

## Sustainable Development and Public Policy in Developing Countries: A Bibliometric Analysis.

Auteur 1 : BOUR-RHA El Khiati.

Auteur 2 : EL MENNANI Moussa.

**El Khiati BOUR-RHA** (Doctorant chercheur)

Centre D'études Doctorales : Urbanisme, Aménagement, Habitat & Territoire

Formation doctorale : Gestion des Risques et Développement Territorial

Institut National d'Aménagement et d'Urbanisme, Rabat

**Moussa EL MENNANI** (Docteur en Economie et Gestion)

Université Hassan II Casablanca

**Déclaration de divulgation :** L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

**Conflit d'intérêts :** L'auteur ne signale aucun conflit d'intérêts.

**Pour citer cet article :** BOUR-RHA E & EL MENNANI .M (2026). « Sustainable Development and Public Policy in Developing Countries: A Bibliometric Analysis », African Scientific Journal « Volume 03, Num 34 » pp: 0209 – 0222.



DOI : 10.5281/zenodo.18442604  
Copyright © 2026 – ASJ



**Abstract.**

This article describes a bibliometric analysis of the published academic literature in the relations between sustainable development and public policy in developing countries. It employs articles from Scopus published between the years 2019 and 2025 to create co-authorship, co-citation, and keyword co-occurrence networks to identify the main research trends and barriers. The analysis shows significant collaboration within specific groups, specific thematic clusters concentrating on issues of environment, economy, and governance, and the lack of integration across boundaries in the themes. The findings support the claims that interdisciplinary and international collaboration are needed in this field of research.

**Keywords:** Sustainable development; public policy; developing countries; governance; climate change.

## 1 Introduction

Sustainable development is increasingly seen as an area of focus for researchers and policymakers across the globe—especially in developing nations. Since the adoption of the monumental global frameworks like the 2030 Agenda for Sustainable Development and the Paris Climate Agreement in 2015, sustainable development has become a mainstay of national and international policy agendas [1]. Developing countries are particularly challenged with balancing economic growth against environmental sustainability and social equity. Rapid urbanization, poverty, inequality, and the rising impacts of climate change further complicate the challenges of achieving sustainable development goals (SDGs).

Policies are a key part of the solution, and they are crucial in that journey to achieving the SDGs. National governments, local authorities, and development agencies set and implement policies that are intended to encourage sustainable practices across different sectors, including agriculture, energy, urban development, and education [2] [3]. However, the success of public policies is contingent upon the socio-economic and institutional context within which they are conceived and implemented. Specifically, developing nations resources, governance, and dependency on external partners are tools considered part of the larger developmental context, which can set the course for the success or failure of specific sustainability goals or objectives. Over the past ten years, there has been a significant interest in the academic literature regarding the nexus between sustainable development and public policies in developing countries. This increasing volume of literature is represented in a myriad of ideas, ranging from publicly funded empirical case studies of the implementation of existing policies, the governance frameworks of public policies, and theories of development assistance [4] [5]. Despite the increase in academic literature, we still do not have a coherent account or map of literature on the trends and thematic foci in this area of research.

*The main objective of this study* is to conduct a bibliometric analysis of scholarly publications focusing on sustainable development and public policy in developing countries. Specifically, the study aims to examine publication trends over time, identify the most productive and influential authors, institutions, and journals, analyze keyword co-occurrence to uncover major research themes, and explore collaboration patterns at the national and international levels.

Moreover, this study adopts a *positivist epistemological stance*, grounded in the assumption that scientific knowledge can be objectively observed, measured, and analyzed through quantitative indicators derived from bibliometric data. In line with this epistemological position, the research follows a *deductive mode of reasoning*, whereby established theoretical

