	Articles
Covenant University	Nigeria	21
Central South University of Forestry and Technology (CSUFT)	China	10
Deakin University	Australia	10
University of Johannesburg	South Africa	10
Chengdu University of Technology	China	9
Wuhan University	China	9
Multimedia University	Malaysia	8
School of Management (Jiangsu University)	China	8
UAE University	UAE	8
Government College University	Pakistan	7
Huazhong Agricultural University	China	7
Huazhong University of Science and Technology (HUST)	China	7
Instituto Mexicano Del Petróleo	North America	7
Istanbul Gelisim University	Turkey	7
Tsinghua University	China	7

unemployment and inclusive growth challenges, yet their universities are often underrepresented in global research output [34]. Covenant University's prominence suggests targeted institutional strategies to align research with national development priorities and global sustainability agendas.

Several Chinese institutions, including Central South University of Forestry and Technology (CSUFT), Wuhan University, Chengdu University of Technology, Huazhong Agricultural University, Huazhong University of Science and Technology, and Tsinghua University, also rank highly. This reflects China's strategic emphasis on sustainable development research, supported by strong government funding and integration of SDG goals into national policy frameworks [47]. The presence of multiple Chinese universities in the top list also demonstrates the structural concentration of research capacity in specific regions of the Global South.

Beyond China and Africa, Deakin University (Australia) and the University of Johannesburg (South Africa) indicate the widening geographic spread of SDG 8 scholarship, while institutions like UAE University, Government College University (Pakistan), and Multimedia University (Malaysia) highlight the increasing involvement of Middle Eastern and Asian universities. These patterns suggest that research on inclusive growth is not only concentrated in traditional Global North hubs but also expanding to emerging economies where the relevance of SDG 8 is particularly acute. However, citation analysis (not shown here) suggests that despite publication volume, the global visibility and impact of Global South institutions often lag behind those of their Northern counterparts, reflecting structural imbalances in research dissemination [4].

Interestingly, the inclusion of Instituto Mexicano del Petróleo (North America) reflects the intersection of industrial and sustainability research, pointing to how sector-specific institutions can also contribute to SDG-related scholarship. Comparatively, bibliometric studies of other SDGs (e.g., SDG 7 and SDG 13) have found similar patterns: research is concentrated in a handful of institutions in well-funded regions, while many universities in developing countries remain marginal [5].

It is also important to note potential biases: Scopus indexing privileges internationally visible journals, which often publish in English and favor institutions with higher funding and global partnerships. As a result, institutions producing valuable research in local

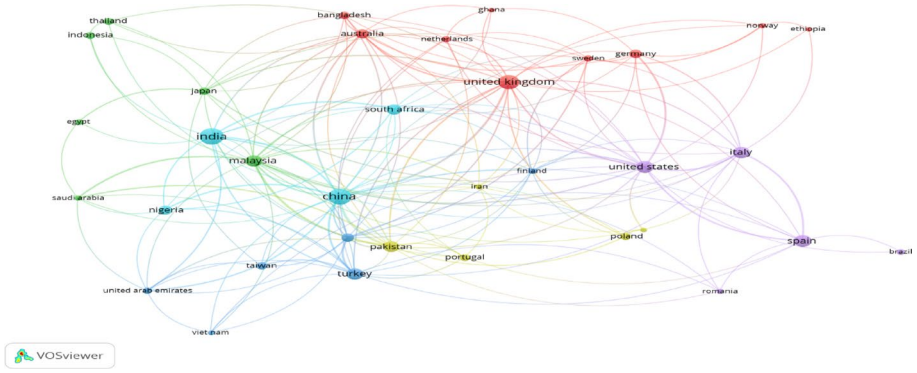

Fig. 9 Co-authorship network of top countries

Fig. 10 Countries' collaboration world map

languages or in regionally focused journals may be undercounted [21]. These structural limitations must be considered when interpreting institutional rankings, as they may not fully reflect the breadth of contributions globally.

7 Social structure depicting collaboration networks

7.1 Co-authorship of countries

The co-authorship network (Fig. 9) and world collaboration map (Fig. 10) together illustrate the structural dynamics of international research collaboration on Sustainable Inclusive Economic Growth (SIEG) under SDG 8. The results show that China, India, the United Kingdom, and the United States act as central hubs, connecting both developed and developing countries. China and India exhibit strong regional ties with Malaysia, Pakistan, and Nigeria, reflecting both geographical proximity and shared socio-economic challenges such as employment generation, financial inclusion, and digital transformation [47].

