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The Added Value of Partnerships in Implementing the UN Sustainable Development Goals

Leal Filho W, Dibbern T, Pimenta Dinis MA, Coggo Cristofolletti E, Mbah MF, Mishra A, Clarke A, Samuel N, Castillo Apraiz J, Rimi Abubakar I (2023)

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Highlights

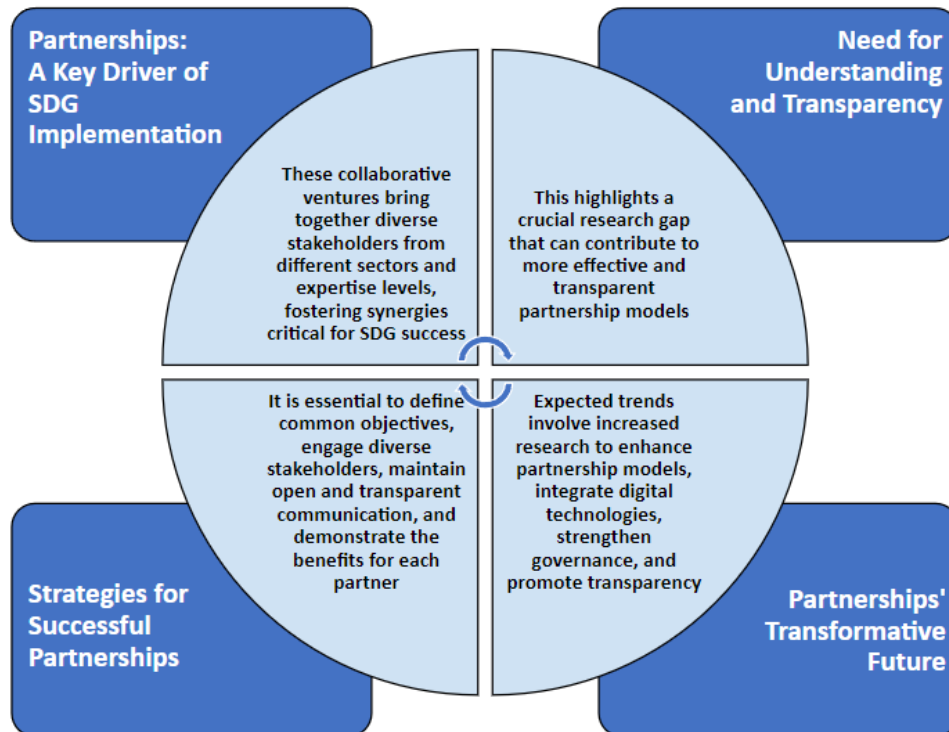
- Partnerships drive the implementation of the UN SDGs for greater impact.
- Synergies unite stakeholders, amplifying success in SDGs.
- Transparency and incentives bolster partnerships for sustainability.
- Diverse collaboration fosters long-term, adaptable solutions.

Abstract: Partnerships have become a key tool in the implementation of the United Nations (UN) Sustainable Development Goals (SDGs). Partnerships can scale up the impact of initiatives by leveraging the strengths and reach of each involved partner. This allows for the replication and expansion of successful projects and programs. In the context of the UN SDGs, partnerships can play a key role in their effective implementation, due to their ability to bring together a variety of stakeholders from different sectors and with different levels of expertise and experience. By leveraging the skills, resources, and capacities of different stakeholders, partnerships can contribute to creating synergies that are essential for the successful implementation of the SDGs. Despite the role of partnerships and their potential value, there is a need for studies that can help understand their role and promote greater transparency and accountability in the implementation of the SDGs. Against this background, this article outlines the concept of partnerships and their values, followed by a description of the partnerships for sustainable development, concerning the implementation of the SDGs and its main features. Some examples of relevant partnerships are presented, outlining their scope and degree of success. Based on the experiences gathered specific suggestions on how to foster partnerships to foster the implementation of sustainable development are provided. It is crucial to define common objectives to ensure alignment and a strong foundation for collaboration, involving diverse stakeholders, including governments, businesses, non-governmental organizations (NGOs), academia, and local communities, thus bringing unique perspectives and resources. Open and transparent communication builds trust and encourages the sharing of ideas and challenges. Additionally, demonstrating the benefits for each partner, whether in reputation, market access, or cost reduction, motivates active engagement, establishes incentive structures, and allows to celebrate successes. Pooling resources, knowledge, and expertise enhances the effectiveness of sustainable development initiatives, encouraging long-term commitments and fostering adaptability in the face of complex challenges. These are specific strategies that highlight the relevance of these findings, in comparison to existing work. Partnerships have evolved into indispensable instruments for the realization of the UN SDGs. Their transformative potential is expected to grow as the future trend, driven by the ongoing need for collaborative solutions to global challenges, becoming instrumental in addressing pressing global issues such as climate change, public health crises, and economic inequalities. In the coming years, a surge in research and initiatives focusing on optimizing partnership models, governance structures, and monitoring mechanisms to enhance accountability and transparency, is anticipated. Furthermore, the integration of digital technologies and data-driven insights into partnership strategies may revolutionize their impact and efficiency. Overall, the evolution of partnerships as a vital force in global sustainability presents a promising future trend with broader applications and a crucial role in addressing multifaceted challenges beyond the SDGs, as demonstrated in this study.

Keywords: Accountability and transparency; Expertise and resources; Implementation capacity; Partnership stakeholders; Sustainable Development Goals

Graphical abstract

Added Value of SDGs Partnerships



1. Introduction

Partnerships can be defined as formal relationships that bring together multiple and diverse stakeholders and provide a systemic arrangement to share resources to achieve a common goal (Sondermann and Ulbert, 2021). The United Nations (UN) defines partnerships as voluntary and collaborative relationships between one or more parties with a common purpose (Haque et al., 2020). Other terms used to refer to partnerships include "Collaboration", "Cooperation", "Alliance", and "Collaborative Governance" (Almeida and Davey, 2018; Al-Saidi, 2021; Escher and Brzustewicz, 2020; Eweje et al., 2021; Florini and Pauli, 2018; Wuebben et al., 2020). In recent years, partnerships have come to be recognized as an effective approach to addressing "wicked problems" (Eweje et al., 2021; Oliveira-Duarte et al., 2021). Through forming partnerships, multiple and diverse stakeholders can come together to advance transformative collective action and co-create value to attain a common goal (MacDonald et al., 2019). Thus, they are critical for implementing the UN Sustainable Development Goals (SDGs).

Partnerships can be developed across different sizes, scales, and sectors. For example, partnerships can be between just two organizations, or they can involve 300 partners (Ordóñez-Ponce and Clarke, 2020). They can be formed at the local, sub-national, national, and global scales (Al-saidi, 2021; Brolan et al., 2019; Wong et al., 2020). Academic literature tends to be more extensive on partnerships at the global scale (Samuel and Clarke, 2022). In terms of sectors, partnerships can be formed within and across the public, private, and civil society sectors, and partnerships across sectors

are called cross-sector partnerships (Selsky and Parker, 2005). They are also popular for companies from varying industries (Eang et al., 2023). Regardless of the scale or sector of a partnership, key elements of a partnership include defining shared goals, shared resources (including capacities and expertise), financing, engagement and communication, accountability, and expected outcomes (Samuel and Clarke, 2022). The success of these efforts is contingent upon stakeholders being fully committed to shared values, engaging and communicating, respecting diverse perspectives, and promoting an inclusive community (Sianes and Vela-Jiménez, 2020).