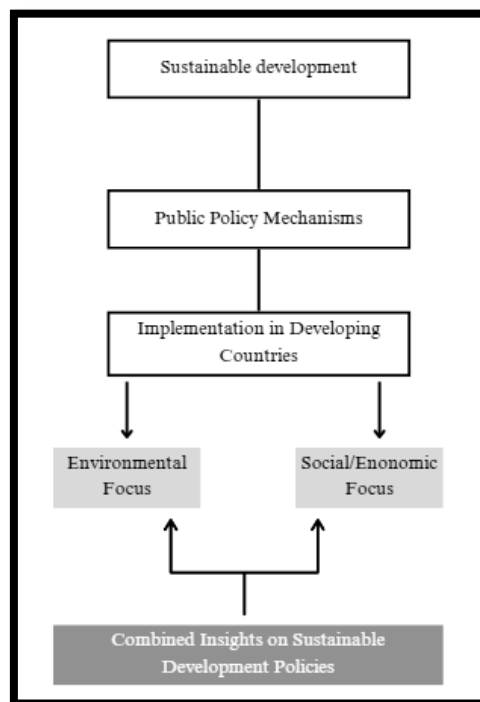
concepts and bibliometric laws guide the formulation of the analytical framework and the interpretation of results

This research will answer a simple yet necessary research question:

**How does the recent academic literature combine the concepts of sustainable development, public policy, and developing countries?**

In order to answer this question, the study uses a bibliometric approach following from 2019 to 2025 of publications indexed in Scopus on the topics of environmental science and social sciences. The analysis will yield key themes/ideas, influential publications, and gaps in the literature. The final result will provide insight and potentially guide future research and help develop effective choice in public policy based on sustainable development in developing countries.

**Fig. 1:** Analytical Model of Sustainable Development Policies in Developing Contexts



**Source:** Own elaboration

In addition, following this introduction, the next section of the article is devoted to the literature review, which provides an overview of the main theoretical and empirical contributions related to sustainable development and public policy in developing countries. The subsequent section presents the research methodology, detailing the data sources, selection criteria, and bibliometric techniques employed in the analysis. The final sections report and discuss the results of the study, with particular emphasis on co-authorship networks, co-citation networks

and cited authors, as well as keyword co-occurrence networks, including authors' keywords and indexed keywords.

## **2 Literature Review**

Sustainable development is closely related to public policy, especially in developing countries where numerous environmental, economic, and social problems converge. In the literature, we can increasingly see public policy examined in relation to sustainable development objectives; yet, the links between policy and sustainable development have not been systematically reviewed. This paper identifies the major themes and gaps addressed in recent literature.

### **2.1 Sustainable Development in Developing Countries**

Sustainable development initiatives in developing countries are typically considered in the larger context and discussion of issues like poverty, degradation of the environment, climate change, and inequity. The literature indicates that in developing countries, it is not a question of if sustainable development can happen; rather, the key will be to balance the need for economic development with the need for environmental protection and social inclusion [5]. Several studies have stated that the unique circumstances in developing countries, such as (among others) financial resource shortages, governance limitations, and rapid urbanization, are complex for allowing this balance to occur [3].

Sustainable development research typically concentrates on some sectors (such as agriculture, spatial planning, and natural resource management) because the overlaps between sustainability actions and development actions are more distinct [6] [7]. Overall, the literature points to the importance of developing context-sensitive strategies that can enact sustainable development.

### **2.2 The Role of Public Policy in Advancing Sustainable Development**

It is becoming increasingly clear that public policy is key to furthering sustainable development in developing countries. As noted in the literature, national and local governments develop policy initiatives and frameworks that simultaneously address environmental, social, and economic issues [2]. The policies focus on several areas, including climate action, food security, social protection, and urban sustainability [5] [3].

Several studies suggest that the success of policies promoting sustainable development hinges upon good governance, adequate financing, and stakeholder engagement [6]. Implementation of these policies is often impaired by institutional weaknesses, political instability, or inadequate resources. Other research has observed the increasing presence of international collaboration and development banks to facilitate countries' policy agendas [1].

### **2.3 Gaps and Trends in the Academic Literature**

Recently, there has been a steady increase in literature regarding sustainable development and public policies in developing countries. The literature covers a range of topics relating to sustainable development—from environmental management, social equity, and economic growth. However, generally in developing countries, studies tend to be sectoral or confined to distinct policy arenas within an area rather than adopting an integrated approach to sustainable development [4].

This lack of comprehensive analysis (or little work) reveals limited and fragmented maps of sustainable development, public policy, and, as a whole, the developing countries context. Few pieces of work systematically explore sustainable development and public policy, how they relate to each other, and how they differ across contexts or geographical spaces. This suggests that bibliometric studies are needed to determine trends of research in the area and identify notable areas, future priorities, and areas for investigation.

