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Climate Change Mitigation and Adaptation Strategies for Sustainable Resource Management

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ABSTRACT

The interplay between sustainable development and natural resource management has become central to addressing global challenges such as climate change, resource depletion, and social inequities. This study employs bibliometric analysis to explore the evolution, trends, and influences in this critical interdisciplinary field. Utilizing reputable databases, relevant publications are collected, preprocessed, and analyzed using VOSviewer. Co-authorship, citation, and keyword analyses unveil the intellectual landscape, prominent contributors, and core themes. Results showcase clusters such as climate change and resource management, highlighting challenges and strategies. Highly cited works underline key influences, from the natural-resource-based view of the firm to the triple bottom line concept. Insights empower researchers, policymakers, and practitioners to navigate the complexities of sustainable development and resource management.

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1. INTRODUCTION

The dynamic interplay between sustainable development and natural resource management has become an integral focus of global discourse, driven by the imperative to strike a harmonious balance between human progress and environmental preservation. As societies face complex challenges such as climate change, natural resource depletion and social injustice, the need for a holistic and informed approach to sustainable development has become even more pressing. In this context, the integration of principles from various disciplines offers a powerful framework to address the complex relationship between human well-being, ecological integrity and economic growth [1]–[4].

The concept of sustainable development, popularized by the Brundtland Report in 1987, underscores the importance of meeting the needs of the present without compromising the ability of future generations to meet their own needs. Achieving this delicate balance requires a multifaceted approach that includes environmental, social and economic considerations. At its core, sustainable development envisions a trajectory where progress in human prosperity is pursued in ways that protect the planet's finite resources, conserve biodiversity, and uphold social

justice. The dynamic interaction between sustainable development and natural resource management is indeed a crucial aspect of global discourse. This interaction aims to achieve a balance between human progress and environmental preservation. Various approaches and models have been developed to address this challenge, including the use of advanced technologies, innovative techniques, and participatory development communication [5]–[8].

One approach to addressing soil erosion, a significant concern in natural resource management and sustainable farming, involves the use of models to assess soil erosion at the field scale [9]. Some models, such as EPIC, PERFECT, GUEST, EPM, TCRP, SLEMSA, APSIM, RillGrow, WaNuLCAS, SCUAF, and CREAMS, allow daily soil erosion assessments at the sub-field scale [9]. However, further development is needed to improve the interaction of components like rainfall intensity, overland flow, and crop cover, as well as addressing scaling limitations [9].

Ecologically oriented progress and natural resource preservation are essential for sustainable development [10]. The concept of the noosphere, which presents an ideal example of an optimistic attitude towards coordinating scientific and technological development with natural resource saving, is one approach to addressing the "man-society-nature" relationship [10]. To maintain the balance between human needs and environmental processes, it is essential to include lean production training in the technological development of society [10]. The Consultative Group on International Agricultural Research (CGIAR) has identified six distinctive kinds of boundary work that contribute to the success of natural resource management programs [11]. These different types of boundary work can be understood as a dual response to the different uses for which the results of specific research programs are intended and the different sources of knowledge drawn on by those programs [11].

Green logistics (GL) and green human capital (GHC) have been found to be significant drivers of circular economy (CE), which is an effective solution for promoting sustainable development [12]. Sustainable production (SP) mediates the relationship between GHC and CE, as well as between GL and CE [12]. Participatory development communication is another approach that emphasizes putting people first in sustainable development in agriculture and natural resource management [13]. This approach involves engaging stakeholders in the decision-making process and ensuring that their voices are heard and considered. Environmental protection from the aspect of criminal law is also important in addressing the challenges of sustainable development and natural resource management [14]. The term "ecocide" refers to the utilization of natural resources without considering the necessity of developing a strategy for the use, harmonization, and preservation of a healthy human environment [14]. Criminal law sanctions can help protect the natural environment and prevent our planet from becoming unsuitable for life [14].

In conclusion, achieving a balance between human progress and environmental preservation requires a multifaceted approach that includes the use of advanced technologies, innovative techniques, participatory development communication, and legal measures. By implementing practices aimed at sustainable development, it is possible to achieve a balance between the imperative need for development and the preservation of our environment.