In terms of outcomes from collaborative strategic management efforts through cross-sector partnerships, these may be plan-centric (focused on the issue being addressed), process-centric (outcomes for the partnership itself), partner-centric (outcomes to the partner organizations), outside stakeholder-centric (outcomes to non-partners), person-centric (focused on the individuals involved in the partnership), or environment-centric (outcomes outside the focal issue being addressed) (Clarke and Fuller, 2010). Partner outcomes, for example, include results like increased reputation, gained knowledge, or achieved cost savings (Clarke and MacDonald, 2019). When considering the monitoring and evaluation of partnership effectiveness, this can be done based on project-related efficiency (operational effectiveness), project-related performance (tactical effectiveness), mission-related performance (strategic effectiveness), and issue-related performance (strategic+effectiveness) (van Tulder et al., 2016), as can be seen in Figure 1. It is the plan-centric outcomes, or the issue-related performance, that this study is focused on. Specifically, the sustainability outcomes aimed to be achieved through the efforts of the partnership are of most interest.

The value of partnerships is found in the mutual benefits reaped by two or more entities coming together and sharing their resources to co-create value and effect systemic change in addressing major challenges (Bull and McNeill, 2019; Haque et al., 2020). Partnerships serve as a governance framework to advance a shared vision for addressing complex problems involving multiple diverse entities with unique capabilities (Eweje et al., 2021). They are deemed to be effective for advancing joint efforts by providing a more integrated approach to addressing gaps, and efficient means to promote innovation, data sharing, dialogue, co-learning, and risk sharing (Banerjee et al., 2020; Berrone et al., 2019; Brolan et al., 2019; Horan, 2019). Partnerships enable the attainment of goals that are otherwise challenging to attain by entities working individually to address complex and large problems.

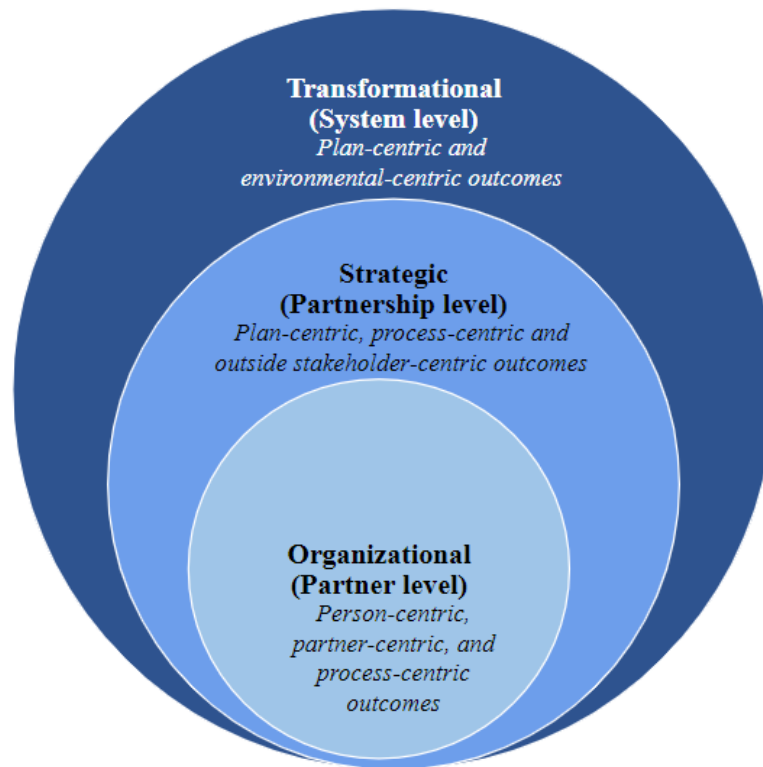


Figure 1. Linking partnerships outcomes to the assessment of value creation. Source: Adapted from Clarke and Fuller (2010) and van Tulder et al. (2016).

Partnerships for development initiatives have been increasing since the 1990s (Gabay and Ilcan, 2017). The literature on partnerships for the SDGs spans across diverse fields of studies including but not limited to engineering, health, management, finance, tourism, social work, education, and public administration, among others (Samuel and Clarke, 2022). Similarly, research on partnerships for the SDGs has been conducted across multiple countries, indicating that partnerships and their contribution to addressing complex problems are being researched all over the world, transcending borders and disciplines (Bull and McNeill, 2019; Samuel and Clarke, 2022). Furthermore, partnerships have allowed scientific breakthroughs in an increasingly globalized society by connecting industry, academia, and society to advance collective efforts globally (Cao et al., 2023a; Castillo-Villar, 2020; Oliveira-Duarte et al., 2021). In the past few years, the number of partnerships between universities and businesses has notably grown, specifically in Europe, the United Kingdom, the United States, and Japan (Castillo-Villar, 2020; Clifford and Zaman, 2016; Palm and Lilja, 2020). Cross-sector partnerships involving universities play a vital role in accelerating the growth of global partnerships for the SDGs by creating synergies that help advance efforts toward addressing development challenges (Castillo-Villar, 2020; Clifford and Zaman, 2016; Palm and Lilja, 2020; Purcell et al., 2019). For example, collaborative research can expedite the development and adoption of advanced materials and manufacturing processes through research into advanced manufacturing processes and material technologies (Cao, 2023a; Cao, 2023b), which enhances resource efficiency and reduces environmental impact (Clifford and Zaman, 2016). In this cross-sector collaboration, the industry benefits from cutting-edge research (Cao, 2023a; Cao, 2023b; Clifford and Zaman, 2016), academia gains practical insights (Palm and Lilja, 2020; Purcell et al., 2019), and society experiences tangible positive impacts, fostering and advancing a shared commitment to sustainable and equitable development (Eweje et al., 2021).

Some of the major challenges encountered in reaping the benefits of partnerships are around having a well-defined and intentional approach to accountability and inclusivity, both in forming a partnership and implementing its agenda (Samuel and Clarke, 2022). The UN General Assembly adopted 17 SDGs in 2015 (United Nations, 2023), which call for multi-stakeholder partnerships to leverage synergies between goals to advance transformative action (Moreno-Serna et al., 2020). SDG 17 is dedicated to utilizing partnerships to strengthen relationships and share resources, capacities, knowledge, and finances among stakeholders in implementing the SDGs globally (Oliveira-Duarte et al., 2021; Ordonez-Ponce et al., 2021b; Samuel and Clarke, 2022; Stott and Murphy, 2020). This study specifically considers the value of partnerships for implementing the SDGs.

2. Partnerships for sustainable development

The concept of partnerships has gained significant importance in the quest for sustainable development. The UN SDGs have provided a comprehensive outline for addressing several global challenges including climate change, poverty, sustainable living, inequality, quality education, environmental pollution, economic growth, peace, and justice (Leal Filho et al., 2022b). To achieve these ambitious goals strong collaboration and cooperation amongst governments, civil organizations, businesses (Ordonez-Ponce et al., 2021), and institutions along with stakeholders is required. Partnerships for sustainable development are crucial in unlocking collective action and harnessing the combined efforts of diverse actors towards a better future.