### 3 Methodology

This research conducts a bibliometric study evaluating the scientific trends on sustainable development and public policies regarding developing countries. The bibliometric process mixes systematic data collection with the quantitative analysis applied to scientific publications through using a knowledge mapping tool, and the bibliometric approach supports the identification of significant research trends related to the topic, pertinent areas, and gaps in the literature.

A structured search in Scopus, a significant academic database recognized for being comprehensive and searching only peer-reviewed literature, is highly regarded and was executed. In order to curate the dataset appropriately with the aims of the study, the dataset was filtered using the following selection criteria:

- Only peer-reviewed scientific articles;
- Articles targeted on sustainable development and public policy relating to developing countries
- Articles from journals meeting the previously described academic requirements;
- Articles published from 2019 through 2025
- Articles published in English and found in the subject areas relating to environmental sciences or social sciences.

The exact query used in Scopus was:

**( TITLE-ABS-KEY ( "sustainable development" ) AND TITLE-ABS-KEY ( "public policy" ) AND TITLE-ABS-KEY ( "developing countries" ) ) AND PUBYEAR > 2018**

**AND PUBYEAR < 2026 AND ( LIMIT-TO ( SUBJAREA , "ENVI" ) OR LIMIT-TO ( SUBJAREA , "SOCI" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )**

The search yielded the first set of documents. Full metadata (titles, abstracts, author names, institutional affiliations, keywords, and bibliographic references) were exported as a CSV file for subsequent analysis.

In order to process and visualize the data, we used VOSviewer, a popular program to create bibliometric maps to create co-occurrence networks of keywords, detect conceptual clusters, and show author and institutional collaborations.

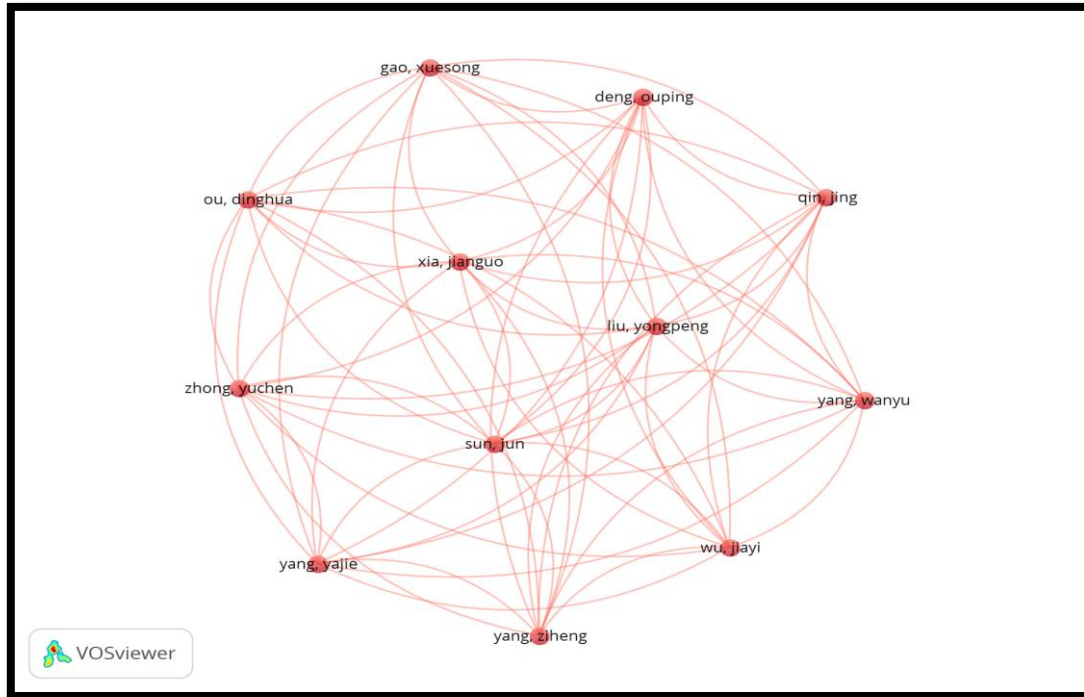
This methodology allows coherent and reproducible mapping of scholarly works published on sustainable development and public policies for developing countries. We can follow descriptive trends as well as elucidate the structural relations latent in research in this field.

