

## BIBLIOMETRIC ANALYSIS OF RESEARCH TRENDS ON COMMUNITY-BASED TOURISM AND SUSTAINABLE DEVELOPMENT

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### Abstract

Community-based tourism and sustainable development are interconnected through a shared emphasis on community empowerment, participatory governance, and a balanced integration of economic, socio-cultural, and environmental outcomes. Integrating the concepts of community-based tourism and sustainable development is crucial to ensuring that local communities are involved in tourism planning and decision-making, gain economic benefits, and preserve their cultural and environmental heritage. This study analyzes research trends on the relationship between community-based tourism and sustainable development using a bibliometric analysis approach. Data sources were obtained from the Scopus journal database, with 158 articles published up to October 2025. The bibliometric method involved several stages, including identifying the profiles of the most productive authors, analyzing the number of citations and types of publications, and analyzing keyword co-occurrence. The VOSviewer application was also used to map and visualize the network of interrelationships between concepts in the academic literature regarding "community-based tourism" and "sustainable development." The results of the VOSviewer analysis mapped five main thematic clusters, indicating a strong correlation between community-based tourism and core concepts such as empowerment, livelihood, ecotourism, stakeholders, and local participation. This reflects the dominant research focus on inclusive governance and empowerment to achieve multidimensional sustainability. The mapping also uncovered significant research gaps, particularly in more nuanced impact studies (e.g., the empowerment of indigenous women) and exploring the integration of digital tools in CBT, both of which were largely absent from the thematic map. These findings can provide a foundation for promoting more inclusive, resilient, and sustainable tourism models that deliver tangible benefits to communities and the environment.

**Keywords:** Community participation, empowerment, ecotourism, stakeholder, sustainability

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### A. INTRODUCTION

Community-based tourism (CBT) has been widely recognized as a crucial strategy for achieving sustainable development (SD) in various destinations (Pasanchay and Schott, 2021; Nafidah et al., 2021). The fundamental link between these two concepts, as summarized in the literature, lies in their shared emphasis on community empowerment, participatory governance, and the balanced integration of economic, socio-cultural, and environmental outcomes (Jackson, 2025; Mtapuri et al., 2021; De Abreu et al., 2024). Lee and Jan (2019) emphasized that CBT is a model that can directly contribute to sustainable development by ensuring that local communities receive the benefits of tourism. This agrees with Jackson's (2025) view, which identifies CBT as a new trend that prioritizes communities, not merely as objects but as the primary subjects of development.

A state-of-the-art literature review shows that most current research focuses on governance and participation mechanisms as key to linking CBT with SD. Gutierrez (2023)

emphasized the importance of effective community participation, while Poernama and Santosa (2025) highlighted the importance of stakeholder collaboration. However, the risk of elite capture and marginalization, where the benefits of CBT are not evenly distributed, are key issues that frequently arise. Furthermore, Štreimikienė et al. (2020) emphasized the need for a strong sustainability tradition in tourism studies, indicating a gap between the existing theories or concepts and practical implementation in the field.