Partnerships add value to the fostering of SDGs (Figure 2). SDG 17, which is the goal for strengthening partnerships, is regarded as the pillar of the SDGs and the overarching goal for facilitating the achievement of other goals (Nielsen et al., 2023). SDG 17 has the targets for capacity building through finance and technology (Targets 17.1-17.9), equitable trading (Targets 17.10-17.13), policy coherence and coordination (Targets 17.14-17.15), multi-stakeholder partnerships (Targets 17.16-17.17), data availability (Target 17.18) and progress measurement (Target 17.19) (United Nations, 2015b). While the targets are important and can enhance sustainability, they all revolve around targets 17.16 and 17.17, being able to coordinate and establish multi-stakeholder partnerships for achieving the SDGs (Dickin et al., 2022). Partnerships can harness the power of collaboration and cooperation by uniting different sectors and backgrounds. Governments, businesses, civil society organizations, academia, and communities all have a role to play in addressing complex challenges and achieving the SDGs (Leal Filho et al., 2022a; Leal Filho et al., 2023b). These diverse stakeholders can pool their resources, ability, knowledge, and expertise to drive significant change.

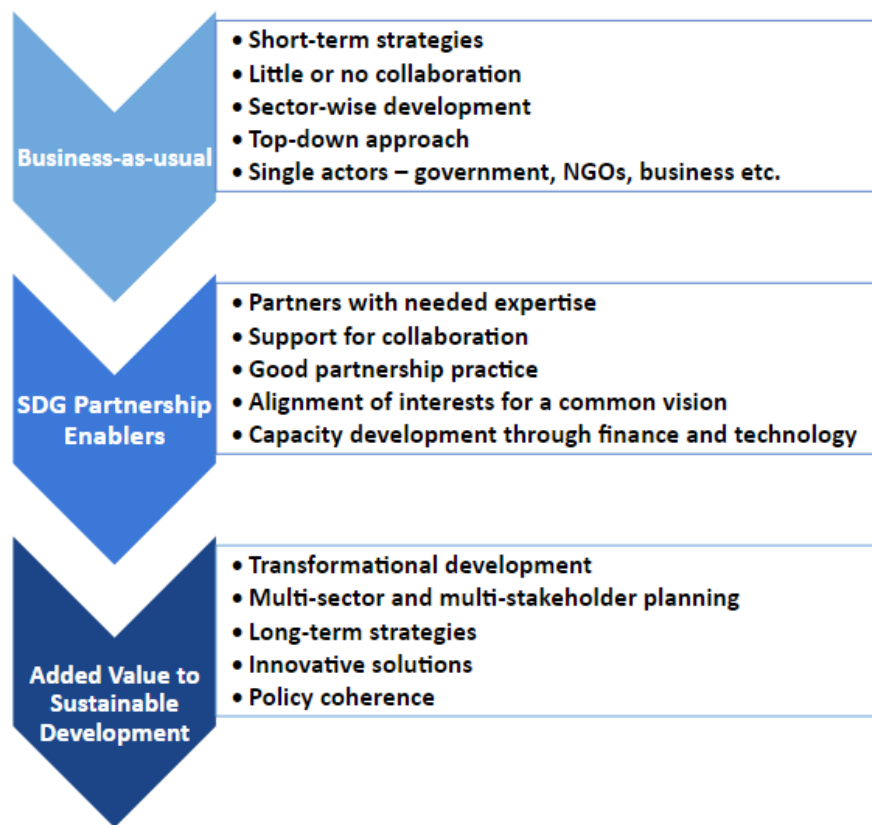


Figure 2. Value added by the partnership to sustainable development. Source: Authors' elaboration.

One of the crucial features of partnerships for sustainable development is the ability to mobilize resources (Haywood et al., 2019). Achieving the SDGs requires substantial financial, technological, and human capital investments. Partnerships can act as a platform for organizations and stakeholders to contribute and collect resources and leverage their collective power. Financial contributions, in the form of grants, investments, or corporate social responsibility initiatives, can help fund sustainable projects and initiatives. Similarly, other expertise like technical assistance can be shared too. Technical expertise can be shared by research and academic institutions to develop novel approaches and robust measures to achieve sustainable solutions, like in the case of disaster mitigation approaches (Mishra and Arya, 2020) and policy-making (Mishra and Singh, 2023). Financial contributions, in the form of grants, investments, or corporate social responsibility initiatives, can help fund sustainable projects and initiatives.

The complexity of achieving sustainable development challenges necessitates coordinated actions amongst stakeholders. To optimize the use of resources, maximize impact, and improve efficiency the actions by all stakeholders should be coordinated, and partnerships can provide a mechanism to streamline the process of judicious resource allocation, aligning interests and efforts, checking duplication of activities, and promoting synergy (Beisheim and Simon, 2018). The coordination of stakeholders requires doing away with the traditional approaches which are sector-based, short-term, and top-down (Stibbe and Prescott, 2020). The new approaches should cut across sectors with long-term visions, exploring both bottom-up and top-down strategies (Figure 2) (Stibbe and Prescott, 2020). This coordination is particularly important in addressing cross-cutting issues that require integrated solutions. For example, addressing and achieving UN SDG 6 aims to achieve clean water for all requires a multifaceted approach that combines economic empowerment, social protection, partnership with land practitioners, and access to basic services (Crockford, 2022).

Stakeholders can collaborate on multiple fronts to ensure complementary and reinforced actions through partnerships.

Partnerships have the potential to scale up the impact by replicating and expanding successful projects and initiatives. Several initiatives can be adopted to scale up the impact of small-scale projects. Often, small-scale projects demonstrate the ability and effectiveness of certain interventions that can be adopted for a bigger problem. The expertise, experience, and resources of different actors and partners can be leveraged to overcome implementation challenges and expand the stretch of their interventions (Everard et al., 2017). This can be achieved by promoting local and small-scale talent and identifying the root of the problem, especially in developing low-income countries (Beisheim and Simon, 2018). Scaling up impact is crucial for achieving systemic change and making a significant difference in addressing sustainable development challenges.

An important characteristic of partnerships for sustainable development is the engagement of multiple perspectives. Each stakeholder brings a unique set of experience, resources, and expertise to the table. The inclusion of diverse voices from a broad spectrum of backgrounds provides an innovative solution for a given challenge. One such partnership is Public-private partnerships (PPPs), which has been credited as an innovative mechanism for UN SDGs (Choi et al., 2020), as it involves the basic goods and services, experience from the public sector, and funds and technical expertise of a private sector. The UN Foundation has suggested several PPP requirements in the context of international development (Beisheim and Simon, 2018). This can promote transformational development (Figure 2), a departure from the traditional development whereby only the government implements development tasks (Stibbe and Prescott, 2020).

The recent development in digitalization could serve as an enabler and support for partnerships and SDGs in general. Digitalization has led to the development of numerous digital platforms, applications, and tools (Broccardo et al., 2023; Furtado et al., 2023; Leal Filho et al., 2023d). Digital tools deployed on e-government platforms are used to support government and citizens' interactions and activities (Furtado et al., 2023). In the same vein, digital tools can provide platforms for online partners, resource sharing, stakeholder engagement, automation, and efficient logistics (Broccardo et al., 2023) to support SDG partnerships. Digital tools go beyond sociocultural, geographical, and economic barriers by enabling virtual collaboration and connections. However, to get the maximum benefits from the opportunities provided by digital tools, stakeholders should make efforts in addressing the digital divide (Caragliu and Del Bo, 2023) that impacts on the accessibility to and reliability of the use of digital tools.