#### **4 Results and Discussions**

This section details the main findings of the bibliometric analysis of sustainable development and public policy in developing country contexts. The findings were conducted from the analysis of co-authorship, the co-occurrence of keywords, and the thematic clusters using VOSviewer. These visual representations provide an indication of collaboration, themes, and gaps in research related to this area.

#### 4.1 Co-authorship Network

**Fig. 2: Co-authorship network of researchers in sustainable development and public policy in developing countries.**

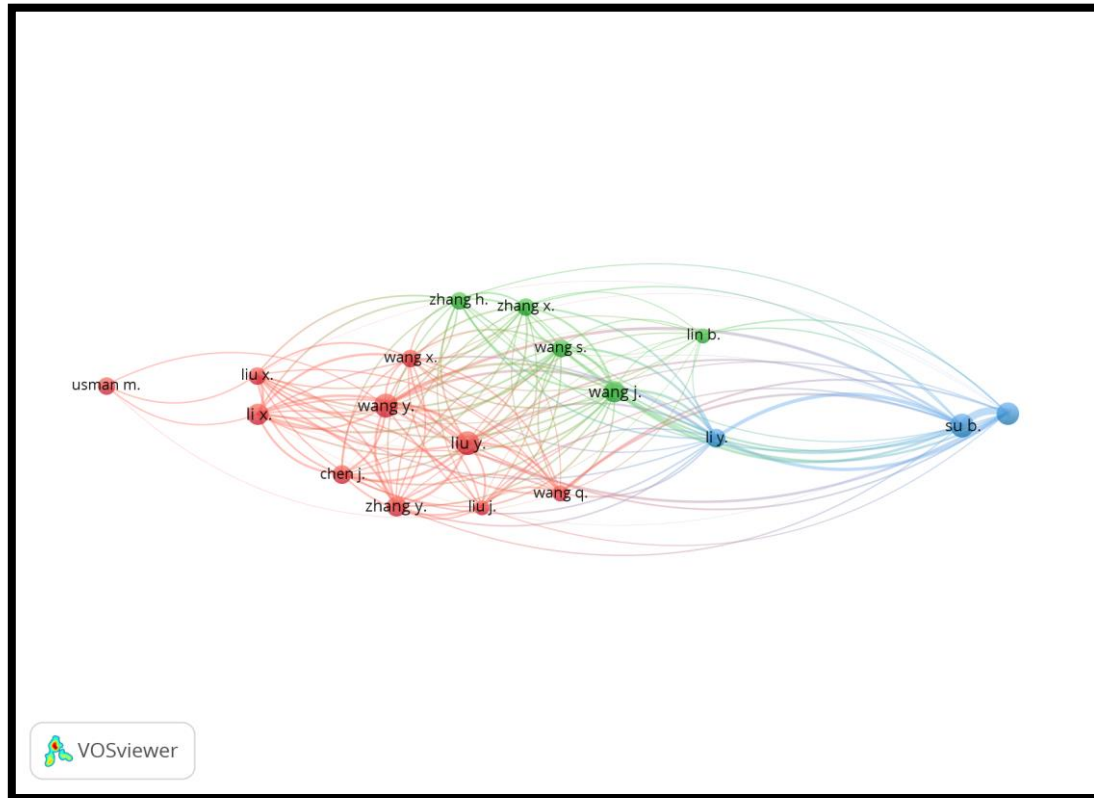


**Source:** Own elaboration

The graph identifies a very dense co-authorship network showing leading authors Xia Jianguo, Deng Ouping, and Liu Yongpeng are in the most central positions. The network is highly cohesive, as indicated by the co-authorship links, and each of the authors co-authored with others to a strong extent. From this graph, there do not appear to be any distinguishable color clusters, which indicates that the majority of the authors belong to one united and larger co-authorship network. This implies strong internal collaboration and limited evidence of broader international diversification.