Sustainable Development and Natural Resource Management have been the subject of numerous studies, with some of them focusing on bibliometric analysis. While there have been no specific studies combining sustainable development and natural resource management with bibliometric analysis, there are relevant studies in related fields that can provide insights.

One such study is "Accounting and Management of Natural Resource Consumption Based on Input-Output Methods: A Global Bibliometric Analysis" [15]. This study uses bibliometric methods to

systematically review research on natural resource utilization and its environmental impacts. The analysis covers the quantity and quality of academic achievements and international cooperation, with a focus on energy and water resources.

Another relevant study is "Wastewater Management: A Bibliometric Analysis of the Scientific Literature" [16]. This study conducted a bibliometric analysis of research related to wastewater management indexed in WoS and Scopus databases. This analysis aims to understand the development of production over the years, maturity in research, subject coverage, and identify the most discussed topics and gaps.

In the field of human resource management, there are studies that use bibliometric analysis, such as "Bibliometric Analysis of Green Human Resource Management from Published Literature from 2008 to 2022" [17] and "A two-decade journey of green human resource management research: a bibliometric analysis" [18]. These studies focus on the development of literature in green human resource management and provide insights into volumes, trends, worldwide distribution, key journals, pioneering authors, dominant countries, and industries.

While these studies do not specifically focus on sustainable development and natural resource management together, they provide valuable insights into research trends, methodologies and key topics in related fields. To gain a comprehensive understanding of sustainable development and natural resource management research, it is beneficial to analyze these studies and identify common themes, methodologies, and gaps that can inform future research in the field.

At the same time, natural resource management forms the backbone of sustainable development, encompassing the strategies, policies and practices that govern the utilization, conservation and restoration of the earth's resources. Effective natural resource management is essential to ensure their availability for present and future generations while minimizing environmental degradation. The field of natural resource management covers a wide range of areas, including land, water, minerals, forests and marine ecosystems, addressing issues such as sustainable agriculture, water security and biodiversity conservation.

The complex relationship between sustainable development and natural resource management is not only academically important, but also has profound implications for global policy agendas, socio-economic frameworks and environmental conservation efforts. As governments, organizations and communities grapple with the complexities of sustainable development, evidence-based insights derived from rigorous research are essential to guide decision-making and appropriate resource allocation. It is in this context that bibliometric analysis emerges as a powerful methodology to untangle the intricate tapestry of research in this critical interdisciplinary arena.

2. LITERATURE REVIEW

2.1 Defining Sustainable Development and Natural Resource Management

Sustainable development is a concept that aims to achieve a balance between economic growth, social equity and environmental protection. It seeks to meet the needs of present generations without compromising the ability of future generations to meet their own needs [19]. Natural resource management, on the other hand, refers to the planning and responsible utilization of natural resources, such as water, land, plants, and animals, to ensure the long-term sustainability and well-being of ecosystems and human communities [20]. In the context of sustainable development, natural resource management plays an important role in maintaining a balance between ecological, economic, and social dimensions. This involves implementing strategies and practices that promote the conservation and sustainable use of natural resources while addressing social issues such

as poverty, malnutrition, and unequal access to resources [19]. Some key aspects of sustainable natural resource management include:

Collaborative adaptive management: This approach combines the learning and experimentation aspects of adaptive management with the participatory aspects of collaborative management. This approach aims to address complex natural resource management problems that are difficult to solve using standard problem-solving approaches [20]. Green economy: The transition to a green economy involves the integration of environmental, social, and economic considerations in decision-making processes. This includes promoting the use of renewable resources, reducing the use of non-renewable resources, and addressing social issues such as poverty and inequality [19].

Corporate social responsibility (CSR) in green construction: CSR plays an important role in promoting sustainable development in the construction industry. Green construction practices, such as green procurement and green design, can help reduce environmental impacts and contribute to sustainable development [21].

Convergence of environmental and economic laws: The integration of environmental and economic policies and regulations is essential to promote sustainable development and natural resource management. This includes developing legal frameworks that support the transition to a green economy and the protection of natural resources [22]. Sustainable development indicators: Sustainable development indicators are tools used to measure and monitor progress towards sustainable development goals. They help policy makers and stakeholders to assess the effectiveness of policies and strategies aimed at promoting sustainable development and natural resource management [23].