The United Kingdom and the United States, while producing fewer publications than China and India, maintain extensive cross-continental collaborations with Europe, Africa, and Asia. This pattern highlights their role as bridge-builders in international networks, leveraging historical academic linkages, global research funding, and established institutional infrastructures [4]. The collaboration map confirms these findings, showing dense cross-regional linkages between Europe and Asia, and bilateral partnerships linking the Global South to Global North institutions.

However, both figures also reveal structural asymmetries. African nations such as Nigeria and South Africa are visible in the networks, but their collaborations are often mediated through partnerships with dominant countries like China, the UK, or the US. Similarly, Latin America appears underrepresented, with limited cross-regional connectivity. This suggests that while Global South countries contribute meaningfully, their research visibility and influence are shaped largely by North–South partnerships, echoing real-world disparities in research funding, institutional capacity, and access to high-impact journals [26, 34].

When compared to bibliometric studies of other SDGs, such as SDG 7 (clean energy) and SDG 13 (climate action), the collaboration network for SDG 8 appears more fragmented and less globally integrated [5]. Whereas climate and energy research often involve large-scale multinational projects, SIEG research tends to remain regionally concentrated, reflecting the national or regional nature of inclusive growth policies. This fragmentation suggests the need for stronger South–South collaboration to ensure that research reflects the diversity of local contexts and not only the priorities of global hubs.

Moreover, Figs. 9 and 10 demonstrate that while global collaboration on SDG 8 is expanding, it remains unevenly distributed and structurally dependent on a few leading countries. The network structure mirrors broader economic realities: research-rich nations act as agenda-setters, while developing regions though deeply affected by inclusive growth challenges are underrepresented in shaping the global discourse. Strengthening equitable collaboration and diversifying participation will be essential to align the research ecosystem with the inclusive principles of SDG 8.

7.1.1 Corresponding author's countries

Table 10 highlights the distribution of corresponding authors across countries, revealing important patterns in leadership and collaboration within Sustainable Inclusive Economic Growth (SIEG) research. China (54 articles, 35.2% MCP) and India (38 articles, 13.2% MCP) lead in absolute numbers, reflecting their growing role as knowledge producers aligned with their national development agendas. However, while China has high productivity, its relatively lower share of multi-country publications (MCP) suggests a tendency toward domestically concentrated research networks, possibly reflecting strong national research funding but limited outward integration [4]. India, in contrast, shows more balanced engagement with international collaborations, though still lower than European countries in relative terms.

Table 10 Corresponding author's countries

Country	NP/articles	NP/articles %	SCP	MCP	MCP %
China	54	11	35	19	35.2
India	38	7.7	33	5	13.2
Spain	23	4.7	17	6	26.1
United Kingdom	21	4.3	13	8	38.1
Italy	18	3.7	15	3	16.7
Turkey	18	3.7	13	5	27.8
South Africa	17	3.5	13	4	23.5
Malaysia	11	2.2	9	2	18.2
Nigeria	11	2.2	9	2	18.2
Pakistan	11	2.2	5	6	54.5

European nations such as Spain (26.1% MCP), the UK (38.1% MCP), and Italy (16.7% MCP) demonstrate a higher propensity for cross-country partnerships. The UK, despite fewer articles compared to China and India, records the highest MCP share (38.1%) among major contributors, underscoring its position as a global connector in the SIEG research network. Spain and Italy similarly show high collaboration rates, reflecting the European Union's emphasis on multinational research consortia and cross-border funding programs.

Interestingly, Pakistan records a strikingly high MCP share (54.5%), despite its modest output. This suggests that Pakistan's contributions are heavily reliant on international partnerships, often with better-resourced collaborators. A similar pattern is evident in Nigeria (18.2%) and South Africa (23.5%), reflecting both the structural constraints of Global South institutions and the opportunities provided by North–South and South–South collaborations [26]. These findings resonate with earlier bibliometric work on SDG 7 and SDG 13, which also identified developing countries as highly dependent on international partnerships for visibility and impact [34].