## 4.2 Co-citation Network of Cited Authors

**Fig. 3: Co-citation network of cited authors in the field of sustainable development and public policy in developing countries.**



**Source:** Own elaboration

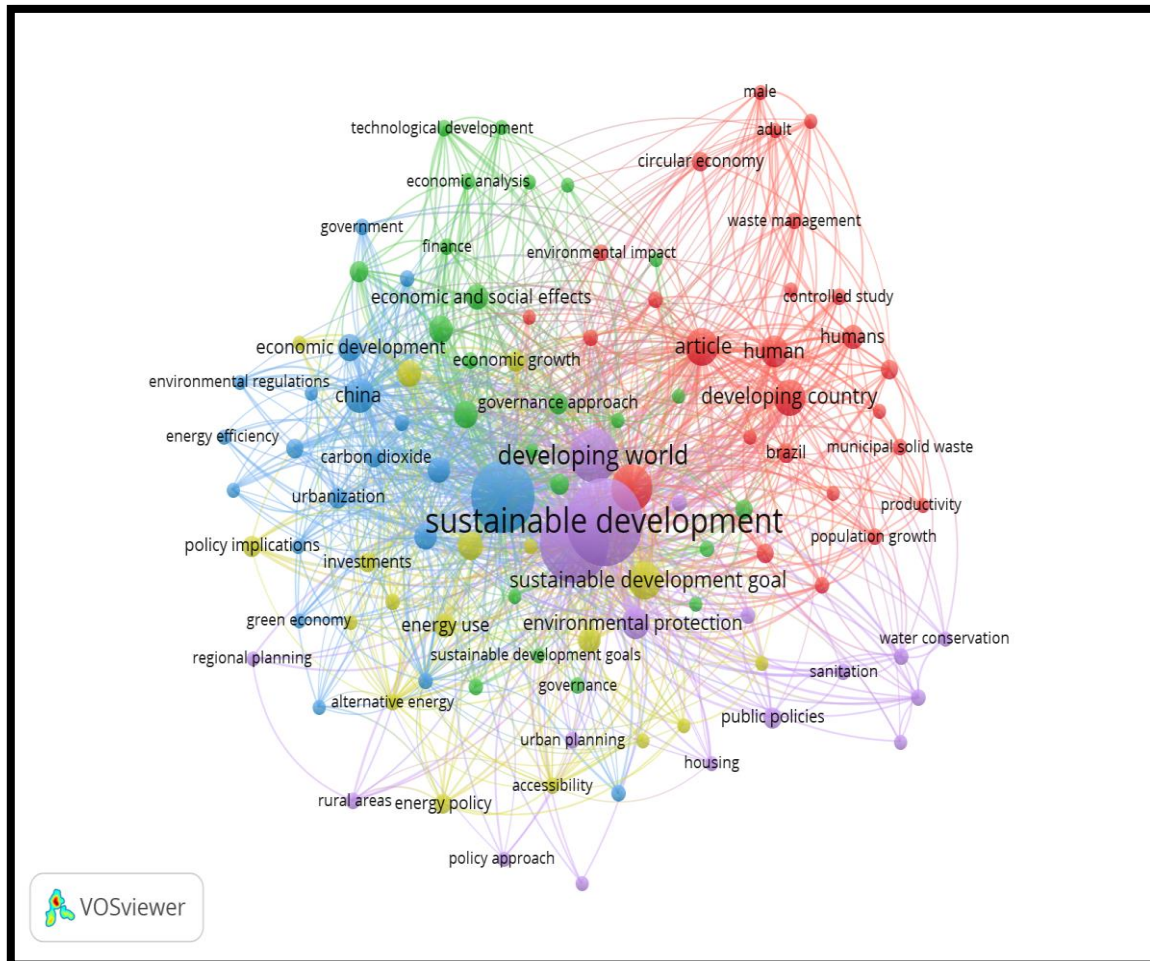
The graph represents the relationship of the most frequently co-cited authors and views them in respective clusters:

- The red cluster represents a group of authors such as Liu X., Li X., and Chen J. With enough occurrences of co-citation, they can be viewed as having a shared theme or scope.
- The green cluster represents authors Zhang H., Zhang X., and Wang S., followed in co-citation with other important references.
- The blue cluster illustrates Yi and Su B. A further specialized area of inquiry.