In conclusion, sustainable development and natural resource management are interconnected concepts that require a holistic and integrated approach. By taking into account ecological, economic and social dimensions, it is possible to promote the responsible use of natural resources and ensure the long-term sustainability of ecosystems and human communities.

2.2 Emerging Research Themes

Over the years, research in sustainable development and natural resource management has evolved and covered a wide spectrum of interconnected themes. Early research mainly focused on resource extraction, allocation and exploitation. However, as global awareness of environmental challenges increases, researchers are increasingly addressing topics such as environmental degradation, climate change and conservation strategies.

The emergence of resilience theory in ecological and social systems prompted discussions on building adaptable socio-ecological systems that can withstand shocks and disturbances. This theme was popularized by Holling's work on ecological resilience in the 1970s and has since permeated discussions on sustainable development strategies.

In addition, the socio-economic dimension of sustainable development has also gained prominence, leading to explorations of poverty alleviation, social equity and community engagement. Important works such as Sen's capability approach and the Human Development Index (HDI) underscored the importance of human well-being beyond economic metrics.

3. METHODS

This research methodology uses bibliometric analysis powered by VOSviewer to illuminate the intellectual landscape of sustainable development and natural resource management. By systematically collecting, processing, analyzing, and visualizing publication data, the methodology enables the discovery of core themes, influential contributors, impactful works, and emerging new directions that have defined this critical interdisciplinary field. Insights gained from this methodology contribute to a nuanced understanding of the evolution of the field, thereby informing decision-making,

shaping research agendas and advancing global sustainability efforts.

The research began by identifying leading academic databases, such as Web of Science, Scopus, and PubMed, known for their extensive coverage of scientific literature across multiple disciplines related to sustainable development and natural resource management in Publish or Perish (PoP) software. A set of search queries were formulated, incorporating relevant keywords and synonyms that summarize the core themes of the field. The search queries were then executed in the selected databases, to obtain a comprehensive dataset of scientific publications.

After obtaining the publication dataset, thorough data preprocessing was performed. Duplicate records were removed to ensure the accuracy of the dataset. Titles and abstracts were screened to remove irrelevant publications that did not fit the focus of the study. The resulting dataset was refined, consisting of publications closely related to sustainable development and natural resource management.

Bibliometric analysis was conducted using VOSviewer, a software that facilitates visualization and analysis of bibliometric data.

Table 1. Metric Data

Publication years:	1986-2023
Citation years:	37 (1986-2023)
Papers:	240
Citations:	116287
Cites/year:	3142.89
Cites/paper:	484.53
Cites/author	78320.00
Papers/author	154.57
Authors/paper:	2.07
h-index:	129
g-index:	240
hI,norm:	108
hi,annual:	2.92
hA-index:	45
Papers with ACC >= 1,2,5,10,20: 240,229,188,134,86	

4. RESULTS AND DISCUSSION

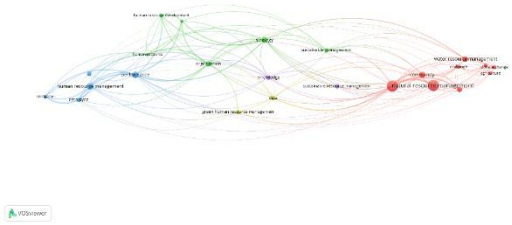

Figure 1. Mapping Results

The results of the bibliometric analysis reveal a dynamic and interdisciplinary landscape within the realm of sustainable development and natural resource management.

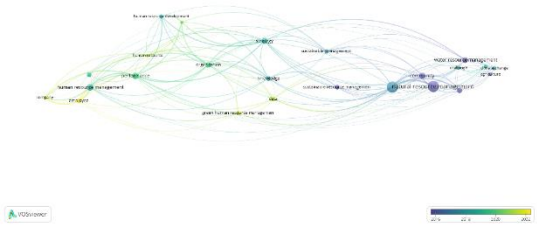

Figure 2. Trend Research

In conclusion, the results and discussion presented here provide a comprehensive overview of the state of research in sustainable development and natural resource management over time. Insights gained through bibliometric analysis illuminate the intellectual landscape, shaping future research agendas, policy decisions, and practical implementations aimed at achieving a more sustainable and equitable world.