The data reveal broader structural dynamics: high-income countries such as the UK and Spain function as global collaboration hubs, while emerging economies such as China and India produce high volumes but remain more nationally oriented. Meanwhile, low- and middle-income countries like Pakistan and Nigeria rely disproportionately on external collaborations to participate in global knowledge networks. This reflects real-world disparities in research infrastructure, funding capacity, and institutional integration.

It is also important to acknowledge potential biases: Scopus indexing privileges English-language and internationally visible journals, which may underestimate independent contributions from non-English-speaking or regionally focused institutions [21]. Therefore, while the data highlight leadership and collaboration dynamics, they also mirror structural inequalities in the global research landscape.

As the China and India are the most populous countries in the world and thriving for sustainable economic development for their citizens to remain in top five world economies. Similarly, China and India are the leading country in publication production, as a result these two are also has leading positions as corresponding authors [49].

7.1.2 Conceptual structure depicting thematic evolution and emerging themes

The thematic evolution plot as depicted in Fig. 11 reveals the shifting research landscape related to sustainability from 2014 to 2023 to 2024–2025. The prominence of

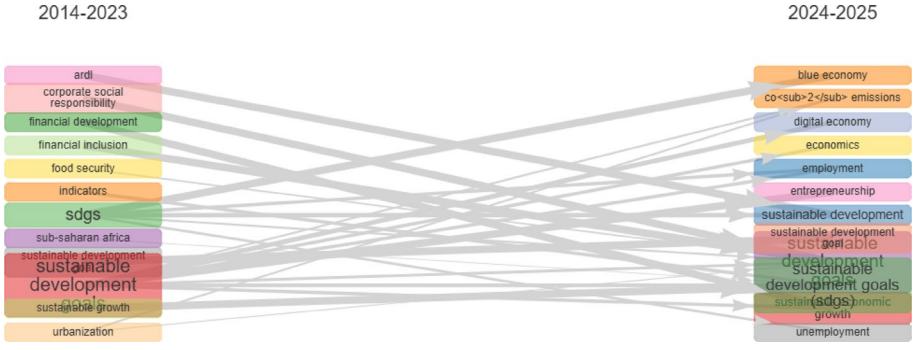

Fig. 11 Thematic evolution and emerging themes

"Sustainable Development" and "Sustainable Development Goals (SDGs)" as central themes remains consistent across both periods, indicating their enduring importance. However, the landscape evolves. "Corporate Social Responsibility (CSR)" appears to decline in relative importance, suggesting a shift in focus away from purely corporate-driven sustainability initiatives. In contrast, themes like "Blue Economy," "CO2 Emissions," and "Digital Economy" emerge, indicating growing interest in these areas within the sustainability context. "Economics," "Employment," and "Entrepreneurship" become associated with sustainability, pointing towards a more integrated approach that considers economic and social dimensions. "Financial Development" seems to bifurcate, with a portion linking to "Economics," indicating integration, while another segment fades or merges into other areas. "Urbanization" disappears completely, which could be due to that theme being so large that it had to break down into other more detailed subject areas. Overall, the plot highlights a trend toward incorporating technological advancements, carbon reduction strategies, and broader economic considerations into sustainable development research.

The strategic map analysis is further divided into two sections for better understanding of the SIEG evolution:

1. Period 2014–2023:

   - *Motor themes* "Sub-Saharan Africa," "Environmental Quality," "Climate Change Mitigation," "Carbon Emissions," "SDGs," "Sustainability," and "Sustainable Development" dominate as motor themes. This indicates these areas are both well-developed and central to the research field. The strong focus on Sub-Saharan Africa within this cluster suggests a regional emphasis on sustainability challenges and opportunities.
   - *Basic themes* "Sustainable Development Goals," "Economic Sustainability," and "Biogas" form the basic themes, implying that they are well-established and fundamental to sustainability research, acting as a basis for further exploration.
   - *Niche themes* "Urbanization," "Globalization," and "Environment Performance Index" are identified as niche themes. This suggests that while important, they are not as central or well-developed as the motor themes. They represent specialized areas of interest within the broader field.
   - *Emerging or declining themes* "Corporate Social Responsibility," "Financial Inclusion," and "Sustainable Agriculture" fall into this category, implying they are less developed and potentially fading in prominence or becoming integrated into other areas.