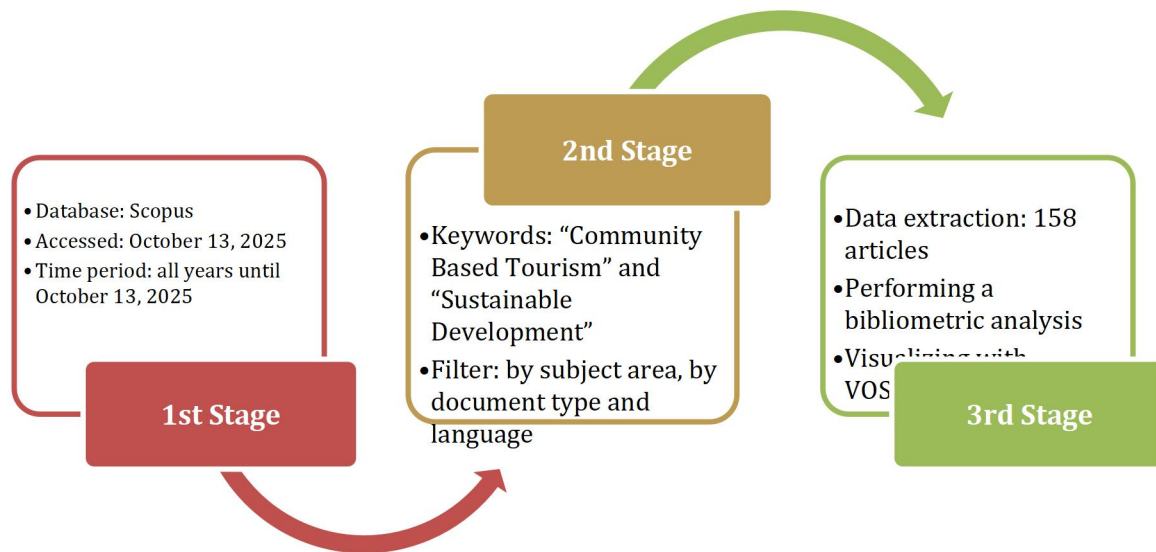
Given the increasing trend of research on topics related to CBT and SD, mapping their development is also important to gain a deeper understanding of what has been discussed and what the latest trends are. This article conducts a bibliometric analysis of global research trends linking community-based tourism and sustainable development over the past two decades. This study identifies the most influential authors, institutions, and countries using data from the Scopus database and VOSviewer visualizations, maps key thematic clusters, and highlights research gaps that could be considered in future studies.

## **B. RESEARCH METHOD**

This study employs bibliometric analysis, a quantitative method used to explore, analyze, and map scientific literature in a specific field. This analysis involves collecting data from scientific databases, cleaning the data, and applying various techniques, such as citation analysis, keyword analysis, author collaboration analysis, and network visualization, to identify patterns, trends, and research impacts (Donthu et al., 2021; Passas, 2024). Therefore, this approach is considered relevant in mapping relationships between themes and systematically discussing them in depth, particularly in studies on community-based tourism and sustainable development.

The bibliometric analysis stages in this study include three systematic steps: (1) selecting and collecting data from relevant scientific databases, (2) establishing specific keywords and search criteria to obtain accurate data, and (3) extracting data from search results to ensure that only relevant and quality data are used in further analysis. In the first stage, the selection of articles for this bibliometric analysis focused on the Scopus database, given its status as a leading scientific indexing database recognized for its high reputation and quality in literature review practices (Baas et al., 2020; Kumpulainen and Seppänen, 2022). In the second stage, a search was conducted for relevant articles by applying the specific search queries "community-based tourism" and "sustainable development". The search was conducted by covering titles, abstracts, and keywords, with an access deadline of October 13, 2025.

The initial search on the Scopus database yielded 262 articles. The data were then strictly filtered by referring to three criteria: (1) subject area is social science; (2) specified document type, namely: article, book chapter, conference paper, and book; and (2) English language. This filtering was applied through comprehensive Boolean operations (TITLE-ABS-KEY ("Community Based Tourism") AND TITLE-ABS-KEY ("Sustainable Development")) AND (LIMIT-TO (SUBJAREA , "SOC")) AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "ch") OR LIMIT-TO (DOCTYPE , "cp") OR LIMIT-TO (DOCTYPE , "bk")) AND (LIMIT-TO (LANGUAGE , "English")) and resulted in a final dataset of 158 documents. These documents were subjected to a bibliometric analysis that included publication trends, author profiles, organizational affiliations, and collaboration patterns. Keyword co-occurrence and collaboration networks were then visualized using VOSviewer software to identify key research topics.