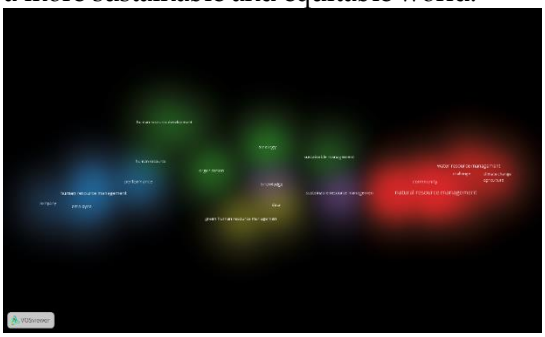

Figure 3. Visualization Cluster

The cluster analysis categorizes publications into thematic clusters, offering a nuanced view of the diverse research areas. These clusters highlight focal points such as

climate change's impact on resource management, sustainable human resource management, and knowledge-sharing practices for sustainable development. The clusters collectively represent the multifaceted nature of the field and offer a comprehensive understanding of the various dimensions being explored.

Table 2. Cluster Detail

Cluster	Total Items	Most frequent keywords (occurrences)	Keyword
1	(8)	Climate change (20), resource (15)	Agriculture, challenge, climate change, community, conservation, natural resource management, resource, water resource
2	(6)	Human resource (20), Knowledge management (20)	Human resource, human resource development, knowledge management, organization, strategy, sustainable management
3	(5)	HRM (30)	Company, employee, human resource management, performance, sustainable human resource management
4	(2)	Data (15)	Data, green human resource management
5	(2)	Knowledge (15)	Knowledge, sustainable resource management

The provided table (Table 2) presents a breakdown of the clusters identified through the bibliometric analysis of the research field related to "Sustainable Development and Natural Resource Management." Each cluster is characterized by the total number of items within it, as well as the most frequent keywords that appear in the publications comprising that cluster. Table 2 provides a glimpse into the diverse research clusters that have emerged within the field of sustainable development and natural resource management. Each cluster represents a distinct thematic focus, and the most frequent keywords associated with each cluster provide insights into the core concepts being explored within the publications. These clusters collectively contribute to a comprehensive understanding of the multidimensional nature of the field and highlight the various dimensions in which sustainable development and resource management are being studied.

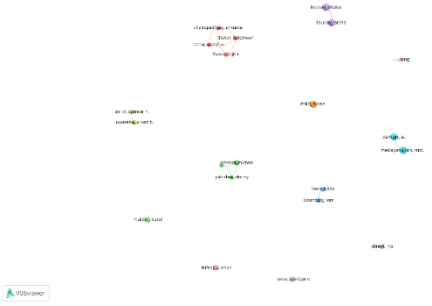

Figure 4. Author Collaboration

The co-authorship analysis reveals vibrant collaborative networks among researchers in the field. The visualization of co-authorship connections highlights interdisciplinary collaborations bridging disciplines such as environmental science, economics, and sociology. This cross-disciplinary approach signifies the holistic nature of sustainable development and natural resource management, where diverse expertise converges to address complex challenges.

`Table 3. 10 High Citation

Citation	Author & Years	Tittle
9473	[24]	A natural-resource-based view of the firm
8341	[25]	Economics of natural resources and the environment
5305	[26]	Towards the sustainable corporation: Win-win-win business strategies for sustainable development

4866	[27]	Environmental and natural resource economics
4471	[28]	Resilience and sustainable development: building adaptive capacity in a world of transformations
3994	[29]	Sustainable development: a critical review
3380	[30]	Sustainable development: mapping different approaches
3085	[31]	Sustainable development: Exploring the contradictions
2999	[32]	Who's in and why? A typology of stakeholder analysis methods for natural resource management
2826	[33]	Command and control and the pathology of natural resource management

Command and control and the pathology of natural resource management

Table 3 presents a list of the ten most highly cited publications within the domain of "Sustainable Development and Natural Resource Management." The table includes the number of citations each publication has received, along with the author(s), publication years, and titles of the respective works. The prominence of these highly cited works is indicative of their significant impact on shaping the discourse and contributing to the understanding of the field. Table 3 presents a selection of highly cited publications that have significantly impacted the discourse on sustainable development and natural resource management. These works have shaped theoretical frameworks, introduced novel concepts, and provided practical insights that continue to influence research, policy, and practice in the field. Their enduring relevance underscores the ongoing pursuit of understanding and advancing sustainable development principles in the context of natural resource management.