2. Period 2024–2025:

   - *Motor themes* "Sustainable Economic Growth," "Trade Openness," "CO2 Emissions," "Climate Smart Agriculture," "Sustainable Development," "Sustainable Development Goals," and "SDGs" are now the primary motor themes. This indicates a shift towards economic considerations, mitigation strategies, and a continued focus on SDGs. Globalization emerges as a motor theme, indicating that the effects of this global phenomenon on sustainable development are getting increased interest.

Fig. 12 Intellectual structure depicting co-citation network

- *Basic themes* "Sustainable Development Goals (SDGs)," "Economic Sustainability," and "Circular Economy" are the core basic themes. This suggests that circular economy principles are becoming increasingly foundational to sustainable development research.
- *Niche themes* "Machine Learning," "Econometrics," "Employment," "Governance," and "Principal Component Analysis" are niche themes, showing the integration of new methodologies and emerging areas of study.
- *Emerging or declining themes* "Entrepreneurship," "Climate," "Institutional Quality," "Blue Economy," "Fintech," "Unemployment," and "Banking" fall into this area. This highlights potentially emerging themes, but also some that might be consolidating or declining in relative importance, like traditional banking as Fintech gains traction. "Digital Economy" appears as an emerging or declining theme, highlighting the fact that is less central and less developed, so further research is needed to understand its potential and to develop it.

The combined analysis reveals a dynamic research landscape. While core concepts like SDGs and Sustainable Development remain central, the field is evolving to incorporate economic considerations, technological advancements, and specific challenges like carbon emissions. The strategic maps indicate shifts in focus, with new areas gaining prominence (e.g., circular economy, blue economy, digital economy) and others potentially fading (e.g., financial inclusion). The emergence of "Machine Learning" and "Econometrics" in the niche themes suggests a growing use of quantitative methods and data-driven approaches within sustainability research. These insights can help policymakers to identify emerging trends on which further improvements are needed, assess the strategic importance of different topics, and fund the research within the evolving field of sustainability.

7.1.3 Intellectual structure depicting co-citation network

The co-citation network as shown in Fig. 12 appears to be relatively fragmented. There are several distinct clusters, indicating several distinct research themes. The Louvain algorithm identified five communities, which suggest the presence of differentiated fields of study:

- *Cluster 1 (Green)* This cluster is located in the upper left corner. It includes publications such as Chudik A. (2015), Pesaran (2007), Dumitrescu-I. (2012), and Im K.S. (2003). This cluster likely relates to macroeconomics.

- *Cluster 2 (Red)* This cluster contains "Transforming our World: The 2030 Agenda for Sustainable Development" (2015) and Pradhan P. This suggests a focus on sustainable development.
- *Cluster 3 (Blue)* This community is located in the bottom-left and contains Hak T. (2016) and Macfeely S. These publications are related to social sciences.
- *Cluster 4 (Orange):*This is the smallest cluster, and features Ozturk I. (2010) and Energy Information Administration (EIA). It is likely related to energy-related research
- *Cluster 5 (Purple)* The purple cluster consists of Le Blanc D. (2015) and Nilsson M. (2016). This cluster may relate to environmental impact assessment.

The co-citation network reveals a thematic landscape comprised of distinct, yet potentially interconnected, research streams. A focus on macroeconomics is evident in the grouping of authors such as Chudik A., Pesaran, Dumitrescu-I., and Im K.S., forming a cohesive cluster. The prominence of the "Transforming our World: The 2030 Agenda for Sustainable Development" publication alongside authors such as Pradhan P., indicates a strong focus on sustainable development goals. The network also highlights research related to the social sciences with publications from Hak T. and Macfeely S., as well as studies of energy economics, with work from Ozturk I. and the Energy Information Administration (EIA). Finally, the cluster containing Le Blanc D. and Nilsson M. suggests a focus on environmental impact assessment. This structure indicates a multifaceted field that could benefit from cross-disciplinary approaches.

8 Limitations of the study

Similar to other research publications, this study is not without limitations, which future studies can address. First, bibliometric analysis inherently relies on existing literature. In this study, the ranking of articles, journals, and authors is based on global citation counts. As a result, recently published works often appear undervalued, since it typically takes 2–3 years for articles to accumulate substantial citations. High-quality contributions from 2023–2025 may therefore not feature among the most cited publications. Second, the exclusive reliance on a single database (Scopus) may restrict the breadth of coverage, particularly by excluding non-English sources and works indexed in other databases such as Web of Science or Dimensions. Additionally, the search string and keyword strategy, while carefully developed, may have constrained the scope of analysis and influenced clustering outcomes. Third, bibliometric methods are primarily descriptive and quantitative in nature, providing limited insight into the theoretical or qualitative dimensions of Sustainable Inclusive Economic Growth (SIEG).