3. Material and Methods

Methodologically, this study was developed based on a bibliometric literature review on partnerships for sustainable development and the implementation of the UN SDGs, as well as through the selection and analysis of case studies, considering current partnerships on sustainable development. A bibliometric analysis is considered a method that examines patterns and trends within the scientific literature, involving the systematic analysis of bibliographic data, such as citations, to measure and evaluate several aspects of scholarly publications (Donthu et al., 2021). This analysis provides a comprehensive understanding of the research landscape by identifying key authors, influential publications, emerging topics, and collaborations within a specific field or discipline (Ellegaard, 2018). For data collection, the Scopus platform was used (data from May 2023), and, for its systematization and analysis, the VOSviewer software. Developed at Leiden University, VOSviewer offers advanced analytical features, supporting researchers in gaining a deeper understanding of scholarly communication and making informed decisions based on the analysis of bibliographic data (Van Eck and Waltman, 2010). Therefore, considering the method used, a set of keywords was selected for the

search: ("SDGs" OR "2030 agenda" OR "global goals" OR "sustainable development goal*") AND ("partnership*" OR "agreement*" OR "collaboration*"), limiting our results to articles published between 2015 and 2023, open access, which were published in English. The search was conducted considering the article titles, keywords, and abstract, resulting in a total of 1,393 documents. In our study, VOSviewer software version 1.6.18 was employed to analyze the frequency of keyword usage among the authors of the identified documents. The next section of this article presents the findings obtained from this bibliometric search and analysis.

The second stage of the methodological approach consisted of case studies, systematically analyzed to highlight the added value of partnerships in implementing the UN SDGs. This selection of specific examples illustrating how partnerships can contribute to the advancement of SDGs is based on Yin's (2018) recommendations, serving the purpose of enriching the discussion on this topic, and bringing relevant content to the understanding of results. Following Yin's (2018) prescribed approach, the case studies were categorized as type I. In this classification, each case was examined holistically to elucidate how partnerships could actively drive progress towards the achievement of the SDGs. This method facilitated a comprehensive analysis that enabled the authors to compare diverse interpretations of the results, thereby enhancing the depth and clarity of this study. The case studies were selected based on the following criteria:

- **Relevance to SDG 17 (Partnerships for the Goals):** The selection of case studies focuses on partnerships that align with SDG 17, emphasizing the importance of collaboration between the public, private, and non-profit sectors to advance sustainable development.
- **Diverse Contexts and Impact:** The case studies represent a variety of contexts and degrees of impact, reflecting the operationalization of partnerships in different regions and areas of the world.
- **Interconnectedness with Multiple SDGs:** The selected case studies demonstrate how partnerships are interconnected with multiple SDGs, beyond just SDG 17.
- **Effective Multi-Stakeholder Engagement:** The case studies emphasize the role of multi-stakeholder partnerships, showing that they are inclusive and efficient in bringing together various actors, including government, the private sector, civil society, academia, and international agencies.

A complementary analysis was made about considered relevant UN publications to better address the topic and complement the results while enhancing understanding of the partnership phenomena. This method allows the qualitative data to be analyzed so that generalizations can be made. Precisely, information was gathered from the UN's webpage, which offers a range of open-access publications. It includes some of the most recent publications (2017-2023), and the results were filtered to only consider results about "multi-stakeholder partnerships". In total, the search yielded 21 publications that were analyzed to detect the scope through which multi-stakeholder partnerships were addressed. This resulted in in-depth scrutiny of the aforementioned publications' content. By highlighting those parts of the text that appeared to be related to the predetermined codes (Hsieh and Shannon, 2005), the content analysis enabled to reduce the analyzed phenomena or events by assigning the publications to one of the four categories, namely (i) Identification, (ii) Institutional Framework, (iii) Guidelines/Learned Lessons/Good Practices/Tools, and (iv) Examples.

4. Results and discussion

Sustainability achievement in all aspects of human life is emphasized in the UN SDGs, through the 2030 Agenda (United Nations, 2015b). Its goals are prosperity, the planet, and people, acknowledging that eliminating poverty in all its forms and dimensions, including extreme poverty, is the largest global issue and a crucial component of sustainable development. SDG17, the last one, aims

to "Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development" (United Nations, 2015a) and is considered vital to achieving sustainable development (Leal Filho et al., 2022a). Using the most recent data and projections, the Sustainable Development Goals Report 2022, from 7 July 2022, offers a worldwide picture of the progress of the 2030 Agenda for Sustainable Development. With in-depth studies of specific indicators for each Goal, it keeps track of regional and global progress towards the 17 Goals (United Nations, 2022). This report clearly shows that the world is dealing with several problems in the areas of social issues, health, the environment, and peace and security. Consequently, international collaboration needs to be intensified immediately (Leal Filho et al., 2023c), to discover long-term answers and contribute to the advance of the SDGs and global sustainable development. Worldwide collaboration and partnerships have long been recognized as essential, fostering cooperation among public, private, and third sectors (Leal Filho et al., 2022c; Ordonez-Ponce et al., 2021a). Significantly more investment in data and statistics will be required to keep ahead of problems, aiming for a continuous assessment that allows better dealing with the challenges posed worldwide, namely in economic terms (Leal Filho et al., 2022c).

Sustainable multi-stakeholder partnerships (Eweje et al., 2021; Horan, 2019; Masuda et al., 2022) need to be promoted to address global sustainable development challenges at the government, company, higher education, or non-governmental level, that is different actors considered critical (Leal Filho, Vasconcelos, et al., 2022). Among others, living labs can promote long-term partnerships among stakeholders, positively contributing to SDG17 (Leal Filho et al., 2023a).

The UN's webpage is known to offer a range of open-access publications (P) linking multi-stakeholder partnerships and the implementation of the SDGs. Hence, thanks to a content analysis, the latest UN publications were analyzed and some of their key topics and findings were outlined. Results can be found in Figure 3. Some publications aim at identifying the already established partnerships and topics. Similarly, some other publications based on analyzing the institutional framework that fosters such relationships, for example by providing information on how countries have adapted their existing institutional and coordination frameworks or established new ones to implement the SDGs, or by focusing on a meta-governance level to analyze what relevant actors request or undertake to configure multi-stakeholder partnerships for the SDGs. Nevertheless, as shown in Figure 3, most UN publications opt for a more pragmatic approach and provide a partnership assessment across the SDG spectrum - even when some are more focused on specific SDGs, as stated in Figure 3. Namely, the mentioned UN publications offer guidelines, lessons, good practices, and tools and even describe specific examples. Precisely, the UN publications significantly vary topic-wise and cover a wide spectrum of phenomena and partnerships. In short, it is concluded that these UN publications do address (i) the effective multi-stakeholder engagement such as Publication 5, (ii) the relevance to SDG 17 such as Publication 4, (iii) diverse Contexts such as Asia and the Pacific, Mexico, Samoa, Africa, and Maldives; see Publications 5, 15, 18, 21 and 19, respectively, and Impact, and (iv) the interconnectedness with multiple SDGs such as Publication 4 and Publication 8.