Table 4. Keywords Results

Most occurrences		**Fewer occurrences**	
Occurrences	**Term**	**Occurrences**	**Term**
115	Natural resource management	20	Employee
86	HRM	19	Sustainable management
52	Performance	19	Green HRM
47	Strategy	18	Climate Change
42	Community	17	HR Development
38	Water resource management	17	Agriculture
36	Organization	16	Water resource
34	Conservation	16	Knowledge
33	Sustainable resource management	15	Company
32	Data	15	Knowledge management
30	Sustainable HRM	14	HR

Table 4 provides an insightful breakdown of the most frequently occurring keywords within the domain of "Sustainable Development and Natural Resource Management." These keywords are categorized based on the number of occurrences, with the most frequently occurring terms listed on the left side, and terms occurring with fewer frequencies on the right side. The distribution of these keywords offers a glimpse into the core concepts and themes that are prevalent in the literature.

Let's discuss and interpret the keywords presented in Table 4:

Most Occurrences:

Natural Resource Management (115 occurrences): This keyword signifies the central theme of the field, emphasizing the responsible and sustainable management of Earth's resources. It encompasses practices aimed at conserving, utilizing, and restoring natural resources while minimizing negative environmental impacts.

HRM (86 occurrences): HRM stands for Human Resource Management. With a strong presence, this keyword suggests a focus on the management of human resources within the context of sustainable development. The inclusion of HRM highlights the integral role of human capital in achieving sustainability goals.

Performance (52 occurrences): The prevalence of "Performance" indicates a concern for evaluating and enhancing the outcomes and effectiveness of various strategies and practices related to sustainable development and natural resource management.

Strategy (47 occurrences): The frequent appearance of "Strategy" reflects the exploration of strategic approaches to achieve sustainable development goals. This keyword suggests an investigation into the formulation and implementation of strategies that integrate economic, social, and environmental dimensions.

Community (42 occurrences): The term "Community" indicates a focus on the involvement and engagement of local communities in sustainable resource management. This points to the significance of community participation and empowerment in achieving successful outcomes.

Fewer Occurrences:

Employee (20 occurrences): The presence of "Employee" suggests a consideration of the role of employees in driving sustainable practices within organizations. It implies exploring ways to engage and motivate employees to contribute to sustainability goals.

Sustainable Management (19 occurrences): This keyword likely pertains to broader discussions on sustainable management practices within organizations, industries, or ecosystems. It might encompass strategies that align with sustainability principles.

Green HRM (19 occurrences): "Green HRM" signifies a specific focus on human resource management practices that are environmentally conscious and aligned with sustainable development objectives.

Climate Change (18 occurrences): The mention of "Climate Change" indicates a recognition of the pressing global challenge and its implications for sustainable development and natural resource management.

HR Development (17 occurrences): "HR Development" suggests a consideration of human resource development strategies that align with sustainable practices and long-term organizational goals.

Agriculture (17 occurrences): The presence of "Agriculture" points to the significance of sustainable agricultural practices within the broader context of natural resource management.

Water Resource (16 occurrences): This keyword likely emphasizes the sustainable management and conservation of water resources, which is a critical aspect of both environmental preservation and human well-being.

Knowledge (16 occurrences): The appearance of "Knowledge" suggests an exploration of the role of knowledge sharing, dissemination, and utilization in promoting sustainable practices.

Company (15 occurrences): The term "Company" likely refers to the engagement of businesses and organizations in sustainable practices and the integration of sustainability into corporate strategies.

Knowledge Management (15 occurrences): "Knowledge Management" implies an examination of strategies for effectively managing and leveraging knowledge resources in the pursuit of sustainable development.

In conclusion, Table 4 offers insights into the prevalent themes and concepts within the field of sustainable development and natural resource management. The distribution of keywords highlights the intersection of ecological, social, and economic considerations that shape research, policy, and practice in this multidimensional domain.