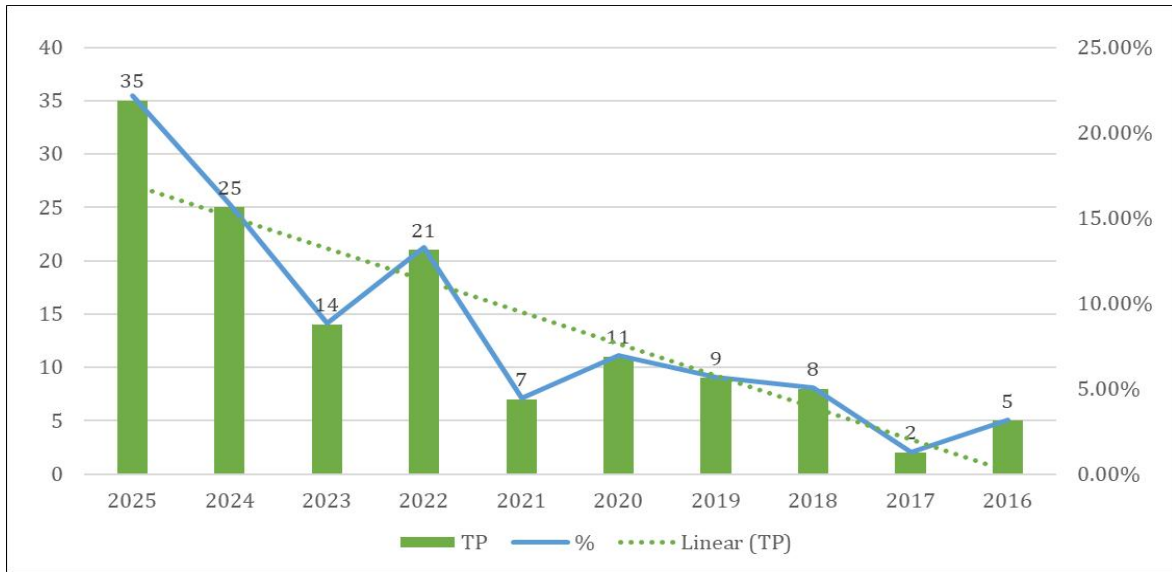
**Figure 1.** Steps of Bibliometric Analysis

Sources: Author analysis, 2025

### C. FINDINGS AND DISCUSSION

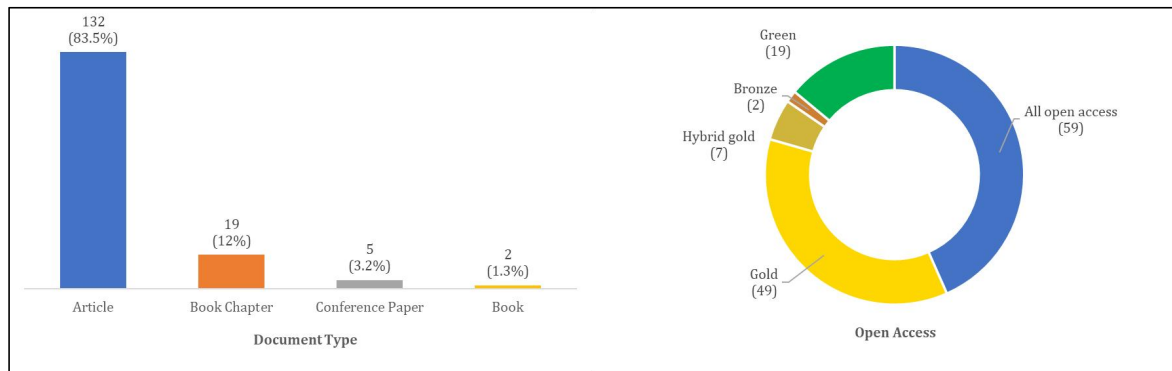
#### Number of published scientific articles

The results of data extraction from bibliometric analysis of 158 articles related to CBT and SD revealed that the first article was published in 2005. The article written by Mbaiwa (2005) was entitled " The socio-cultural impacts of tourism development in the Okavango Delta, Botswana " which was published in the Journal of Tourism and Cultural Change, Volume 2, Issue 3, Pages 163-185. Mbaiwa (2005) emphasized that local community participation in community-based tourism projects can have a positive socio-cultural impact, in addition to increased income, employment, and infrastructure development. Mbaiwa (2005) explicitly used the terms CBT and SD to highlight the importance of regular involvement of all stakeholders in tourism planning to achieve sustainable tourism development. This first article indexed by Taylor and Francis became the initial milestone in the development of studies on the topic of CBT and SD. Not long after, Saarinen (2006) also raised a similar topic in his article entitled " Traditions of sustainability in tourism studies ". Overall, Figure 2 shows an increasing trend in the number of CBT and SD research articles globally over the past decade. This reflects a global shift toward more inclusive, equitable, and environmentally friendly tourism models.