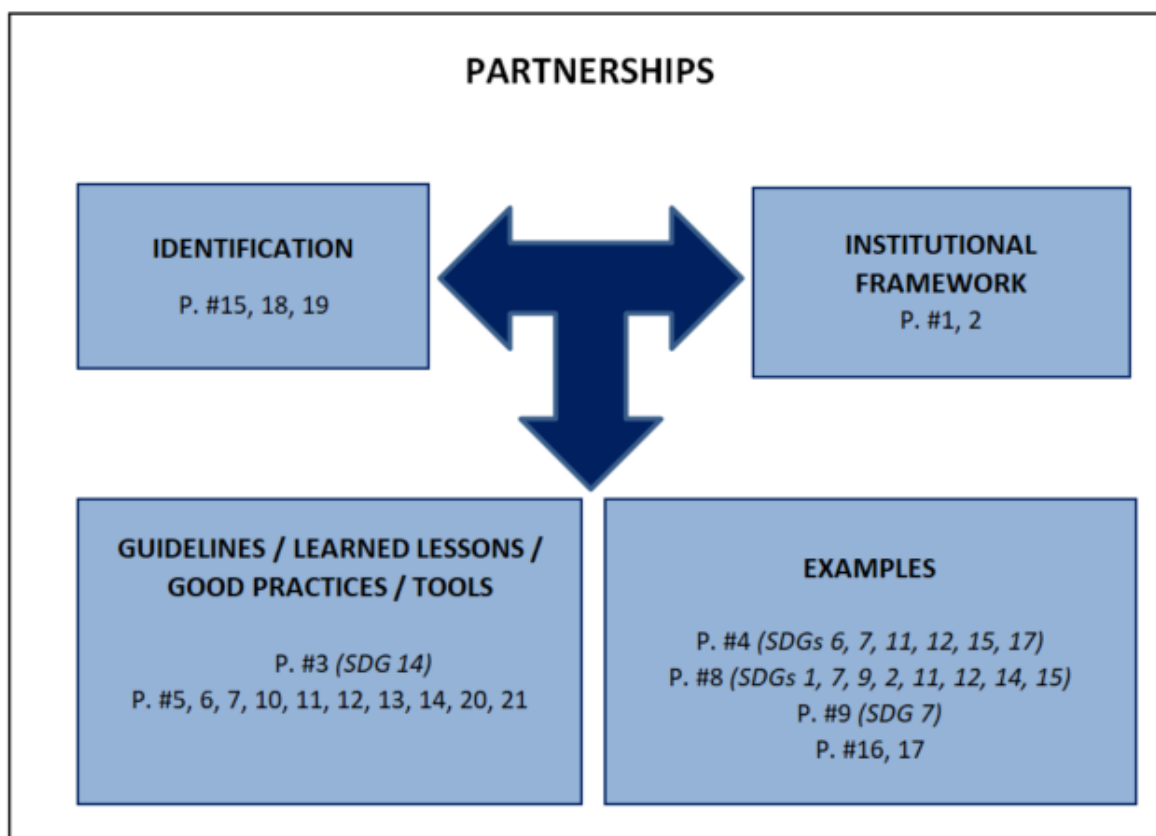


Figure 3. Some UN publications¹ (2017-2023) linking multi-stakeholder partnerships and the implementation of the SDGs. P=publication(s). Source: Authors' elaboration.

To identify how such partnerships have been addressed in the literature, as well as other experiences, this section presents two parts: the first part addresses the results obtained through the bibliometric review, while the second part presents the relevant case studies identified in the literature.

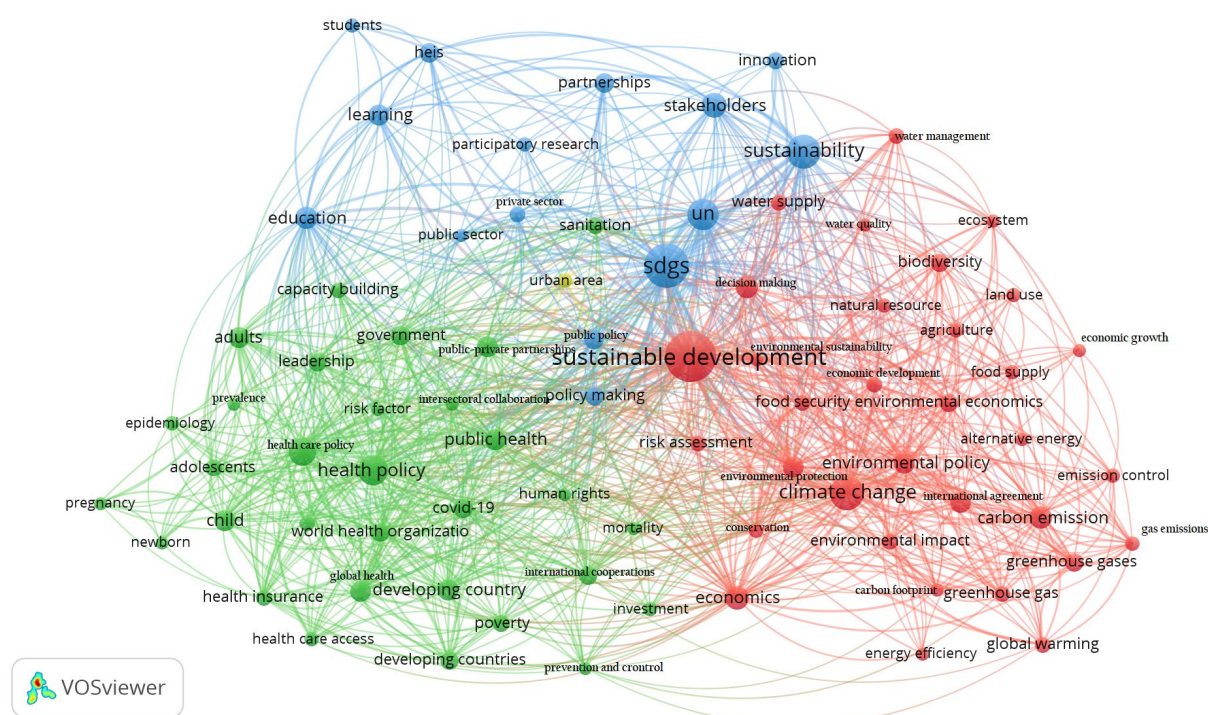
4.1 Bibliometric analysis

By using VOSviewer and setting specific analysis parameters, an analysis that resulted in the identification of 4,399 index keywords, was conducted. Among these, a subset of 80 keywords, with

¹ These are the analyzed UN publications (P); P 1 = "Institutional and coordination mechanisms", P 2 = "Partnerships for the 2030 Agenda for Sustainable Development", P 3 = "Achieving the Sustainable Development Goal for the Oceans", P 4 = "Partnership Exchange 2018 Report", P 5 = "Partnering for Sustainable Development. Guidelines for Multi-stakeholder Partnerships to Implement the 2030 Agenda in Asia and the Pacific", P 6 = "Multi-stakeholder engagement in 2030 Agenda implementation: A review of Voluntary National Review Reports (2016-2019)", P 7 = "How should civil society stakeholders report their contribution to the implementation of the 2030 Agenda for Sustainable Development?", P 8 = "Publication - Global Conference on Strengthening Synergies", P 9 = "Report - HLPF Accelerating SDG7 Achievement - SDG7 Tag Policy Brief", P 10 = "Partnerships for Small Island Developing States", P 11 = "2020 SDG Good Practices", P 12 = "The SDG Partnership Guidebook", P 13 = "Partnership platforms for the SDGs: Learning from practice", P 14 = "Partnership Landscape Assessment", P 15 = "Mexico Partnership Landscape Assessment", P 16 = "Small islands, genuine partnerships - guidance to genuine partnering in Small Island Developing States", P 17 = "Partnerships in response to COVID-19 - Building back better together", P 18 = "Samoa Partnership Landscape Assessment", P 19 = "Maldives partnership landscape assessment", P 20 = "What is a Good Practice? A framework to analyze the Quality of Stakeholder Engagement in implementation and follow-up of the 2030 Agenda", P 21 = "Africa Snapshot: Stakeholder engagement around the SDGs during the COVID-19 pandemic".

a minimum co-occurrence of 15, were visualized in the network representing the most prevalent topics within the identified articles. This means that the keywords that appear most constantly were grouped according to the link they establish between each other, forming the clusters. The following Figure illustrates the network created based on the conducted search.