CONCLUSION

In the pursuit of sustainable development and effective natural resource management, this research methodology's bibliometric analysis, enhanced by VOSviewer, emerges as an invaluable tool. The analysis illuminates the multifaceted landscape, revealing essential themes, influential authors, impactful works, and emerging trends. From co-authorship networks fostering interdisciplinary collaboration to citation patterns demonstrating enduring influence, the insights gleaned offer stakeholders a panoramic view of the field's evolution. Moreover, the prevalence of keywords like natural resource management, HRM, performance, and strategy underscores the holistic integration of economic, social, and environmental dimensions. By unveiling the rich tapestry of research, this methodology empowers decision-makers to steer policy agendas, researchers to uncover unexplored niches, and practitioners to implement sustainable practices. As sustainable development and natural resource management continue to shape global agendas, this methodology equips stakeholders to navigate this intricate journey with informed precision.

REFERENCE

[1] J. Abbas, S. Raza, M. Nurunnabi, M. S. Minai, and S. Bano, "The impact of entrepreneurial business networks on firms' performance through a mediating role of dynamic capabilities," *Sustainability*, vol. 11, no. 11, p. 3006, 2019.

[2] H. PRABOWO, T. SRIWIDADI, and R. B. IKHSAN, "The influence of dynamic capability on sustainable competitive advantage: An empirical study of small businesses in Indonesia," *J. Asian Financ. Econ. Bus.*, vol. 8, no. 6, pp. 949–959, 2021.

[3] D. R. Alwani, D. Isfianadewi, and A. Priyono, "Implementation of Dynamic Capability and Sustainable Business Model in the Fashion Industry during the COVID-19 Pandemic-Case Study: Syalwa Indonesia," 2021.

[4] J. A. Putritamara, B. Hartono, H. Toiba, H. N. Utami, M. S. Rahman, and D. Masyithoh, "Do Dynamic Capabilities and Digital Transformation Improve Business Resilience during the COVID-19 Pandemic? Insights from Beekeeping MSMEs in Indonesia," *Sustainability*, vol. 15, no. 3, p. 1760, 2023.

[5] O. Perera, *How material is ISO 26000 social responsibility to small and medium-sized enterprises (SMEs)?* International Institute for Sustainable Development Winnipeg, 2008.

[6] H. Willer and S. V Garibay, "Data on estimated area harvested, production, production sold as organic for organic bananas, cocoa, coffee, palm oil, soybeans, sugarcane, tea," in *The State of Sustainability Initiatives Review 2014. Standards and the Green Economy*, International Institute for Sustainable Development (IISD) and International …, 2014.

[7] W. S. Alzamil, "Evaluating urban status of informal settlements in Indonesia: A comparative analysis of three case studies in North Jakarta," *J. Sustain. Dev.*, vol. 11, no. 4, p. 148, 2018.

[8] R. J. Baumgartner and D. Ebner, "Corporate sustainability strategies: sustainability profiles and maturity levels," *Sustain. Dev.*, vol. 18, no. 2, pp. 76–89, 2010.

[9] A. Raza, H. Ahrends, M. Habib-Ur-Rahman, and T. Gaiser, "Modeling approaches to assess soil erosion by water at the field scale with special emphasis on heterogeneity of soils and crops," *Land*, vol. 10, no. 4, p. 422, 2021.

[10] Ma. Gasanov, Ka. Kolotov, Ka. Demidenko, Ea. Podgornaya, and Ov. Kadnikova, "The concept of ecologically oriented progress and natural resource preservation," in *IOP Conference Series: Earth and Environmental Science*, 2017, vol. 50, no. 1, p. 12025.

[11] W. C. Clark *et al.*, "Boundary work for sustainable development: Natural resource management at the Consultative Group on International Agricultural Research (CGIAR)," *Proc. Natl. Acad. Sci.*, vol. 113, no. 17, pp. 4615–4622, 2016.

[12] Y. Cheng, M. Masukujjaman, F. A. Sobhani, M. Hamayun, and S. S. Alam, "Green Logistics, Green Human Capital, and Circular Economy: The Mediating Role of Sustainable Production," *Sustainability*, vol. 15, no. 2, p. 1045, 2023.

[13] G. Bessette, "13. Putting people first: participatory development communication and sustainable development in agriculture and natural resource management," *Handb. Commun. Dev.*, p. 233, 2021.