To conclude, these clusters suggest that the literature is driven by key references to themes or academic discipline boundaries. They all have very little co-citation beyond the immediate cluster which generates further opportunities for more integration across streams of research.

### 4.3 Co-occurrence Network of Keywords

**Fig. 4 : Co-occurrence network of keywords in publications on sustainable development and public policy in developing countries.**



**Source:** Own elaboration

The graph illustrates themes grouped into clusters:

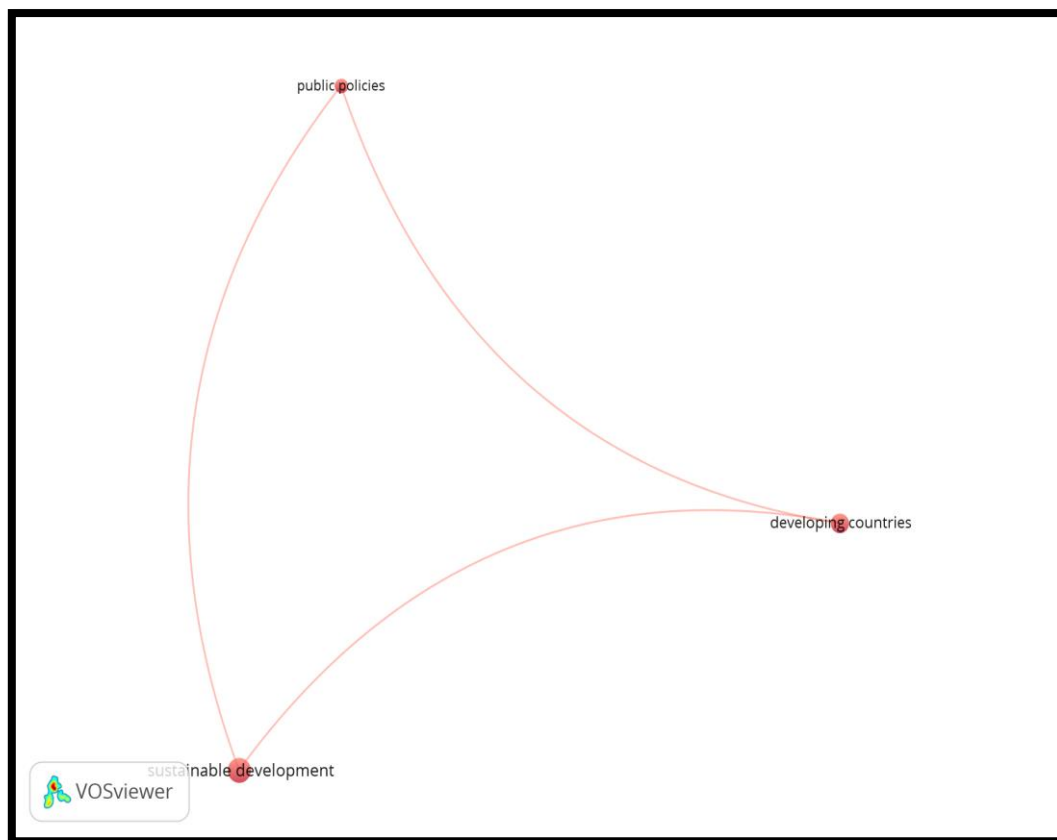
- Purple cluster: Where the literature is centered around sustainable development, sustainable development goals, and environmental protection, representing the ontological significance for the field itself.
- Red cluster: Where the literature is engaged in topics such as developing country, waste management, circular economy, and population growth and recollects the realities associated with social, demographic, and development challenges,
- Blue cluster: Where the literature attaches to economic development, carbon dioxide, urbanization, and green economy and recounts the intersections between economic and economic-environmental policy.

- Green cluster: Where the literature collectivizes on technological development, economic assessment, and governance approach, it recalls the existing links between innovation, governance, and public policy.

From the network we have described, it is evident that research in this area considers the environmental-social-economic pillars; however, it is clear these clusters are partially unique, indicating possibilities for further incorporation of environmental-social-economic dimensions.