Figure 4. Network visualization



Source: Authors' elaboration.

Based on the conducted analysis, it was possible to identify a total of four clusters representing the co-occurrence of the main keywords used in the literature on the topic. The first cluster (red) illustrates the connections between sustainable development, environmental policy, and economic growth, with the establishment of partnerships. Among the studies associated with this cluster, notable ones include the search conducted by Mosnier et al. (2023), where the authors introduce a collaborative modeling framework aimed at facilitating the development of national pathways by local research teams, to integrate these pathways at a global scale. According to the authors, this framework encourages collaboration among researchers to collectively construct models that capture the complexities of specific regions, allowing a more comprehensive understanding of national dynamics, and providing a foundation for scaling up to global assessments. The results demonstrate the potential of this new model as a valuable tool for policymakers and researchers in addressing the challenges of food security, sustainable agriculture, and land management at national and global levels (Mosnier et al., 2023).

Another study included in the cluster was conducted by Sadeek et al. (2023), where the authors investigated the potential for renewable energy adoption and evaluated different strategies to maximize the efficiency and effectiveness of the transition. The study highlights the importance of incorporating several factors such as policy frameworks, technology choices, and financial considerations in the transition planning process; as well as the establishment of partnerships between policymakers, energy planners, and other stakeholders to promote further advancements in sustainable energy generation and, also the SDGs.

The second cluster (green) displays the connections between health policies, the occurrence of the COVID-19 pandemic, and the establishment of public-private partnerships. In this regard, the study conducted by Joseph et al. (2023) stands out. The findings suggest that community leaders and health system actors play crucial roles in identifying and reaching out to these vulnerable groups. The study emphasizes the need for targeted interventions, tailored healthcare services, and improved collaboration between health system actors and community leaders to ensure equitable access to healthcare and address the specific challenges faced by vulnerable populations (Joseph et al., 2023).

The article produced by Urmanavičienė and Butkevičienė (2023) also stands out in this cluster. The authors emphasize the significant role played by Work Integration Social Enterprises in supporting vulnerable populations, providing employment opportunities, and promoting sustainable development. The study focuses on understanding the challenges faced by those actors during the COVID-19 pandemic, how they adapted their operations to continue their social and environmental missions, and their resilience to address the pressing social and economic issues generated by the pandemic. As the main findings, Urmanavičienė and Butkevičienė (2023) demonstrate that the partnerships and collaboration among this community are responsible for providing employment opportunities for vulnerable populations, supporting social inclusion, promoting sustainable practices, and contributing to local economic development.

The third cluster (blue) includes keywords such as education, public sector, and private sector, policy making, and the role of Higher Education Institutions. Among the identified studies, greater emphasis can be placed on the study conducted by Pires et al. (2022), which emphasizes the importance of integrating sustainable development principles and practices into higher education curricula to contribute to the achievement of the SDGs. To perform this research, the authors analyzed a strategic partnership of the ERASMUS+ project EUSTEPs (Enhancing Universities' Sustainability Teaching and Practices through Ecological Footprint), with the development of a teaching module aimed at introducing the concept of sustainability to students, promoting their active engagement with the topic. The article highlights the effectiveness of this approach in engaging students and fostering their understanding of the interconnections between everyday life choices and sustainable development; as well as the potential of establishing collaborations between disciplines and projects in achieving the SDGs (Pires et al., 2022).

The article written by Horwood et al. (2021) highlights the challenges faced in establishing effective communication and collaboration due to language barriers between partners from different regions, considering the development of health research. The authors emphasize the importance of cultural sensitivity, mutual understanding, and patience in building strong partnerships for health research capacity development, especially in the context of North–South collaboration. Among the results, Horwood et al. (2021) conclude that collaborations among higher education institutions (HEIs) can enhance research capacity in low-income countries to achieve the UN SDGs, which is crucial to providing solutions for language barriers.

Finally, the last cluster (yellow) specifically addresses the establishment of partnerships and the relationship between urban areas, sustainable development, climate change, and the SDGs. Some studies can be highlighted in this cluster due to their contributions, such as the article developed by Alderton et al. (2021). The authors examine the critical success factors and lessons learned from a collaborative partnership involving multiple sectors and international stakeholders, considering the development of capacity for monitoring urban live ability in Bangkok. The findings shed light on the key factors that contribute to the success of such partnerships, including shared objectives, effective communication, and the use of innovative methodologies. The significance of multi-sectoral, international partnerships in addressing complex urban challenges and promoting sustainable development are the key findings of the article (Alderton et al., 2021).

The study conducted by Salmoral et al. (2020) is also included in this cluster. The authors explore the water-related challenges faced in nexus governance for sustainable development in the city of Arequipa (Peru). Providing insights on the specific challenges related to water management, - including issues of scarcity, pollution, and access, within the context of nexus governance -, Salmoral et al. (2020) highlight the need for integrated approaches and collaborative governance mechanisms to address these challenges effectively, also considering the achievement of the SDGs.

Overall, the thematic cluster analysis highlights that the literature on partnerships and SDGs has been pointing to themes such as environmental policy and economic growth, health policy, education, climate change, and urban areas, among others. In this regard, three cross-cutting issues can be brought up given the cluster results and the highlighted publications. Firstly, the importance of the scale and scope of the partnership, particularly at local, national, regional, and global levels. This refers to both the actors involved (governments, companies, and international organizations, among others) and the scales of action defined by the partnership. Some studies from the revision, for example, focus the debate on the role of partnerships at the local/municipal level (Mestdagh et al, 2023), while others consider partnerships formed and acting at the national level (Bergamini et al, 2023; Sadeek et al, 2023; Liu and Xia, 2023), others talk about partnerships created to address regional (such as European Union, BRICS, South Asia, Sub-Saharan Africa, among others) or global related problems (Shaw, 2015; Rogelj et al, 2015; Bvumbwe and Mtshali, 2018; Muñoz et al, 2023; Malik et al, 2023). The second point worth highlighting is the involvement of stakeholders of various institutional natures, public, private, third sector, and multilateral organizations. This leads to the need to think about the governance of partnerships (Mariani et al, 2022; Jansen et al, 2018; Bennett et al, 2018), including debating synergies and tensions involved in the face of different values and objectives that cross different organizations. Finally, the role of scientific research, higher education, and technology is an important factor in the debate about partnerships (Robinson et al, 2022; Holzer et al, 2018). In this line, resuming current models of involvement between research and society for sustainable development is fundamental, such as responsible innovation initiatives, as well as to think research and education in a more transdisciplinary and interdisciplinary way (Kubisch et al, 2021; Imaz and Eizagirre, 2020; Lehoux et al., 2018).