Finally, while Biblioshiny and VOSviewer provided valuable analytic and visualization capabilities, their functionalities remain bounded. Alternative tools such as BibExcel, HistCite, or Gephi could enhance future analyses by enabling advanced visualization, network exploration, and integration of relational metrics like the Collaboration Index (CI), Collaborative Coefficient (CC), or Degree of Collaboration (DC). Employing a multi-database strategy, coupled with complementary tools and mixed-method approaches such as content analysis or meta-analysis, would allow future research to yield a more comprehensive and nuanced understanding of the SIEG knowledge base.

9 Discussion

This study highlights the sharp rise in research on Sustainable Inclusive Economic Growth (SIEG) under the SDG 8 framework, particularly after 2019. This aligns with global momentum generated by the UN 2030 Agenda and the renewed emphasis on economic recovery after COVID-19 [44, 47]. The bibliometric evidence shows that global academic communities are increasingly recognizing the importance of balancing economic growth with inclusivity and sustainability, marking a significant intellectual shift from earlier narrower studies on growth and productivity alone [20].

The institutional mapping revealed that Covenant University (Nigeria) led with 21 publications, followed by Central South University of Forestry and Technology (China), Deakin University (Australia), and the University of Johannesburg (South Africa) with 10 publications each. This demonstrates that institutions from both developed and developing regions are contributing meaningfully to SDG 8 scholarship [4]. However, contributions remain uneven, with relatively limited participation from Latin American universities and smaller African or South Asian institutions. This imbalance highlights the need for capacity building, regional collaboration, and equitable funding structures to democratize knowledge production on inclusive growth.

The thematic analysis confirmed a significant intellectual progression. Between 2014 and 2023, research emphasized financial inclusion, corporate social responsibility (CSR), food security, and sustainable growth—reflecting concerns about access to finance, ethical practices, and meeting basic needs. However, in 2024–2025, the focus shifted toward digital economy, blue economy, employment, entrepreneurship, and unemployment. These themes signal a response to emerging socio-economic transformations: the digital economy reflects the growing role of digitalization in shaping inclusive growth; the blue economy emphasizes the integration of marine and coastal sustainability into economic frameworks; and employment or unemployment concerns highlight persistent global inequalities in labor markets [10, 21].

The results suggest that research on SIEG is not static but dynamic, constantly adapting to global priorities. This adaptability underscores the academic community's responsiveness to crises (e.g., COVID-19), sustainability challenges (e.g., climate change), and technological disruptions (e.g., digitalization). By integrating institutional and thematic evidence, the study adds both conceptual clarity and practical foresight, positioning SDG 8 research as an evolving field with direct implications for sustainable policy design.

10 Practical, policy and future research implications

The study provides benchmarks for researchers, institutions, and practitioners. By identifying prolific universities, top journals, and thematic clusters, the findings allow scholars especially early-career researchers to strategically position their work, select impactful publication outlets, and pursue meaningful collaborations. Institutions can also use these insights to strengthen research strategies, align academic priorities with sustainability goals, and invest in interdisciplinary programs that reflect emerging themes like the digital economy and green jobs [2].

From a policy perspective, the results highlight urgent priorities. The rising prominence of unemployment and entrepreneurship suggests the need for inclusive labor market reforms, youth-focused employment programs, and entrepreneurship incentives. Governments can design digital literacy programs and foster university–industry

partnerships to prepare the workforce for the digital economy [26]. Similarly, the growth of the blue economy theme underscores the importance of integrating marine resource management and sustainability policies into national development plans. The continuing emphasis on CSR and financial inclusion also reaffirms the role of the private sector in advancing SDG 8 [18].