[14] G. Mršić, "Environmental Protection From The Aspect Of Criminal Law," *InterEULawEast J. Int. Eur. law, Econ. Mark. Integr.*, vol. 8, no. 1, pp. 129–151, 2021.

[15] S. Wang, X. Tang, B. Zhang, and W. Wang, "Accounting and Management of Natural Resource Consumption Based on Input-Output Method: A Global Bibliometric Analysis," *Front. Energy Res.*, vol. 9, p. 628321, 2021.

[16] A. Durán-Sánchez, J. Álvarez-García, E. González-Vázquez, and M. de la C. Del Río-Rama, "Wastewater management: Bibliometric analysis of scientific literature," *Water*, vol. 12, no. 11, p. 2963, 2020.

[17] U. A. Akhtar, R. Muhammad, L. J. A. Bakar, V. Parameswaranpillai, B. Raj, and N. B. Khan, "Green Human Resource Management Bibliometric Analysis of the Published Literature from 2008 to 2022," *Int. J. Prof. Bus. Rev. Int. J. Prof. Bus. Rev.*, vol. 8, no. 4, p. 1, 2023.

[18] P. C. Bahuguna, R. Srivastava, and S. Tiwari, "Two-decade journey of green human resource management research: a bibliometric analysis," *Benchmarking An Int. J.*, vol. 30, no. 2, pp. 585–602, 2023.

[19] O. Bina, "The green economy and sustainable development: an uneasy balance?," *Environ. Plan. C Gov. Policy*, vol. 31, no. 6, pp. 1023–1047, 2013.

[20] K. K. Beratan, "Improving problem definition and project planning in complex natural resource management problem situations using knowledge brokers and visual design principles," *Ecol. Soc.*, vol. 24, no. 2, 2019.

[21] B. Xia, A. Olanipekun, Q. Chen, L. Xie, and Y. Liu, "Conceptualising the state of the art of corporate social responsibility (CSR) in the construction industry and its nexus to sustainable development," *J. Clean. Prod.*, vol. 195, pp. 340–353, 2018.
[22] V. Bredikhina and D. Zadykhaylo, "Convergence of Environmental and Economic law in the Sphere of Environmental Protection and Natural Resource Management in Ukraine," *Tech. Advis. Board*, p. 1, 2022.
[23] I. Tulbure, "An approach to define sustainable development indicators," *Integr. Syst. Approaches to Nat. Soc. Dyn. Syst. Sci. 2000*, pp. 469–479, 2001.
[24] S. L. Hart, "A natural-resource-based view of the firm," *Acad. Manag. Rev.*, vol. 20, no. 4, pp. 986–1014, 1995.
[25] D. W. Pearce and R. K. Turner, *Economics of natural resources and the environment*. Johns Hopkins University Press, 1989.
[26] J. Elkington, "Towards the sustainable corporation: Win-win-win business strategies for sustainable development," *Calif. Manage. Rev.*, vol. 36, no. 2, pp. 90–100, 1994.
[27] T. Tietenberg and L. Lewis, *Environmental and natural resource economics*. Routledge, 2018.
[28] C. Folke, S. Carpenter, T. Elmqvist, L. Gunderson, C. S. Holling, and B. Walker, "Resilience and sustainable development: building adaptive capacity in a world of transformations," *AMBIO A J. Hum. Environ.*, vol. 31, no. 5, pp. 437–440, 2002.
[29] S. M. Lélé, "Sustainable development: a critical review," *World Dev.*, vol. 19, no. 6, pp. 607–621, 1991.
[30] B. Hopwood, M. Mellor, and G. O'Brien, "Sustainable development: mapping different approaches," *Sustain. Dev.*, vol. 13, no. 1, pp. 38–52, 2005.
[31] M. Redclift, *Sustainable development: Exploring the contradictions*. Routledge, 2002.
[32] M. S. Reed *et al.*, "Who's in and why? A typology of stakeholder analysis methods for natural resource management," *J. Environ. Manage.*, vol. 90, no. 5, pp. 1933–1949, 2009.
[33] C. S. Holling and G. K. Meffe, "Command and control and the pathology of natural resource management," *Conserv. Biol.*, vol. 10, no. 2, pp. 328–337, 1996.