**Figure 2.** Publication trends on CBT and SD as indexed in Scopus  
Sources: Primary data analysis, 2025

Figure 3 presents the distribution of document types and open access status related to CBT and SD research topics indexed by the Scopus database. The majority of publications related to CBT and SD are journal articles (132 articles, 83.5%). This indicates that researchers prefer to publish their research results in a journal article format, which generally has a more rigorous review process and is considered to have higher prestige. Almost all publications (59 articles) are categorized as "all open access," meaning the entire publication content can be freely accessed by anyone without restrictions. This reflects a strong trend among researchers to disseminate their findings to the widest possible audience.

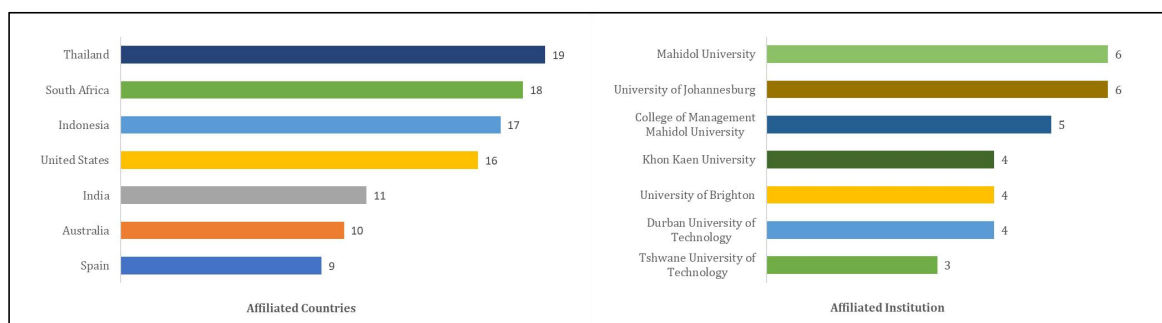


**Figure 3.** Types of documents and open access status of publications on CBT and SD as indexed in Scopus  
Sources: Primary data analysis, 2025

### Background profiles of authors and highly cited articles

Figure 4 maps the global scope of CBT and SD research, showing extensive involvement from 58 different countries across five continents, indicating significant global academic interest. Figure 4 highlights the high concentration of productivity, with the top seven countries collectively contributing 100 publications. These countries are led by Thailand (19 publications),

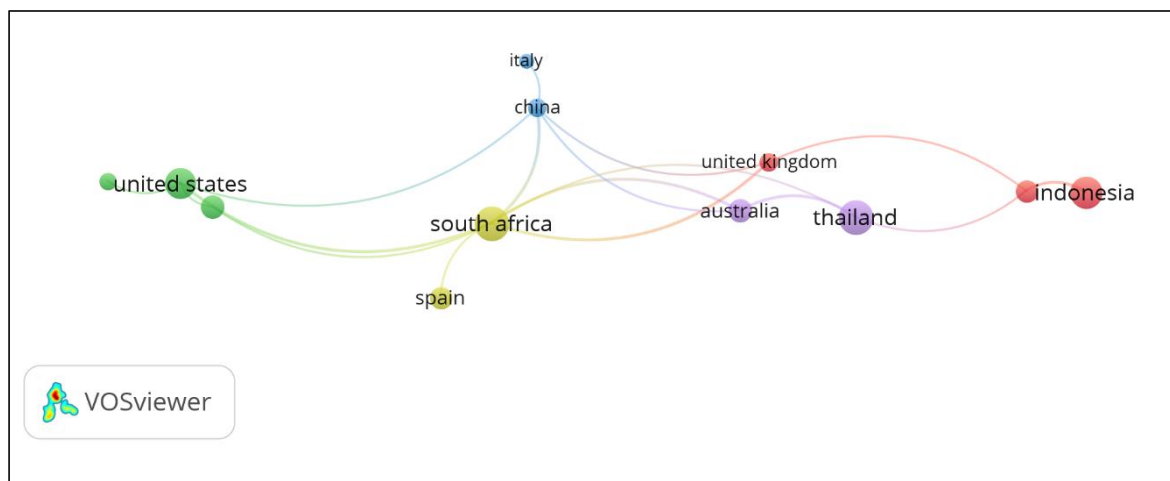
South Africa (18), and Indonesia (17), followed by the United States (16), India (11), Australia (10), and Spain (9). It is noteworthy that Indonesia ranks among the top three, confirming the substantial contributions of domestic academics to this global discourse. Furthermore, a metadata analysis of the 32 institutional affiliations indicates that this productivity is concentrated in specific clusters of expertise, often aligned with the top countries. For example, the University of Johannesburg (6) and Mahidol University (6) share the top spot, supported by other institutions from the same country such as Mahidol University College of Management (5) and Durban University of Technology (4), indicating the presence of established research centers in South Africa and Thailand leading the way in this area.