This study identifies several opportunities for advancing research. First, bibliometric studies should expand data sources by integrating Scopus with Web of Science, Dimensions, and Google Scholar, ensuring more comprehensive coverage [5]. Second, scholars should complement bibliometric mapping with qualitative approaches (e.g., content analysis, systematic reviews) to provide richer theoretical insights [35]. Third, advanced visualization and analytical tools such as Gephi, CiteSpace, or Pajek could be employed to reveal deeper structures in collaboration networks. Finally, there is a strong need for regional and localized studies in underrepresented areas such as Africa, Latin America, and South Asia, where inclusive growth challenges remain acute but scholarly representation is weak. Such work would ensure that global SDG 8 research reflects diverse voices and contexts.

Future research should move beyond descriptive bibliometric patterns and adopt stronger theory-informed approaches, drawing from frameworks such as inclusive growth theory, ecological economics, and the triple bottom line. Incorporating these perspectives would provide a clearer conceptual foundation, enhance the comparability of findings, and ensure that SDG 8 research translates into actionable strategies for inclusive and sustainable economic development.

11 Conclusion

This study provides a comprehensive bibliometric mapping of Sustainable Inclusive Economic Growth (SIEG) within SDG 8 for the period 2014–2025, analyzing 491 publications to uncover global research dynamics. The findings reveal key institutional contributors such as Covenant University (Nigeria), Deakin University (Australia), Central South University of Forestry and Technology (China), and the University of Johannesburg (South Africa), alongside a clear thematic transition from earlier emphases on financial inclusion and corporate social responsibility (CSR) toward emerging priorities such as digital economy, blue economy, employment, and entrepreneurship. These shifts underscore the responsiveness of scholarly communities to evolving socio-economic realities, particularly the challenges of digital transformation, labor market inequalities, and sustainability imperatives [16, 46].

The present study bridges the gap between bibliometric evidence and practice by translating findings into policy-relevant recommendations on inclusive employment, sustainable entrepreneurship, digital transformation, and environmental integration. Achieving sustainable inclusive economic growth will require addressing persistent gaps in geographic representation, methodological breadth, technological analysis, and policy integration. Future research should prioritize underrepresented regions, adopt interdisciplinary and mixed-method approaches, and harness emerging technologies to provide richer insights into inclusive growth dynamics. Policymakers and stakeholders can build on these findings by embedding inclusive labor policies, ecological safeguards, and innovation-driven solutions into national development agendas, while international organizations and funders should foster cross-regional collaboration, capacity building, and robust data infrastructure.

By aligning academic inquiry with practical interventions, SIEG research can move beyond theoretical constructs to become a blueprint for realizing SDG 8, a future where economic prosperity is balanced with social justice, decent work, and environmental stewardship. In doing so, this study not only maps the quantitative landscape of SDG 8 research but also identifies policy gaps and regional opportunities. By situating bibliometric findings within real-world economic and institutional contexts, it offers actionable lessons for scholars, governments, and international organizations to expand research participation from underrepresented regions, integrate digital and ecological transitions into inclusive growth strategies, and foster collaborative mechanisms that ensure no region is left behind in advancing the mandate of SDG 8.

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RV and AK conceived the idea and prepared manuscript. MMM and NG reviewed the manuscript.

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Declarations

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Consent to publish
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Competing interests
The authors declare no competing interests.