4.2 Case studies

Selected case studies highlighting the contribution of partnerships to help implement the UN SDGs are presented in Table 1. SDG 17 is admittedly a crucial tool to meet all the other SDGs, pushing for more collaboration between the public, private, and non-profit sectors, to advance sustainable development. An example of a successful partnership is presented by Leal Filho, Wall, et al. (2022), the Positive Impact Events international partnership, establishing and disseminating inclusive knowledge-sharing best practices to address accelerating commitment towards the SDGs. In the scope of better networking between higher education and rural communities, the Bonn-Rhine-Sieg University of Applied Sciences has engaged in a partnership with the Neunkirchen-Seelscheid municipality, resulting in a Municipal Innovation Partnership. This project, addressing significant features of municipality innovation partnerships, was able to increase the attractiveness of the rural community and rural area, exploring opportunities for collaboration with the rural community, transferring the benefits of having regionally located campuses to the rural areas surrounding these campuses, and consequently contributing to a systemic-oriented sustainable development, within the context of SDGs 4, 8 to 13, 15 and 17, in particular (Paunovic et al., 2022). The multifaceted character of partnerships demands an integrated approach to supporting sustainable development with multi-stakeholder partnerships being crucial to sharing knowledge, expertise, and technology in the process of implementing the SDGs. Within that context, the Partnership Accelerator aspires to create a

partnership-enabling environment that can promote corporate involvement as a partner in sustainable development and accelerate the number and success of partnerships toward achieving the 2030 Agenda. The primary motivators of high-impact multi-stakeholders are collaboration, value co-creation, and knowledge (Oliveira-Duarte et al., 2021).

Since the formulation of the SDGs, partnership as a strategy has been pivotal in steps taken toward their realization. While the significance of partnership for the goals is captured in SDG 17, across the globe, this has been operationalized in different contexts and with varying degrees of impact. A case in point is the partnership for soil conservation and the SDGs across Europe and Central Asia. According to Erdogan et al. (2021), crafting national and international policies and legislations, as well as voluntary measures intended to frame but also firm up soil protection in Europe, Central Asia and other parts of the world is not enough to achieve soil management at global and sustainable levels. Given that soil as a material is connected with different SDGs such as 1, 2, 3, 6, 11, 12, 13, 14, 15, and 17, as it underlines different ecosystem services, the authors maintain that achieving these soil-related SDGs will necessitate partnerships within and across regional blocks, whereby data, knowledge, best practices, and diverse incentives can be shared for awareness creation, research, financial support, and monitoring. However, this would take the commitment of partners, who may be government operators and key non-governmental organizations bound by shared interest.

Taking the case of governments as key pillars, Masuda et al. (2022), investigated some local governments in Japan as intermediaries to facilitate partnerships for the SDGs and assert that they can play an intermediary role in promoting partnerships intended to achieve the SDGs at local levels. This is particularly essential as a partnership for the goals is not restricted at the macro-global or continental level but also at the micro-district, city, town, or village level, respectively – and touching on multi-stakeholder partnerships at localized levels. For local governments, this can simply translate into promoting the SDGs as conduits for sustainable growth and then facilitating the creation of synergy among stakeholders for an SDG-related project, while also mobilizing resources and allocating them judiciously. An example of an SDG-related project can be a fight against food waste in a sector or industry within a local district such a project will contribute to several SDGs such as SDG2 and SDG12. Drawing on a project that addressed multi-stakeholder partnerships to fight food waste in the hospitality industry, de Visser-Amundson (2020) maintains that such a partnership would be helpful as it typically presents an opportunity to address challenges faced by society. This is consistent with insights from other authors who assert that multi-stakeholder partnerships are inclusive and more efficient in bringing together different actors and civil society organizations to tackle a common issue (Pattberg and Widerberg, 2016; Dentoni et al., 2018). It can therefore be argued from this account that partnership for the goals, involving multi-stakeholders is fundamental in achieving SDG-related issues, provided it draws commitment from different actors, including local governments.

Macdonald et al. (2018) assessed the contributions of multi-stakeholder partnerships to achieving sustainable communities and cities. Their findings revealed that local organizations, acting as catalysts for resource investment, played a crucial role in community sustainability projects. This, in turn, led to cost savings for local governments. Horan (2019) developed a novel approach to partnerships that aim to achieve the SDGs. The author concludes that creating an enabling environment for transforming partnerships requires building partnering capacity, improving coordination mechanisms, overcoming short-term perspectives, aligning incentives, and compensating disadvantaged stakeholders. Haywood et al. (2019) investigated the role of multi-stakeholder partnerships in achieving SDGs in South Africa. They found that integrated and synergistic partnerships among government, the private sector, civil society, academia, and international agencies effectively strengthened and fostered collaborations to achieve the SDGs. Sondermann and Ulbert (2021) studied how meta-governance could lead to meaningful partnerships to achieve SDGs. They

conclude that effective participation, accountability, and transparency facilitate a gradual improvement in the quality of partnerships, with a significant impact on implementing SDGs.

Table 1. Relevant Case Studies on Partnerships to Implement the UN SDGs

Case study	Scope	Reference
The positive impact of events on international partnerships	Tackles themes across 12 SDGs by establishing and sharing inclusive knowledge-sharing best practices so that SDG-related events may reach thousands of people each year.	Leal Filho, et al. (2022)
Municipal Innovation Partnership project	Under the focus on innovative higher education, the scope lies in regional innovation being promoted between the Bonn-Rhine-Sieg University of Applied Sciences and the municipality of Neunkirchen-Seelscheid	Paunovic et al. (2022)
Partnership Accelerator directed to address SDG 17	SDG-oriented innovation ecosystem framework for partnership implementation, with a focus on Partnership Accelerator to assist developing countries in advancing the SDGs	Oliveira-Duarte et al. (2021)
Multi-stakeholder partnership to fight food waste in the hospitality industry	Addresses SDG12 by setting up a multi-stakeholder partnership to help the Dutch hospitality industry reduce food waste, with 172 restaurants participating.	de Visserr-Amundson (2022)
European soil partnership in achieving soil conservation and SDGs	Engages The European Soil Partnership (ESP) and its sub-regional partnerships to establish that sub-regional and national partnerships are essential components in a sustainable soil management implementation process.	Erdogan et al. (2021)
Local governments in Japan as intermediaries to facilitate partnerships for the SDGs	Examines 18 local governments in Japan and identifies the need for SDG localization and the role of local governments in facilitating or creating intermediaries that can foster the achievement of a goal.	Masuda et al. (2022)
Partnerships for SDGs as a meta-governance norm aimed at achieving global health targets within the framework of the SDGs.	Partnership is a form and norm of meta-governance, with a significant positive role and impact in implementing SDGs. Participation, accountability, and transparency facilitate a gradual improvement in the quality of partnerships.	Sondermann and Ulbert (2021)
Partnership stakeholders are instrumental in collectively achieving SDG targets	Integrated and synergistic partnerships among government, the private sector, civil society, academia, and international agencies serve as a	Haywood et al. (2019)

	mechanism to strengthen and foster collaborations to achieve the SDGs.	
Stakeholder collaboration to achieve sustainable community development (SDG 11)	Local organizations play a crucial role as catalysts for resource investment in community sustainability projects, leading to cost savings for the local government.	Macdonald et al. (2018)
A new approach to partnerships to achieve the SDGs by creating an enabling environment	Building partnering capacity, improving coordination mechanisms, overcoming short-term perspectives, aligning incentives, and compensating disadvantaged stakeholders are crucial for transforming partnerships.	Horan (2019)

Source: Authors' elaboration.