**Figure 4.** Top 7 countries and institutions affiliated with CBT and SD research as indexed in Scopus

Sources: Primary data analysis, 2025

Figure 5 presents a visualization of the collaborative network between countries (coauthorship by country), showing global research relationships related to CBT and SD. South Africa, Thailand, Indonesia, and the United States are the largest nodes in this map, indicating that these four countries are the most productive in terms of the number of publications. Their central role in this global research is emphasized by the connecting lines representing research collaborations, with thicker lines indicating stronger collaborative relationships. The figure shows several distinct collaboration clusters, indicated by colors: Indonesia (red cluster) shows a close network with Thailand (purple cluster), Australia (purple cluster), and the United Kingdom (red cluster). Meanwhile, South Africa (yellow cluster) appears to serve as a significant bridge, being strongly connected to the United States (green cluster) and the United Kingdom (red cluster). Countries such as China and Italy (blue cluster) are also involved, forming more focused collaborative clusters, although the global CBT and SD research network appears to have several key, closely interconnected poles.



**Figure 5.** The author network cluster of CBT and SD based on state affiliation

Sources: Primary data analysis, 2025

Table 1 presents a global ranking of the top five author-affiliated institutions contributing to CBT and SD research using productivity (Total Papers/TP) and impact (Total Citations/TC) metrics. The University of Johannesburg ranks first in terms of pure publication volume, with the highest number of total papers (TP) at 9 articles, which have garnered 136 citations (TC). However, when looking at total citation impact, Mahidol University (ranked 2) demonstrates significant influence by holding the absolute highest total citations (TC) (227 citations), despite having only 6 TP. A more in-depth analysis of the TC/TP ratio, which can then be interpreted as a proxy for the average quality and impact per article, actually places Mahidol University's College of Management (ranked 3) in the highest position with a ratio of 39.80. Although the University of Johannesburg is the most productive in terms of quantity, each article published by academics from the two Mahidol institutions (Mahidol University and the College of Management) tends to have a higher academic influence and impact in the field.

**Table 1.** Top 5 author affiliation institutions researching CBT and SD

Rank	Institutions	Total Paper (TP)	Total Author (TA)	Total Citation (TC)	TC/TP	TA/TP
1 <sup>st</sup>	University of Johannesburg	9	18	136	22.67	3
2 <sup>nd</sup>	Mahidol University	6	19	227	37.83	3.17
3 <sup>rd</sup>	College of Management Mahidol University	6	14	199	39.80	2.8
4 <sup>th</sup>	Durban University of Technology	4	10	23	5.75	2.5
5 <sup>th</sup>	University of Brighton	4	5	139	34.75	1.25

Sources: Primary data analysis, 2025

The bibliographic data analysis also shows that 160 authors collaborate to write articles on CBT and SD. Table 2 presents the top 5 most productive authors in researching CBT and SD, sorted by the number of articles published (Total Paper). Suriyankietkaew, S. from the College of Management Mahidol University, Thailand, is ranked first as the most productive author with 5 publications and 199 citations. The presence of two dominant scientific clusters is very prominent from this data: the cluster from Thailand (College of Management Mahidol University), which also

places Krittayaruangroj, K. in third place (4 papers); and the cluster from South Africa, which is represented by three other authors, namely, Giampiccoli, A. (ranked 2), Henama, US (ranked 4), and Mangope, D. (ranked 5). Although Suriyankietkaew, S. leads in the number of papers and absolute total citations, when measured by the average impact per article ('Quality of Paper'), Krittayaruangroj, K. (ranked 3rd) actually recorded the highest quality score (44.75), indicating that his articles have the most significant average citation impact in the field.