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References

1. Ali I, Son HH. Measuring inclusive growth. Asian Dev Rev. 2023;24(1):11–31. https://doi.org/10.1142/S0116110507000024.
2. Aria M, Cuccurullo C. Bibliometrix: an R-tool for comprehensive science mapping analysis. J Informetr. 2017;11(4):959–75. https://doi.org/10.1016/j.joi.2017.08.007.
3. Borgohain DJ, Verma MK. Mapping the literature on augmented reality-based gaming: a text mining approach. Inf Discov Deliv. 2024. https://doi.org/10.1108/IDD-06-2023-0053.
4. Bornmann L, Leydesdorff L. Scientometrics in a changing research landscape: bibliometrics has become an integral part of research quality evaluation and has been changing the practice of research. EMBO Rep. 2014;15(12):1228–32. https://doi.org/10.15252/EMBR.201439608.
5. Caputo A, Kargina M. A user-friendly method to merge Scopus and Web of Science data during bibliometric analysis. J Mark Anal. 2022;10(1):82–8. https://doi.org/10.1057/S41270-021-00142-7/METRICS.
6. Chou C-H, Ly Ngo S, Phi Tran P. Renewable energy integration for sustainable economic growth: insights and challenges via bibliometric analysis. Sustainability. 2023;15(20):15030. https://doi.org/10.3390/SU152015030.
7. Costanza R, D'Arge R, De Groot R, Farber S, Grasso M, Hannon B, et al. The value of the world's ecosystem services and natural capital. Nature. 1997;387(6630):253–60. https://doi.org/10.1038/387253A0;KWRD.
8. Culnan MJ. Mapping the intellectual structure of MIS, 1980–1985: a co-citation analysis. MIS Q Manag Inf Syst. 1987;11(3):341–50. https://doi.org/10.2307/248680.
9. Dar BI, Badwan N, Kumar J. Investigating the role of Fintech innovations and green finance toward sustainable economic development: a bibliometric analysis. Int J Islam Middle East Financ Manag. 2024;17(6):1175–95. https://doi.org/10.1108/IMEFM-01-2024-0018/FULL/XML.
10. Donthu N, Kumar S, Mukherjee D, Pandey N, Lim WM. How to conduct a bibliometric analysis: an overview and guidelines. J Bus Res. 2021;133:285–96. https://doi.org/10.1016/J.JBUSRES.2021.04.070.
11. Van Eck NJ, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. Scientometrics. 2010;84(2):523–38. https://doi.org/10.1007/S11192-009-0146-3.
12. Elkington J. Cannibals with forks the triple bottom line of 21st century business. Oxford: Capstone; 1997.
13. Garfield E. Bradford's law and related statistical patterns. Curr Contents. 1980;19:5–12.
14. Balsvik J. Green growth and decoupling as legitimation strategies. In: Stockholm Business School. 2020.
15. Ranieri R, Ramos RA. Inclusive growth: building up a concept international centre for inclusive growth. In: International policy centre for inclusive growth (IPC-IG), no. 104. 2013. www.ipc-undp.org
16. Jackson T. Prosperity without growth : foundations for the economy of tomorrow. In: Prosperity without growth. Routledge; 2016. https://doi.org/10.4324/9781315677453