#### 4.4 Co-occurrence Network of Author Keywords

**Fig. 5: Co-occurrence network of author keywords.**

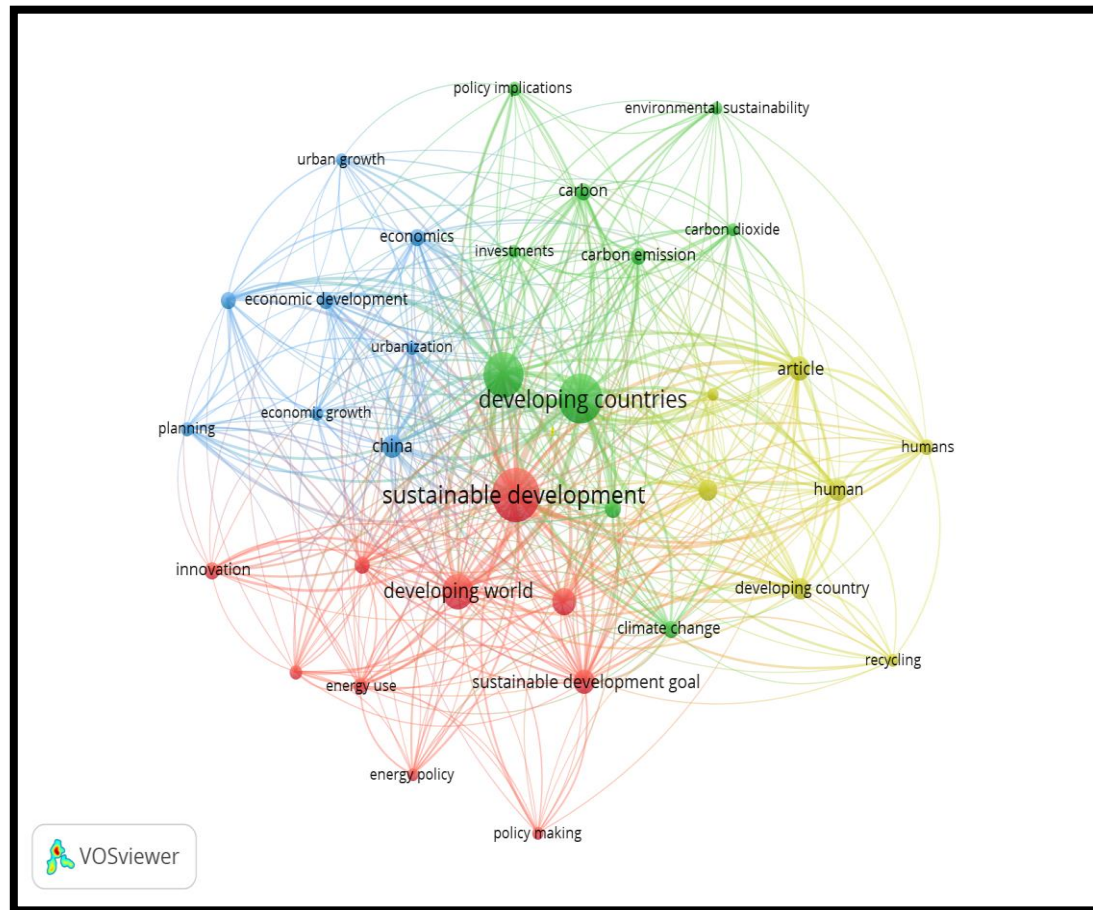


**Source:** Own elaboration

This graph shows a simple but meaningful co-occurrence structure with direct connections between sustainable development, public policies, and developing countries. The lack of additional terms and clusters shows a focused but limited intersection of those terms in the literature. This indicates that the link between these notions is recognized but lacks the thematic richness and diversity of keywords and could be a gap for broader multi-dimensional work.