**Table 2.** Top 5 authors researching CBT and SD based on the number of published papers

Rank	Nama Penulis	Institusi	Total Paper	Total Citation	Quality of Paper
1 <sup>st</sup>	Suriyankietkaew, S.	College of Management Mahidol University, Thailand	5	199	39.8
2 <sup>nd</sup>	Giampiccoli, A.	Durban University of Technology, South Africa	4	23	5.75
3 <sup>rd</sup>	Krittayaruangroj, K.	College of Management Mahidol University, Thailand	4	179	44.75
4 <sup>th</sup>	Henama, U.S.	Walter Sisulu University, South Africa	3	39	13
5 <sup>th</sup>	Mangope, D.	Central University of Technology, South Africa	3	39	13

Sources: Primary data analysis, 2025

Table 3 presents the top five most influential articles in CBT and SD research, ranked by total citation count. Saarinen's (2006) article, "Traditions of sustainability in tourism studies," is the most cited foundational work, with 692 citations. This article has an average annual citation count of 34.6. However, the most interesting finding comes from the second-ranked article, "Can community-based tourism contribute to sustainable development?" by Lee, T.H. & Jan, F. H. (2019). Despite having a lower total citation count (429), this article has the highest TC/Y ratio (61.29), indicating that it has a very high impact and relevance and has sparked significant academic interest. Overall, the high number of citations across these top five articles, all published in prestigious journals such as *Annals of Tourism Research* and *Tourism Management*, confirms the importance and growing influence of CBT and SD topics in global academic discourse.

**Table 3.** Top 5 articles on CBT and SD with the most citations

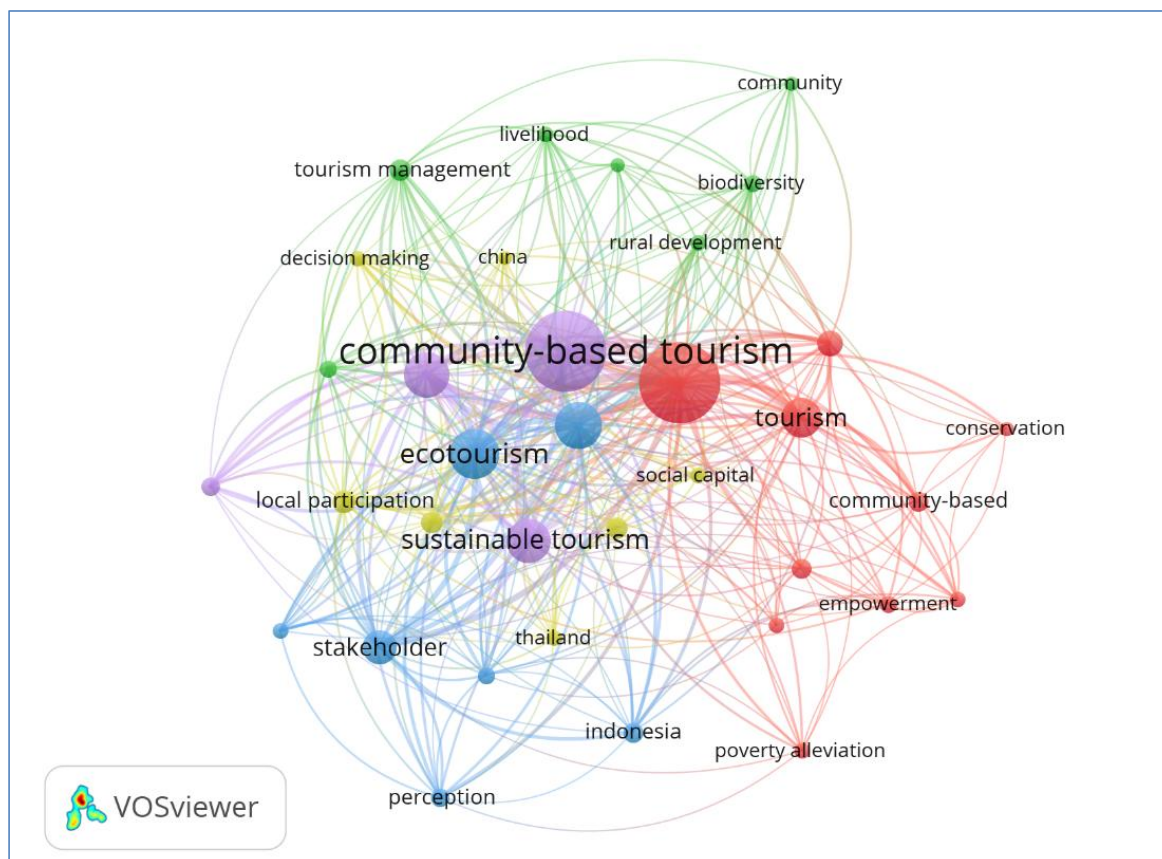
Rank	Title (Authors)	Year	Source Title	Document Type	Total Citations	TC/Y
1 <sup>st</sup>	Traditions of sustainability in tourism studies (Saarinen, J.)	2006	Annals of Tourism Research	Article	692	34.6
2 <sup>nd</sup>	Can community-based tourism contribute to sustainable development? Evidence from residents' perceptions of the sustainability (Lee, T.H. & Jan, F.-H.)	2019	Tourism Management	Article	429	61.29
3 <sup>rd</sup>	Social-ecological resilience and community-based tourism. An approach from Agua Blanca, Ecuador (Ruiz-Ballesteros, E.)	2011	Tourism Management	Article	257	17.13
4 <sup>th</sup>	Tourism as a tool for poverty alleviation: A critical analysis of 'pro-poor tourism' and implications for sustainability (Chok, S., Macbeth, J., & Warren, C.)	2007	Current Issues in Tourism	Article	254	13.37
5 <sup>th</sup>	An integrated approach to sustainable	2016	Sustainability	Article	250	25