17. Kasaraneni HJ, Rosaline S. Automatic merging of Scopus and Web of Science data for simplified and effective bibliometric analysis. Ann Data Sci. 2024;11(3):785–802. https://doi.org/10.1007/S40745-022-00438-0.
18. Kopnina H. Education for the future? Critical evaluation of education for sustainable development goals. J Environ Educ. 2020;51(4):280–91. https://doi.org/10.1080/00958964.2019.1710444.
19. Low MB, Macmillan IC. Entrepreneurship: past research and future challenges. J Manage. 1988;14(2):139–61. https://doi.org/10.1177/014920638801400202.
20. Mensah J. Sustainable development: meaning, history, principles, pillars, and implications for human action: literature review. Cogent Soc Sci. 2019. https://doi.org/10.1080/23311886.2019.1653531.
21. Moed HF. Applied evaluative informetrics. Springer International Publishing; 2017. https://doi.org/10.1007/978-3-319-60522-7.
22. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med. 2009;6(7):e1000097. https://doi.org/10.1371/JOURNAL.PMED.1000097.
23. Morales-Zapata D, Valencia-Arias A, Garcés-Giraldo LF, Toro-Vanegas E, Quiroz-Fabra J. Trends in research around the sustainable development objectives: a bibliometric analysis. In: Sustainable development goals series, vol. Part F2674. Cham: Springer; 2021. p. 247–260. https://doi.org/10.1007/978-3-030-70948-8_17
24. Perissi I, Bardi U. The empty sea. In: The empty sea. Springer International Publishing; 2021. https://doi.org/10.1007/978-3-030-51898-1
25. Petrakis PE, Kostis PC, Kafka KI, Kanzola A-M. Inclusive growth. In: The future of the greek economy. Cham: Palgrave Macmillan; 2023. p. 77–98. https://doi.org/10.1007/978-3-031-26872-4_6
26. Rai SM, Brown BD, Ruwanpura KN. SDG 8: decent work and economic growth—a gendered analysis. World Dev. 2019;113:368–80. https://doi.org/10.1016/J.WORLDDEV.2018.09.006.
27. Raman R, Lathabhai H, Pattnaik D, Kumar C, Nedungadi P. Research contribution of bibliometric studies related to sustainable development goals and sustainability. Discov Sustain. 2024;5(1):1–39. https://doi.org/10.1007/S43621-024-00182-W.
28. Ren Y, Li R, Wu KJ, Tseng ML. Discovering the systematic interlinkages among the circular economy, supply chain, industry 4.0, and technology transfer: a bibliometric analysis. Clean Responsib Consum. 2023;9:100123. https://doi.org/10.1016/J.CLRC.2023.100123.
29. Romer PM. The origins of endogenous growth. J Econ Perspect. 1994;8(1):3–22. https://doi.org/10.1257/JEP.8.1.3.
30. Sarabdeen J. Nexus between innovation and sustainable economic development: a bibliometrics analysis. J Infrastruct Policy Dev. 2024;8(11):8762. https://doi.org/10.24294/JIPD.V8I11.8762.
31. Satar MS, Aggarwal D, Bansal R, Alarifi G. Mapping the knowledge structure and unveiling the research trends in social entrepreneurship and inclusive development: a bibliometric analysis. Sustainability. 2023;15(7):5626. https://doi.org/10.3390/SU15075626.
32. Small H. Co-citation in the scientific literature: a new measure of the relationship between two documents. J Am Soc Inf Sci. 1973;24(4):265–9. https://doi.org/10.1002/ASI.4630240406.
33. Suryavanshi U, Chaudhry R, Mishra AK, Yadav M. Mapping the intellectual landscape of financial inclusion and sustainable development: a bibliometric analysis. Competitiveness Review. 2024. https://doi.org/10.1108/CR-03-2024-0052/FULL/XML
34. Sweileh WM. Global research publications on irrational use of antimicrobials: call for more research to contain antimicrobial resistance. Global Health. 2021;17(1):1–12. https://doi.org/10.1186/S12992-021-00754-9/TABLES/3.
35. White HD, Griffith BC. Author cocitation: a literature measure of intellectual structure. J Am Soc Inf Sci. 1981;32(3):163–71. https://doi.org/10.1002/ASI.4630320302.
36. Aria M, Cuccurullo C. Bibliometrix—Home. Bibliometrix. 1977. https://www.bibliometrix.org/home/index.php
37. ILO. International Labour Organization. 2020.
38. ITBA Al Gazali Barru A. Bibliometric analysis on sustainable development goals (SDGs): decent work and economic growth. Int J Educ Soc Stud Manag. 2024;4(2):625–637. https://doi.org/10.52121/IJESSM.V4I2.330
39. Klasen S. Measuring and monitoring inclusive growth: multiple definitions, open questions, and some constructive proposals. In: Sustainable development working papers, Issue 12. 2010. https://www.adb.org/publications/measuring-and-monitoring-inclusive-growth-multiple-definitions-open-questions-and-some
40. Niekerk AJV, Molefe P. The inclusive economy: criteria, principles and ubuntu. UJ Press; 2022. https://doi.org/10.36615/9781776402366
41. PRISMA. PRISMA 2020 flow diagram—PRISMA statement. 2020. https://www.prisma-statement.org/prisma-2020-flow-diagram
42. Stiglitz JE, Sen A, Fitoussi J-P. Report by the commission on the measurement of economic performance and social progress. 2009. https://unesdoc.unesco.org/ark:/48223/pf0000206999?posInSet=1%26queryId=N-EXPLORE-084009f9-fab7-49d6-8139-8306ac57537d
43. United Nations. Sustainable Development Goals. United Nations; 2015a. https://www.un.org/sustainabledevelopment/
44. United Nations. Transforming our world: the 2030 agenda for sustainable development. Department of Economic and Social Affairs, United Nations; 2015b. https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981.
45. United Nations. Sustainable development goal 8: promote inclusive and sustainable economic growth, employment and decent work for all. United Nations. 2022. https://sdgs.un.org/goals/goal8.
46. United Nations. Economic growth—United Nations sustainable development. In: The sustainable development goals report. 2023a. https://www.un.org/sustainabledevelopment/economic-growth/
47. United Nations. The sustainable development goals report 2023: special edition. United Nations; 2023b. https://unstats.un.org/sdgs/report/2023/
48. World Bank. World development report 2013: jobs. In: World development report; 2013. https://doi.org/10.1596/978-0-8213-9575-2.
49. World Bank Group. GDP Data. World Bank Group. 2023. https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?most_recent_value_desc=true.

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