The experiences summarized in Table 1 suggest that partnerships can use new or replicate successful models and initiatives, thereby scaling up the impact of interventions and achieving broader results. They also have the potential to amplify collective voices, supporting advocacy for policy changes and fostering commitments and accountability for various stakeholders.

The bibliometric analysis, conducted using VOSviewer with specific parameters, identified 4,399 index keywords, with 80 keywords, each having a minimum co-occurrence of 15, visualized in four clusters to represent prevailing topics in the literature. These different clusters offer insights into the thematic landscape. The first cluster (red) underscores the intersection of sustainable development, environmental policy, economic growth, and partnerships. The second cluster (green) illuminates the connection between health policies, the COVID-19 pandemic, and public-private partnerships. The third cluster (blue) revolves around education, the public and private sectors, policy-making, and the role of Higher Education Institutions. The last cluster (yellow) highlights the nexus between urban areas, sustainable development, climate change, and the SDGs. Overall, the analysis underscores key themes such as the scale and scope of partnerships, the involvement of diverse stakeholders, and the pivotal role of scientific research, higher education, and technology in addressing complex sustainability challenges. These findings shed light on the multifaceted nature of partnerships in the context of the UN SDGs.

As illustrated in the results obtained, partnerships have undergone significant transformation and are now indispensable tools for achieving the UN SDGs. This transformation is expected to continue as a prominent trend, driven by the persistent need for collaborative approaches to tackle global challenges. These collaborative ventures are poised to play an increasingly pivotal role in addressing critical global issues, spanning from climate change and public health emergencies to economic disparities. A notable upsurge in research and initiatives aimed at refining partnership models, enhancing governance structures, and bolstering monitoring mechanisms to foster greater accountability and transparency is anticipated in the coming years. Moreover, the integration of cutting-edge digital technologies and data-driven insights into partnership strategies holds the potential to revolutionize their impact and operational efficiency. This digital evolution is likely to enable more streamlined decision-making, resource allocation, and the assessment of outcomes. In sum, partnerships are evolving into a potent force for global sustainability, and their future trajectory appears promising with the prospect of extending their applications to address complex challenges beyond the scope of the SDGs. As these collaborative efforts become increasingly sophisticated and adaptive, they are set to shape the way multifaceted global issues are confronted, charting a path toward a more sustainable and equitable world.

5. Conclusions

This article has outlined the concept of partnerships and their values, followed by a description of various examples of partnerships for sustainable development, focusing on the implementation of the SDGs, and their main features. Some examples of current partnerships were presented, outlining their scope and degree of success. The article illustrates two main trends. The first is the fact that the bibliometric analysis identified partnerships as a theme which is on the one hand quite present in the literature, but on the other hand, is not as prominent as it could -or should be. Be it in connection with sustainable education, competencies, training, or transformative learning, partnerships may be able to offer added value to efforts to implement sustainable development as a whole, and the UN SDGs in particular. The second trend, related to the case studies, shows that while partnerships bring numerous benefits, it is important that they are engaging and there is a coordinating role being played by researchers or organizations, to maintain a coherent and integrated approach to achieving the SDGs.

The article makes a valuable contribution to the existing literature by highlighting the current emphasis on partnerships in implementing the UN SDGs, addressing a significant gap in understanding, and demonstrating its relevance. It is believed that the text appropriately underscores the importance of further research, particularly focusing on the role of partnerships at the global level to advance the SDGs, indicating the need for more comprehensive studies in this area. However, there is a limited scope of bibliometric analysis, with one of the limitations being the constrained scope of the bibliometric analysis due to the use of a limited number of search strings. This can lead to the omission of relevant topics and concepts associated with the theme, potentially resulting in an incomplete view of the subject. In addition, it is acknowledged that the list of current partnerships on sustainable development is not very comprehensive, which limits the breadth of examples provided. This could impact the depth of insights into diverse partnership models. Also, the number of UN documents analyzed and the size of the set of case studies may be insufficient to cover all the modalities of SDG partnerships' implementation seen today. A larger sample size could have provided a more comprehensive and representative analysis.

As this article has demonstrated, fostering partnerships is crucial for the successful implementation of sustainable development initiatives as a whole and the realization of the UN SDGs in particular. Collaborating with various stakeholders can bring together diverse expertise, resources, and perspectives to address complex challenges. Some measures which may be deployed to foster partnerships in the implementation of the UN SDGs are to:

- i) Clearly define the shared objectives and goals among potential partners. This alignment ensures that all parties are working towards the same vision, creating a strong foundation for collaboration.
- ii) Involve the relevant stakeholders from different sectors, such as governments, businesses, NGOs, academia, and local communities. Each group brings unique insights and resources to the table, leading to more comprehensive and sustainable solutions.
- iii) Encourage open and transparent communication among partners. Building trust is essential for successful collaboration, and it allows stakeholders to share challenges, ideas, and potential risks openly.
- iv) Highlight the benefits that each partner can gain from the collaboration. Whether it's improved reputation, access to new markets, or reduced costs, showcasing mutual advantages will motivate stakeholders to engage actively.
- v) Establish incentive structures that reward contributions and achievements within the partnership. Publicly recognize and celebrate successes to promote a sense of accomplishment and encourage continued commitment.

vi) Pool resources, knowledge, and expertise from different partners. This can include financial investments, technical skills, research, and data sharing, all of which can enhance the effectiveness of sustainable development initiatives.

vii) Since sustainable development often requires long-term commitments, there is a need to encourage partners to view their involvement as a continuous process rather than a short-term project.

viii) Foster an environment that allows for experimentation and adaptation. Sustainable development challenges are complex and dynamic, so partners should be willing to innovate and adjust their approaches as needed.

Moreover, it is important to involve and consult with the communities affected by sustainable development initiatives. Their insights and local knowledge are invaluable for creating solutions that are contextually appropriate and socially inclusive. The implementation of partnerships may also benefit from a robust monitoring and evaluation framework, which may assess the impact of collaborative efforts. Regular reviews of progress can assist in learning from successes and challenges and allow strategies to be adjusted accordingly. The fostering of strong partnerships may contribute to the successful implementation of sustainable development initiatives, driving positive change for both the environment and society.

This article underscores the pivotal role of partnerships in the effective realization of SDGs, particularly the UN SDGs. By engaging diverse stakeholders and employing measures such as defining shared objectives, fostering open communication, and establishing incentives, partnerships can harness a wealth of resources and expertise to tackle multifaceted global challenges. Importantly, the involvement of affected communities and the integration of their insights can ensure the relevance and inclusivity of sustainable development solutions. Furthermore, a robust monitoring and evaluation framework will be essential in tracking the progress of collaborative efforts, enabling the adaptation of strategies, and learning from both successes and challenges. As we move forward, fostering strong partnerships is not only instrumental in achieving sustainability but also in driving positive change for the environment and society, reinforcing their central role in our collective pursuit of a better, more equitable world.

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