Rank	Title (Authors)	Year	Source Title	Document Type	Total Citations	TC/Y
	community-based tourism (Dangi, T.B., & Jamal, T.)		Switzerland			

Sources: Primary data analysis, 2024.

### Keyword co-occurrence & bibliographic coupling analysis

Figure 6 presents a global thematic map of CBT and SD research using keyword co-occurrence techniques, which identify interconnected keyword networks and reveal key research themes. This VOSviewer analysis groups keywords into five main clusters. Cluster 1 (Red), the largest cluster, clearly centers on community-based tourism (90 occurrences) and closely links it to topics of socioeconomic impact, such as empowerment, poverty alleviation, social capital, and conservation. Cluster 2 (Green) focuses on resource and livelihood management aspects, focusing on livelihoods and linking them to biodiversity, rural development, and tourism management. Cluster 3 (blue) highlights the close link between ecotourism (40 occurrences) and implementation on the ground, involving stakeholder roles, perceptions, and the context of developing countries (including Indonesia). Cluster 4 (Yellow) focuses on sustainable tourism and governance aspects (decision-making) and specific case studies in China and Thailand. Finally, Cluster 5 (Purple) ties together fundamental concepts, centered on sustainable development (the node with 88 occurrences and the highest link strength, 337), which is directly linked to local participation and community development. Keywords such as "empowerment," "livelihood," "stakeholder," and "local participation" frequently appear alongside community-based tourism and sustainable development. This suggests that the dominant research focus is on examining how CBT and SD can promote sustainable development by driving community empowerment and stakeholder collaboration.



**Figure 6.** Keyword co-occurrence network visualization of CBT and SD  
Sources: Primary data analysis, 2025

#### D. CONCLUSION

A bibliometric analysis of 158 Scopus-indexed publications confirms that the research scope of CBT and SD has evolved into five closely interconnected thematic clusters centered on empowerment, livelihoods, ecotourism, stakeholder governance, and local participation. The key findings of this study emphasize that this global discourse is significantly shaped and continues to be explored by centers in the Global South, particularly institutions in Thailand and South Africa. Although the conceptual foundations linking CBT to sustainable development are well established, the results of the thematic mapping highlight significant research gaps. Therefore, future research should move beyond these established themes to explore more diverse impacts, such as specific empowerment mechanisms for vulnerable groups (e.g., indigenous women), and further explore the integration of digital tools in CBT to enhance sustainability and stakeholder engagement.

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