#### 4.5 Co-occurrence Network of Indexed Keywords

**Fig. 6: Co-occurrence network of indexed keywords in publications on sustainable development and public policy in developing countries.**



**Source:** Own elaboration

The graph presents a structure with four clusters of items:

- The red cluster groups sustainable development, the developing world, energy use, and policy making and has an emphasis on governance and energy-related issues, potentially reflecting themes of governance within the graph.
- The blue cluster groups economic development, urban development, urbanization, and urban planning and appears to reflect spatial policy and economic concerns/proposed solutions.
- The green cluster centers on developing countries, carbon emissions, environmental sustainability, and policy implications of environmental sustainability, focusing on environmental challenges from developing countries' perspectives and responses to environmental challenges.

- The yellow cluster groups keywords such as "human," "recycling," and "climate change," potentially assessing social and environmental interactions.

This structure suggests the integration of environmental, economic, and social factors will be maintained when developing the document, although not situated within thematic clusters, thematically will be/how clear/similar in focus of topic.

The bibliometric analysis shows that research on sustainable development and public policy in the developing context demonstrates both thematic depth and structural limitations. The co-authorship and co-citation networks show strong collaboration within distinct groups of authors and limited interaction across groups, suggesting possibilities to reinforce interdisciplinary and international collaborations.

The keyword co-occurrence networks indicate the co-existence of four separate thematic dimensions: environmental sustainability, economic development, energy policy, and governance. Each of these dimensions has overlap, but the clear separation of clusters signals that further integration between research on environmental, social, and economic policies is necessary.

Overall, the findings support the premise that the field has a strong foundation of collaboration and thematic depth but also that increased cross-cutting studies and global collaborations would improve its impact and relevancy.

## Conclusion

This research provides a bibliometric impression of the recent research at the intersection of sustainable development and public policy in developing countries. The results indicate important themes associated with environmental sustainability, economic growth, and governance, as well as collaborative research patterns within specific groups. However, limited ties between clusters and limited connections across regions indicate an opportunity to leverage interdisciplinary and international collaboration.

The analysis presents a clear understanding of the composition of the literature but is limited to Scopus-indexed articles published in English. Future studies may consider broadening the scope of analysis by including other databases and languages.

Overall, this bibliometric mapping helps to inform our sense of the research landscape and points to the need to engage in further collaboration in integrated efforts to build knowledge about sustainable development policies in developing countries.

## References

- [1] P. Orliange et T. Zaratiegui, « International development cooperation as a global governance policy », *Rev. bras. polit. int.*, vol. 65, n° 2, p. e015, 2022, doi: 10.1590/0034-7329202200215.
- [2] N. Ivanov Tsonkov et K. Dimitrov Petrov, « Model for Analysis and Evaluation of Sustainable Cities in Bulgaria in the Context of Local Public Policy Appliance », *PPAdm*, vol. 23, n° 3, p. 308-323, sept. 2024, doi: 10.5755/j01.ppaa.23.3.35309.
- [3] O. Paiyarat et U. Jiawiwatkul, « The development process of urban agricultural networks to ensure urban food security in Hat Yai City, Songkhla Province, Thailand », *International Journal of Urban Sustainable Development*, vol. 16, n° 1, p. 129-143, déc. 2024, doi: 10.1080/19463138.2024.2344539.
- [4] N. Bautista-Puig, E. Orduña-Malea, et C. Perez-Esparrells, « Enhancing sustainable development goals or promoting universities? An analysis of the times higher education impact rankings », *IJSHE*, vol. 23, n° 8, p. 211-231, déc. 2022, doi: 10.1108/IJSHE-07-2021-0309.
- [5] R. Osabohien, A. A. Karakara, J. Ashraf, et M. A. S. Al-Faryan, « Green Environment-Social Protection Interaction and Food Security in Africa », *Environmental Management*, vol. 71, n° 4, p. 835-846, avr. 2023, doi: 10.1007/s00267-022-01737-1.
- [6] H. H. Do et O. Frör, « River Ecosystem Resilience: Applying the Contingent Valuation Method in Vietnam », *Sustainability*, vol. 14, n° 19, p. 12029, sept. 2022, doi: 10.3390/su141912029.
- [7] A. I. Seca, H. D. S. Pereira, et F. Miziara, « Challenges for the implementation of the jurisdictional REDD+ in the Brazilian state of Amazonas », *Rev. Bras. Ciênc. Ambient.*, vol. 59, p. e1721, févr. 2024, doi: 10.5327/Z2176-94781721.